

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: X6840
Brand Name: Infinix
FCC ID: 2AIZN-YY5-X6840
Test Standard: FCC 47 CFR Part 2.1093
(refer section 3.1)
Maximum SAR: Head (1g@0mm): 1.08 W/kg
Body-worn (1g@10mm): 0.57 W/kg
Hotspot (1g@10mm): 0.68 W/kg
Specific (10 g@0mm): 0.52 W/kg
Sample Arrival Date: Nov. 26, 2025
Test Date: Nov. 29, 2025 - Dec. 08, 2025
Date of Issue: Jan. 07, 2026

ISSUED BY:

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Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Jan. 04, 2025</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Jan. 07, 2025</u>	<u>Updated information on page 38 and 39.</u> <u>Updated page 5 of the attachment "BL-SH25B1335-AP". Original report invalid.</u>

TABLE OF CONTENTS

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

6.2	Body-worn Position Conditions	27
6.3	Hotspot Mode Exposure Position Conditions	28
6.4	Product Specific 10g Exposure Consideration	28
7	MEASUREMENT PROCEDURE	29
7.1	Measurement Process Diagram	29
7.2	SAR Scan General Requirement	30
7.3	Measurement Procedure	31
7.4	Area & Zoom Scan Procedure	31
8	CONDUCTED RF OUPUT POWER	32
8.1	GSM	32
8.2	WCDMA	32
8.3	LTE	32
8.4	WIFI	33
8.5	Bluetooth	36
9	TEST EXCLUSION CONSIDERATION	38
10	TEST RESULT	39
10.1	GSM 850	39
10.2	GSM 1900	39
10.3	WCDMA Band 2	40
10.4	WCDMA Band 4	41
10.5	WCDMA Band 5	41
10.6	LTE Band 2 (20MHz Bandwidth)	42
10.7	LTE Band 7 (20MHz Bandwidth)	43
10.8	LTE Band 12 (10MHz Bandwidth)	44
10.9	LTE Band 13 (10MHz Bandwidth)	45
10.10	LTE Band 25 (20MHz Bandwidth)	46
10.11	LTE Band 26 (15MHz Bandwidth)	47
10.12	LTE Band 66 (20MHz Bandwidth)	48
10.13	LTE Band 41 (20MHz Bandwidth)	48
10.14	Bluetooth	49

10.15	2.4G WIFI	50
10.16	5G WIFI	50
11	SAR Measurement Variability	52
12	SIMULTANEOUS TRANSMISSION	53
12.1	Simultaneous Transmission Mode Consider	53
12.2	Sum Head SAR of Simultaneous Transmission	53
12.3	Sum Body SAR of Simultaneous Transmission	56
12.4	Sum Hotspot SAR of Simultaneous Transmission	57
13	TEST EQUIPMENTS LIST	62
ANNEX A	SIMULATING LIQUID VERIFICATION RESULT	63
ANNEX B	SYSTEM CHECK RESULT	64
ANNEX C	TEST DATA	65
ANNEX D	EUT EXTERNAL PHOTOS	65
ANNEX E	SAR TEST SETUP PHOTOS	65
ANNEX F	CALIBRATION REPORT	65

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	X6840
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	N/A
Software Version	V1.1
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	Infinix
	Model No.	BL-51EX
	Serial No.	N/A
	Capacity	5100mAh
	Rated Voltage	3.85V
	Limit Charge Voltage	4.45V

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 2/4/5/7/12/13/17/25/26/66 LTE TDD Band 38/41 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
Note: The EUT is a mobile phone, which supports dual SIM card under the same transceiver. Each SIM supports GSM, WCDMA and LTE, and both SIM share the same transmitting electro circuit, NV parameters, so only SIM1 was tested in this report.	

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

Operating Mode	GSM, WCDMA, LTE, WIFI, Bluetooth		
Frequency Range	GSM 850	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	GSM 1900	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	WCDMA Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	LTE Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	LTE Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 7	TX: 2500 ~ 2570 MHz	RX: 2620 ~ 2690 MHz
	LTE Band 12	TX: 699 ~ 716 MHz	RX: 729 ~ 746 MHz
	LTE Band 13	TX: 777 ~ 787 MHz	RX: 746 ~ 756 MHz
	LTE Band 17	TX: 704 ~ 716 MHz	RX: 734 ~ 746 MHz
	LTE Band 25	TX: 1850 ~ 1915 MHz	RX: 1930 ~ 1995 MHz
	LTE Band 26	TX: 814 ~ 849 MHz	RX: 869 ~ 894MHz
	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
	2.4G WIFI	2412 ~ 2462 MHz	
	5G WIFI	5150 ~ 5250 MHz	
		5250 ~ 5350 MHz	
		5470 ~ 5725 MHz	
		5725 ~ 5850 MHz	
Bluetooth	2402 ~ 2480 MHz		
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna		
DTM	N/A		
Hotspot Function	Support		

Power Reduction	Support	
Exposure Category	General Population/Uncontrolled exposure	
Product Type	Portable Device	
EUT Type	☒ Production unit	☐ Identical prototype

3 SUMMARY OF TEST RESULT

3.1 Test Standards

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

3.2 Device Category and SAR Limit

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

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

Table of Exposure Limits:

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

NOTE:

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

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

3.3 Test Result Summary

3.3.1 Highest SAR Values

Equipment Class	Frequency Band	Maximum Scaled SAR				Maximum Report SAR (W/kg)			
		1 g(W/kg)			10 g(W/kg)	1 g(W/kg)			10 g(W/kg)
		Head	Body-worn	Hotspot	Specific	Head	Body-worn	Hotspot	Specific
		Separation (0 mm)	Separation (10mm)	Separation (10 mm)	Separation (0 mm)	Separation (0 mm)	Separation (10mm)	Separation (10mm)	Separation (0 mm)
PCE	GSM 850	0.41	0.33	0.33	/	1.08	0.57	0.68	0.52
	GSM 1900	0.35	0.17	0.25	/				
	WCDMA B2	0.91	0.30	0.37	/				
	WCDMA B4	0.84	0.25	0.32	/				
	WCDMA B5	0.55	0.57	0.57	/				
	LTE B2	1.08	0.39	0.58	/				
	LTE B7	0.94	0.51	0.68	/				
	LTE B12	0.22	0.32	0.33	/				
	LTE B13	0.23	0.20	0.20	/				
	LTE B25	0.96	0.27	0.42	/				
	LTE B26	0.53	0.14	0.14	/				
	LTE B66	0.97	0.28	0.42	/				
	LTE B41	0.67	0.47	0.66	/				
DTS	2.4G WIFI	0.42	0.32	0.32	/				
NII	5.2G WIFI	0.61	0.16	0.17	/				
	5.3G WIFI	0.61	0.21	/	0.27				
	5.6G WIFI	0.56	0.19	/	0.52				
	5.8G WIFI	0.61	/	0.17	/				
DSS	Bluetooth	0.16	0.13	0.13	/				
Limits (W/kg)		1.6			4	1.6			4
Test Verdict		Pass							

Note 1: This device supports LTE B12, LTE B17, Since the supported frequency span for LTE B17 falls completely within the supports frequency span for LTE B12, They share the same transmission path, and The target power of B12 is greater than B17. Therefore, SAR was only assessed for LTE B12.

Note 2: This device supports LTE B5, LTE B26 and LTE B4, LTE B66 and LTE B38, LTE B41, Since the supported frequency span for LTE B5 falls completely within the supports frequency span for LTE B26, the supported frequency span for LTE B4 falls completely within the supports frequency span for LTE B66, the supported frequency span for LTE B38 falls completely within the supports frequency span for LTE B41. They share the same transmission path, The target power of LTE B5 is same as LTE B26, The target power of LTE B4 is same as LTE B66, The target power of LTE B38 is same as LTE B41. Therefore, SAR was only assessed for LTE B26 , LTE B66 and 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	1.38	0.92	0.89	/
DTS	1.08	0.89	0.89	/
NII	1.38	0.92	0.88	/
DSS	1.38	0.92	0.88	/
Limit (W/Kg)	1.60	1.60	1.60	4.00
Verdict	Pass			
Note: The highest simultaneous SAR please refer section 12				

3.4 Test Uncertainty

3.4.1 Measurement uncertainty evaluation for SAR test

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

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

DASY5 Uncertainty Budget (Frequency band: 300 MHz - 3 GHz range)								
Symbol	Error Description	Uncert. value	Prob Dist.	Div	(c_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:

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

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

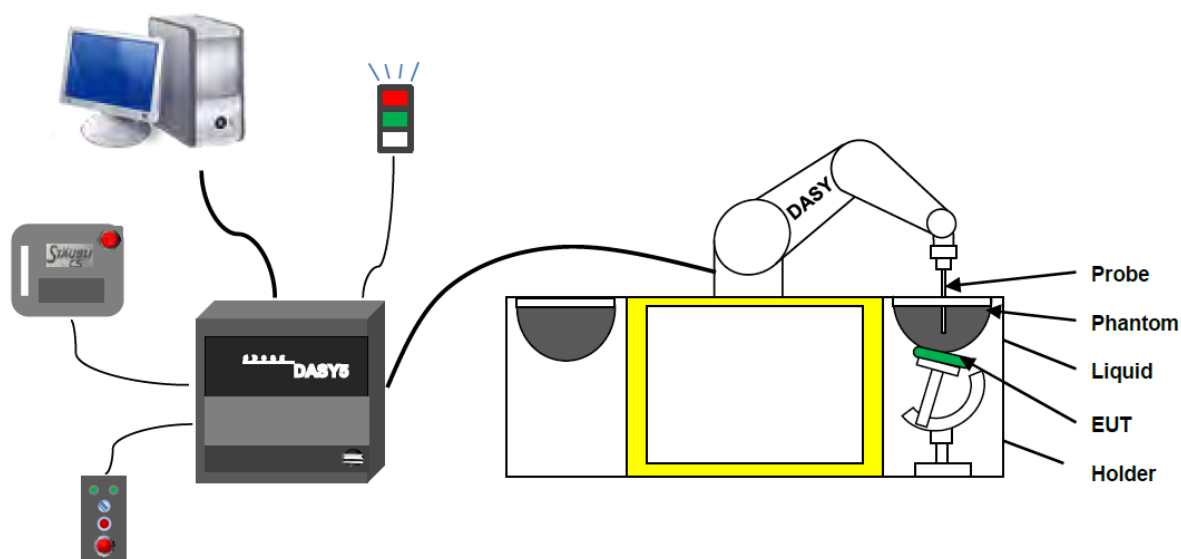
$$SAR = \frac{\sigma E^2}{\rho}$$

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

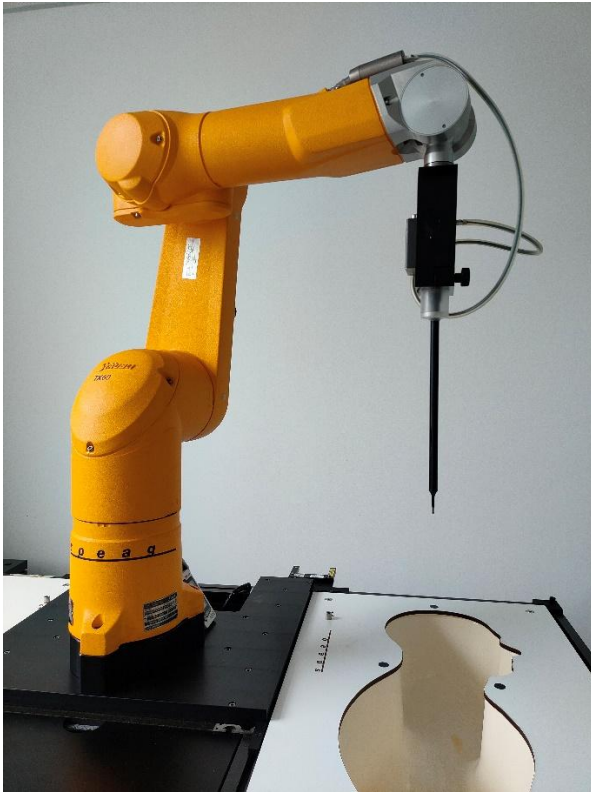


The DASY5 system for performing compliance tests consists of the following items:

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

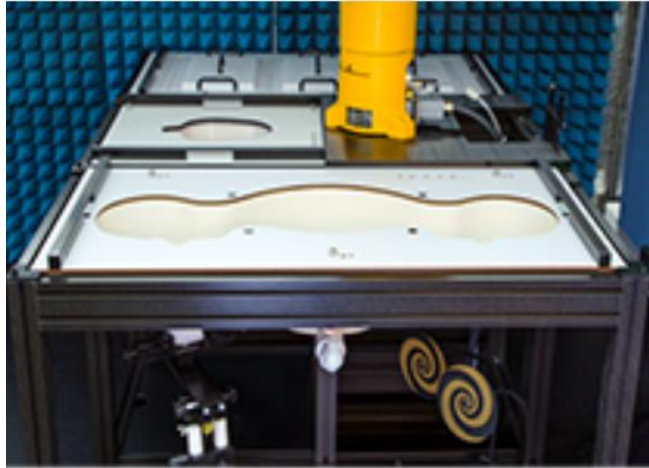
The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through 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
- Common 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 SN1423



Serial Number	Material	Length	Height
SN 1423 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.

