

TEST REPORT

Applicant: UROVO TECHNOLOGY CO., LTD.
Address: 36F, High-Tech Zone Union Tower, No.63,Xuefu Road, Nanshan District, Shenzhen, Guangdong, China
Equipment Type: Smart POS Payment Terminal
Model Name: i9200(refer section 2.3)
Brand Name: UROVO
FCC ID: SWSI9200
Test Standard: FCC 47 CFR Part 2.1093 (refer section 3.1)
Maximum SAR: Body(1 g@10mm): 1.10 W/kg
Hotspot(1 g@10mm): 1.15 W/kg
Extremity(10 g@0mm): 2.76 W/kg
Sample Arrival Date: Oct. 27, 2025
Test Date: Nov. 13, 2025 - Nov. 23, 2025
Date of Issue: Dec. 12, 2025

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

**Tested by:** Song Gui**Checked by:** Xu Rui**Approved by:** Tolan Tu
(Testing Director)

Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Dec. 12, 2025</u>	<u>Initial Issue</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☐ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☒ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.

1.3 Test Environment Condition

Ambient Temperature	18℃ to 25℃
Ambient Relative Humidity	30% to 70%

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	UROVO TECHNOLOGY CO., LTD.
Address	36F, High-Tech Zone Union Tower, No.63,Xuefu Road, Nanshan District, Shenzhen, Guangdong, China

2.2 Manufacturer Information

Manufacturer	UROVO TECHNOLOGY CO., LTD.
Address	36F, High-Tech Zone Union Tower, No.63, Xuefu Road, Nanshan District, Shenzhen, Guangdong, China

2.3 General Description for Equipment under Test (EUT)

EUT Name	Smart POS Payment Terminal
Model Name Under Test	i9200
Series Model Name	i9210, i9220, i9230, i9200A
Description of Model Name Differentiation	All models are same with electrical parameters and internal circuit structure, but only differ in model name. (this information provided by the applicant)
Hardware Version	SQ68_MB_V1.0.0
Software Version	SQ68_GO_EN_XX_WE_DS_R01_D_250923_01
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	N/A
	Model No.	HB50i9200 HB50i9200
	Serial No.	N/A
	Capacitance	5000 mAh
	Rated Voltage	3.85V
	Limited Voltage	4.4V
	Manufacturer	N/A

2.5 Technical Information

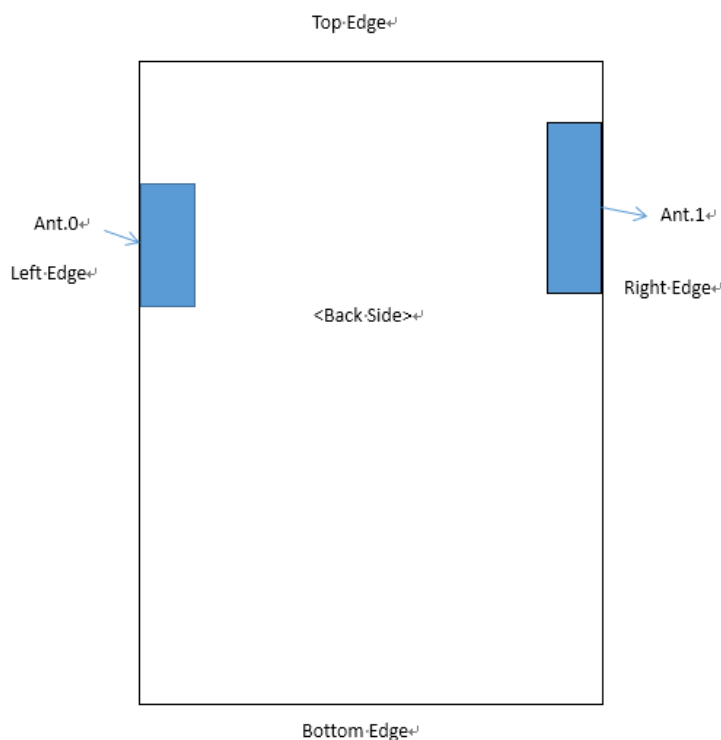
Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900
	3G Network WCDMA/HSDPA/HSUPA/DC-HSUPA Band 2/4/5
	4G Network LTE FDD Band 2/4/5/7/26/66
	LTE TDD Band 38
	Bluetooth (BR+EDR+BLE)
	WIFI 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac
	NFC

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

Operating Mode	GSM; WCDMA; LTE; WLAN; 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: 2110~2115 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 26	TX: 814~849 MHz	RX: 859~894 MHz
	LTE Band 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	802.11b/g/n(HT20/40)	2400 ~ 2483.5 MHz	
	802.11a	5150 ~ 5350 MHz	
		5470 ~ 5725 MHz	
		5725 ~ 5850 MHz	
	802.11n(HT20/HT40)	5150 ~ 5350 MHz	
		5470 ~ 5725 MHz	
		5725 ~ 5850 MHz	
	802.11ac (VHT20/VHT40/VHT80)	5150 ~ 5350 MHz	
5470 ~ 5725 MHz			
5725 ~ 5850 MHz			
Bluetooth	2400 ~ 2483.5 MHz		
NFC	13.56 MHz		
Antenna Type	WWAN	PIFA Antenna	
	WLAN	PIFA Antenna	
	Bluetooth	PIFA Antenna	
	NFC	Coil Antenna	
Exposure Category	General Population/Uncontrolled exposure		
EUT Type	Portable Device		
Note:			

1. The device utilizes independent power reduction mechanisms for SAR compliance for the 2/3/4 transmitter for held-to-ear exposure conditions.
2. The device utilizes independent power reduction mechanisms for SAR compliance for the 2/3/4 transmitter for near to body exposure conditions.

2.6 Antenna Information



Antenna	Support Bands
Ant.0	GSM: 850/1900 WCDMA: B2/4/5 LTE: B2/4/5/7/26/66/38
Ant.1	WLAN2.4G&WLAN5G&Bluetooth

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/IEEE C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	FCC KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01
4	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
5	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
6	KDB 248227 D01 v02r02	SAR Guidance for IEEE 802.11 (Wi-Fi) Transmitters
7	KDB 941225 D01 v03r01	3G SAR MEAUREMENT PROCEDURES
8	KDB 941225 D05 v02r05	SAR Evaluation Considerations for LTE Devices
9	KDB 941225 D06 v02r01	SAR EVALUATION PROCEDURES FOR PORTABLE DEVICES WITH WIRELESS ROUTER CAPABILITIES

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

Equipment Class	Band	Maximum Scaled SAR (W/kg)			Maximum Report SAR (W/kg)		
		Body-worn (10mm)	Hotspot (10mm)	Extremity (0mm)	Body-worn (10mm)	Hotspot (10mm)	Extremity (0mm)
		1g SAR		10g SAR	1g SAR		10g SAR
PCB	GSM 850	1.10	1.10	2.76	1.10	1.15	2.76
	GSM 1900	0.93	1.15	2.34			
	WCDMA Band 2	0.74	0.88	1.99			
	WCDMA Band 4	0.37	0.85	1.69			
	WCDMA Band 5	0.60	0.60	0.76			
	LTE Band 2	0.73	0.90	1.27			
	LTE Band 4	0.52	0.84	1.82			
	LTE Band 5	0.62	0.62	0.84			
	LTE Band 7	0.34	0.74	1.51			
	LTE Band 26	0.53	0.53	0.78			
	LTE Band 66	0.46	0.85	1.75			
	LTE Band 38	0.41	0.81	1.40			
DTS	2.4G WIFI	0.19	0.43	0.65	1.10	1.15	2.76
NII	5.2G WIFI	0.14	0.48	/			
	5.3G WIFI	0.25	0.85	1.45			
	5.6G WIFI	0.16	0.77	1.74			
	5.8G WIFI	0.18	0.68	/			
DSS	Bluetooth	0.05	0.06	0.07			
Limit (W/kg)		1.60		4.00	1.60		4.00
Verdict		PASS					

3.3.2 Highest Simultaneous Transmission SAR

Equipment Class	Maximum Simultaneous Transmission SAR		
	(W/kg)		
	Body-worn 1g SAR (10mm)	Hotspot 1g SAR (10mm)	Extremity 10g SAR (0mm)
PCB	1.40	1.56	2.78
DTS	1.11	1.15	2.76
NII	1.40	1.56	2.78
DSS	1.40	1.56	2.78
Limit (W/Kg)	1.60	1.60	4.00
Verdict	Pass		

Note: The simultaneous transmission SAR detail please refer to section 12.

3.4 Test Uncertainty

According to KDB 865664 D01, when the highest measured 1 g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis is not required in SAR reports submitted for equipment approval.

The maximum 1 g SAR for the EUT in this report is 1.15 W/kg, which is lower than 1.5 W/kg, so the extensive SAR measurement uncertainty analysis is not required in this report.

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

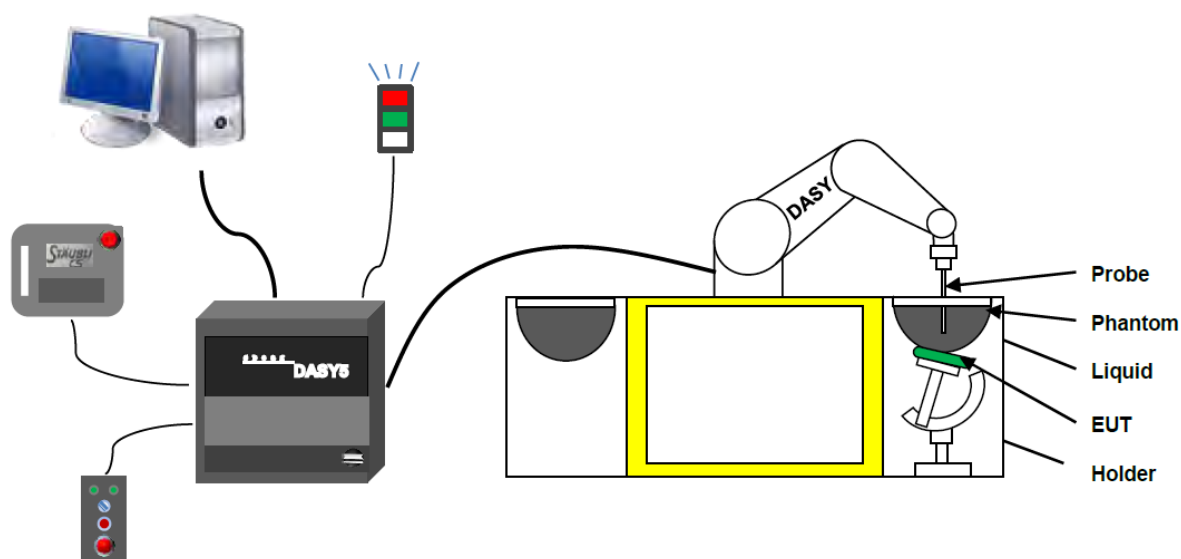
$$SAR = \frac{\sigma E^2}{\rho}$$

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	10 MHz to 6 GHz; Linearity: ± 0.2 dB (30 MHz to 6 GHz)
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 CENELEC EN 62209-1/-2 and IEEE 1528 std, with CALISAR, Antennessa proprietary calibration system. The calibration is performed with the EN 62209-1/2 annexe technique using reference guide at the five frequencies.

