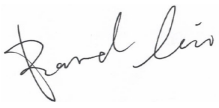
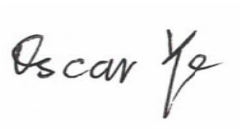
SAR EVALUATION REPORT

For

Heilongjiang Huida Technology Co., Ltd

Building 1, Science and Technology Innovation Headquarters, Shenzhen (Harbin) Industrial Park, No. 288, Zhigu Street, Songbei District, Harbin, China

FCC ID: 2BBNT-HD402

Report Type: Original Report	**Product Type:** Intelligent Remote Control	
Project Engineer:	Bard Liu	
Report Number:	RSHA240322001-20B	
Report Date:	2024-12-23	
Reviewed By:	Oscar Ye EMC Manager	
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Kunshan) No.248, Chenghu Road, Development Zone, Yushan, Kunshan, Suzhou, Jiangsu, China Tel: +86-512-86175000 Fax: +86-512-88934268 www.baclcorp.com.cn	

Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Kunshan). This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, or any agency of the U.S.Govemment. This report contains data not covered by NVLAP certification

Attestation of Test Results			
EUT Information	EUT Description	Intelligent Remote Control	
	Tested Model	HD402	
	FCC ID	2BBNT-HD402	
	Serial Number	RSHA240322001-1	
	Test Date	2024-07-15~ 2024-07-18	
MODE		Max. SAR Level(s) Reported(W/kg)	Limit
LTE Band 12&LTE Band 17		0.273 W/kg 1g Body SAR	1.6 W/kg
LTE Band 26&LTE Band 5		0.253 W/kg 1g Body SAR	
LTE Band 7		0.422 W/kg 1g Body SAR	
LTE Band 25&LTE Band 2		0.516 W/kg 1g Body SAR	
LTE Band 13		0.339 W/kg 1g Body SAR	
LTE Band 14		0.396 W/kg 1g Body SAR	
LTE Band 4		0.330 W/kg 1g Body SAR	
LTE Band 41		0.299 W/kg 1g Body SAR	
2.4GHz WLAN		0.955 W/kg 1g Body SAR	
5.2GHz WLAN		0.778 W/kg 1g Body SAR	
5.8GHz WLAN		1.051 W/kg 1g Body SAR	
Simultaneous		1.441 W/kg 1g Body SAR	
Applicable Standards	▲**FCC 47 CFR part 2.1093** Radiofrequency radiation exposure evaluation: portable devices		
	▲**RF Exposure Procedures: TCB Workshop April 2019**		
	IEEE 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		
	▲**KDB procedures** KDB 447498 D01 General RF Exposure Guidance v06 KDB 941225 D05 SAR for LTE Devices v02r05 KDB 248227 D01 802.11 Wi-Fi SAR v02r02 KDB 865664 D01SAR Measurement 100 MHz to 6 GHz v01r04 KDB 865664 D02 RF Exposure Reporting v01r02		
Note: This wireless device has been shown to be capable of compliance for localized specific absorption rate (SAR) for General Population/Uncontrolled Exposure limits specified in **FCC 47 CFR part 2.1093** and has been tested in accordance with the measurement procedures specified in IEEE 1528-2013 and RF exposure KDB procedures. **The results and statements contained in this report pertain only to the device(s) evaluated.**			

TABLE OF CONTENTS

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	RSHA240322001-20B	Original Report	2024-12-23

EUT DESCRIPTION

**All measurement and test data in this report was gathered from production sample serial number: RSHA240322001-1Assigned by BACL(kunshan).The EUT supplied by the applicant was received on 2024-03-22.*

Technical Specification

Device Type:	Portable
Exposure Category:	Population / Uncontrolled
Antenna Type(s):	FPC Antenna
Body-Worn Accessories:	None
Face-Head Accessories:	None
Operation Mode :	FDD-LTE/ TDD-LTE WLAN2.4G/WLAN 5G SRD
Frequency Band:	LTE Band 2: 1850-1910 MHz(TX), 1930-1990MHz(RX) LTE Band 4: 1710-1755 MHz(TX), 2110-2155MHz(RX) LTE Band 5: 824-849 MHz(TX), 869-894 MHz(RX) LTE Band 7: 2500-2570 MHz(TX), 2620-2690 MHz(RX) LTE Band 12: 699-716 MHz(TX), 729-746 MHz(RX) LTE Band 13: 777-787 MHz(TX), 746-756 MHz(RX) LTE Band 14: 788-798MHz(TX), 758-768 MHz(RX) LTE Band 17: 704-716 MHz(TX), 734-746 MHz(RX) LTE Band 25: 1850-1915 MHz(TX), 1930-1995 MHz(RX) LTE Band 26: 814-849 MHz(TX), 859-894 MHz(RX) LTE Band 41: 2496-2690 MHz(TX), 2496-2690 MHz(RX) 2.4G Wi-Fi: 2412-2462 MHz(802.11b/g/n20), 2422-2452 MHz(802.11n40) 5G WIFI Band 1: 5150-5250 MHz, Band 4: 5725-5850 MHz 2.4G SRD:2411-2466 MHz 5G SRD Band 1: 5150-5250 MHz, Band 4: 5725-5850 MHz
Power Source:	DC 7.4V from the built-in battery/ DC 7.3V from removable battery
Normal Operation:	Body Supported