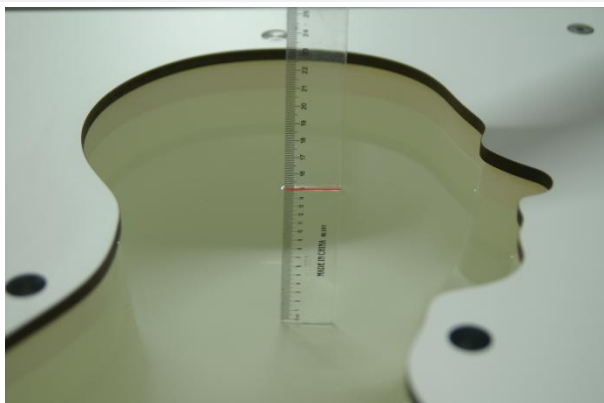


The positioning system allows obtaining cheek and tilting position with a very good accuracy. Incompliance with CENELEC, the tilt angle uncertainty is lower than 1° .

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

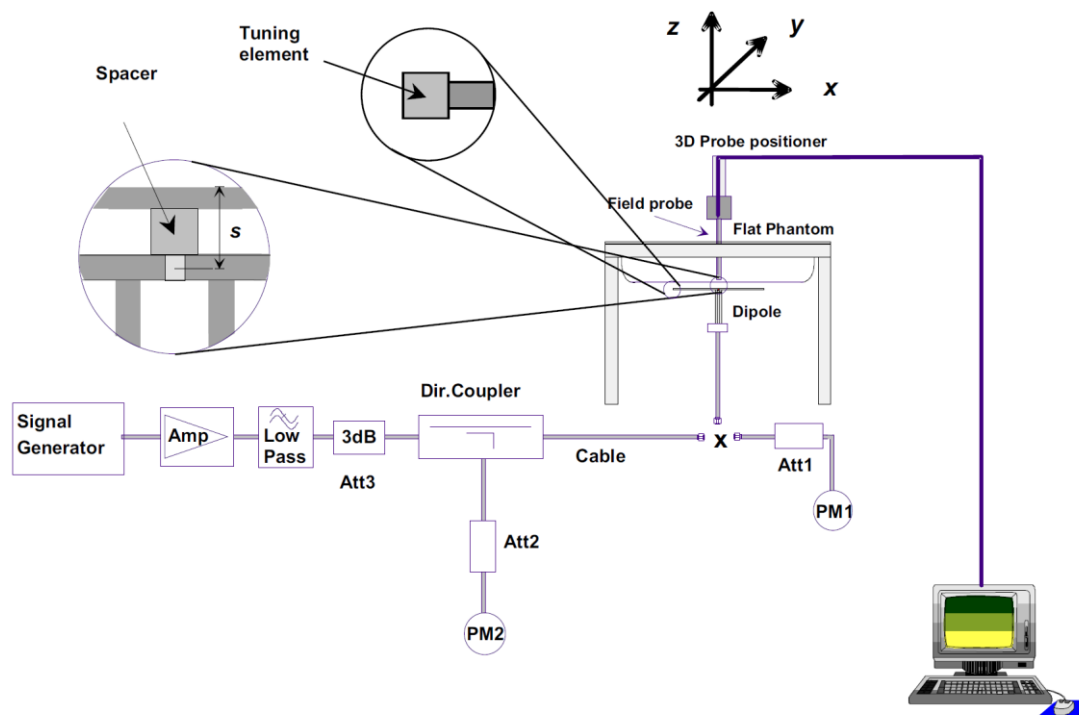
5 SYSTEM VERIFICATION

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

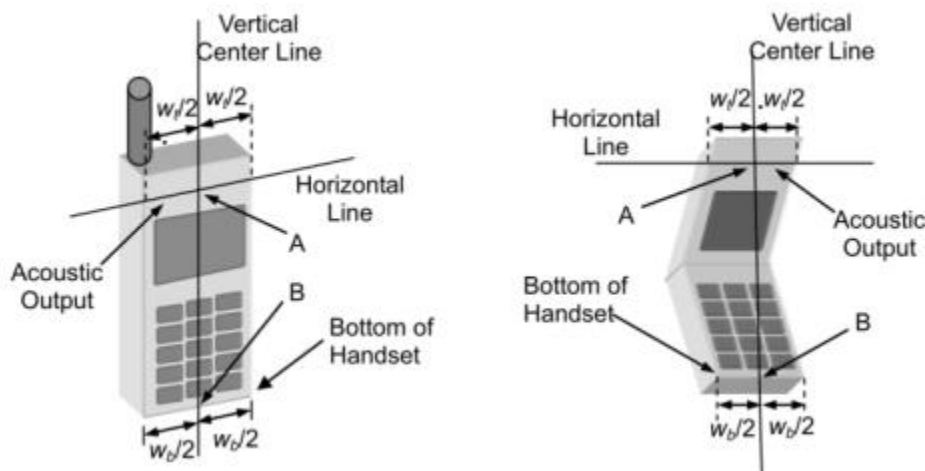
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

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.

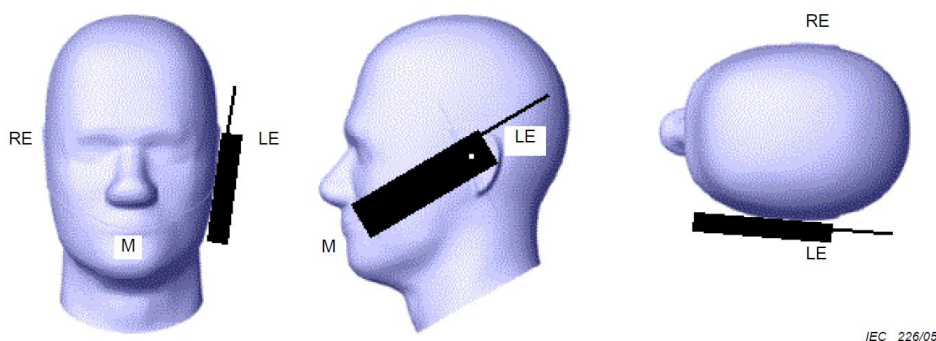
6.1.1 Two Imaginary Lines on the Handset

- 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.

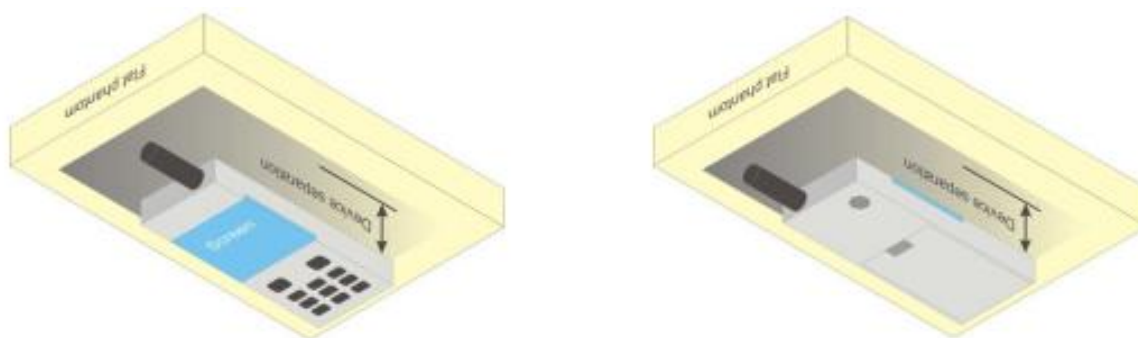


6.2 Body-worn Position Conditions

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.

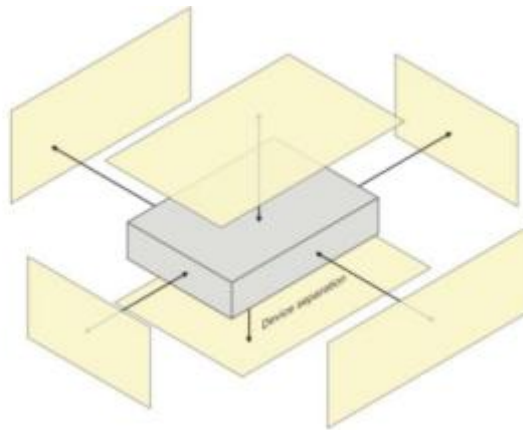
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics.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



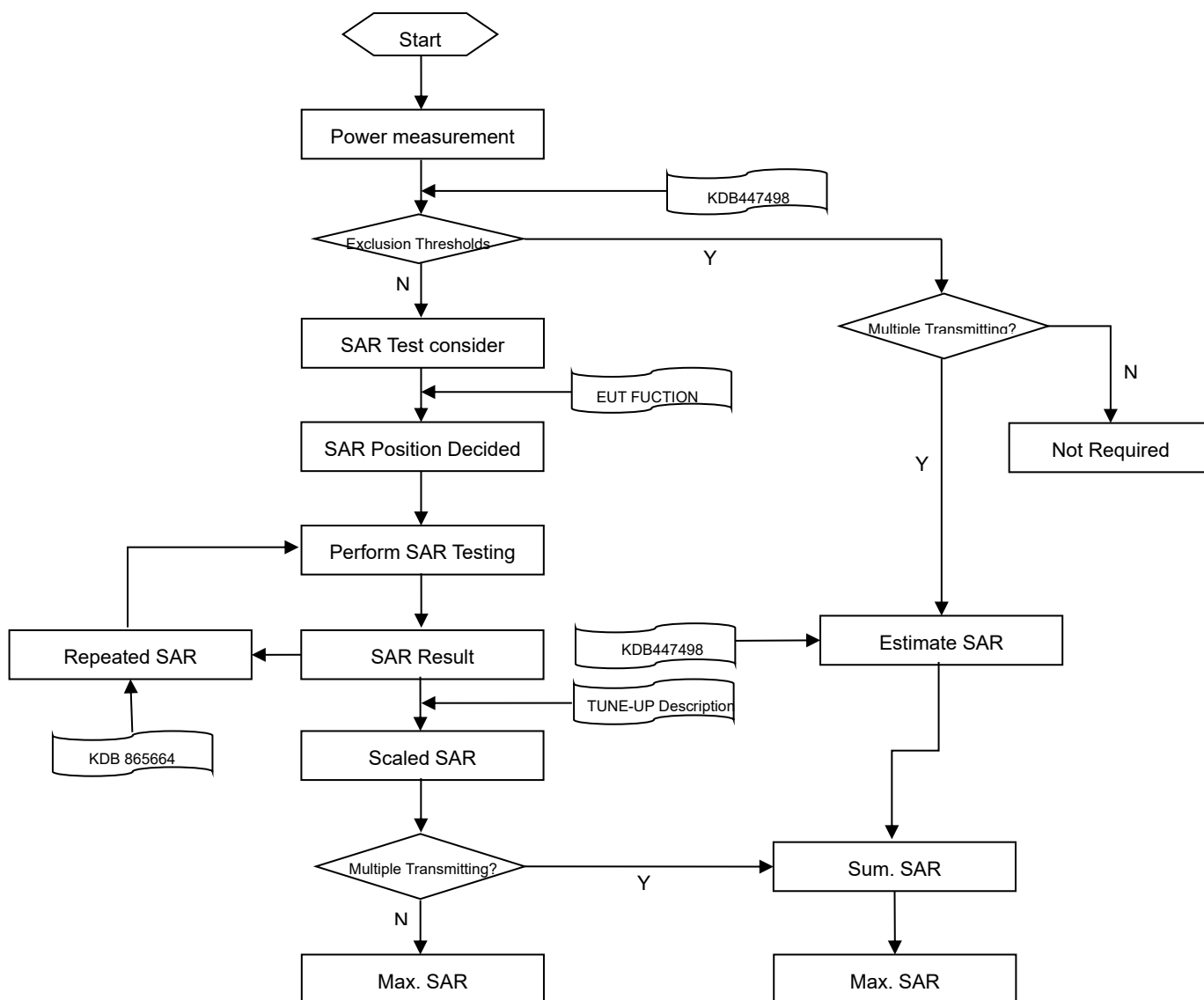
6.4 Product Specific 10g Exposure Consideration

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-SH25B1335-AP.pdf”.

8.2 WCDMA

Please refer the document “BL-SH25B1335-AP.pdf”.

8.3 LTE

Please refer the document “BL-SH25B1335-AP.pdf”.

8.4 WIFI

8.4.1 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	15.26	16.50	No
		6	2437	15.65	16.50	Yes
		11	2462	15.49	16.50	No
	802.11g	1	2412	15.32	16.50	No
		6	2437	15.51	16.50	No
		11	2462	14.86	16.00	No
	802.11n(HT20)	1	2412	16.05	17.00	No
		6	2437	16.47	17.50	Yes
		11	2462	14.71	15.50	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.