4.2.4 Data Acquisition Electronics

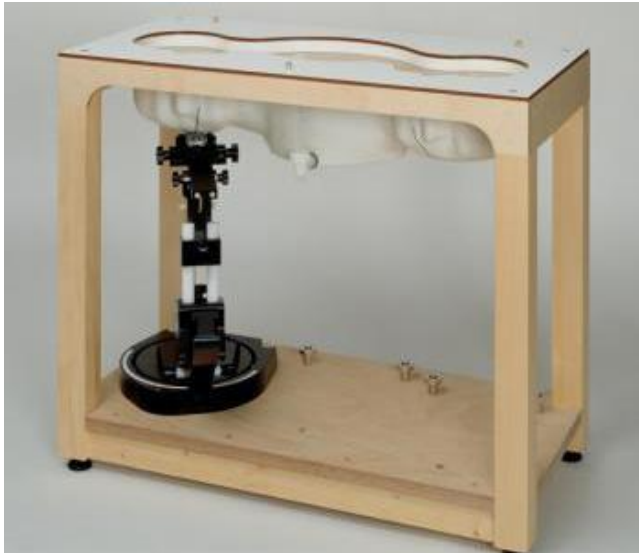
The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converte and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an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



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

4.2.5 Phantoms

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



- Left hand
- Right hand
- Flat phantom



Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with the latest draft of the standard IEC 62209 Part II and all known tissue simulating liquids. ELI4 has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points.



• Flat phantom



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° .

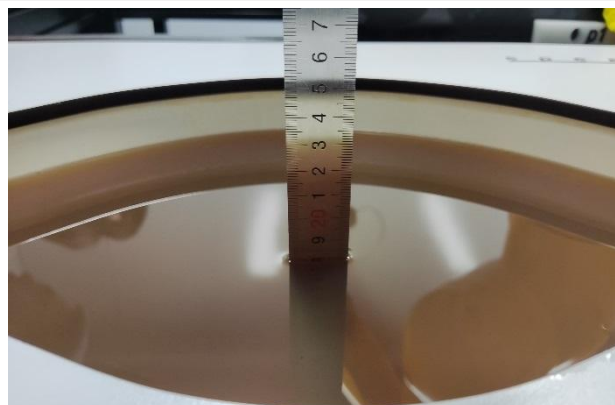
4.2.7 Simulating Liquid

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	Ethenediol, Sodium petroleum sulfonate, Hexylene Glycol / 2-Methyl-pentane-2.4-diol, Alkoxylated alcohol

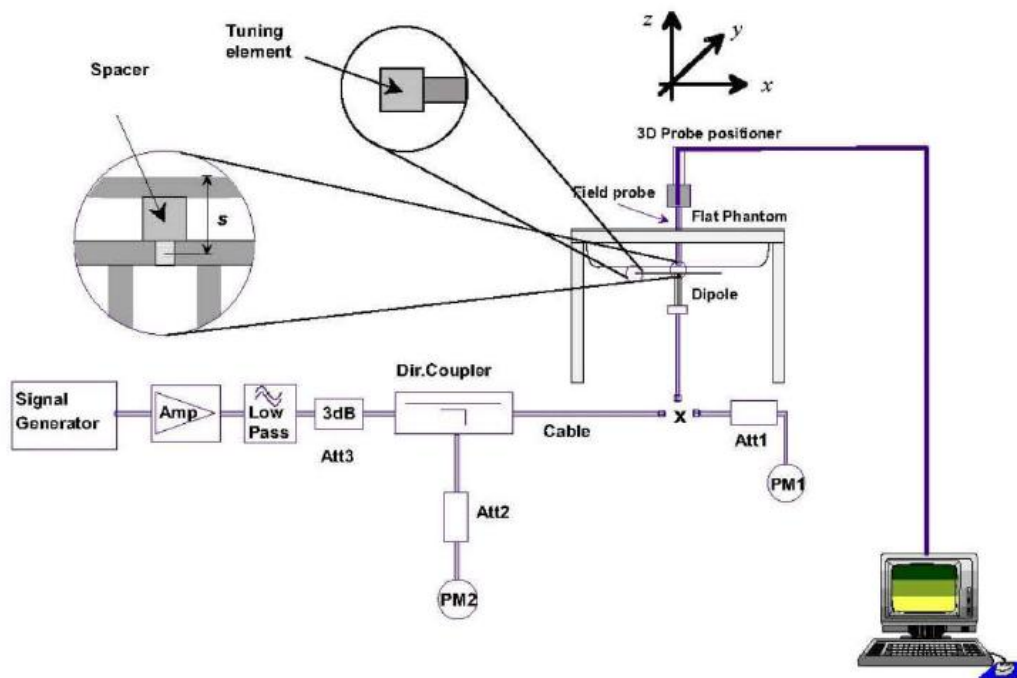
5 SYSTEM VERIFICATION

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

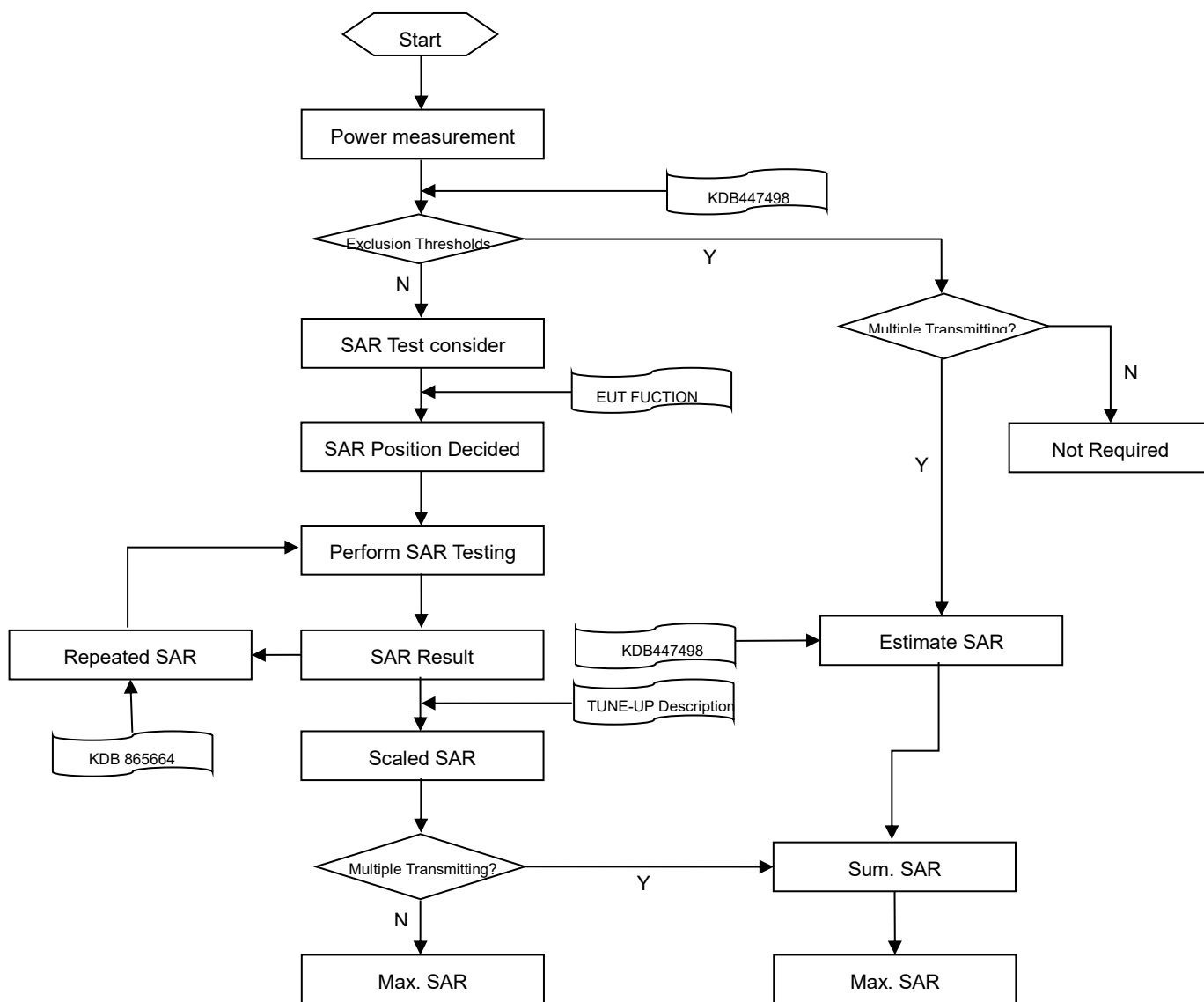
6.1 Body-worn Position Conditions

Devices that support transmission while used with body-worn accessories must be tested for SAR compliance related to each body-worn condition of use. SAR evaluation is required for body-worn accessories supplied with the device they are attached to.

The general informing principle is that the selected test configurations must conservatively capture the various body-worn accessory use conditions expected by users. For instance, devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, must be tested for SAR compliance using a conservative minimum test separation distance not to exceed 5 mm for all use conditions required by the device.

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
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 OUTPUT POWER

8.1 GSM

Please refer the document “BL-SZ25A0767-AP.pdf”.

8.2 WCDMA

Please refer the document “BL-SZ25A0767-AP.pdf”.

8.3 LTE

Please refer the document “BL-SZ25A0767-AP.pdf”.

8.4 WIFI

Please refer the document “BL-SZ25A0767-AP.pdf”.

8.5 Bluetooth

Please refer the document “BL-SZ25A0767-AP.pdf”.

9 TEST EXCLUSION CONSIDERATION

9.1 SAR Test Consideration Table

According with FCC KDB 447498 D04, Appendix B, The SAR-based exemption formula applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). The following table shows the power threshold from 5mm to 50mm.

Power Thresholds (mW)					
Frequency (MHz)	At separation distance of ≤ 5 mm	At separation distance of 10 mm	At separation distance of 15 mm	At separation distance of 20 mm	At separation distance of 25 mm
300	39 mW	65 mW	88 mW	110 mW	129 mW
450	22 mW	44 mW	67 mW	89 mW	112 mW
835	9 mW	25 mW	44 mW	66 mW	90 mW
1900	3 mW	12 mW	26 mW	44 mW	66 mW
2450	3 mW	10 mW	22 mW	38 mW	59 mW
3600	2 mW	8 mW	18 mW	32 mW	49 mW
5800	1 mW	6 mW	14 mW	25 mW	40 mW
Frequency (MHz)	At separation distance of 30 mm	At separation distance of 35 mm	At separation distance of 40 mm	At separation distance of 45 mm	At separation distance of 50 mm
300	148 mW	166 mW	184 mW	201 mW	217 mW
450	135 mW	158 mW	180 mW	203 mW	226 mW
835	116 mW	145 mW	175 mW	207 mW	240 mW
1900	92 mW	122 mW	157 mW	195 mW	236 mW
2450	83 mW	111 mW	143 mW	179 mW	219 mW
3600	71 mW	96 mW	125 mW	158 mW	195 mW
5800	58 mW	80 mW	106 mW	136 mW	169 mW