8.4.2 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	10.81	12.00	No
		44	5220	10.51	11.50	No
		48	5240	10.82	12.00	No
	802.11n(HT20)	36	5180	11.75	13.00	No
		44	5220	13.45	14.50	No
		48	5240	13.84	15.00	Yes
	802.11n(HT40)	38	5190	10.62	11.50	No
		46	5230	13.68	14.50	No
	802.11ac(VHT20)	36	5180	10.70	11.50	No
		44	5220	10.46	11.50	No
		48	5240	10.67	11.50	No
	802.11ac(VHT40)	38	5190	10.61	11.50	No
		46	5230	10.63	11.50	No
	802.11ac(VHT80)	42	5210	11.35	12.50	No

5.3 (5.25~5.35)	802.11a	52	5260	10.79	12.00	No
		60	5300	10.74	11.50	No
		64	5320	10.85	12.00	No
	802.11n(HT20)	52	5260	13.70	14.50	Yes
		60	5300	13.35	14.50	No
		64	5320	12.47	13.50	No
	802.11n(HT40)	54	5270	13.41	14.50	No
		62	5310	9.39	10.50	No
	802.11ac(VHT20)	52	5260	10.33	11.50	No
		60	5300	10.41	11.50	No
		64	5320	10.40	11.50	No
	802.11ac(VHT40)	54	5270	10.27	11.50	No
		62	5310	10.35	11.50	No
	802.11ac(VHT80)	58	5290	9.87	11.00	No
5.6 (5.47~5.725)	802.11a	100	5500	11.07	12.00	No
		116	5580	10.34	11.50	No
		140	5700	9.84	11.00	No
	802.11n(HT20)	100	5500	10.27	11.50	No
		116	5580	14.28	15.50	Yes
		140	5700	10.21	11.00	No
	802.11n(HT40)	102	5510	9.16	10.00	No
		118	5590	13.52	14.50	No
		134	5670	11.37	12.50	No
	802.11ac(VHT20)	100	5500	11.28	12.50	No
		116	5580	11.20	12.00	No
		140	5700	11.30	12.50	No
	802.11ac(VHT40)	102	5510	11.40	12.50	No
		118	5590	11.49	12.50	No
		134	5670	11.38	12.50	No
	802.11ac(VHT80)	106	5530	10.38	11.50	No
		122	5690	11.54	12.50	No
5.8 (5.725~5.850)	802.11a	149	5745	10.50	11.50	No
		157	5785	10.35	11.50	No
		165	5825	10.41	11.50	No
	802.11n(HT20)	149	5745	13.63	14.50	Yes
		157	5785	13.49	14.50	No
		165	5825	13.40	14.50	No
	802.11n(HT40)	151	5755	13.10	14.00	No
		159	5795	13.21	14.00	No

	802.11ac(VHT20)	149	5745	11.49	12.50	No
		157	5785	11.26	12.50	No
		165	5825	11.30	12.50	No
	802.11ac(VHT40)	151	5755	11.52	12.50	No
		159	5795	11.40	12.50	No
	802.11ac(VHT80)	155	5775	11.46	12.50	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) 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.

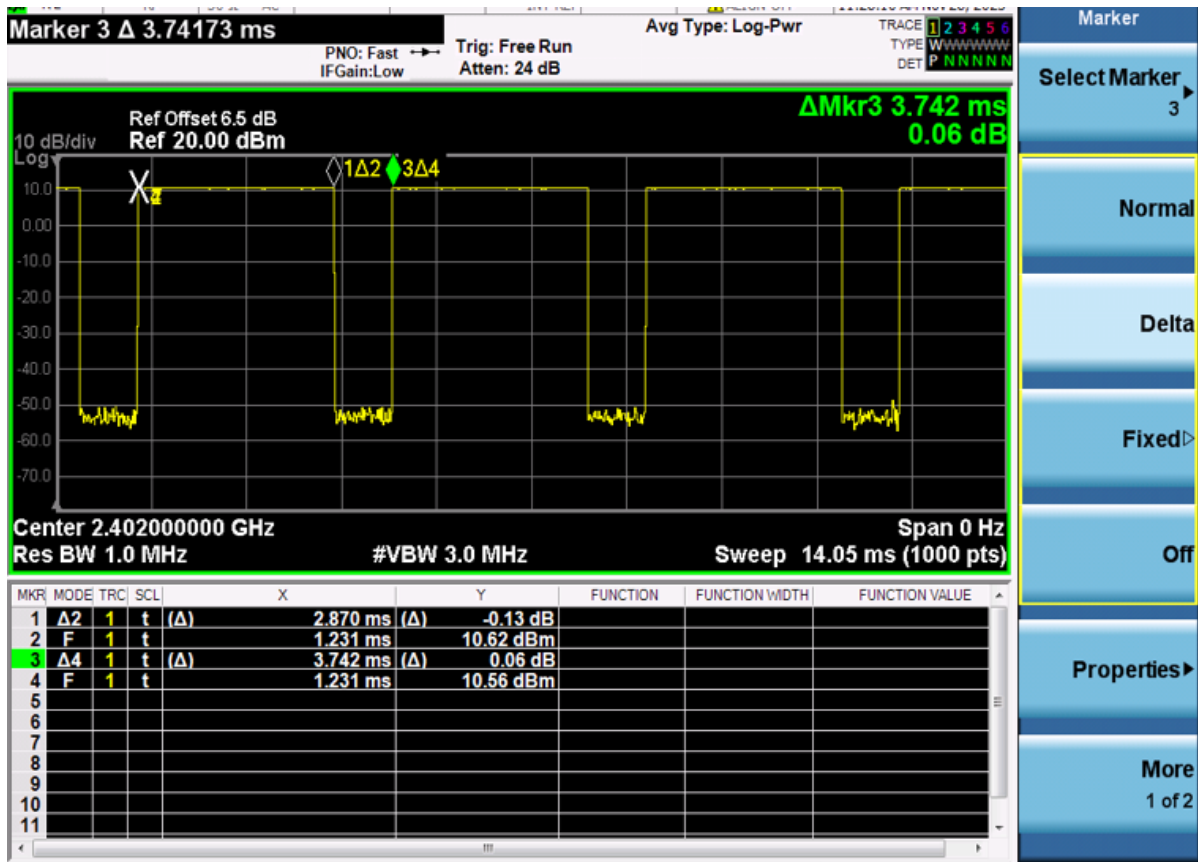
8.5 Bluetooth

8.5.1 Bluetooth

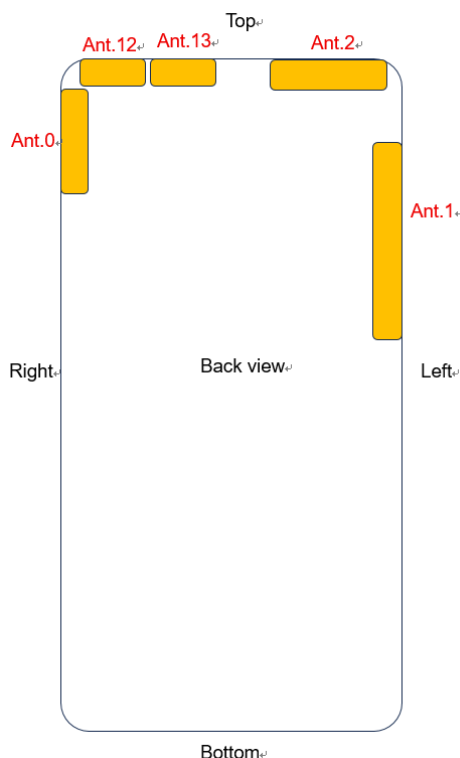
Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Conducted Power (dBm)	10.65	11.26	13.35	10.00	10.61	12.83
Tune-Up Limit (dBm)	11.50	12.50	14.50	11.00	11.50	14.00
SAR Test Require	NO	NO	YES	NO	NO	NO
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Conducted Power (dBm)	9.98	10.61	12.85	/	/	/
Tune-Up Limit (dBm)	11.00	11.50	14.00	/		
SAR Test Require	NO	NO	NO	NO	NO	NO
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	0	19	39
Frequency (MHz)	2402	2440	2480	2402	2440	2480
Conducted Power (dBm)	2.74	3.38	2.98	2.95	3.29	3.07
Tune-Up Limit (dBm)	3.50	4.50	4.00	4.00	4.50	4.00
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 76.70 % 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	Only RX
Ant.1	GSM 850/1900 WCDMA B2/B4/B5 LTE /B5//B7/B12/B13/B17/B25/B26/B38/B41
Ant.2	GSM 850/1900 WCDMA B2/B4/B5 LTE B2/B4/B5//B7/B12/B13/B17/B25/B26/B66/B38/B41
Ant.12	BT/WIFI 2.4G
Ant.13	WIFI 5G

Antenna	Front Side(mm)	Back Side(mm)	Left Edge(mm)	Right Edge(mm)	Top Edge(mm)	Bottom Edge(mm)
Ant.0	/	/	/	/	/	/
Ant.1	<25	<25	<25	>25	<25	>25
Ant.2	<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 4TX	Left cheek	0	190	836.6	0.03	0.112	30.11	31.00	1.227	0.137	
		Left tilt		190	836.6	-0.05	0.038	30.11	31.00	1.227	0.047	
		Right cheek		190	836.6	-0.18	0.140	30.11	31.00	1.227	0.172	
		Right tilt		190	836.6	-0.15	0.054	30.11	31.00	1.227	0.066	
Ant.2	GPRS 4TX	Left cheek	0	190	836.6	-0.02	0.337	29.63	30.50	1.222	0.412	1
		Left tilt		190	836.6	-0.02	0.317	29.63	30.50	1.222	0.387	
		Right cheek		190	836.6	-0.01	0.320	29.63	30.50	1.222	0.391	
		Right tilt		190	836.6	0.06	0.320	29.63	30.50	1.222	0.391	
Body-worm& Hotspot												
Ant.1	GPRS 4TX	Front side	10	190	836.6	0.06	0.071	30.11	31.00	1.227	0.087	
		Back side		190	836.6	0.07	0.269	30.11	31.00	1.227	0.330	2
		Left side		190	836.6	0.06	0.155	30.11	31.00	1.227	0.190	
		Top side		190	836.6	0.03	0.037	30.11	31.00	1.227	0.045	
Ant.2	GPRS 4TX	Front side	10	190	836.6	0.18	0.066	29.63	30.50	1.222	0.081	
		Back side		190	836.6	0.08	0.112	29.63	30.50	1.222	0.137	
		Left side		190	836.6	-0.05	0.036	29.63	30.50	1.222	0.044	
		Top side		190	836.6	0.09	0.103	29.63	30.50	1.222	0.126	

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.1	GPRS 4TX	Left cheek	0	661	1880	0.09	0.052	26.84	27.50	1.164	0.061	
		Left tilt		661	1880	-0.05	0.030	26.84	27.50	1.164	0.035	
		Right cheek		661	1880	0.04	0.046	26.84	27.50	1.164	0.054	
		Right tilt		661	1880	0.09	0.021	26.84	27.50	1.164	0.024	
Ant.2	GPRS 4TX	Left cheek	0	661	1880	-0.02	0.237	27.03	28.00	1.250	0.296	
		Left tilt		661	1880	-0.15	0.280	27.03	28.00	1.250	0.350	3
		Right cheek		661	1880	0.13	0.013	27.03	28.00	1.250	0.016	

		Right tilt		661	1880	-0.1	0.015	27.03	28.00	1.250	0.019	
Body-worn& Hotspot												
Ant. 1	GPRS 4TX	Front side	10	661	1880	-0.18	0.025	26.84	27.50	1.164	0.029	
		Back side		661	1880	-0.14	0.086	26.84	27.50	1.164	0.100	
		Left side		661	1880	0.06	0.028	26.84	27.50	1.164	0.033	
		Top side		661	1880	-0.14	0.029	26.84	27.50	1.164	0.034	
Ant.2	GPRS 4TX	Front side	10	661	1880	0.17	0.094	27.03	28.00	1.250	0.118	
		Back side		661	1880	0.12	0.136	27.03	28.00	1.250	0.170	
		Left side		661	1880	-0.08	0.036	27.03	28.00	1.250	0.045	
		Top side		661	1880	0.05	0.203	27.03	28.00	1.250	0.254	4

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.1	RMC	Left cheek	0	9400	1880	0.01	0.172	15.19	15.50	1.074	0.185	/
		Left tilt		9400	1880	-0.04	0.030	15.19	15.50	1.074	0.032	/
		Right cheek		9400	1880	-0.02	0.139	15.19	15.50	1.074	0.149	/
		Right tilt		9400	1880	-0.12	0.023	15.19	15.50	1.074	0.025	/
Ant.2	RMC	Left cheek	0	9400	1880	0.15	0.360	15.24	15.50	1.062	0.382	/
		Left tilt		9400	1880	0.09	0.449	15.24	15.50	1.062	0.477	/
		Right cheek		9400	1880	0.02	0.608	15.24	15.50	1.062	0.646	/
		Right tilt		9400	1880	-0.14	0.857	15.24	15.50	1.062	0.910	5
		Right tilt		9400	1880	-0.11	0.838	15.24	15.50	1.062	0.890	Repeat
		Right tilt		9262	1852.4	0.07	0.781	15.20	15.50	1.072	0.837	/
		Right tilt		9538	1907.6	-0.13	0.833	15.21	15.50	1.069	0.891	/
Body-worn& Hotspot												
Ant.1	RMC	Front side	10	9400	1880	-0.03	0.066	15.19	15.50	1.074	0.071	/
		Back side		9400	1880	0.01	0.223	15.19	15.50	1.074	0.239	/
		Left side		9400	1880	-0.03	0.255	15.19	15.50	1.074	0.274	/
		Top side		9400	1880	-0.19	0.027	15.19	15.50	1.074	0.029	/
Ant.2	RMC	Front side	10	9400	1880	0.14	0.177	15.24	15.50	1.062	0.188	/
		Back side		9400	1880	0.06	0.280	15.24	15.50	1.062	0.297	/
		Left side		9400	1880	0.09	0.049	15.24	15.50	1.062	0.052	/
		Top side		9400	1880	0.06	0.347	15.24	15.50	1.062	0.368	6

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.1	RMC	Left cheek	0	1412	1732.4	-0.16	0.085	16.15	16.50	1.084	0.092	
		Left tilt		1412	1732.4	0.12	0.030	16.15	16.50	1.084	0.033	
		Right cheek		1412	1732.4	0.03	0.027	16.15	16.50	1.084	0.029	
		Right tilt		1412	1732.4	-0.01	0.016	16.15	16.50	1.084	0.017	
Ant.2	RMC	Left cheek	0	1412	1732.4	-0.16	0.393	16.11	16.50	1.094	0.430	
		Left tilt		1412	1732.4	0.05	0.472	16.11	16.50	1.094	0.516	
		Right cheek		1412	1732.4	0.15	0.618	16.11	16.50	1.094	0.676	
		Right tilt		1412	1732.4	0.04	0.764	16.11	16.50	1.094	0.836	7
		Right tilt		1312	1712.4	0.03	0.672	15.99	16.50	1.125	0.756	
		Right tilt		1513	1752.6	0.07	0.712	16.03	16.50	1.114	0.793	
Body-worm& Hotspot												
Ant.1	RMC	Front side	10	1412	1732.4	-0.04	0.046	16.15	16.50	1.084	0.050	
		Back side		1412	1732.4	-0.06	0.166	16.15	16.50	1.084	0.180	
		Left side		1412	1732.4	-0.14	0.181	16.15	16.50	1.084	0.196	
		Top side		1412	1732.4	0.04	0.029	16.15	16.50	1.084	0.031	
Ant.2	RMC	Front side	10	1412	1732.4	-0.14	0.189	16.11	16.50	1.094	0.207	
		Back side		1412	1732.4	-0.19	0.228	16.11	16.50	1.094	0.249	
		Left side		1412	1732.4	0.12	0.042	16.11	16.50	1.094	0.046	
		Top side		1412	1732.4	0.06	0.296	16.11	16.50	1.094	0.324	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	4182	836.4	-0.16	0.215	20.12	21.00	1.225	0.263	
		Left tilt		4182	836.4	0.14	0.092	20.12	21.00	1.225	0.113	
		Right cheek		4182	836.4	-0.07	0.356	20.12	21.00	1.225	0.436	
		Right tilt		4182	836.4	0.16	0.126	20.12	21.00	1.225	0.154	
Ant.2	RMC	Left cheek	0	4182	836.4	0.06	0.385	20.46	21.50	1.271	0.489	
		Left tilt		4182	836.4	-0.15	0.370	20.46	21.50	1.271	0.470	
		Right cheek		4182	836.4	0.02	0.432	20.46	21.50	1.271	0.549	9
		Right tilt		4182	836.4	0.01	0.323	20.46	21.50	1.271	0.410	

Body-worn& Hotspot												
Ant.1	RMC	Front side	10	4182	836.4	0.12	0.147	20.12	21.00	1.225	0.180	
		Back side		4182	836.4	-0.16	0.468	20.12	21.00	1.225	0.573	10
		Left side		4182	836.4	0.12	0.286	20.12	21.00	1.225	0.350	
		Top side		4182	836.4	-0.07	0.029	20.12	21.00	1.225	0.036	
Ant.2	RMC	Front side	10	4182	836.4	0.06	0.076	20.46	21.50	1.271	0.097	
		Back side		4182	836.4	0.16	0.128	20.46	21.50	1.271	0.163	
		Left side		4182	836.4	0.07	0.046	20.46	21.50	1.271	0.058	
		Top side		4182	836.4	-0.14	0.117	20.46	21.50	1.271	0.149	

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	49	-0.18	0.386	15.51	16.50	1.256	0.485	
		Left tilt		18900	1880	1	49	0.1	0.454	15.51	16.50	1.256	0.570	
		Right cheek		18900	1880	1	49	0.07	0.602	15.51	16.50	1.256	0.756	
		Right tilt		18900	1880	1	49	0.01	0.856	15.51	16.50	1.256	1.075	11
		Right tilt		18900	1880	1	49	-0.03	0.811	15.51	16.50	1.256	1.019	Repeat
		Right tilt		18700	1860	1	49	0.09	0.781	15.36	16.50	1.300	1.015	
		Right tilt		19100	1900	1	49	-0.01	0.773	15.40	16.50	1.288	0.996	
		Left cheek		18900	1880	50	24	0.04	0.295	14.44	15.50	1.276	0.377	
		Left tilt		18900	1880	50	24	0.06	0.365	14.44	15.50	1.276	0.466	
		Right cheek		18900	1880	50	24	0.16	0.542	14.44	15.50	1.276	0.692	
		Right tilt		18900	1880	50	24	0.12	0.616	14.44	15.50	1.276	0.786	
		Body-worn& Hotspot												
Ant.2	QPSK	Front side	10	18900	1880	1	49	-0.07	0.174	15.51	16.50	1.256	0.219	
		Back side		18900	1880	1	49	0.1	0.312	15.51	16.50	1.256	0.392	
		Left side		18900	1880	1	49	-0.06	0.052	15.51	16.50	1.256	0.065	
		Top side		18900	1880	1	49	-0.06	0.462	15.51	16.50	1.256	0.580	12
		Front side		18900	1880	50	24	-0.04	0.140	14.44	15.50	1.276	0.179	
		Back side		18900	1880	50	24	0.14	0.166	14.44	15.50	1.276	0.212	
		Left side		18900	1880	50	24	0.07	0.042	14.44	15.50	1.276	0.054	
		Top side		18900	1880	50	24	0.11	0.313	14.44	15.50	1.276	0.400	

10.7LTE 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.1	QPSK	Left cheek	0	21100	2535	1	49	-0.13	0.260	16.01	17.00	1.256	0.327	
		Left tilt		21100	2535	1	49	0.16	0.040	16.01	17.00	1.256	0.050	
		Right cheek		21100	2535	1	49	0.1	0.152	16.01	17.00	1.256	0.191	
		Right tilt		21100	2535	1	49	0.06	0.034	16.01	17.00	1.256	0.043	
		Left cheek		21100	2535	50	24	-0.19	0.207	15.11	16.00	1.227	0.254	
		Left tilt		21100	2535	50	24	0.15	0.036	15.11	16.00	1.227	0.044	
		Right cheek		21100	2535	50	24	0.04	0.123	15.11	16.00	1.227	0.151	
		Right tilt		21100	2535	50	24	0.14	0.028	15.11	16.00	1.227	0.034	
Ant.2	QPSK	Left cheek	0	21100	2535	1	49	0.07	0.244	16.28	17.00	1.180	0.288	
		Left tilt		21100	2535	1	49	0.04	0.326	16.28	17.00	1.180	0.385	
		Right cheek		21100	2535	1	49	-0.19	0.525	16.28	17.00	1.180	0.620	
		Right tilt		21100	2535	1	49	0.04	0.798	16.28	17.00	1.180	0.942	13
		Right tilt		20850	2510	1	49	-0.03	0.768	16.24	17.00	1.191	0.915	
		Right tilt		21350	2560	1	49	0.02	0.749	16.21	17.00	1.199	0.898	
		Left cheek		21100	2535	50	24	-0.12	0.191	15.30	16.00	1.175	0.224	
		Left tilt		21100	2535	50	24	0.03	0.254	15.30	16.00	1.175	0.298	
		Right cheek		21100	2535	50	24	-0.01	0.447	15.30	16.00	1.175	0.525	
		Right tilt		21100	2535	50	24	-0.05	0.619	15.30	16.00	1.175	0.727	
Body-worn& Hotspot														
Ant.1	QPSK	Front side	10	21100	2535	1	49	-0.17	0.131	16.01	17.00	1.256	0.165	
		Back side		21100	2535	1	49	0.03	0.376	16.01	17.00	1.256	0.472	
		Left side		21100	2535	1	49	0.06	0.539	16.01	17.00	1.256	0.677	14
		Top side		21100	2535	1	49	-0.04	0.034	16.01	17.00	1.256	0.043	
		Front side		21100	2535	50	24	-0.08	0.095	15.11	16.00	1.227	0.117	
		Back side		21100	2535	50	24	-0.07	0.302	15.11	16.00	1.227	0.371	
		Left side		21100	2535	50	24	0.18	0.376	15.11	16.00	1.227	0.462	
		Top side		21100	2535	50	24	-0.16	0.032	15.11	16.00	1.227	0.039	
Ant.2	QPSK	Front side	10	21100	2535	1	49	0.01	0.164	16.28	17.00	1.180	0.194	
		Back side		21100	2535	1	49	0.18	0.433	16.28	17.00	1.180	0.511	
		Left side		21100	2535	1	49	0.18	0.112	16.28	17.00	1.180	0.132	
		Top side		21100	2535	1	49	-0.1	0.460	16.28	17.00	1.180	0.543	
		Front side		21100	2535	50	24	0.09	0.128	15.30	16.00	1.175	0.150	
		Back side		21100	2535	50	24	-0.17	0.335	15.30	16.00	1.175	0.394	
		Left side		21100	2535	50	24	-0.03	0.088	15.30	16.00	1.175	0.103	
		Top side		21100	2535	50	24	0.1	0.350	15.30	16.00	1.175	0.411	

10.8LTE 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	25	-0.18	0.144	20.47	21.50	1.268	0.183	
		Left tilt		23095	707.5	1	25	-0.19	0.042	20.47	21.50	1.268	0.053	
		Right cheek		23095	707.5	1	25	-0.12	0.169	20.47	21.50	1.268	0.214	
		Right tilt		23095	707.5	1	25	0.07	0.059	20.47	21.50	1.268	0.075	
		Left cheek		23095	707.5	25	12	-0.14	0.114	19.40	20.50	1.288	0.147	
		Left tilt		23095	707.5	25	12	-0.18	0.030	19.40	20.50	1.288	0.039	
		Right cheek		23095	707.5	25	12	0.04	0.154	19.40	20.50	1.288	0.198	
		Right tilt		23095	707.5	25	12	-0.15	0.054	19.40	20.50	1.288	0.070	
Ant.2	QPSK	Left cheek	0	23095	707.5	1	25	0.16	0.168	20.92	22.00	1.282	0.215	15
		Left tilt		23095	707.5	1	25	-0.13	0.097	20.92	22.00	1.282	0.124	
		Right cheek		23095	707.5	1	25	-0.02	0.096	20.92	22.00	1.282	0.123	
		Right tilt		23095	707.5	1	25	0.01	0.043	20.92	22.00	1.282	0.055	
		Left cheek		23095	707.5	25	12	0.01	0.092	19.79	21.00	1.321	0.122	
		Left tilt		23095	707.5	25	12	0.17	0.069	19.79	21.00	1.321	0.091	
		Right cheek		23095	707.5	25	12	0.07	0.061	19.79	21.00	1.321	0.081	
		Right tilt		23095	707.5	25	12	0.11	0.113	19.79	21.00	1.321	0.149	
Body-worn& Hotspot														
Ant.1	QPSK	Front side	10	23095	707.5	1	25	0.15	0.076	20.47	21.50	1.268	0.096	
		Back side		23095	707.5	1	25	-0.09	0.249	20.47	21.50	1.268	0.316	
		Left side		23095	707.5	1	25	0.05	0.262	20.47	21.50	1.268	0.332	16
		Top side		23095	707.5	1	25	-0.03	0.041	20.47	21.50	1.268	0.052	
		Front side		23095	707.5	25	12	0.12	0.068	19.40	20.50	1.288	0.088	
		Back side		23095	707.5	25	12	0.15	0.221	19.40	20.50	1.288	0.285	
		Left side		23095	707.5	25	12	-0.12	0.224	19.40	20.50	1.288	0.289	
		Top side		23095	707.5	25	12	-0.13	0.035	19.40	20.50	1.288	0.045	
Ant.2	QPSK	Front side	10	23095	707.5	1	25	0.06	0.11	20.92	22.00	1.282	0.141	
		Back side		23095	707.5	1	25	-0.16	0.154	20.92	22.00	1.282	0.197	
		Left side		23095	707.5	1	25	0.19	0.146	20.92	22.00	1.282	0.187	
		Top side		23095	707.5	1	25	-0.12	0.116	20.92	22.00	1.282	0.149	
		Front side		23095	707.5	25	12	-0.08	0.102	19.79	21.00	1.321	0.135	
		Back side		23095	707.5	25	12	-0.11	0.14	19.79	21.00	1.321	0.185	
		Left side		23095	707.5	25	12	0.17	0.139	19.79	21.00	1.321	0.184	
		Top side		23095	707.5	25	12	0.17	0.105	19.79	21.00	1.321	0.139	

10.9LTE 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	25	-0.07	0.085	19.79	20.50	1.178	0.100	
		Left tilt		23230	782	1	25	0.06	0.030	19.79	20.50	1.178	0.035	
		Right cheek		23230	782	1	25	0.01	0.135	19.79	20.50	1.178	0.159	
		Right tilt		23230	782	1	25	-0.19	0.049	19.79	20.50	1.178	0.058	
		Left cheek		23230	782	25	12	0.06	0.070	18.78	19.50	1.180	0.083	
		Left tilt		23230	782	25	12	-0.19	0.020	18.78	19.50	1.180	0.024	
		Right cheek		23230	782	25	12	-0.08	0.120	18.78	19.50	1.180	0.142	
		Right tilt		23230	782	25	12	-0.1	0.044	18.78	19.50	1.180	0.052	
Ant.2	QPSK	Left cheek	0	23230	782	1	25	-0.07	0.191	20.19	21.00	1.205	0.230	17
		Left tilt		23230	782	1	25	0.08	0.163	20.19	21.00	1.205	0.196	
		Right cheek		23230	782	1	25	-0.03	0.125	20.19	21.00	1.205	0.151	
		Right tilt		23230	782	1	25	-0.11	0.083	20.19	21.00	1.205	0.100	
		Left cheek		23230	782	25	12	-0.19	0.187	19.17	20.00	1.211	0.226	
		Left tilt		23230	782	25	12	-0.17	0.154	19.17	20.00	1.211	0.186	
		Right cheek		23230	782	25	12	-0.02	0.136	19.17	20.00	1.211	0.165	
		Right tilt		23230	782	25	12	-0.14	0.104	19.17	20.00	1.211	0.126	
Body-worn& Hotspot														
Ant.1	QPSK	Front side	10	23230	782	1	25	-0.08	0.066	19.79	20.50	1.178	0.078	
		Back side		23230	782	1	25	-0.16	0.172	19.79	20.50	1.178	0.203	18
		Left side		23230	782	1	25	0.09	0.145	19.79	20.50	1.178	0.171	
		Top side		23230	782	1	25	0.07	0.041	19.79	20.50	1.178	0.048	
		Front side		23230	782	25	12	-0.03	0.054	18.78	19.50	1.180	0.064	
		Back side		23230	782	25	12	0.16	0.170	18.78	19.50	1.180	0.201	
		Left side		23230	782	25	12	0.08	0.124	18.78	19.50	1.180	0.146	
		Top side		23230	782	25	12	0.03	0.036	18.78	19.50	1.180	0.042	
Ant.2	QPSK	Front side	10	23230	782	1	25	0.19	0.119	20.19	21.00	1.205	0.143	
		Back side		23230	782	1	25	-0.12	0.165	20.19	21.00	1.205	0.199	
		Left side		23230	782	1	25	-0.06	0.111	20.19	21.00	1.205	0.134	
		Top side		23230	782	1	25	0.05	0.160	20.19	21.00	1.205	0.193	
		Front side		23230	782	25	12	0.17	0.101	19.17	20.00	1.211	0.122	
		Back side		23230	782	25	12	-0.03	0.146	19.17	20.00	1.211	0.177	
		Left side		23230	782	25	12	-0.01	0.093	19.17	20.00	1.211	0.113	
		Top side		23230	782	25	12	0.08	0.135	19.17	20.00	1.211	0.163	