10 TEST RESULT

10.1 GSM 850

Band	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.
Body-worn&Hotspot													
GSM850	ANT.0	GPRS 4Slots	Front Side	10	128	824.2	-0.01	0.443	29.60	30.50	1.230	0.544	/
GSM850	ANT.0	GPRS 4Slots	Back Side	10	128	824.2	0.19	0.345	29.60	30.50	1.230	0.424	/
GSM850	ANT.0	GPRS 4Slots	Left Edge	10	128	824.2	0.17	0.365	29.60	30.50	1.230	0.449	/
GSM850	ANT.0	GPRS 4Slots	Right Edge	10	128	824.2	-0.15	0.107	29.60	30.50	1.230	0.131	/
GSM850	ANT.0	GPRS 4Slots	Top Edge	10	128	824.2	-0.09	0.090	29.60	30.50	1.230	0.111	/
GSM850	ANT.0	GPRS 4Slots	Bottom Edge	10	128	824.2	-0.03	0.014	29.60	30.50	1.230	0.017	/
GSM850	ANT.0	GPRS 4Slots	Front Side	10	190	836.6	-0.01	0.406	29.54	30.50	1.247	0.507	/
GSM850	ANT.0	GPRS 4Slots	Front Side	10	251	848.8	-0.04	0.861	29.42	30.50	1.282	1.104	1#
Extremity													
GSM850	ANT.0	GPRS 4Slots	Front Side	0	128	824.2	0.11	0.705	29.60	30.50	1.230	0.867	/
GSM850	ANT.0	GPRS 4Slots	Back Side	0	128	824.2	0.17	1.030	29.60	30.50	1.230	1.267	/
GSM850	ANT.0	GPRS 4Slots	Left Edge	0	128	824.2	-0.16	2.120	29.60	30.50	1.230	2.608	/
GSM850	ANT.0	GPRS 4Slots	Right Edge	0	128	824.2	-0.16	0.195	29.60	30.50	1.230	0.240	/
GSM850	ANT.0	GPRS 4Slots	Top Edge	0	128	824.2	-0.05	0.217	29.60	30.50	1.230	0.267	/
GSM850	ANT.0	GPRS 4Slots	Bottom Edge	0	128	824.2	0.07	0.007	29.60	30.50	1.230	0.009	/
GSM850	ANT.0	GPRS 4Slots	Left Edge	0	190	836.6	0.10	1.980	29.54	30.50	1.247	2.470	/
GSM850	ANT.0	GPRS 4Slots	Left Edge	0	251	848.8	-0.03	2.150	29.42	30.50	1.282	2.757	2#

10.2 GSM 1900

Band	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.
Body-worn&Hotspot													
GSM1900	ANT.0	GPRS 2Slots	Front Side	10	661	1880	-0.18	0.761	27.15	28.00	1.216	0.926	/
GSM1900	ANT.0	GPRS 2Slots	Back Side	10	661	1880	-0.10	0.495	27.15	28.00	1.216	0.602	/
GSM1900	ANT.0	GPRS 2Slots	Left Edge	10	661	1880	0.03	0.911	27.15	28.00	1.216	1.108	/
GSM1900	ANT.0	GPRS 2Slots	Right Edge	10	661	1880	-0.18	0.115	27.15	28.00	1.216	0.140	/
GSM1900	ANT.0	GPRS 2Slots	Top Edge	10	661	1880	0.03	0.054	27.15	28.00	1.216	0.066	/
GSM1900	ANT.0	GPRS 2Slots	Bottom Edge	10	661	1880	0.11	0.008	27.15	28.00	1.216	0.010	/
GSM1900	ANT.0	GPRS 2Slots	Left Edge	10	512	1850.2	-0.02	0.936	27.12	28.00	1.225	1.146	3#
GSM1900	ANT.0	GPRS 2Slots	Left Edge	10	810	1909.8	0.02	0.854	26.81	28.00	1.315	1.123	/
Extremity													
GSM1900	ANT.0	GPRS 2Slots	Front Side	0	661	1880	-0.16	1.010	27.15	28.00	1.216	1.228	/
GSM1900	ANT.0	GPRS 2Slots	Back Side	0	661	1880	0.17	0.344	27.15	28.00	1.216	0.418	/
GSM1900	ANT.0	GPRS 2Slots	Left Edge	0	661	1880	-0.01	1.920	27.15	28.00	1.216	2.335	4#
GSM1900	ANT.0	GPRS 2Slots	Right Edge	0	661	1880	0.16	0.143	27.15	28.00	1.216	0.174	/
GSM1900	ANT.0	GPRS 2Slots	Top Edge	0	661	1880	-0.16	0.052	27.15	28.00	1.216	0.063	/
GSM1900	ANT.0	GPRS 2Slots	Bottom Edge	0	661	1880	0.08	0.008	27.15	28.00	1.216	0.010	/
GSM1900	ANT.0	GPRS 2Slots	Left Edge	0	512	1850.2	-0.16	1.690	27.12	28.00	1.225	2.070	/
GSM1900	ANT.0	GPRS 2Slots	Left Edge	0	810	1909.8	0.01	1.750	26.81	28.00	1.315	2.302	/

10.3WCDMA B2

Band	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.
Body-worn&Hotspot													
WCDMAB2	ANT.0	RMC	Front Side	10	9400	1880	0.08	0.714	23.36	23.50	1.033	0.737	/
WCDMAB2	ANT.0	RMC	Back Side	10	9400	1880	-0.13	0.462	23.36	23.50	1.033	0.477	/
WCDMAB2	ANT.0	RMC	Left Edge	10	9400	1880	-0.07	0.856	23.36	23.50	1.033	0.884	5#
WCDMAB2	ANT.0	RMC	Right Edge	10	9400	1880	-0.13	0.069	23.36	23.50	1.033	0.071	/
WCDMAB2	ANT.0	RMC	Top Edge	10	9400	1880	0.15	0.052	23.36	23.50	1.033	0.054	/
WCDMAB2	ANT.0	RMC	Bottom Edge	10	9400	1880	0.11	0.008	23.36	23.50	1.033	0.008	/
WCDMAB2	ANT.0	RMC	Left Edge	10	9262	1852.4	-0.19	0.781	22.99	23.50	1.125	0.878	/
WCDMAB2	ANT.0	RMC	Left Edge	10	9538	1907.6	-0.05	0.677	22.96	23.50	1.132	0.767	/
Extremity													
WCDMAB2	ANT.0	RMC	Front Side	0	9400	1880	0.06	0.838	23.36	23.50	1.033	0.865	/
WCDMAB2	ANT.0	RMC	Back Side	0	9400	1880	-0.01	0.288	23.36	23.50	1.033	0.297	/
WCDMAB2	ANT.0	RMC	Left Edge	0	9400	1880	-0.08	1.930	23.36	23.50	1.033	1.993	6#
WCDMAB2	ANT.0	RMC	Right Edge	0	9400	1880	0.04	0.102	23.36	23.50	1.033	0.105	/
WCDMAB2	ANT.0	RMC	Top Edge	0	9400	1880	0.07	0.044	23.36	23.50	1.033	0.045	/
WCDMAB2	ANT.0	RMC	Bottom Edge	0	9400	1880	-0.06	0.008	23.36	23.50	1.033	0.008	/
WCDMAB2	ANT.0	RMC	Left Edge	0	9262	1852.4	-0.12	1.680	22.99	23.50	1.125	1.889	/
WCDMAB2	ANT.0	RMC	Left Edge	0	9538	1907.6	-0.12	1.600	22.96	23.50	1.132	1.812	/

10.4WCDMA B4

Band	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.
Body-worn&Hotspot													
WCDMAB4	ANT.0	RMC	Front Side	10	1312	1712.4	0.12	0.336	23.03	23.50	1.114	0.374	/
WCDMAB4	ANT.0	RMC	Back Side	10	1312	1712.4	-0.01	0.137	23.03	23.50	1.114	0.153	/
WCDMAB4	ANT.0	RMC	Left Edge	10	1312	1712.4	0.13	0.464	23.03	23.50	1.114	0.517	/
WCDMAB4	ANT.0	RMC	Right Edge	10	1312	1712.4	-0.09	0.072	23.03	23.50	1.114	0.080	/
WCDMAB4	ANT.0	RMC	Top Edge	10	1312	1712.4	0.17	0.007	23.03	23.50	1.114	0.008	/
WCDMAB4	ANT.0	RMC	Bottom Edge	10	1312	1712.4	-0.03	0.015	23.03	23.50	1.114	0.017	/
WCDMAB4	ANT.0	RMC	Left Edge	10	1412	1732.4	-0.08	0.429	22.68	23.50	1.208	0.518	/
WCDMAB4	ANT.0	RMC	Left Edge	10	1513	1752.6	-0.10	0.743	22.92	23.50	1.143	0.849	7#
Extremity													
WCDMAB4	ANT.0	RMC	Front Side	0	1312	1712.4	0.15	0.430	23.03	23.50	1.114	0.479	/
WCDMAB4	ANT.0	RMC	Back Side	0	1312	1712.4	0.09	0.110	23.03	23.50	1.114	0.123	/
WCDMAB4	ANT.0	RMC	Left Edge	0	1312	1712.4	0.07	1.180	23.03	23.50	1.114	1.315	/
WCDMAB4	ANT.0	RMC	Right Edge	0	1312	1712.4	0.15	0.078	23.03	23.50	1.114	0.087	/
WCDMAB4	ANT.0	RMC	Top Edge	0	1312	1712.4	-0.11	0.030	23.03	23.50	1.114	0.033	/
WCDMAB4	ANT.0	RMC	Bottom Edge	0	1312	1712.4	-0.13	0.005	23.03	23.50	1.114	0.006	/
WCDMAB4	ANT.0	RMC	Left Edge	0	1412	1732.4	-0.09	1.060	22.68	23.50	1.208	1.280	/
WCDMAB4	ANT.0	RMC	Left Edge	0	1513	1752.6	-0.09	1.480	22.92	23.50	1.143	1.691	8#

10.5WCDMA B5

Band	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.
Body-worn&Hotspot													
WCDMAB5	ANT.0	RMC	Front Side	10	4233	846.6	-0.01	0.588	23.48	23.50	1.005	0.591	/
WCDMAB5	ANT.0	RMC	Back Side	10	4233	846.6	-0.06	0.312	23.48	23.50	1.005	0.313	/
WCDMAB5	ANT.0	RMC	Left Edge	10	4233	846.6	0.13	0.413	23.48	23.50	1.005	0.415	/
WCDMAB5	ANT.0	RMC	Right Edge	10	4233	846.6	-0.03	0.095	23.48	23.50	1.005	0.095	/
WCDMAB5	ANT.0	RMC	Top Edge	10	4233	846.6	0.04	0.094	23.48	23.50	1.005	0.094	/
WCDMAB5	ANT.0	RMC	Bottom Edge	10	4233	846.6	-0.11	0.008	23.48	23.50	1.005	0.008	/
WCDMAB5	ANT.0	RMC	Front Side	10	4132	826.4	-0.02	0.564	23.20	23.50	1.072	0.604	9#
WCDMAB5	ANT.0	RMC	Front Side	10	4182	836.4	0.11	0.542	23.17	23.50	1.079	0.585	/
Extremity													
WCDMAB5	ANT.0	RMC	Front Side	0	4233	846.6	0.14	0.575	23.48	23.50	1.005	0.578	/
WCDMAB5	ANT.0	RMC	Back Side	0	4233	846.6	0.08	0.323	23.48	23.50	1.005	0.324	/
WCDMAB5	ANT.0	RMC	Left Edge	0	4233	846.6	0.01	0.311	23.48	23.50	1.005	0.312	/
WCDMAB5	ANT.0	RMC	Right Edge	0	4233	846.6	-0.06	0.115	23.48	23.50	1.005	0.116	/
WCDMAB5	ANT.0	RMC	Top Edge	0	4233	846.6	-0.16	0.128	23.48	23.50	1.005	0.129	/
WCDMAB5	ANT.0	RMC	Bottom Edge	0	4233	846.6	0.14	0.005	23.48	23.50	1.005	0.005	/
WCDMAB5	ANT.0	RMC	Front Side	0	4132	826.4	0.02	0.706	23.20	23.50	1.072	0.756	10#
WCDMAB5	ANT.0	RMC	Front Side	0	4182	836.4	0.12	0.653	23.17	23.50	1.079	0.705	/