10.10 LTE Band 25 (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	QPSK	Left cheek	0	26365	1882.5	1	49	-0.05	0.124	14.17	15.00	1.211	0.150	
		Left tilt		26365	1882.5	1	49	0.05	0.030	14.17	15.00	1.211	0.036	
		Right cheek		26365	1882.5	1	49	0.04	0.137	14.17	15.00	1.211	0.166	
		Right tilt		26365	1882.5	1	49	-0.11	0.032	14.17	15.00	1.211	0.039	
		Left cheek		26365	1882.5	50	24	-0.01	0.101	13.12	14.00	1.225	0.124	
		Left tilt		26365	1882.5	50	24	-0.12	0.032	13.12	14.00	1.225	0.039	
		Right cheek		26365	1882.5	50	24	0.18	0.122	13.12	14.00	1.225	0.149	
		Right tilt		26365	1882.5	50	24	-0.18	0.029	13.12	14.00	1.225	0.036	
Ant.2	QPSK	Left cheek	0	26365	1882.5	1	49	0.06	0.286	14.24	15.00	1.191	0.341	
		Left tilt		26365	1882.5	1	49	0.04	0.348	14.24	15.00	1.191	0.415	
		Right cheek		26365	1882.5	1	49	0.01	0.447	14.24	15.00	1.191	0.532	
		Right tilt		26365	1882.5	1	49	0.08	0.804	14.24	15.00	1.191	0.958	19
		Right tilt		26365	1882.5	1	49	0.06	0.790	14.24	15.00	1.191	0.941	Repeat
		Right tilt		26140	1860	1	49	-0.04	0.771	14.23	15.00	1.194	0.921	
		Right tilt		26590	1905	1	49	0.01	0.748	14.18	15.00	1.208	0.903	
		Left cheek		26365	1882.5	50	24	0.11	0.230	13.18	14.00	1.208	0.278	
		Left tilt		26365	1882.5	50	24	-0.06	0.289	13.18	14.00	1.208	0.349	
		Right cheek		26365	1882.5	50	24	-0.16	0.399	13.18	14.00	1.208	0.482	
		Right tilt		26365	1882.5	50	24	-0.08	0.658	13.18	14.00	1.208	0.795	
		Body-worn& Hotspot												
Ant.1	QPSK	Front side	10	26365	1882.5	1	49	-0.01	0.057	14.17	15.00	1.211	0.069	
		Back side		26365	1882.5	1	49	0.06	0.175	14.17	15.00	1.211	0.212	
		Left side		26365	1882.5	1	49	-0.11	0.209	14.17	15.00	1.211	0.253	
		Top side		26365	1882.5	1	49	-0.16	0.029	14.17	15.00	1.211	0.035	
		Front side		26365	1882.5	50	24	-0.09	0.044	13.12	14.00	1.225	0.054	
		Back side		26365	1882.5	50	24	-0.19	0.161	13.12	14.00	1.225	0.197	
		Left side		26365	1882.5	50	24	0.08	0.191	13.12	14.00	1.225	0.234	
		Top side		26365	1882.5	50	24	-0.11	0.029	13.12	14.00	1.225	0.036	
Ant.2	QPSK	Front side	10	26365	1882.5	1	49	-0.19	0.143	14.24	15.00	1.191	0.170	
		Back side		26365	1882.5	1	49	-0.07	0.227	14.24	15.00	1.191	0.270	
		Left side		26365	1882.5	1	49	0.14	0.036	14.24	15.00	1.191	0.043	
		Top side		26365	1882.5	1	49	-0.12	0.350	14.24	15.00	1.191	0.417	20
		Front side		26365	1882.5	50	24	-0.03	0.108	13.18	14.00	1.208	0.130	
		Back side		26365	1882.5	50	24	-0.05	0.171	13.18	14.00	1.208	0.207	
		Left side		26365	1882.5	50	24	0.13	0.033	13.18	14.00	1.208	0.040	
		Top side		26365	1882.5	50	24	-0.06	0.228	13.18	14.00	1.208	0.275	

10.11 LTE Band 26 (15MHz 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	26865	831.5	1	37	0.18	0.112	20.43	21.50	1.279	0.143	
		Left tilt		26865	831.5	1	37	-0.03	0.051	20.43	21.50	1.279	0.065	
		Right cheek		26865	831.5	1	37	-0.14	0.053	20.43	21.50	1.279	0.068	
		Right tilt		26865	831.5	1	37	-0.1	0.020	20.43	21.50	1.279	0.026	
		Left cheek		26765	821.5	1	37	-0.05	0.109	20.37	21.50	1.297	0.141	
		Left tilt		26865	831.5	36	20	-0.15	0.036	19.35	20.50	1.303	0.047	
		Right cheek		26865	831.5	36	20	0.19	0.045	19.35	20.50	1.303	0.059	
		Right tilt		26865	831.5	36	20	-0.11	0.017	19.35	20.50	1.303	0.022	
Ant.2	QPSK	Left cheek	0	26865	831.5	1	37	0.15	0.179	20.75	21.50	1.189	0.213	
		Left tilt		26865	831.5	1	37	-0.06	0.075	20.75	21.50	1.189	0.089	
		Right cheek		26865	831.5	1	37	0.05	0.444	20.75	21.50	1.189	0.528	21
		Right tilt		26865	831.5	1	37	0.07	0.425	20.75	21.50	1.189	0.505	
		Left cheek		26865	831.5	36	20	0.15	0.158	19.65	20.50	1.216	0.192	
		Left tilt		26865	831.5	36	20	-0.02	0.066	19.65	20.50	1.216	0.080	
		Right cheek		26865	831.5	36	20	-0.12	0.399	19.65	20.50	1.216	0.485	
		Right tilt		26865	831.5	36	20	0.01	0.426	19.65	20.50	1.216	0.518	
Body-worn& Hotspot														
Ant.1	QPSK	Front side	10	26865	831.5	1	37	-0.17	0.077	20.43	21.50	1.279	0.099	
		Back side		26865	831.5	1	37	0.09	0.103	20.43	21.50	1.279	0.132	
		Left side		26865	831.5	1	37	-0.06	0.105	20.43	21.50	1.279	0.134	
		Top side		26865	831.5	1	37	0.04	0.038	20.43	21.50	1.279	0.049	
		Front side		26865	831.5	36	20	-0.01	0.064	19.35	20.50	1.303	0.083	
		Back side		26865	831.5	36	20	0.13	0.104	19.35	20.50	1.303	0.136	
		Left side		26865	831.5	36	20	-0.11	0.106	19.35	20.50	1.303	0.138	
		Top side		26865	831.5	36	20	0.04	0.030	19.35	20.50	1.303	0.039	
Ant.2	QPSK	Front side	10	26865	831.5	1	37	0.07	0.102	20.75	21.50	1.189	0.121	
		Back side		26865	831.5	1	37	-0.04	0.111	20.75	21.50	1.189	0.132	
		Left side		26865	831.5	1	37	0.15	0.099	20.75	21.50	1.189	0.118	
		Top side		26865	831.5	1	37	-0.06	0.121	20.75	21.50	1.189	0.144	22
		Front side		26865	831.5	36	20	0.05	0.094	19.65	20.50	1.216	0.114	
		Back side		26865	831.5	36	20	-0.04	0.114	19.65	20.50	1.216	0.139	
		Left side		26865	831.5	36	20	-0.17	0.073	19.65	20.50	1.216	0.089	
		Top side		26865	831.5	36	20	-0.03	0.093	19.65	20.50	1.216	0.113	

10.12 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	49	0.19	0.394	16.69	17.50	1.205	0.475	
		Left tilt		132322	1745	1	49	-0.11	0.485	16.69	17.50	1.205	0.584	
		Right cheek		132322	1745	1	49	0.09	0.594	16.69	17.50	1.205	0.716	
		Right tilt		132322	1745	1	49	0.08	0.807	16.69	17.50	1.205	0.972	23
		Right tilt		132322	1745	1	49	0.04	0.786	16.69	17.50	1.205	0.947	Repeat
		Right tilt		132072	1720	1	49	0.05	0.788	16.68	17.50	1.208	0.952	
		Right tilt		132572	1770	1	49	0.01	0.769	16.68	17.50	1.208	0.929	
		Left cheek		132322	1745	50	24	0.05	0.313	15.59	16.50	1.233	0.386	
		Left tilt		132322	1745	50	24	0.13	0.379	15.59	16.50	1.233	0.467	
		Right cheek		132322	1745	50	24	-0.1	0.502	15.59	16.50	1.233	0.619	
		Right tilt		132322	1745	50	24	0.03	0.629	15.59	16.50	1.233	0.776	
		Body-worm& Hotspot												
Ant.2	QPSK	Front side	10	132322	1745	1	49	-0.16	0.190	16.69	17.50	1.205	0.229	
		Back side		132322	1745	1	49	-0.07	0.233	16.69	17.50	1.205	0.281	
		Left side		132322	1745	1	49	-0.01	0.046	16.69	17.50	1.205	0.055	
		Top side		132322	1745	1	49	0.02	0.345	16.69	17.50	1.205	0.416	24
		Front side		132322	1745	50	24	-0.17	0.150	15.59	16.50	1.233	0.185	
		Back side		132322	1745	50	24	-0.1	0.181	15.59	16.50	1.233	0.223	
		Left side		132322	1745	50	24	0.03	0.033	15.59	16.50	1.233	0.041	
		Top side		132322	1745	50	24	-0.1	0.255	15.59	16.50	1.233	0.314	

10.13 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.1	QPSK	Left cheek	0	40620	2593	1	49	-0.03	0.183	17.06	18.00	1.242	0.227	
		Left tilt		40620	2593	1	49	-0.12	0.040	17.06	18.00	1.242	0.050	
		Right cheek		40620	2593	1	49	0.13	0.242	17.06	18.00	1.242	0.300	
		Right tilt		40620	2593	1	49	-0.09	0.054	17.06	18.00	1.242	0.067	
		Left cheek		40620	2593	50	24	-0.04	0.177	16.05	17.00	1.245	0.220	
		Left tilt		40620	2593	50	24	0.12	0.038	16.05	17.00	1.245	0.047	
		Right cheek		40620	2593	50	24	0.02	0.221	16.05	17.00	1.245	0.275	

		Right tilt		40620	2593	50	24	0.15	0.050	16.05	17.00	1.245	0.062	
Ant.2	QPSK	Left cheek	0	40620	2593	1	49	-0.13	0.197	17.43	18.50	1.279	0.252	
		Left tilt		40620	2593	1	49	0.05	0.233	17.43	18.50	1.279	0.298	
		Right cheek		40620	2593	1	49	-0.11	0.481	17.43	18.50	1.279	0.615	
		Right tilt		40620	2593	1	49	0.02	0.527	17.43	18.50	1.279	0.674	25
		Left cheek		40620	2593	50	24	-0.15	0.126	16.45	17.50	1.274	0.160	
		Left tilt		40620	2593	50	24	0.09	0.185	16.45	17.50	1.274	0.236	
		Right cheek		40620	2593	50	24	-0.17	0.376	16.45	17.50	1.274	0.479	
		Right tilt		40620	2593	50	24	0.17	0.416	16.45	17.50	1.274	0.530	
Body-worn& Hotspot														
Ant.1	QPSK	Front side	10	40620	2593	1	49	-0.09	0.131	17.06	18.00	1.242	0.163	
		Back side		40620	2593	1	49	0.08	0.375	17.06	18.00	1.242	0.466	
		Left side		40620	2593	1	49	-0.08	0.528	17.06	18.00	1.242	0.656	26
		Top side		40620	2593	1	49	0.18	0.041	17.06	18.00	1.242	0.051	
		Front side		40620	2593	50	24	0.15	0.101	16.05	17.00	1.245	0.126	
		Back side		40620	2593	50	24	-0.18	0.308	16.05	17.00	1.245	0.383	
		Left side		40620	2593	50	24	-0.05	0.395	16.05	17.00	1.245	0.492	
		Top side		40620	2593	50	24	-0.17	0.040	16.05	17.00	1.245	0.050	
Ant.2	QPSK	Front side	10	40620	2593	1	49	0.14	0.123	17.43	18.50	1.279	0.157	
		Back side		40620	2593	1	49	0.13	0.360	17.43	18.50	1.279	0.461	
		Left side		40620	2593	1	49	0.01	0.097	17.43	18.50	1.279	0.124	
		Top side		40620	2593	1	49	0.15	0.297	17.43	18.50	1.279	0.380	
		Front side		40620	2593	50	24	-0.16	0.100	16.45	17.50	1.274	0.127	
		Back side		40620	2593	50	24	0.04	0.276	16.45	17.50	1.274	0.351	
		Left side		40620	2593	50	24	0.19	0.074	16.45	17.50	1.274	0.094	
		Top side		40620	2593	50	24	0.04	0.250	16.45	17.50	1.274	0.318	