10.6LTE Band 2 (20MHz Bandwidth)

Band	Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Bandwidth	RB Num.	RB Start	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.
Body-worn&Hotspot																
LTEB2	ANT.0	QPSK	Front Side	10	18900	1880	20	1	MID	-0.11	0.672	23.65	24.00	1.084	0.728	/
LTEB2	ANT.0	QPSK	Back Side	10	18900	1880	20	1	MID	-0.08	0.451	23.65	24.00	1.084	0.489	/
LTEB2	ANT.0	QPSK	Left Edge	10	18900	1880	20	1	MID	-0.18	0.834	23.65	24.00	1.084	0.904	11#
LTEB2	ANT.0	QPSK	Right Edge	10	18900	1880	20	1	MID	-0.13	0.078	23.65	24.00	1.084	0.085	/
LTEB2	ANT.0	QPSK	Top Edge	10	18900	1880	20	1	MID	-0.14	0.048	23.65	24.00	1.084	0.052	/
LTEB2	ANT.0	QPSK	Bottom Edge	10	18900	1880	20	1	MID	-0.10	0.008	23.65	24.00	1.084	0.009	/
LTEB2	ANT.0	QPSK	Left Edge	10	18700	1860	20	1	MID	-0.12	0.688	23.06	24.00	1.242	0.855	/
LTEB2	ANT.0	QPSK	Left Edge	10	19100	1900	20	1	MID	0.04	0.663	23.11	24.00	1.227	0.814	/
LTEB2	ANT.0	QPSK	Front Side	10	18900	1880	20	50	MID	0.13	0.542	22.42	23.00	1.143	0.620	/
LTEB2	ANT.0	QPSK	Back Side	10	18900	1880	20	50	MID	-0.07	0.196	22.42	23.00	1.143	0.224	/
LTEB2	ANT.0	QPSK	Left Edge	10	18900	1880	20	50	MID	-0.17	0.706	22.42	23.00	1.143	0.806	/
LTEB2	ANT.0	QPSK	Right Edge	10	18900	1880	20	50	MID	0.07	0.062	22.42	23.00	1.143	0.070	/
LTEB2	ANT.0	QPSK	Top Edge	10	18900	1880	20	50	MID	0.03	0.039	22.42	23.00	1.143	0.045	/
LTEB2	ANT.0	QPSK	Bottom Edge	10	18900	1880	20	50	MID	-0.15	0.005	22.42	23.00	1.143	0.006	/
LTEB2	ANT.0	QPSK	Left Edge	10	18700	1860	20	50	MID	-0.13	0.674	21.96	23.00	1.271	0.857	/
LTEB2	ANT.0	QPSK	Left Edge	10	19100	1900	20	50	MID	0.02	0.534	22.01	23.00	1.256	0.670	/
Extremity																
LTEB2	ANT.0	QPSK	Front Side	0	18900	1880	20	1	MID	-0.10	0.685	23.65	24.00	1.084	0.743	/
LTEB2	ANT.0	QPSK	Back Side	0	18900	1880	20	1	MID	-0.14	0.240	23.65	24.00	1.084	0.260	/

LTEB2	ANT.0	QPSK	Left Edge	0	18900	1880	20	1	MID	-0.02	1.170	23.65	24.00	1.084	1.268	12#
LTEB2	ANT.0	QPSK	Right Edge	0	18900	1880	20	1	MID	0.18	0.082	23.65	24.00	1.084	0.089	/
LTEB2	ANT.0	QPSK	Top Edge	0	18900	1880	20	1	MID	0.02	0.035	23.65	24.00	1.084	0.037	/
LTEB2	ANT.0	QPSK	Bottom Edge	0	18900	1880	20	1	MID	-0.16	0.008	23.65	24.00	1.084	0.009	/
LTEB2	ANT.0	QPSK	Left Edge	0	18700	1860	20	1	MID	-0.18	0.985	23.06	24.00	1.242	1.223	/
LTEB2	ANT.0	QPSK	Left Edge	0	19100	1900	20	1	MID	-0.03	0.933	23.11	24.00	1.227	1.145	/
LTEB2	ANT.0	QPSK	Front Side	0	18900	1880	20	50	MID	-0.02	0.535	22.42	23.00	1.143	0.611	/
LTEB2	ANT.0	QPSK	Back Side	0	18900	1880	20	50	MID	-0.17	0.190	22.42	23.00	1.143	0.217	/
LTEB2	ANT.0	QPSK	Left Edge	0	18900	1880	20	50	MID	-0.10	1.020	22.42	23.00	1.143	1.166	/
LTEB2	ANT.0	QPSK	Right Edge	0	18900	1880	20	50	MID	0.19	0.074	22.42	23.00	1.143	0.085	/
LTEB2	ANT.0	QPSK	Top Edge	0	18900	1880	20	50	MID	-0.05	0.031	22.42	23.00	1.143	0.035	/
LTEB2	ANT.0	QPSK	Bottom Edge	0	18900	1880	20	50	MID	-0.14	0.003	22.42	23.00	1.143	0.003	/
LTEB2	ANT.0	QPSK	Left Edge	0	18700	1860	20	50	MID	0.05	0.928	21.96	23.00	1.271	1.179	/
LTEB2	ANT.0	QPSK	Left Edge	0	19100	1900	20	50	MID	0.12	0.853	22.01	23.00	1.256	1.071	/

10.7LTE Band 4 (20MHz Bandwidth)

Band	Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Bandwidth	RB Num.	RB Start	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.
Body-worn&Hotspot																
LTEB4	ANT.0	QPSK	Front Side	10	20050	1720	20	1	MID	-0.03	0.429	23.16	23.50	1.081	0.463	/
LTEB4	ANT.0	QPSK	Back Side	10	20050	1720	20	1	MID	-0.18	0.135	23.16	23.50	1.081	0.146	/
LTEB4	ANT.0	QPSK	Left Edge	10	20050	1720	20	1	MID	-0.14	0.565	23.16	23.50	1.081	0.611	/
LTEB4	ANT.0	QPSK	Right Edge	10	20050	1720	20	1	MID	-0.01	0.076	23.16	23.50	1.081	0.082	/
LTEB4	ANT.0	QPSK	Top Edge	10	20050	1720	20	1	MID	-0.03	0.014	23.16	23.50	1.081	0.015	/
LTEB4	ANT.0	QPSK	Bottom Edge	10	20050	1720	20	1	MID	-0.16	0.017	23.16	23.50	1.081	0.018	/
LTEB4	ANT.0	QPSK	Left Edge	10	20175	1732.5	20	1	MID	-0.02	0.571	22.83	23.50	1.167	0.667	/
LTEB4	ANT.0	QPSK	Left Edge	10	20300	1745	20	1	MID	-0.19	0.658	22.93	23.50	1.140	0.751	/
LTEB4	ANT.0	QPSK	Front Side	10	20050	1720	20	50	LOW	-0.09	0.468	22.03	22.50	1.114	0.522	/
LTEB4	ANT.0	QPSK	Back Side	10	20050	1720	20	50	LOW	-0.08	0.141	22.03	22.50	1.114	0.157	/
LTEB4	ANT.0	QPSK	Left Edge	10	20050	1720	20	50	LOW	0.00	0.566	22.03	22.50	1.114	0.631	/
LTEB4	ANT.0	QPSK	Right Edge	10	20050	1720	20	50	LOW	0.13	0.077	22.03	22.50	1.114	0.086	/
LTEB4	ANT.0	QPSK	Top Edge	10	20050	1720	20	50	LOW	0.13	0.008	22.03	22.50	1.114	0.009	/
LTEB4	ANT.0	QPSK	Bottom Edge	10	20050	1720	20	50	LOW	-0.08	0.003	22.03	22.50	1.114	0.003	/
LTEB4	ANT.0	QPSK	Left Edge	10	20175	1732.5	20	50	LOW	0.06	0.551	21.82	22.50	1.169	0.644	/
LTEB4	ANT.0	QPSK	Left Edge	10	20300	1745	20	50	MID	-0.03	0.711	21.80	22.50	1.175	0.835	13#
Extremity																
LTEB4	ANT.0	QPSK	Front Side	0	20050	1720	20	1	MID	-0.17	0.579	23.16	23.50	1.081	0.626	/
LTEB4	ANT.0	QPSK	Back Side	0	20050	1720	20	1	MID	0.17	0.200	23.16	23.50	1.081	0.216	/

LTEB4	ANT.0	QPSK	Left Edge	0	20050	1720	20	1	MID	0.17	1.440	23.16	23.50	1.081	1.557	/
LTEB4	ANT.0	QPSK	Right Edge	0	20050	1720	20	1	MID	-0.08	0.093	23.16	23.50	1.081	0.101	/
LTEB4	ANT.0	QPSK	Top Edge	0	20050	1720	20	1	MID	-0.13	0.054	23.16	23.50	1.081	0.058	/
LTEB4	ANT.0	QPSK	Bottom Edge	0	20050	1720	20	1	MID	-0.04	0.018	23.16	23.50	1.081	0.019	/
LTEB4	ANT.0	QPSK	Left Edge	0	20175	1732.5	20	1	MID	0.17	1.400	22.83	23.50	1.167	1.634	/
LTEB4	ANT.0	QPSK	Left Edge	0	20300	1745	20	1	MID	-0.05	1.600	22.93	23.50	1.140	1.824	14#
LTEB4	ANT.0	QPSK	Front Side	0	20050	1720	20	50	LOW	-0.08	0.570	22.03	22.50	1.114	0.635	/
LTEB4	ANT.0	QPSK	Back Side	0	20050	1720	20	50	LOW	0.16	0.188	22.03	22.50	1.114	0.210	/
LTEB4	ANT.0	QPSK	Left Edge	0	20050	1720	20	50	LOW	0.05	1.280	22.03	22.50	1.114	1.426	/
LTEB4	ANT.0	QPSK	Right Edge	0	20050	1720	20	50	LOW	-0.06	0.095	22.03	22.50	1.114	0.106	/
LTEB4	ANT.0	QPSK	Top Edge	0	20050	1720	20	50	LOW	-0.18	0.049	22.03	22.50	1.114	0.054	/
LTEB4	ANT.0	QPSK	Bottom Edge	0	20050	1720	20	50	LOW	-0.18	0.002	22.03	22.50	1.114	0.002	/
LTEB4	ANT.0	QPSK	Left Edge	0	20175	1732.5	20	50	LOW	0.01	1.370	21.82	22.50	1.169	1.602	/
LTEB4	ANT.0	QPSK	Left Edge	0	20300	1745	20	50	MID	-0.09	1.520	21.80	22.50	1.175	1.786	/

10.8LTE Band 5 (10MHz Bandwidth)

Band	Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Bandwidth	RB Num.	RB Start	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.
Body-worn&Hotspot																
LTEB5	ANT.0	QPSK	Front Side	10	20600	844	10	1	MID	0.14	0.441	22.93	23.50	1.140	0.502	/
LTEB5	ANT.0	QPSK	Back Side	10	20600	844	10	1	MID	0.09	0.202	22.93	23.50	1.140	0.231	/
LTEB5	ANT.0	QPSK	Left Edge	10	20600	844	10	1	MID	-0.16	0.316	22.93	23.50	1.140	0.360	/
LTEB5	ANT.0	QPSK	Right Edge	10	20600	844	10	1	MID	-0.06	0.066	22.93	23.50	1.140	0.076	/
LTEB5	ANT.0	QPSK	Top Edge	10	20600	844	10	1	MID	0.17	0.080	22.93	23.50	1.140	0.091	/
LTEB5	ANT.0	QPSK	Bottom Edge	10	20600	844	10	1	MID	-0.19	0.015	22.93	23.50	1.140	0.017	/
LTEB5	ANT.0	QPSK	Front Side	10	20525	836.5	10	1	MID	0.19	0.344	22.80	23.50	1.175	0.404	/
LTEB5	ANT.0	QPSK	Front Side	10	20450	829	10	1	MID	-0.07	0.513	22.69	23.50	1.205	0.618	15#
LTEB5	ANT.0	QPSK	Front Side	10	20600	844	10	25	MID	0.15	0.329	21.80	22.50	1.175	0.387	/
LTEB5	ANT.0	QPSK	Back Side	10	20600	844	10	25	MID	0.06	0.149	21.80	22.50	1.175	0.175	/
LTEB5	ANT.0	QPSK	Left Edge	10	20600	844	10	25	MID	-0.12	0.243	21.80	22.50	1.175	0.286	/
LTEB5	ANT.0	QPSK	Right Edge	10	20600	844	10	25	MID	0.04	0.002	21.80	22.50	1.175	0.002	/
LTEB5	ANT.0	QPSK	Top Edge	10	20600	844	10	25	MID	-0.11	0.063	21.80	22.50	1.175	0.073	/
LTEB5	ANT.0	QPSK	Bottom Edge	10	20600	844	10	25	MID	0.13	0.011	21.80	22.50	1.175	0.013	/
LTEB5	ANT.0	QPSK	Front Side	10	20525	836.5	10	25	HIGH	-0.11	0.374	21.73	22.50	1.194	0.447	/
LTEB5	ANT.0	QPSK	Front Side	10	20450	829	10	25	LOW	0.13	0.250	21.82	22.50	1.169	0.293	/
Extremity																
LTEB5	ANT.0	QPSK	Front Side	0	20600	844	10	1	MID	-0.04	0.581	22.93	23.50	1.140	0.662	/

LTEB5	ANT.0	QPSK	Back Side	0	20600	844	10	1	MID	0.16	0.314	22.93	23.50	1.140	0.358	/
LTEB5	ANT.0	QPSK	Left Edge	0	20600	844	10	1	MID	0.03	0.644	22.93	23.50	1.140	0.734	/
LTEB5	ANT.0	QPSK	Right Edge	0	20600	844	10	1	MID	-0.05	0.103	22.93	23.50	1.140	0.118	/
LTEB5	ANT.0	QPSK	Top Edge	0	20600	844	10	1	MID	-0.04	0.142	22.93	23.50	1.140	0.162	/
LTEB5	ANT.0	QPSK	Bottom Edge	0	20600	844	10	1	MID	-0.07	0.016	22.93	23.50	1.140	0.018	/
LTEB5	ANT.0	QPSK	Left Edge	0	20525	836.5	10	1	MID	0.09	0.583	22.80	23.50	1.175	0.685	/
LTEB5	ANT.0	QPSK	Left Edge	0	20450	829	10	1	MID	-0.18	0.693	22.69	23.50	1.205	0.835	16#
LTEB5	ANT.0	QPSK	Front Side	0	20600	844	10	25	MID	0.04	0.441	21.80	22.50	1.175	0.518	/
LTEB5	ANT.0	QPSK	Back Side	0	20600	844	10	25	MID	-0.07	0.224	21.80	22.50	1.175	0.263	/
LTEB5	ANT.0	QPSK	Left Edge	0	20600	844	10	25	MID	0.16	0.477	21.80	22.50	1.175	0.561	/
LTEB5	ANT.0	QPSK	Right Edge	0	20600	844	10	25	MID	0.18	0.083	21.80	22.50	1.175	0.097	/
LTEB5	ANT.0	QPSK	Top Edge	0	20600	844	10	25	MID	-0.04	0.112	21.80	22.50	1.175	0.132	/
LTEB5	ANT.0	QPSK	Bottom Edge	0	20600	844	10	25	MID	-0.05	0.008	21.80	22.50	1.175	0.009	/
LTEB5	ANT.0	QPSK	Left Edge	0	20525	836.5	10	25	HIGH	0.16	0.564	21.73	22.50	1.194	0.673	/
LTEB5	ANT.0	QPSK	Left Edge	0	20450	829	10	25	LOW	-0.01	0.446	21.82	22.50	1.169	0.522	/

10.9LTE Band 7 (20MHz Bandwidth)

Band	Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Bandwidth	RB Num.	RB Start	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.
Body-worn&Hotspot																
LTEB7	ANT.0	QPSK	Front Side	10	21100	2535	20	1	MID	-0.10	0.294	22.92	23.50	1.143	0.336	/
LTEB7	ANT.0	QPSK	Back Side	10	21100	2535	20	1	MID	-0.05	0.274	22.92	23.50	1.143	0.313	/
LTEB7	ANT.0	QPSK	Left Edge	10	21100	2535	20	1	MID	-0.03	0.638	22.92	23.50	1.143	0.729	/
LTEB7	ANT.0	QPSK	Right Edge	10	21100	2535	20	1	MID	0.00	0.028	22.92	23.50	1.143	0.032	/
LTEB7	ANT.0	QPSK	Top Edge	10	21100	2535	20	1	MID	-0.14	0.123	22.92	23.50	1.143	0.141	/
LTEB7	ANT.0	QPSK	Bottom Edge	10	21100	2535	20	1	MID	-0.17	0.008	22.92	23.50	1.143	0.009	/
LTEB7	ANT.0	QPSK	Left Edge	10	20850	2510	20	1	MID	0.10	0.584	22.82	23.50	1.169	0.684	/
LTEB7	ANT.0	QPSK	Left Edge	10	21350	2560	20	1	MID	0.03	0.649	22.92	23.50	1.143	0.742	17#
LTEB7	ANT.0	QPSK	Front Side	10	21100	2535	20	50	MID	0.12	0.248	21.71	22.50	1.199	0.297	/
LTEB7	ANT.0	QPSK	Back Side	10	21100	2535	20	50	MID	-0.14	0.234	21.71	22.50	1.199	0.280	/
LTEB7	ANT.0	QPSK	Left Edge	10	21100	2535	20	50	MID	-0.11	0.545	21.71	22.50	1.199	0.654	/
LTEB7	ANT.0	QPSK	Right Edge	10	21100	2535	20	50	MID	0.13	0.022	21.71	22.50	1.199	0.026	/
LTEB7	ANT.0	QPSK	Top Edge	10	21100	2535	20	50	MID	0.07	0.095	21.71	22.50	1.199	0.114	/
LTEB7	ANT.0	QPSK	Bottom Edge	10	21100	2535	20	50	MID	0.09	0.003	21.71	22.50	1.199	0.004	/
LTEB7	ANT.0	QPSK	Left Edge	10	20850	2510	20	50	MID	-0.15	0.513	21.70	22.50	1.202	0.616	/
LTEB7	ANT.0	QPSK	Left Edge	10	21350	2560	20	50	LOW	-0.07	0.584	21.80	22.50	1.175	0.687	/
Extremity																
LTEB7	ANT.0	QPSK	Front Side	0	21100	2535	20	1	MID	0.16	0.233	22.92	23.50	1.143	0.267	/
LTEB7	ANT.0	QPSK	Back Side	0	21100	2535	20	1	MID	-0.07	0.464	22.92	23.50	1.143	0.531	/

LTEB7	ANT.0	QPSK	Left Edge	0	21100	2535	20	1	MID	-0.02	1.320	22.92	23.50	1.143	1.509	18#
LTEB7	ANT.0	QPSK	Right Edge	0	21100	2535	20	1	MID	-0.12	0.035	22.92	23.50	1.143	0.040	/
LTEB7	ANT.0	QPSK	Top Edge	0	21100	2535	20	1	MID	0.06	0.138	22.92	23.50	1.143	0.158	/
LTEB7	ANT.0	QPSK	Bottom Edge	0	21100	2535	20	1	MID	0.00	0.017	22.92	23.50	1.143	0.019	/
LTEB7	ANT.0	QPSK	Left Edge	0	20850	2510	20	1	MID	-0.11	1.250	22.82	23.50	1.169	1.462	/
LTEB7	ANT.0	QPSK	Left Edge	0	21350	2560	20	1	MID	-0.13	1.280	22.92	23.50	1.143	1.463	/
LTEB7	ANT.0	QPSK	Front Side	0	21100	2535	20	50	MID	0.14	0.199	21.71	22.50	1.199	0.239	/
LTEB7	ANT.0	QPSK	Back Side	0	21100	2535	20	50	MID	0.19	0.402	21.71	22.50	1.199	0.482	/
LTEB7	ANT.0	QPSK	Left Edge	0	21100	2535	20	50	MID	-0.12	1.140	21.71	22.50	1.199	1.367	/
LTEB7	ANT.0	QPSK	Right Edge	0	21100	2535	20	50	MID	-0.04	0.029	21.71	22.50	1.199	0.034	/
LTEB7	ANT.0	QPSK	Top Edge	0	21100	2535	20	50	MID	-0.16	0.116	21.71	22.50	1.199	0.139	/
LTEB7	ANT.0	QPSK	Bottom Edge	0	21100	2535	20	50	MID	0.06	0.002	21.71	22.50	1.199	0.002	/
LTEB7	ANT.0	QPSK	Left Edge	0	20850	2510	20	50	MID	0.01	1.090	21.70	22.50	1.202	1.310	/
LTEB7	ANT.0	QPSK	Left Edge	0	21350	2560	20	50	LOW	0.05	1.180	21.80	22.50	1.175	1.386	/