10.14 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.12	BR/EDR 1Mbps	Left cheek	0	78	2480	0.11	0.077	13.35	14.50	1.303	76.70	1.304	0.131	
		Left tilt		78	2480	-0.17	0.091	13.35	14.50	1.303	76.70	1.304	0.155	27
		Right cheek		78	2480	-0.18	0.023	13.35	14.50	1.303	76.70	1.304	0.039	
		Right tilt		78	2480	-0.04	0.031	13.35	14.50	1.303	76.70	1.304	0.053	
Body-worn& Hotspot														
Ant.12	BR/EDR 1Mbps	Front side	10	78	2480	-0.16	0.030	13.35	14.50	1.303	76.70	1.304	0.051	
		Back side		78	2480	0.12	0.078	13.35	14.50	1.303	76.70	1.304	0.133	28
		Right side		78	2480	0.03	0.031	13.35	14.50	1.303	76.70	1.304	0.053	
		Top side		78	2480	-0.13	0.032	13.35	14.50	1.303	76.70	1.304	0.054	

10.15 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.12	802.11b 1Mbps	Left cheek	0	6	2437	0.04	0.209	15.65	16.50	1.217	99.37	1.006	0.256	
		Left tilt		6	2437	0.07	0.277	15.65	16.50	1.217	99.37	1.006	0.339	
		Right cheek		6	2437	0.15	0.099	15.65	16.50	1.217	99.37	1.006	0.121	
		Right tilt		6	2437	-0.07	0.089	15.65	16.50	1.217	99.37	1.006	0.109	
Ant.12	802.11n HT20	Left cheek	0	6	2437	-0.14	0.243	16.47	17.50	1.267	96.14	1.040	0.320	
		Left tilt		6	2437	-0.03	0.322	16.47	17.50	1.267	96.14	1.040	0.424	29
		Right cheek		6	2437	0.07	0.067	16.47	17.50	1.267	96.14	1.040	0.088	
		Right tilt		6	2437	-0.01	0.070	16.47	17.50	1.267	96.14	1.040	0.092	
Body-worn& Hotspot														
Ant.12	802.11b 1Mbps	Front side	10	6	2437	-0.07	0.045	15.65	16.50	1.217	99.37	1.006	0.055	
		Back side		6	2437	-0.1	0.188	15.65	16.50	1.217	99.37	1.006	0.230	
		Right side		6	2437	0.16	0.042	15.65	16.50	1.217	99.37	1.006	0.051	
		Top side		6	2437	-0.1	0.139	15.65	16.50	1.217	99.37	1.006	0.170	
Ant.12	802.11n HT20	Front side	10	6	2437	-0.16	0.062	16.47	17.50	1.267	96.14	1.040	0.082	
		Back side		6	2437	0.08	0.240	16.47	17.50	1.267	96.14	1.040	0.316	30
		Right side		6	2437	-0.06	0.051	16.47	17.50	1.267	96.14	1.040	0.067	
		Top side		6	2437	-0.16	0.147	16.47	17.50	1.267	96.14	1.040	0.194	

10.16 5G 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	WLAN	Left cheek	0	48	5240	-0.02	0.352	13.84	15.00	1.306	96.35	1.038	0.477	
	5.2G	Left tilt		48	5240	-0.04	0.452	13.84	15.00	1.306	96.35	1.038	0.613	31
	802.11n	Right cheek		48	5240	0.04	0.152	13.84	15.00	1.306	96.35	1.038	0.206	
	HT20	Right tilt		48	5240	-0.05	0.161	13.84	15.00	1.306	96.35	1.038	0.218	
Ant.13	WLAN	Left cheek	0	52	5260	0.01	0.355	13.70	14.50	1.202	96.35	1.038	0.443	
	5.3G	Left tilt		52	5260	-0.06	0.491	13.70	14.50	1.202	96.35	1.038	0.613	32
	802.11n	Right cheek		52	5260	-0.16	0.102	13.70	14.50	1.202	96.35	1.038	0.127	
	HT20	Right tilt		52	5260	-0.13	0.111	13.70	14.50	1.202	96.35	1.038	0.138	
Ant.13	WLAN	Left cheek	0	116	5580	-0.14	0.363	14.28	15.50	1.324	96.35	1.038	0.499	
	5.6G	Left tilt		116	5580	-0.04	0.410	14.28	15.50	1.324	96.35	1.038	0.563	33
		Right cheek		116	5580	-0.05	0.114	14.28	15.50	1.324	96.35	1.038	0.157	

	802.11n HT20	Right tilt		116	5580	-0.19	0.126	14.28	15.50	1.324	96.35	1.038	0.173	
		Left cheek		100	5500	0.13	0.086	14.28	15.50	1.324	96.35	1.038	0.118	
		Left cheek		140	5700	0.06	0.077	14.28	15.50	1.324	96.35	1.038	0.106	
Ant.13	WLAN	Left cheek	0	149	5745	-0.16	0.359	13.63	14.50	1.221	96.35	1.038	0.455	
	5.8G	Left tilt		149	5745	-0.05	0.478	13.63	14.50	1.221	96.35	1.038	0.606	34
	802.11n	Right cheek		149	5745	0.08	0.172	13.63	14.50	1.221	96.35	1.038	0.218	
	HT20	Right tilt		149	5745	-0.12	0.183	13.63	14.50	1.221	96.35	1.038	0.232	
Body-worn														
Ant.13	WLAN 5.3G	Front side	10	52	5260	-0.17	0.107	13.70	14.50	1.202	96.35	1.038	0.133	/
	802.11n HT20	Back side	10	52	5260	0.15	0.170	13.70	14.50	1.202	96.35	1.038	0.212	36
Ant.13	WLAN 5.6G	Front side	10	116	5580	0.04	0.105	14.28	15.50	1.324	96.35	1.038	0.144	/
	802.11n HT20	Back side		116	5580	-0.08	0.141	14.28	15.50	1.324	96.35	1.038	0.194	37
Hotspot														
Ant.13	WLAN 5.2G	Front side	10	48	5240	-0.04	0.117	13.84	15.00	1.306	96.35	1.038	0.159	/
	802.11n	Back side		48	5240	0.13	0.109	13.84	15.00	1.306	96.35	1.038	0.148	/
		Right side		48	5240	-0.06	0.063	13.84	15.00	1.306	96.35	1.038	0.085	/
	HT20	Top side		48	5240	-0.17	0.126	13.84	15.00	1.306	96.35	1.038	0.171	38
Ant.13	WLAN 5.8G	Front side	10	149	5745	0.11	0.105	13.63	14.50	1.221	96.35	1.038	0.133	/
	802.11n	Back side		149	5745	0.06	0.132	13.63	14.50	1.221	96.35	1.038	0.167	39
		Right side		149	5745	-0.17	0.056	13.63	14.50	1.221	96.35	1.038	0.071	/
	HT20	Top side		149	5745	-0.17	0.112	13.63	14.50	1.221	96.35	1.038	0.142	/
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.13	WLAN 5.3G	Front side	0	52	5260	-0.05	0.208	13.70	14.50	1.202	96.35	1.038	0.259	/
	802.11n	Back side		52	5260	-0.06	0.168	13.70	14.50	1.202	96.35	1.038	0.210	/
		Right side		52	5260	-0.14	0.080	13.70	14.50	1.202	96.35	1.038	0.100	/
	HT20	Top side		52	5260	0.05	0.216	13.70	14.50	1.202	96.35	1.038	0.269	40
Ant.13	WLAN 5.6G	Front side	0	116	5580	-0.18	0.248	14.28	15.50	1.324	96.35	1.038	0.341	/
	802.11n	Back side		116	5580	-0.13	0.376	14.28	15.50	1.324	96.35	1.038	0.517	41
		Right side		116	5580	0.11	0.061	14.28	15.50	1.324	96.35	1.038	0.084	/
	HT20	Top side		116	5580	-0.07	0.227	14.28	15.50	1.324	96.35	1.038	0.312	/

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	LTE B2	Head	Right tilt	1.075	Yes	1.019	1.05
1900	LTE B25	Head	Right tilt	0.958	Yes	0.941	1.02
1750	LTE B66	Head	Right tilt	0.972	Yes	0.947	1.03

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	Hotspot
1	WWAN+WLAN 2.4G	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 Head SAR of Simultaneous Transmission

Band	Antenna	Position	Stand alone SAR				SUM SAR	
			1	2	3	4		
			WWAN	WALN 2.4G	WALN 5G	Bluetooth	1+2	1+3+4
GSM 850	Ant.1	Left Cheek	0.137	0.320	0.499	0.131	0.457	0.767
GSM 850	Ant.1	Left Tilt	0.047	0.424	0.613	0.155	0.471	0.815
GSM 850	Ant.1	Right Cheek	0.172	0.121	0.218	0.039	0.293	0.429
GSM 850	Ant.1	Right Tilt	0.066	0.109	0.232	0.053	0.175	0.351
GSM 850	Ant.2	Left Cheek	0.412	0.320	0.499	0.131	0.732	1.042
GSM 850	Ant.2	Left Tilt	0.387	0.424	0.613	0.155	0.811	1.155
GSM 850	Ant.2	Right Cheek	0.391	0.121	0.218	0.039	0.512	0.648
GSM 850	Ant.2	Right Tilt	0.391	0.109	0.232	0.053	0.500	0.676
GSM 1900	Ant.1	Left Cheek	0.061	0.320	0.499	0.131	0.381	0.691
GSM 1900	Ant.1	Left Tilt	0.035	0.424	0.613	0.155	0.459	0.803
GSM 1900	Ant.1	Right Cheek	0.054	0.121	0.218	0.039	0.175	0.311
GSM 1900	Ant.1	Right Tilt	0.024	0.109	0.232	0.053	0.133	0.309
GSM 1900	Ant.2	Left Cheek	0.296	0.320	0.499	0.131	0.616	0.926

GSM 1900	Ant.2	Left Tilt	0.350	0.424	0.613	0.155	0.774	1.118
GSM 1900	Ant.2	Right Cheek	0.016	0.121	0.218	0.039	0.137	0.273
GSM 1900	Ant.2	Right Tilt	0.019	0.109	0.232	0.053	0.128	0.304
WCDMA B2	Ant.1	Left Cheek	0.185	0.320	0.499	0.131	0.505	0.815
WCDMA B2	Ant.1	Left Tilt	0.032	0.424	0.613	0.155	0.456	0.800
WCDMA B2	Ant.1	Right Cheek	0.149	0.121	0.218	0.039	0.270	0.406
WCDMA B2	Ant.1	Right Tilt	0.025	0.109	0.232	0.053	0.134	0.310
WCDMA B2	Ant.2	Left Cheek	0.382	0.320	0.499	0.131	0.702	1.012
WCDMA B2	Ant.2	Left Tilt	0.477	0.424	0.613	0.155	0.901	1.245
WCDMA B2	Ant.2	Right Cheek	0.646	0.121	0.218	0.039	0.767	0.903
WCDMA B2	Ant.2	Right Tilt	0.910	0.109	0.232	0.053	1.019	1.195
WCDMA B4	Ant.1	Left Cheek	0.092	0.320	0.499	0.131	0.412	0.722
WCDMA B4	Ant.1	Left Tilt	0.033	0.424	0.613	0.155	0.457	0.801
WCDMA B4	Ant.1	Right Cheek	0.029	0.121	0.218	0.039	0.150	0.286
WCDMA B4	Ant.1	Right Tilt	0.017	0.109	0.232	0.053	0.126	0.302
WCDMA B4	Ant.2	Left Cheek	0.430	0.320	0.499	0.131	0.750	1.060
WCDMA B4	Ant.2	Left Tilt	0.516	0.424	0.613	0.155	0.940	1.284
WCDMA B4	Ant.2	Right Cheek	0.676	0.121	0.218	0.039	0.797	0.933
WCDMA B4	Ant.2	Right Tilt	0.836	0.109	0.232	0.053	0.945	1.121
WCDMA B5	Ant.1	Left Cheek	0.263	0.320	0.499	0.131	0.583	0.893
WCDMA B5	Ant.1	Left Tilt	0.113	0.424	0.613	0.155	0.537	0.881
WCDMA B5	Ant.1	Right Cheek	0.436	0.121	0.218	0.039	0.557	0.693
WCDMA B5	Ant.1	Right Tilt	0.154	0.109	0.232	0.053	0.263	0.439
WCDMA B5	Ant.2	Left Cheek	0.489	0.320	0.499	0.131	0.809	1.119
WCDMA B5	Ant.2	Left Tilt	0.470	0.424	0.613	0.155	0.894	1.238
WCDMA B5	Ant.2	Right Cheek	0.549	0.121	0.218	0.039	0.670	0.806
WCDMA B5	Ant.2	Right Tilt	0.410	0.109	0.232	0.053	0.519	0.695
LTE B2	Ant.2	Left Cheek	0.485	0.320	0.499	0.131	0.805	1.115
LTE B2	Ant.2	Left Tilt	0.570	0.424	0.613	0.155	0.994	1.338
LTE B2	Ant.2	Right Cheek	0.756	0.121	0.218	0.039	0.877	1.013
LTE B2	Ant.2	Right Tilt	1.075	0.109	0.232	0.053	1.184	1.360
LTE B4	Ant.2	Left Cheek	0.528	0.320	0.499	0.131	0.848	1.158
LTE B4	Ant.2	Left Tilt	0.615	0.424	0.613	0.155	1.039	1.383
LTE B4	Ant.2	Right Cheek	0.801	0.121	0.218	0.039	0.922	1.058
LTE B4	Ant.2	Right Tilt	0.854	0.109	0.232	0.053	0.963	1.139
LTE B7	Ant.1	Left Cheek	0.327	0.320	0.499	0.131	0.647	0.957
LTE B7	Ant.1	Left Tilt	0.050	0.424	0.613	0.155	0.474	0.818
LTE B7	Ant.1	Right Cheek	0.191	0.121	0.218	0.039	0.312	0.448
LTE B7	Ant.1	Right Tilt	0.043	0.109	0.232	0.053	0.152	0.328
LTE B7	Ant.2	Left Cheek	0.288	0.320	0.499	0.131	0.608	0.918
LTE B7	Ant.2	Left Tilt	0.385	0.424	0.613	0.155	0.809	1.153
LTE B7	Ant.2	Right Cheek	0.620	0.121	0.218	0.039	0.741	0.877
LTE B7	Ant.2	Right Tilt	0.942	0.109	0.232	0.053	1.051	1.227