10.10 LTE Band 26 (15MHz Bandwidth)

Band	Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Bandwidth	RB Num.	RB Start	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.
Body-worn&Hotspot																
LTEB26	ANT.0	QPSK	Front Side	10	26865	831.5	15	1	LOW	0.01	0.425	22.51	23.00	1.119	0.476	/
LTEB26	ANT.0	QPSK	Back Side	10	26865	831.5	15	1	LOW	0.01	0.221	22.51	23.00	1.119	0.247	/
LTEB26	ANT.0	QPSK	Left Edge	10	26865	831.5	15	1	LOW	0.01	0.291	22.51	23.00	1.119	0.326	/
LTEB26	ANT.0	QPSK	Right Edge	10	26865	831.5	15	1	LOW	0.03	0.069	22.51	23.00	1.119	0.077	/
LTEB26	ANT.0	QPSK	Top Edge	10	26865	831.5	15	1	LOW	0.15	0.072	22.51	23.00	1.119	0.081	/
LTEB26	ANT.0	QPSK	Bottom Edge	10	26865	831.5	15	1	LOW	-0.14	0.003	22.51	23.00	1.119	0.003	/
LTEB26	ANT.0	QPSK	Front Side	10	26765	821.5	15	1	LOW	-0.04	0.460	22.42	23.00	1.143	0.526	19#
LTEB26	ANT.0	QPSK	Front Side	10	26965	841.5	15	1	MID	0.08	0.362	22.17	23.00	1.211	0.439	/
LTEB26	ANT.0	QPSK	Front Side	10	26865	831.5	15	36	HIGH	0.19	0.335	21.26	22.00	1.186	0.398	/
LTEB26	ANT.0	QPSK	Back Side	10	26865	831.5	15	36	HIGH	-0.02	0.160	21.26	22.00	1.186	0.190	/
LTEB26	ANT.0	QPSK	Left Edge	10	26865	831.5	15	36	HIGH	0.14	0.224	21.26	22.00	1.186	0.266	/
LTEB26	ANT.0	QPSK	Right Edge	10	26865	831.5	15	36	HIGH	0.01	0.049	21.26	22.00	1.186	0.058	/
LTEB26	ANT.0	QPSK	Top Edge	10	26865	831.5	15	36	HIGH	-0.19	0.056	21.26	22.00	1.186	0.067	/
LTEB26	ANT.0	QPSK	Bottom Edge	10	26865	831.5	15	36	HIGH	-0.18	0.012	21.26	22.00	1.186	0.014	/
LTEB26	ANT.0	QPSK	Front Side	10	26765	821.5	15	36	MID	0.10	0.407	21.30	22.00	1.175	0.478	/
LTEB26	ANT.0	QPSK	Front Side	10	26965	841.5	15	36	MID	0.03	0.254	21.32	22.00	1.169	0.297	/
Extremity																
LTEB26	ANT.0	QPSK	Front Side	0	26865	831.5	15	1	LOW	0.07	0.608	22.51	23.00	1.119	0.680	/
LTEB26	ANT.0	QPSK	Back Side	0	26865	831.5	15	1	LOW	-0.07	0.338	22.51	23.00	1.119	0.379	/

LTEB26	ANT.0	QPSK	Left Edge	0	26865	831.5	15	1	LOW	0.16	0.563	22.51	23.00	1.119	0.630	/
LTEB26	ANT.0	QPSK	Right Edge	0	26865	831.5	15	1	LOW	-0.09	0.114	22.51	23.00	1.119	0.128	/
LTEB26	ANT.0	QPSK	Top Edge	0	26865	831.5	15	1	LOW	-0.08	0.138	22.51	23.00	1.119	0.155	/
LTEB26	ANT.0	QPSK	Bottom Edge	0	26865	831.5	15	1	LOW	0.19	0.005	22.51	23.00	1.119	0.006	/
LTEB26	ANT.0	QPSK	Left Edge	0	26765	821.5	15	1	LOW	0.04	0.685	22.42	23.00	1.143	0.783	20#
LTEB26	ANT.0	QPSK	Left Edge	0	26965	841.5	15	1	MID	0.18	0.556	22.17	23.00	1.211	0.673	/
LTEB26	ANT.0	QPSK	Front Side	0	26865	831.5	15	36	HIGH	-0.08	0.464	21.26	22.00	1.186	0.550	/
LTEB26	ANT.0	QPSK	Back Side	0	26865	831.5	15	36	HIGH	0.15	0.261	21.26	22.00	1.186	0.310	/
LTEB26	ANT.0	QPSK	Left Edge	0	26865	831.5	15	36	HIGH	-0.11	0.495	21.26	22.00	1.186	0.587	/
LTEB26	ANT.0	QPSK	Right Edge	0	26865	831.5	15	36	HIGH	0.10	0.090	21.26	22.00	1.186	0.106	/
LTEB26	ANT.0	QPSK	Top Edge	0	26865	831.5	15	36	HIGH	-0.01	0.108	21.26	22.00	1.186	0.128	/
LTEB26	ANT.0	QPSK	Bottom Edge	0	26865	831.5	15	36	HIGH	0.07	0.011	21.26	22.00	1.186	0.013	/
LTEB26	ANT.0	QPSK	Left Edge	0	26765	821.5	15	36	MID	0.08	0.539	21.30	22.00	1.175	0.633	/
LTEB26	ANT.0	QPSK	Left Edge	0	26965	841.5	15	36	MID	0.01	0.397	21.32	22.00	1.169	0.465	/

10.11 LTE Band 66 (20MHz Bandwidth)

Band	Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Bandwidth	RB Num.	RB Start	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.
Body-worn&Hotspot																
LTEB66	ANT.0	QPSK	Front Side	10	132072	1720	20	1	MID	-0.11	0.363	23.27	23.50	1.054	0.382	/
LTEB66	ANT.0	QPSK	Back Side	10	132072	1720	20	1	MID	0.12	0.115	23.27	23.50	1.054	0.121	/
LTEB66	ANT.0	QPSK	Left Edge	10	132072	1720	20	1	MID	-0.09	0.505	23.27	23.50	1.054	0.532	/
LTEB66	ANT.0	QPSK	Right Edge	10	132072	1720	20	1	MID	0.06	0.071	23.27	23.50	1.054	0.075	/
LTEB66	ANT.0	QPSK	Top Edge	10	132072	1720	20	1	MID	0.07	0.017	23.27	23.50	1.054	0.018	/
LTEB66	ANT.0	QPSK	Bottom Edge	10	132072	1720	20	1	MID	-0.03	0.013	23.27	23.50	1.054	0.014	/
LTEB66	ANT.0	QPSK	Left Edge	10	132322	1745	20	1	MID	-0.03	0.421	23.00	23.50	1.122	0.473	/
LTEB66	ANT.0	QPSK	Left Edge	10	132572	1770	20	1	MID	0.04	0.741	22.93	23.50	1.140	0.845	21#
LTEB66	ANT.0	QPSK	Front Side	10	132072	1720	20	50	MID	0.13	0.393	21.86	22.50	1.159	0.456	/
LTEB66	ANT.0	QPSK	Back Side	10	132072	1720	20	50	MID	-0.03	0.143	21.86	22.50	1.159	0.166	/
LTEB66	ANT.0	QPSK	Left Edge	10	132072	1720	20	50	MID	0.05	0.548	21.86	22.50	1.159	0.635	/
LTEB66	ANT.0	QPSK	Right Edge	10	132072	1720	20	50	MID	-0.14	0.081	21.86	22.50	1.159	0.094	/
LTEB66	ANT.0	QPSK	Top Edge	10	132072	1720	20	50	MID	-0.02	0.008	21.86	22.50	1.159	0.009	/
LTEB66	ANT.0	QPSK	Bottom Edge	10	132072	1720	20	50	MID	-0.16	0.003	21.86	22.50	1.159	0.003	/
LTEB66	ANT.0	QPSK	Left Edge	10	132322	1745	20	50	LOW	-0.05	0.435	22.13	22.50	1.089	0.474	/
LTEB66	ANT.0	QPSK	Left Edge	10	132572	1770	20	50	LOW	0.15	0.644	21.90	22.50	1.148	0.739	/
Extremity																
LTEB66	ANT.0	QPSK	Front Side	0	132072	1720	20	1	LOW	0.12	0.537	23.27	23.50	1.054	0.566	/
LTEB66	ANT.0	QPSK	Back Side	0	132072	1720	20	1	LOW	0.17	0.168	23.27	23.50	1.054	0.177	/

LTEB66	ANT.0	QPSK	Left Edge	0	132072	1720	20	1	LOW	0.03	1.420	23.27	23.50	1.054	1.497	/
LTEB66	ANT.0	QPSK	Right Edge	0	132072	1720	20	1	LOW	0.13	0.097	23.27	23.50	1.054	0.102	/
LTEB66	ANT.0	QPSK	Top Edge	0	132072	1720	20	1	LOW	0.12	0.034	23.27	23.50	1.054	0.035	/
LTEB66	ANT.0	QPSK	Bottom Edge	0	132072	1720	20	1	LOW	-0.12	0.019	23.27	23.50	1.054	0.020	/
LTEB66	ANT.0	QPSK	Left Edge	0	132322	1745	20	1	LOW	0.19	1.220	23.00	23.50	1.122	1.369	/
LTEB66	ANT.0	QPSK	Left Edge	0	132572	1770	20	1	LOW	-0.07	1.530	22.93	23.50	1.140	1.745	22#
LTEB66	ANT.0	QPSK	Front Side	0	132072	1720	20	50	LOW	0.19	0.554	21.86	22.50	1.159	0.642	/
LTEB66	ANT.0	QPSK	Back Side	0	132072	1720	20	50	LOW	0.09	0.192	21.86	22.50	1.159	0.223	/
LTEB66	ANT.0	QPSK	Left Edge	0	132072	1720	20	50	LOW	-0.07	1.290	21.86	22.50	1.159	1.495	/
LTEB66	ANT.0	QPSK	Right Edge	0	132072	1720	20	50	LOW	-0.10	0.107	21.86	22.50	1.159	0.124	/
LTEB66	ANT.0	QPSK	Top Edge	0	132072	1720	20	50	LOW	-0.12	0.039	21.86	22.50	1.159	0.045	/
LTEB66	ANT.0	QPSK	Bottom Edge	0	132072	1720	20	50	LOW	-0.05	0.008	21.86	22.50	1.159	0.009	/
LTEB66	ANT.0	QPSK	Left Edge	0	132322	1745	20	50	LOW	-0.13	1.110	22.13	22.50	1.089	1.209	/
LTEB66	ANT.0	QPSK	Left Edge	0	132572	1770	20	50	LOW	-0.19	1.370	21.90	22.50	1.148	1.573	/

10.12 LTE Band 38 (20MHz Bandwidth)

Band	Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Bandwidth	RB Num.	RB Start	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.
Body-worn&Hotspot																
LTEB38	ANT.0	QPSK	Front Side	10	38150	2610	20	1	MID	-0.03	0.385	23.88	24.00	1.028	0.396	/
LTEB38	ANT.0	QPSK	Back Side	10	38150	2610	20	1	MID	0.04	0.378	23.88	24.00	1.028	0.389	/
LTEB38	ANT.0	QPSK	Left Edge	10	38150	2610	20	1	MID	0.09	0.790	23.88	24.00	1.028	0.812	23#
LTEB38	ANT.0	QPSK	Right Edge	10	38150	2610	20	1	MID	-0.02	0.032	23.88	24.00	1.028	0.033	/
LTEB38	ANT.0	QPSK	Top Edge	10	38150	2610	20	1	MID	0.07	0.169	23.88	24.00	1.028	0.174	/
LTEB38	ANT.0	QPSK	Bottom Edge	10	38150	2610	20	1	MID	0.01	0.014	23.88	24.00	1.028	0.014	/
LTEB38	ANT.0	QPSK	Left Edge	10	37850	2580	20	1	MID	0.19	0.692	23.66	24.00	1.081	0.748	/
LTEB38	ANT.0	QPSK	Left Edge	10	38000	2595	20	1	MID	-0.12	0.743	23.84	24.00	1.038	0.771	/
LTEB38	ANT.0	QPSK	Front Side	10	38150	2610	20	50	MID	0.01	0.361	22.49	23.00	1.125	0.406	/
LTEB38	ANT.0	QPSK	Back Side	10	38150	2610	20	50	MID	0.18	0.280	22.49	23.00	1.125	0.315	/
LTEB38	ANT.0	QPSK	Left Edge	10	38150	2610	20	50	MID	0.03	0.642	22.49	23.00	1.125	0.722	/
LTEB38	ANT.0	QPSK	Right Edge	10	38150	2610	20	50	MID	-0.19	0.002	22.49	23.00	1.125	0.002	/
LTEB38	ANT.0	QPSK	Top Edge	10	38150	2610	20	50	MID	0.09	0.144	22.49	23.00	1.125	0.162	/
LTEB38	ANT.0	QPSK	Bottom Edge	10	38150	2610	20	50	MID	-0.12	0.003	22.49	23.00	1.125	0.003	/
LTEB38	ANT.0	QPSK	Left Edge	10	37850	2580	20	50	MID	-0.16	0.689	22.71	23.00	1.069	0.736	/
LTEB38	ANT.0	QPSK	Left Edge	10	38000	2595	20	50	HIGH	0.08	0.654	22.39	23.00	1.151	0.753	/
Extremity																
LTEB38	ANT.0	QPSK	Front Side	0	38150	2610	20	1	MID	-0.01	0.211	23.88	24.00	1.028	0.217	/
LTEB38	ANT.0	QPSK	Back Side	0	38150	2610	20	1	MID	0.18	0.459	23.88	24.00	1.028	0.472	/

LTEB38	ANT.0	QPSK	Left Edge	0	38150	2610	20	1	MID	-0.03	1.225	23.88	24.00	1.028	1.260	/
LTEB38	ANT.0	QPSK	Right Edge	0	38150	2610	20	1	MID	0.01	0.036	23.88	24.00	1.028	0.037	/
LTEB38	ANT.0	QPSK	Top Edge	0	38150	2610	20	1	MID	0.10	0.186	23.88	24.00	1.028	0.191	/
LTEB38	ANT.0	QPSK	Bottom Edge	0	38150	2610	20	1	MID	0.19	0.015	23.88	24.00	1.028	0.015	/
LTEB38	ANT.0	QPSK	Left Edge	0	37850	2580	20	1	MID	-0.01	1.290	23.66	24.00	1.081	1.395	24#
LTEB38	ANT.0	QPSK	Left Edge	0	38000	2595	20	1	MID	0.13	1.231	23.84	24.00	1.038	1.277	/
LTEB38	ANT.0	QPSK	Front Side	0	38150	2610	20	50	MID	0.09	0.187	22.49	23.00	1.125	0.211	/
LTEB38	ANT.0	QPSK	Back Side	0	38150	2610	20	50	MID	0.04	0.387	22.49	23.00	1.125	0.435	/
LTEB38	ANT.0	QPSK	Left Edge	0	38150	2610	20	50	MID	-0.05	1.078	22.49	23.00	1.125	1.212	/
LTEB38	ANT.0	QPSK	Right Edge	0	38150	2610	20	50	MID	0.00	0.032	22.49	23.00	1.125	0.036	/
LTEB38	ANT.0	QPSK	Top Edge	0	38150	2610	20	50	MID	0.19	0.161	22.49	23.00	1.125	0.181	/
LTEB38	ANT.0	QPSK	Bottom Edge	0	38150	2610	20	50	MID	-0.02	0.005	22.49	23.00	1.125	0.006	/
LTEB38	ANT.0	QPSK	Left Edge	0	37850	2580	20	50	MID	-0.03	1.096	22.71	23.00	1.069	1.171	/
LTEB38	ANT.0	QPSK	Left Edge	0	38000	2595	20	50	HIGH	-0.05	1.084	22.39	23.00	1.151	1.247	/

10.13 WIFI 2.4GHz

Band	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 cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Body-worn&Hotspot															
2.4G WIFI	ANT.1	802.11b	Front Side	10	11	2462	0.17	0.167	16.50	17.00	1.122	100.00	1.000	0.188	/
2.4G WIFI	ANT.1	802.11b	Back Side	10	11	2462	-0.06	0.040	16.50	17.00	1.122	100.00	1.000	0.045	/
2.4G WIFI	ANT.1	802.11b	Left Edge	10	11	2462	-0.09	0.005	16.50	17.00	1.122	100.00	1.000	0.006	/
2.4G WIFI	ANT.1	802.11b	Right Edge	10	11	2462	-0.01	0.273	16.50	17.00	1.122	100.00	1.000	0.307	/
2.4G WIFI	ANT.1	802.11b	Top Edge	10	11	2462	0.16	0.013	16.50	17.00	1.122	100.00	1.000	0.015	/
2.4G WIFI	ANT.1	802.11b	Bottom Edge	10	11	2462	-0.18	0.002	16.50	17.00	1.122	100.00	1.000	0.002	/
2.4G WIFI	ANT.1	802.11b	Right Edge	10	1	2412	0.02	0.362	16.28	17.00	1.180	100.00	1.000	0.427	25#
2.4G WIFI	ANT.1	802.11b	Right Edge	10	6	2437	0.16	0.335	16.48	17.00	1.127	100.00	1.000	0.378	/
Extremity															
2.4G WIFI	ANT.1	802.11b	Front Side	0	11	2462	0.01	0.117	16.50	17.00	1.122	100.00	1.000	0.131	/
2.4G WIFI	ANT.1	802.11b	Back Side	0	11	2462	0.12	0.043	16.50	17.00	1.122	100.00	1.000	0.048	/
2.4G WIFI	ANT.1	802.11b	Left Edge	0	11	2462	-0.13	0.015	16.50	17.00	1.122	100.00	1.000	0.017	/
2.4G WIFI	ANT.1	802.11b	Right Edge	0	11	2462	0.07	0.494	16.50	17.00	1.122	100.00	1.000	0.554	/
2.4G WIFI	ANT.1	802.11b	Top Edge	0	11	2462	-0.19	0.026	16.50	17.00	1.122	100.00	1.000	0.030	/
2.4G WIFI	ANT.1	802.11b	Bottom Edge	0	11	2462	0.12	0.005	16.50	17.00	1.122	100.00	1.000	0.006	/
2.4G WIFI	ANT.1	802.11b	Right Edge	0	1	2412	0.03	0.548	16.28	17.00	1.180	100.00	1.000	0.647	26#
2.4G WIFI	ANT.1	802.11b	Right Edge	0	6	2437	-0.13	0.527	16.48	17.00	1.127	100.00	1.000	0.594	/

10.14 WIFI 5GHz

Band	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 cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Body-worn&Hotspot															
5.3G WIFI	ANT.1	802.11ac80	Front Side	10	58	5290	-0.19	0.217	14.35	15.00	1.161	100.00	1.000	0.252	/
5.3G WIFI	ANT.1	802.11ac80	Back Side	10	58	5290	0.06	0.125	14.35	15.00	1.161	100.00	1.000	0.145	/
5.3G WIFI	ANT.1	802.11ac80	Left Edge	10	58	5290	0.03	0.051	14.35	15.00	1.161	100.00	1.000	0.059	/
5.3G WIFI	ANT.1	802.11ac80	Right Edge	10	58	5290	0.13	0.728	14.35	15.00	1.161	100.00	1.000	0.846	27#
5.3G WIFI	ANT.1	802.11ac80	Top Edge	10	58	5290	0.18	0.008	14.35	15.00	1.161	100.00	1.000	0.009	/
5.3G WIFI	ANT.1	802.11ac80	Bottom Edge	10	58	5290	-0.01	0.085	14.35	15.00	1.161	100.00	1.000	0.099	/
5.6G WIFI	ANT.1	802.11ac80	Front Side	10	122	5610	0.15	0.145	14.57	15.00	1.104	100.00	1.000	0.160	/
5.6G WIFI	ANT.1	802.11ac80	Back Side	10	122	5610	-0.12	0.081	14.57	15.00	1.104	100.00	1.000	0.089	/
5.6G WIFI	ANT.1	802.11ac80	Left Edge	10	122	5610	-0.02	0.014	14.57	15.00	1.104	100.00	1.000	0.015	/
5.6G WIFI	ANT.1	802.11ac80	Right Edge	10	122	5610	0.16	0.693	14.57	15.00	1.104	100.00	1.000	0.765	28#
5.6G WIFI	ANT.1	802.11ac80	Top Edge	10	122	5610	0.18	0.005	14.57	15.00	1.104	100.00	1.000	0.006	/
5.6G WIFI	ANT.1	802.11ac80	Bottom Edge	10	122	5610	-0.13	0.020	14.57	15.00	1.104	100.00	1.000	0.022	/
Body-worn&Hotspot															
5.2G WIFI	ANT.1	802.11ac80	Front Side	10	42	5210	0.10	0.142	14.94	15.00	1.014	100.00	1.000	0.144	/
5.2G WIFI	ANT.1	802.11ac80	Back Side	10	42	5210	-0.09	0.071	14.94	15.00	1.014	100.00	1.000	0.072	/
5.2G WIFI	ANT.1	802.11ac80	Left Edge	10	42	5210	-0.05	0.038	14.94	15.00	1.014	100.00	1.000	0.039	/
5.2G WIFI	ANT.1	802.11ac80	Right Edge	10	42	5210	0.06	0.475	14.94	15.00	1.014	100.00	1.000	0.482	29#
5.2G WIFI	ANT.1	802.11ac80	Top Edge	10	42	5210	0.05	0.005	14.94	15.00	1.014	100.00	1.000	0.005	/
5.2G WIFI	ANT.1	802.11ac80	Bottom Edge	10	42	5210	-0.10	0.015	14.94	15.00	1.014	100.00	1.000	0.015	/

5.8G WIFI	ANT.1	802.11ac80	Front Side	10	155	5775	0.13	0.159	16.41	17.00	1.146	100.00	1.000	0.182	/
5.8G WIFI	ANT.1	802.11ac80	Back Side	10	155	5775	-0.18	0.063	16.41	17.00	1.146	100.00	1.000	0.072	/
5.8G WIFI	ANT.1	802.11ac80	Left Edge	10	155	5775	-0.14	0.371	16.41	17.00	1.146	100.00	1.000	0.425	/
5.8G WIFI	ANT.1	802.11ac80	Right Edge	10	155	5775	0.10	0.594	16.41	17.00	1.146	100.00	1.000	0.680	30#
5.8G WIFI	ANT.1	802.11ac80	Top Edge	10	155	5775	0.14	0.015	16.41	17.00	1.146	100.00	1.000	0.017	/
5.8G WIFI	ANT.1	802.11ac80	Bottom Edge	10	155	5775	0.07	0.010	16.41	17.00	1.146	100.00	1.000	0.011	/
Extremity															
5.3G WIFI	ANT.1	802.11ac80	Front Side	0	58	5290	-0.08	0.141	14.35	15.00	1.161	100.00	1.000	0.164	/
5.3G WIFI	ANT.1	802.11ac80	Back Side	0	58	5290	-0.16	0.045	14.35	15.00	1.161	100.00	1.000	0.052	/
5.3G WIFI	ANT.1	802.11ac80	Left Edge	0	58	5290	0.11	0.014	14.35	15.00	1.161	100.00	1.000	0.016	/
5.3G WIFI	ANT.1	802.11ac80	Right Edge	0	58	5290	0.07	1.250	14.35	15.00	1.161	100.00	1.000	1.452	31#
5.3G WIFI	ANT.1	802.11ac80	Top Edge	0	58	5290	0.08	0.018	14.35	15.00	1.161	100.00	1.000	0.021	/
5.3G WIFI	ANT.1	802.11ac80	Bottom Edge	0	58	5290	-0.12	0.020	14.35	15.00	1.161	100.00	1.000	0.023	/
5.6G WIFI	ANT.1	802.11ac80	Front Side	0	122	5610	-0.17	0.214	14.57	15.00	1.104	100.00	1.000	0.236	/
5.6G WIFI	ANT.1	802.11ac80	Back Side	0	122	5610	0.00	0.062	14.57	15.00	1.104	100.00	1.000	0.068	/
5.6G WIFI	ANT.1	802.11ac80	Left Edge	0	122	5610	0.10	0.025	14.57	15.00	1.104	100.00	1.000	0.028	/
5.6G WIFI	ANT.1	802.11ac80	Right Edge	0	122	5610	0.12	1.580	14.57	15.00	1.104	100.00	1.000	1.744	32#
5.6G WIFI	ANT.1	802.11ac80	Top Edge	0	122	5610	0.06	0.037	14.57	15.00	1.104	100.00	1.000	0.041	/
5.6G WIFI	ANT.1	802.11ac80	Bottom Edge	0	122	5610	0.07	0.017	14.57	15.00	1.104	100.00	1.000	0.019	/