LTE B12	Ant.1	Left Cheek	0.183	0.320	0.499	0.131	0.503	0.813
LTE B12	Ant.1	Left Tilt	0.053	0.424	0.613	0.155	0.477	0.821
LTE B12	Ant.1	Right Cheek	0.214	0.121	0.218	0.039	0.335	0.471
LTE B12	Ant.1	Right Tilt	0.075	0.109	0.232	0.053	0.184	0.360
LTE B12	Ant.2	Left Cheek	0.215	0.320	0.499	0.131	0.535	0.845
LTE B12	Ant.2	Left Tilt	0.124	0.424	0.613	0.155	0.548	0.892
LTE B12	Ant.2	Right Cheek	0.123	0.121	0.218	0.039	0.244	0.380
LTE B12	Ant.2	Right Tilt	0.149	0.109	0.232	0.053	0.258	0.434
LTE B13	Ant.1	Left Cheek	0.100	0.320	0.499	0.131	0.420	0.730
LTE B13	Ant.1	Left Tilt	0.035	0.424	0.613	0.155	0.459	0.803
LTE B13	Ant.1	Right Cheek	0.159	0.121	0.218	0.039	0.280	0.416
LTE B13	Ant.1	Right Tilt	0.058	0.109	0.232	0.053	0.167	0.343
LTE B13	Ant.2	Left Cheek	0.230	0.320	0.499	0.131	0.550	0.860
LTE B13	Ant.2	Left Tilt	0.196	0.424	0.613	0.155	0.620	0.964
LTE B13	Ant.2	Right Cheek	0.165	0.121	0.218	0.039	0.286	0.422
LTE B13	Ant.2	Right Tilt	0.126	0.109	0.232	0.053	0.235	0.411
LTE B17	Ant.1	Left Cheek	0.128	0.320	0.499	0.131	0.448	0.758
LTE B25	Ant.1	Left Cheek	0.150	0.320	0.499	0.131	0.470	0.780
LTE B25	Ant.1	Left Tilt	0.039	0.424	0.613	0.155	0.463	0.807
LTE B25	Ant.1	Right Cheek	0.166	0.121	0.218	0.039	0.287	0.423
LTE B25	Ant.1	Right Tilt	0.039	0.109	0.232	0.053	0.148	0.324
LTE B25	Ant.2	Left Cheek	0.341	0.320	0.499	0.131	0.661	0.971
LTE B25	Ant.2	Left Tilt	0.415	0.424	0.613	0.155	0.839	1.183
LTE B25	Ant.2	Right Cheek	0.532	0.121	0.218	0.039	0.653	0.789
LTE B25	Ant.2	Right Tilt	0.958	0.109	0.232	0.053	1.067	1.243
LTE B26	Ant.1	Left Cheek	0.143	0.320	0.499	0.131	0.463	0.773
LTE B26	Ant.1	Left Tilt	0.065	0.424	0.613	0.155	0.489	0.833
LTE B26	Ant.1	Right Cheek	0.068	0.121	0.218	0.039	0.189	0.325
LTE B26	Ant.1	Right Tilt	0.026	0.109	0.232	0.053	0.135	0.311
LTE B26	Ant.2	Left Cheek	0.213	0.320	0.499	0.131	0.533	0.843
LTE B26	Ant.2	Left Tilt	0.089	0.424	0.613	0.155	0.513	0.857
LTE B26	Ant.2	Right Cheek	0.528	0.121	0.218	0.039	0.649	0.785
LTE B26	Ant.2	Right Tilt	0.518	0.109	0.232	0.053	0.627	0.803
LTE B66	Ant.2	Left Cheek	0.475	0.320	0.499	0.131	0.795	1.105
LTE B66	Ant.2	Left Tilt	0.584	0.424	0.613	0.155	1.008	1.352
LTE B66	Ant.2	Right Cheek	0.716	0.121	0.218	0.039	0.837	0.973
LTE B66	Ant.2	Right Tilt	0.972	0.109	0.232	0.053	1.081	1.257
LTE B41	Ant.1	Left Cheek	0.227	0.320	0.499	0.131	0.547	0.857
LTE B41	Ant.1	Left Tilt	0.050	0.424	0.613	0.155	0.474	0.818
LTE B41	Ant.1	Right Cheek	0.300	0.121	0.218	0.039	0.421	0.557
LTE B41	Ant.1	Right Tilt	0.067	0.109	0.232	0.053	0.176	0.352
LTE B41	Ant.2	Left Cheek	0.252	0.320	0.499	0.131	0.572	0.882
LTE B41	Ant.2	Left Tilt	0.298	0.424	0.613	0.155	0.722	1.066

LTE B41	Ant.2	Right Cheek	0.615	0.121	0.218	0.039	0.736	0.872
LTE B41	Ant.2	Right Tilt	0.674	0.109	0.232	0.053	0.783	0.959

Note:

1: The simultaneous transmission combinations of the antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.

2: The highest Summed 1g SAR is 1.383 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

12.3 Sum Body SAR of Simultaneous Transmission

Band	Antenna	Position	Stand alone SAR				SUM SAR	
			1	2	3	4		
			WWAN	2.4GWIFI	5G WIFI	Bluetooth	1+2	1+3+4
GSM 850	Ant.1	Front Side	0.087	0.082	0.159	0.051	0.169	0.297
GSM 850	Ant.1	Back Side	0.330	0.316	0.212	0.133	0.646	0.675
GSM 850	Ant.2	Front Side	0.081	0.082	0.159	0.051	0.163	0.291
GSM 850	Ant.2	Back Side	0.137	0.316	0.212	0.133	0.453	0.482
GSM 1900	Ant.1	Front Side	0.029	0.082	0.159	0.051	0.111	0.239
GSM 1900	Ant.1	Back Side	0.100	0.316	0.212	0.133	0.416	0.445
GSM 1900	Ant.2	Front Side	0.118	0.082	0.159	0.051	0.200	0.328
GSM 1900	Ant.2	Back Side	0.170	0.316	0.212	0.133	0.486	0.515
WCDMA B2	Ant.1	Front Side	0.071	0.082	0.159	0.051	0.153	0.281
WCDMA B2	Ant.1	Back Side	0.239	0.316	0.212	0.133	0.555	0.584
WCDMA B2	Ant.2	Front Side	0.188	0.082	0.159	0.051	0.270	0.398
WCDMA B2	Ant.2	Back Side	0.297	0.316	0.212	0.133	0.613	0.642
WCDMA B4	Ant.1	Front Side	0.050	0.082	0.159	0.051	0.132	0.260
WCDMA B4	Ant.1	Back Side	0.180	0.316	0.212	0.133	0.496	0.525
WCDMA B4	Ant.2	Front Side	0.207	0.082	0.159	0.051	0.289	0.417
WCDMA B4	Ant.2	Back Side	0.249	0.316	0.212	0.133	0.565	0.594
WCDMA B5	Ant.1	Front Side	0.180	0.082	0.159	0.051	0.262	0.390
WCDMA B5	Ant.1	Back Side	0.573	0.316	0.212	0.133	0.889	0.918
WCDMA B5	Ant.2	Front Side	0.097	0.082	0.159	0.051	0.179	0.307
WCDMA B5	Ant.2	Back Side	0.163	0.316	0.212	0.133	0.479	0.508
LTE B2	Ant.2	Front Side	0.219	0.082	0.159	0.051	0.301	0.429
LTE B2	Ant.2	Back Side	0.392	0.316	0.212	0.133	0.708	0.737
LTE B4	Ant.2	Front Side	0.263	0.082	0.159	0.051	0.345	0.473
LTE B4	Ant.2	Back Side	0.297	0.316	0.212	0.133	0.613	0.642
LTE B7	Ant.1	Front Side	0.165	0.082	0.159	0.051	0.247	0.375
LTE B7	Ant.1	Back Side	0.472	0.316	0.212	0.133	0.788	0.817
LTE B7	Ant.2	Front Side	0.194	0.082	0.159	0.051	0.276	0.404
LTE B7	Ant.2	Back Side	0.511	0.316	0.212	0.133	0.827	0.856
LTE B12	Ant.1	Front Side	0.096	0.082	0.159	0.051	0.178	0.306
LTE B12	Ant.1	Back Side	0.316	0.316	0.212	0.133	0.632	0.661

LTE B12	Ant.2	Front Side	0.141	0.082	0.159	0.051	0.223	0.351
LTE B12	Ant.2	Back Side	0.197	0.316	0.212	0.133	0.513	0.542
LTE B13	Ant.1	Front Side	0.078	0.082	0.159	0.051	0.160	0.288
LTE B13	Ant.1	Back Side	0.203	0.316	0.212	0.133	0.519	0.548
LTE B13	Ant.2	Front Side	0.143	0.082	0.159	0.051	0.225	0.353
LTE B13	Ant.2	Back Side	0.199	0.316	0.212	0.133	0.515	0.544
LTE B25	Ant.1	Front Side	0.069	0.082	0.159	0.051	0.151	0.279
LTE B25	Ant.1	Back Side	0.212	0.316	0.212	0.133	0.528	0.557
LTE B25	Ant.2	Front Side	0.170	0.082	0.159	0.051	0.252	0.380
LTE B25	Ant.2	Back Side	0.270	0.316	0.212	0.133	0.586	0.615
LTE B26	Ant.1	Front Side	0.099	0.082	0.159	0.051	0.181	0.309
LTE B26	Ant.1	Back Side	0.136	0.316	0.212	0.133	0.452	0.481
LTE B26	Ant.2	Front Side	0.121	0.082	0.159	0.051	0.203	0.331
LTE B26	Ant.2	Back Side	0.139	0.316	0.212	0.133	0.455	0.484
LTE B66	Ant.2	Front Side	0.229	0.082	0.159	0.051	0.311	0.439
LTE B66	Ant.2	Back Side	0.281	0.316	0.212	0.133	0.597	0.626
LTE B41	Ant.1	Front Side	0.163	0.082	0.159	0.051	0.245	0.373
LTE B41	Ant.1	Back Side	0.466	0.316	0.212	0.133	0.782	0.811
LTE B41	Ant.2	Front Side	0.157	0.082	0.159	0.051	0.239	0.367
LTE B41	Ant.2	Back Side	0.461	0.316	0.212	0.133	0.777	0.806

Note:

1: The simultaneous transmission combinations of the antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.

2: The highest 1g SAR is 0.918W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

12.4 Sum Hotspot SAR of Simultaneous Transmission

Band	Antenna	Position	Stand alone SAR				SUM SAR	
			1	2	3	4		
			WWAN	2.4GWIFI	5G WIFI	Bluetooth	1+2	1+3+4
GSM 850	Ant.1	Front Side	0.087	0.082	0.159	0.051	0.169	0.297
GSM 850	Ant.1	Back Side	0.330	0.316	0.167	0.133	0.646	0.630
GSM 850	Ant.1	Left Side	0.190	0.000	0.000	0.000	0.190	0.190
GSM 850	Ant.1	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
GSM 850	Ant.1	Top Side	0.045	0.194	0.171	0.054	0.239	0.270
GSM 850	Ant.1	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
GSM 850	Ant.2	Front Side	0.081	0.082	0.159	0.051	0.163	0.291
GSM 850	Ant.2	Back Side	0.137	0.316	0.167	0.133	0.453	0.437
GSM 850	Ant.2	Left Side	0.044	0.000	0.000	0.000	0.044	0.044
GSM 850	Ant.2	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
GSM 850	Ant.2	Top Side	0.126	0.194	0.171	0.054	0.320	0.351
GSM 850	Ant.2	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
GSM 1900	Ant.1	Front Side	0.029	0.082	0.159	0.051	0.111	0.239