10.15 Bluetooth

Band	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 cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Body-worn&Hotspot															
Bluetooth	ANT.1	DH5	Front Side	10	78	2480	0.11	0.042	10.55	11.00	1.109	76.88	1.301	0.047	/
Bluetooth	ANT.1	DH5	Back Side	10	78	2480	0.02	0.033	10.55	11.00	1.109	76.88	1.301	0.037	/
Bluetooth	ANT.1	DH5	Left Edge	10	78	2480	-0.13	0.005	10.55	11.00	1.109	76.88	1.301	0.006	/
Bluetooth	ANT.1	DH5	Right Edge	10	78	2480	0.09	0.052	10.55	11.00	1.109	76.88	1.301	0.058	33#
Bluetooth	ANT.1	DH5	Top Edge	10	78	2480	0.05	0.002	10.55	11.00	1.109	76.88	1.301	0.002	/
Bluetooth	ANT.1	DH5	Bottom Edge	10	78	2480	0.08	0.009	10.55	11.00	1.109	76.88	1.301	0.010	/
Extremity															
Bluetooth	ANT.1	DH5	Front Side	0	78	2480	0.03	0.032	10.55	11.00	1.109	76.88	1.301	0.035	/
Bluetooth	ANT.1	DH5	Back Side	0	78	2480	0.02	0.022	10.55	11.00	1.109	76.88	1.301	0.024	/
Bluetooth	ANT.1	DH5	Left Edge	0	78	2480	-0.01	0.002	10.55	11.00	1.109	76.88	1.301	0.002	/
Bluetooth	ANT.1	DH5	Right Edge	0	78	2480	0.02	0.059	10.55	11.00	1.109	76.88	1.301	0.066	24#
Bluetooth	ANT.1	DH5	Top Edge	0	78	2480	0.13	0.003	10.55	11.00	1.109	76.88	1.301	0.003	/
Bluetooth	ANT.1	DH5	Bottom Edge	0	78	2480	0.02	0.005	10.55	11.00	1.109	76.88	1.301	0.006	/

10.16 NFC SAR

According to the ANSI C63.10 clause 11.12.2.2:

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

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

where:

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

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

Mode	f (MHz)	Max. E-Field strength (dB μ V/m)	D (m)	Ground reflection factor (dB)	ERP (dBm)
NFC (13.56MHz)	13.56	54.19	3	6	-37.76
Note: 1. Add the appropriate maximum ground reflection factor to the EIRP level (6 dB for frequencies $\leq$ 30 MHz). 2. ERP = $54.19 + 20 \cdot \log(3) - 104.8 + 6 = -37.76$ (dBm)					

According to the FCC KDB 447498 D04

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

Estimated SAR	$1.6 \cdot P_{\text{ant}} / P_{\text{th}}$ [W/kg]		
P _{meas} .(dBm)	-37.76	P _{meas} .(mW)	0.00017
P _{th} .(mW)	443.13		
NFC Estimated 1g SAR [W/kg]	<0.001		

Highest Total Exposure Ratio of Simultaneous Transmission

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

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

The maximum SAR value for Simultaneous Transmission is 0.001 [W/kg], SAR test exemption may be considered by applying a factor of 2.5 to the SAR-based exemption thresholds. Therefore, the worst TER $= (1.403 + 0.001) / 1.6 = 0.878 < 1$, the NFC SAR transmit simultaneously Pass.

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	Antenna	RF Exposure Conditions	Test Position	Highest Measured SAR (W/kg)	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	Largest to Smallest SAR Ratio
848.8	GSM850	Ant.0	Body	Front Side	0.861	Yes	0.859	1.00
1850.2	GSM1900	Ant.0	Body	Left Edge	0.936	Yes	0.915	1.02
1880	WCDMA B2	Ant.0	Body	Left Edge	0.856	Yes	0.822	1.04
1880	LTE B2	Ant.0	Body	Left Edge	0.834	Yes	0.801	1.04
848.8	GSM850	Ant.0	Limbs	Left Edge	2.150	Yes	2.080	1.03

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).

According KDB 447498 D04, simultaneous transmission:

- a) $SPLSR = (SAR1 + SAR2)^{1.5} / R_i$ (min. separation distance, mm), and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
SAR1 is the highest reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition.
SAR2 is the highest reported or estimated SAR for the second of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition as the first.
- b) If $SPLSR \leq 0.04$, simultaneously transmission SAR measurement is not necessary.
- c) Simultaneously transmission SAR measurement, and the reported multi-band SAR < 1.6W/kg.

12.1 Simultaneous Transmission Mode Considerations

NO.	Mode	Body-worn&Hotspot&Extremity
1	WWAN+WIFI2.4G	Yes
2	WWAN+WIFI5G+BT	Yes
Note: 1. WiFi 2.4G and Bluetooth share the same antenna, and can't transmit simultaneously. 2. The maximum SAR summation is calculated based on the same configuration and test position. 3. The simultaneous transmission combinations of multiple antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations is shown in this report.		

12.2 Sum SAR of Simultaneous Transmission

Please refer the document "BL-SZ25A0767-AST.pdf".

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	52.8.8.1222	N/A	N/A
835MHz Validation Dipole	Speag	D835V2	SN: 4d187	2024/05/08	2027/05/07
1750MHz Validation Dipole	Speag	D1750V2	SN: 1130	2024/05/08	2027/05/07
1950MHz Validation Dipole	Speag	D1950V3	SN: 1240	2024/08/22	2027/08/21
2450MHz Validation Dipole	Speag	D2450V2	SN: 952	2024/05/07	2027/05/06
2600MHz Validation Dipole	Speag	D2600V2	SN: 1095	2024/05/08	2027/05/07
5GHz Validation Dipole	Speag	D5GHzV2	SN: 1200	2024/05/09	2027/05/08
Data Acquisition Electronics	Speag	DAE4	SN: 878	2025/03/05	2026/03/04
E-Field Probe	Speag	EX3DV4	SN: 7664	2025/06/30	2026/06/29
Signal Generator	Keysight	N5173B	MY62150163	2025/07/15	2026/07/14
Power Meter	R&S	NRVD-B2	835843/014	2025/07/15	2026/07/14
Power Sensor	R&S	NRV-Z4	100381	2025/07/15	2026/07/14
Power Sensor	R&S	NRV-Z2	100211	2025/07/15	2026/07/14
Wireless Communication Test Set	R&S	CMW500	126646	2025/09/15	2026/09/14
Network Analyzer	Agilent	E5071C	MY46103472	2025/08/13	2026/08/12
Thermometer	Elitech	RC-4HC	EF7239002652	2025/09/04	2026/09/03
Thermometer	Elitech	RC-4	EF5238001629	2025/09/16	2026/09/15
Power Amplifier	Mini-Circuits	ZVA-183W-S+	932502132	N/A	N/A
Dielectric Probe Kit	Speag	DAK3.5	SN: 1312	N/A	N/A
Phantom	Speag	SAM	SN: 1576	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A

Note: For dipole antennas, BALUN 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 a DAK3.5 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 (%)
2025.11.13	Head	835	21.5	0.90	41.73	0.90	41.50	0.00	0.55
2025.11.14	Head	835	21.3	0.90	41.93	0.90	41.50	0.00	1.04
2025.11.15	Head	1750	21.2	1.38	40.02	1.37	40.08	0.73	-0.15
2025.11.16	Head	1750	21.5	1.38	40.16	1.37	40.08	0.73	0.20
2025.11.17	Head	1950	21.1	1.42	39.26	1.40	40.00	1.43	-1.85
2025.11.18	Head	2450	21.4	1.80	39.49	1.80	39.20	0.00	0.74
2025.11.19	Head	2600	21.2	1.97	38.44	1.96	39.01	0.51	-1.46
2025.11.20	Head	2600	21.7	1.98	38.61	1.96	39.01	1.02	-1.03
2025.11.21	Head	5250	21.3	4.70	35.88	4.71	35.93	-0.21	-0.14
2025.11.22	Head	5600	21.2	5.06	35.38	5.07	35.53	-0.20	-0.42
2025.11.23	Head	5750	21.2	5.18	35.63	5.22	35.36	-0.77	0.76
2025.11.13	Head	835	21.5	0.90	41.73	0.90	41.50	0.00	0.55
2025.11.14	Head	835	21.3	0.90	41.93	0.90	41.50	0.00	1.04
2025.11.15	Head	1750	21.2	1.38	40.02	1.37	40.08	0.73	-0.15
2025.11.16	Head	1750	21.5	1.38	40.16	1.37	40.08	0.73	0.20
2025.11.17	Head	1950	21.1	1.42	39.26	1.40	40.00	1.43	-1.85
2025.11.18	Head	2450	21.4	1.80	39.49	1.80	39.20	0.00	0.74
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 %(for 1 g).

Head liquid 1g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.11.13	Head	835	100	0.965	9.65	9.74	-0.92
2025.11.14	Head	835	100	0.942	9.42	9.74	-3.29
2025.11.15	Head	1750	100	3.520	35.20	37.00	-4.86
2025.11.16	Head	1750	100	3.640	36.40	37.00	-1.62
2025.11.17	Head	1950	100	4.420	44.20	41.70	6.00
2025.11.18	Head	2450	100	5.380	53.80	52.60	2.28
2025.11.19	Head	2600	100	5.490	54.90	55.90	-1.79
2025.11.20	Head	2600	100	5.620	56.20	55.90	0.54
2025.11.21	Head	5250	100	7.750	77.50	77.70	-0.26
2025.11.22	Head	5600	100	8.190	81.90	81.30	0.74
2025.11.23	Head	5750	100	7.780	77.80	77.60	0.26

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

Head liquid 10g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.11.13	Head	835	100	0.638	6.38	6.43	-0.78
2025.11.14	Head	835	100	0.625	6.25	6.43	-2.80
2025.11.15	Head	1750	100	1.910	19.10	19.70	-3.05
2025.11.16	Head	1750	100	1.950	19.50	19.70	-1.02
2025.11.17	Head	1950	100	2.150	21.50	21.70	-0.92
2025.11.18	Head	2450	100	2.590	25.90	24.70	4.86
2025.11.19	Head	2600	100	2.510	25.10	25.40	-1.18
2025.11.20	Head	2600	100	2.630	26.30	25.40	3.54
2025.11.21	Head	5250	100	2.190	21.90	22.00	-0.45
2025.11.22	Head	5600	100	2.250	22.50	23.10	-2.60
2025.11.23	Head	5750	100	2.130	21.30	21.90	-2.74

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

Please refer the document “BL-SZ25A0767-ASC.pdf”.

ANNEX C TEST DATA

Please refer the document “BL-SZ25A0767-ATD.pdf”.

ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ25A0767-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SZ25A0767-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL-SZ25A0767-AC.pdf”.

ANNEX G TUNE-UP PROCEDURE

Please refer the document “BL-SZ25A0767-AT.pdf”.

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