GSM 1900	Ant.1	Back Side	0.100	0.316	0.167	0.133	0.416	0.400
GSM 1900	Ant.1	Left Side	0.033	0.000	0.000	0.000	0.033	0.033
GSM 1900	Ant.1	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
GSM 1900	Ant.1	Top Side	0.034	0.194	0.171	0.054	0.228	0.259
GSM 1900	Ant.1	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
GSM 1900	Ant.2	Front Side	0.118	0.082	0.159	0.051	0.200	0.328
GSM 1900	Ant.2	Back Side	0.170	0.316	0.167	0.133	0.486	0.470
GSM 1900	Ant.2	Left Side	0.045	0.000	0.000	0.000	0.045	0.045
GSM 1900	Ant.2	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
GSM 1900	Ant.2	Top Side	0.254	0.194	0.171	0.054	0.448	0.479
GSM 1900	Ant.2	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B2	Ant.1	Front Side	0.071	0.082	0.159	0.051	0.153	0.281
WCDMA B2	Ant.1	Back Side	0.239	0.316	0.167	0.133	0.555	0.539
WCDMA B2	Ant.1	Left Side	0.274	0.000	0.000	0.000	0.274	0.274
WCDMA B2	Ant.1	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
WCDMA B2	Ant.1	Top Side	0.029	0.194	0.171	0.054	0.223	0.254
WCDMA B2	Ant.1	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B2	Ant.2	Front Side	0.188	0.082	0.159	0.051	0.270	0.398
WCDMA B2	Ant.2	Back Side	0.297	0.316	0.167	0.133	0.613	0.597
WCDMA B2	Ant.2	Left Side	0.052	0.000	0.000	0.000	0.052	0.052
WCDMA B2	Ant.2	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
WCDMA B2	Ant.2	Top Side	0.368	0.194	0.171	0.054	0.562	0.593
WCDMA B2	Ant.2	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B4	Ant.1	Front Side	0.050	0.082	0.159	0.051	0.132	0.260
WCDMA B4	Ant.1	Back Side	0.180	0.316	0.167	0.133	0.496	0.480
WCDMA B4	Ant.1	Left Side	0.196	0.000	0.000	0.000	0.196	0.196
WCDMA B4	Ant.1	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
WCDMA B4	Ant.1	Top Side	0.031	0.194	0.171	0.054	0.225	0.256
WCDMA B4	Ant.1	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B4	Ant.2	Front Side	0.207	0.082	0.159	0.051	0.289	0.417
WCDMA B4	Ant.2	Back Side	0.249	0.316	0.167	0.133	0.565	0.549
WCDMA B4	Ant.2	Left Side	0.046	0.000	0.000	0.000	0.046	0.046
WCDMA B4	Ant.2	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
WCDMA B4	Ant.2	Top Side	0.324	0.194	0.171	0.054	0.518	0.549
WCDMA B4	Ant.2	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B5	Ant.1	Front Side	0.180	0.082	0.159	0.051	0.262	0.390
WCDMA B5	Ant.1	Back Side	0.573	0.316	0.167	0.133	0.889	0.873
WCDMA B5	Ant.1	Left Side	0.350	0.000	0.000	0.000	0.350	0.350
WCDMA B5	Ant.1	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
WCDMA B5	Ant.1	Top Side	0.036	0.194	0.171	0.054	0.230	0.261
WCDMA B5	Ant.1	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B5	Ant.2	Front Side	0.097	0.082	0.159	0.051	0.179	0.307
WCDMA B5	Ant.2	Back Side	0.163	0.316	0.167	0.133	0.479	0.463

WCDMA B5	Ant.2	Left Side	0.058	0.000	0.000	0.000	0.058	0.058
WCDMA B5	Ant.2	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
WCDMA B5	Ant.2	Top Side	0.149	0.194	0.171	0.054	0.343	0.374
WCDMA B5	Ant.2	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B2	Ant.2	Front Side	0.219	0.082	0.159	0.051	0.301	0.429
LTE B2	Ant.2	Back Side	0.392	0.316	0.167	0.133	0.708	0.692
LTE B2	Ant.2	Left Side	0.065	0.000	0.000	0.000	0.065	0.065
LTE B2	Ant.2	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
LTE B2	Ant.2	Top Side	0.580	0.194	0.171	0.054	0.774	0.805
LTE B2	Ant.2	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B4	Ant.2	Front Side	0.263	0.082	0.159	0.051	0.345	0.473
LTE B4	Ant.2	Back Side	0.297	0.316	0.167	0.133	0.613	0.597
LTE B4	Ant.2	Left Side	0.057	0.000	0.000	0.000	0.057	0.057
LTE B4	Ant.2	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
LTE B4	Ant.2	Top Side	0.409	0.194	0.171	0.054	0.603	0.634
LTE B4	Ant.2	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B7	Ant.1	Front Side	0.165	0.082	0.159	0.051	0.247	0.375
LTE B7	Ant.1	Back Side	0.472	0.316	0.167	0.133	0.788	0.772
LTE B7	Ant.1	Left Side	0.677	0.000	0.000	0.000	0.677	0.677
LTE B7	Ant.1	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
LTE B7	Ant.1	Top Side	0.043	0.194	0.171	0.054	0.237	0.268
LTE B7	Ant.1	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B7	Ant.2	Front Side	0.194	0.082	0.159	0.051	0.276	0.404
LTE B7	Ant.2	Back Side	0.511	0.316	0.167	0.133	0.827	0.811
LTE B7	Ant.2	Left Side	0.132	0.000	0.000	0.000	0.132	0.132
LTE B7	Ant.2	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
LTE B7	Ant.2	Top Side	0.543	0.194	0.171	0.054	0.737	0.768
LTE B7	Ant.2	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B12	Ant.1	Front Side	0.096	0.082	0.159	0.051	0.178	0.306
LTE B12	Ant.1	Back Side	0.316	0.316	0.167	0.133	0.632	0.616
LTE B12	Ant.1	Left Side	0.332	0.000	0.000	0.000	0.332	0.332
LTE B12	Ant.1	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
LTE B12	Ant.1	Top Side	0.052	0.194	0.171	0.054	0.246	0.277
LTE B12	Ant.1	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B12	Ant.2	Front Side	0.141	0.082	0.159	0.051	0.223	0.351
LTE B12	Ant.2	Back Side	0.197	0.316	0.167	0.133	0.513	0.497
LTE B12	Ant.2	Left Side	0.187	0.000	0.000	0.000	0.187	0.187
LTE B12	Ant.2	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
LTE B12	Ant.2	Top Side	0.149	0.194	0.171	0.054	0.343	0.374
LTE B12	Ant.2	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B13	Ant.1	Front Side	0.078	0.082	0.159	0.051	0.160	0.288
LTE B13	Ant.1	Back Side	0.203	0.316	0.167	0.133	0.519	0.503
LTE B13	Ant.1	Left Side	0.171	0.000	0.000	0.000	0.171	0.171

LTE B13	Ant.1	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
LTE B13	Ant.1	Top Side	0.048	0.194	0.171	0.054	0.242	0.273
LTE B13	Ant.1	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B13	Ant.2	Front Side	0.143	0.082	0.159	0.051	0.225	0.353
LTE B13	Ant.2	Back Side	0.199	0.316	0.167	0.133	0.515	0.499
LTE B13	Ant.2	Left Side	0.134	0.000	0.000	0.000	0.134	0.134
LTE B13	Ant.2	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
LTE B13	Ant.2	Top Side	0.193	0.194	0.171	0.054	0.387	0.418
LTE B13	Ant.2	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B25	Ant.1	Front Side	0.069	0.082	0.159	0.051	0.151	0.279
LTE B25	Ant.1	Back Side	0.212	0.316	0.167	0.133	0.528	0.512
LTE B25	Ant.1	Left Side	0.253	0.000	0.000	0.000	0.253	0.253
LTE B25	Ant.1	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
LTE B25	Ant.1	Top Side	0.036	0.194	0.171	0.054	0.230	0.261
LTE B25	Ant.1	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B25	Ant.2	Front Side	0.170	0.082	0.159	0.051	0.252	0.380
LTE B25	Ant.2	Back Side	0.270	0.316	0.167	0.133	0.586	0.570
LTE B25	Ant.2	Left Side	0.043	0.000	0.000	0.000	0.043	0.043
LTE B25	Ant.2	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
LTE B25	Ant.2	Top Side	0.417	0.194	0.171	0.054	0.611	0.642
LTE B25	Ant.2	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B26	Ant.1	Front Side	0.099	0.082	0.159	0.051	0.181	0.309
LTE B26	Ant.1	Back Side	0.136	0.316	0.167	0.133	0.452	0.436
LTE B26	Ant.1	Left Side	0.138	0.000	0.000	0.000	0.138	0.138
LTE B26	Ant.1	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
LTE B26	Ant.1	Top Side	0.049	0.194	0.171	0.054	0.243	0.274
LTE B26	Ant.1	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B26	Ant.2	Front Side	0.121	0.082	0.159	0.051	0.203	0.331
LTE B26	Ant.2	Back Side	0.139	0.316	0.167	0.133	0.455	0.439
LTE B26	Ant.2	Left Side	0.118	0.000	0.000	0.000	0.118	0.118
LTE B26	Ant.2	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
LTE B26	Ant.2	Top Side	0.144	0.194	0.171	0.054	0.338	0.369
LTE B26	Ant.2	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B66	Ant.2	Front Side	0.229	0.082	0.159	0.051	0.311	0.439
LTE B66	Ant.2	Back Side	0.281	0.316	0.167	0.133	0.597	0.581
LTE B66	Ant.2	Left Side	0.055	0.000	0.000	0.000	0.055	0.055
LTE B66	Ant.2	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
LTE B66	Ant.2	Top Side	0.416	0.194	0.171	0.054	0.610	0.641
LTE B66	Ant.2	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B41	Ant.1	Front Side	0.163	0.082	0.159	0.051	0.245	0.373
LTE B41	Ant.1	Back Side	0.466	0.316	0.167	0.133	0.782	0.766
LTE B41	Ant.1	Left Side	0.656	0.000	0.000	0.000	0.656	0.656
LTE B41	Ant.1	Right Side	0.000	0.067	0.085	0.053	0.067	0.138

LTE B41	Ant.1	Top Side	0.051	0.194	0.171	0.054	0.245	0.276
LTE B41	Ant.1	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B41	Ant.2	Front Side	0.157	0.082	0.159	0.051	0.239	0.367
LTE B41	Ant.2	Back Side	0.461	0.316	0.167	0.133	0.777	0.761
LTE B41	Ant.2	Left Side	0.124	0.000	0.000	0.000	0.124	0.124
LTE B41	Ant.2	Right Side	0.000	0.067	0.085	0.053	0.067	0.138
LTE B41	Ant.2	Top Side	0.380	0.194	0.171	0.054	0.574	0.605
LTE B41	Ant.2	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000

Note:

1: The simultaneous transmission combinations of the antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.

2: The highest 1g SAR is 0.889 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

13 TEST EQUIPMENTS LIST

Description	Manufacturer	Model	Serial No./Version	Cal. Date	Cal. Due
PC	Dell	N/A	N/A	N/A	N/A
Test Software	Speag	DASY5	52.10.4.1535	N/A	N/A
750MHz Validation Dipole	Speag	D750V3	1201	2024/09/03	2027/09/03
835MHz Validation Dipole	Speag	D835V2	4d277	2024/08/30	2027/08/30
1750MHz Validation Dipole	Speag	D1750V2	1183	2024/09/03	2027/09/03
1900MHz Validation Dipole	Speag	D1900V2	5d155	2024/09/02	2027/09/02
2450MHz Validation Dipole	Speag	D2450V2	1065	2024/09/05	2027/09/05
2600MHz Validation Dipole	Speag	D2600V2	1184	2024/08/30	2027/08/30
3500MHz Validation Dipole	Speag	D3500V2	1115	2024/09/03	2027/09/03
3700MHz Validation Dipole	Speag	D3700V2	1086	2024/09/05	2027/09/05
3900MHz Validation Dipole	Speag	D3900V2	1059	2024/08/30	2027/08/30
5GHz Validation Dipole	Speag	D5GHzV2	1333	2024/09/04	2027/09/04
Data Acquisition Electronics	Speag	DAE4	SN: 1423	2025/06/05	2026/06/05
E-Field Probe	Speag	EX3DV4	SN: 3974	2025/06/05	2026/06/05
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	85070E	MY44300524	N/A	N/A
Phantom	Speag	SAM	1857	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A

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

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

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

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

Head Liquid

Date	Liquid Type	Fre. (MHz)	Temp. (°C)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ϵ)	Target Conductivity (σ) (S/m)	Target Permittivity (ϵ)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2025.11.29	Head	750	21.6	0.91	43.03	0.89	41.94	2.25	2.60
2025.11.29	Head	835	21.6	0.94	42.63	0.90	41.50	4.44	2.72
2025.11.30	Head	835	21.8	0.91	43.06	0.90	41.50	1.11	3.76
2025.12.1	Head	1750	21.3	1.33	39.98	1.37	40.08	-2.92	-0.25
2025.12.2	Head	1900	21.2	1.42	39.77	1.40	40.00	1.43	-0.58
2025.12.3	Head	2450	21.8	1.84	38.97	1.80	39.20	2.22	-0.59
2025.12.4	Head	2600	21.4	2.00	38.64	1.96	39.01	2.04	-0.95
2025.12.5	Head	2600	21.5	1.93	38.48	1.96	39.01	-1.53	-1.36
2025.12.6	Head	5300	21.6	4.87	34.99	4.76	35.87	2.31	-2.45
2025.12.7	Head	5600	21.4	4.96	34.48	5.07	35.53	-2.17	-2.96
2025.12.8	Head	5800	21.1	5.17	33.98	5.27	35.30	-1.90	-3.74

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 (%)
2025.11.29	750	100	0.869	8.69	8.46	2.72
2025.11.29	835	100	0.963	9.63	9.59	0.42
2025.11.30	835	100	0.898	8.98	9.59	-6.36
2025.12.1	1750	100	3.860	38.60	36.50	5.75
2025.12.2	1900	100	3.840	38.40	39.90	-3.76
2025.12.3	2450	100	5.340	53.40	52.60	1.52
2025.12.4	2600	100	5.420	54.20	55.30	-1.99
2025.12.5	2600	100	5.540	55.40	55.30	0.18
2025.12.6	5300	100	7.610	76.10	79.00	-3.67
2025.12.7	5600	100	8.110	81.10	82.80	-2.05
2025.12.8	5800	100	8.010	80.10	78.50	2.04

Limb 10g

Date	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.12.6	5300	100	2.180	21.80	23.00	-5.22
2025.12.7	5600	100	2.310	23.10	24.00	-3.75

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

Please refer the document "BL-SH25B1335-ASC.pdf".

ANNEX C TEST DATA

Please refer the document “BL-SH25B1335-ASC.pdf”.

ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SH25B1335-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SH25B1335-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL-SH25B1335-AC.pdf”.

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--END OF REPORT--