Note：
We full tested the integrated case of internal battery and external removable battery, and verified the case of internal battery working alone, data (plot 12#), the result is that internal battery working alone is less than the case of integrated battery, so the case of integrated battery is the worst mode

REFERENCE, STANDARDS, AND GUIDELINES

FCC:

The Report and Order requires routine SAR evaluation prior to equipment authorization of portable transmitter devices, including portable telephones. For consumer products, the applicable limit is 1.6 mW/g as recommended by the ANSI/IEEE standard C95.1-1992 [6] for an uncontrolled environment (Paragraph 65). According to the Supplement C of OET Bulletin 65 “Evaluating Compliance with FCC Guide-lines for Human Exposure to Radio frequency Electromagnetic Fields", released on Jun 29, 2001 by the FCC, the device should be evaluated at maximum output power (radiated from the antenna) under “worst-case” conditions for normal or intended use, incorporating normal antenna operating positions, device peak performance frequencies and positions for maximum RF energy coupling.

This report describes the methodology and results of experiments performed on wireless data terminal. The objective was to determine if there is RF radiation and if radiation is found, what is the extent of radiation with respect to safety limits. SAR (Specific Absorption Rate) is the measure of RF exposure determined by the amount of RF energy absorbed by human body (or its parts) – to determine how the RF energy couples to the body or head which is a primary health concern for body worn devices. The limit below which the exposure to RF is considered safe by regulatory bodies in North America is 1.6 mW/g average over 1 gram of tissue mass.

SAR Limits

FCC Limit

EXPOSURE LIMITS	SAR (W/kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / Controlled Exposure Environment)
Spatial Average (averaged over the whole body)	0.08	0.4
Spatial Peak (averaged over any 1 g of tissue)	1.60	8.0
Spatial Peak (hands/wrists/feet/ankles averaged over 10 g)	4.0	20.0

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

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

General Population/Uncontrolled environments Spatial Peak limit 1.6W/kg for 1g Body SAR applied to the EUT.

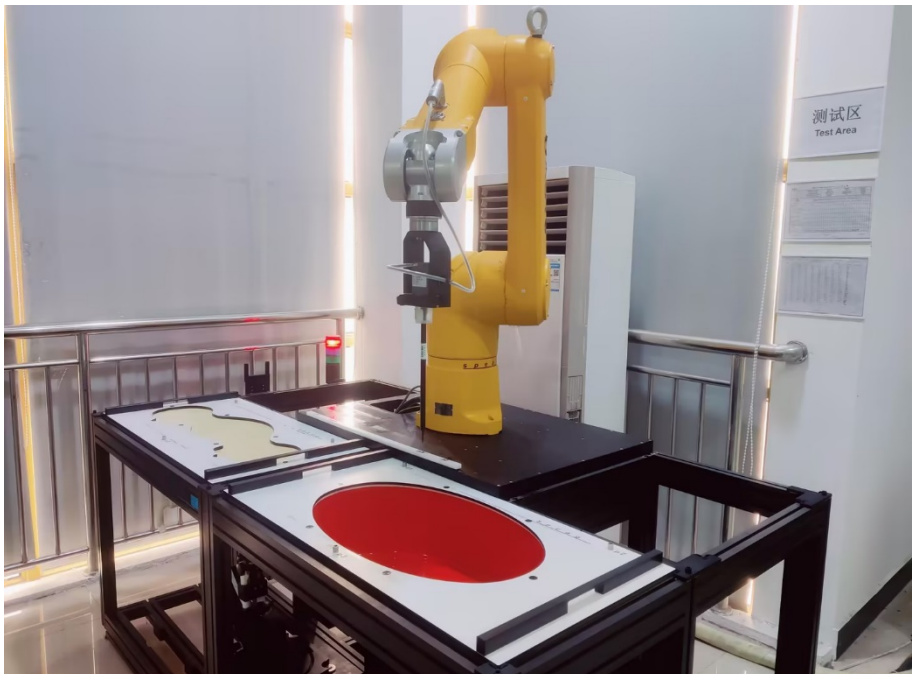
FACILITIES

The test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) is accredited in accordance with ISO/IEC 17025:2017 by NVLAP (Lab code: 600338-0), and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No. : CN5055.

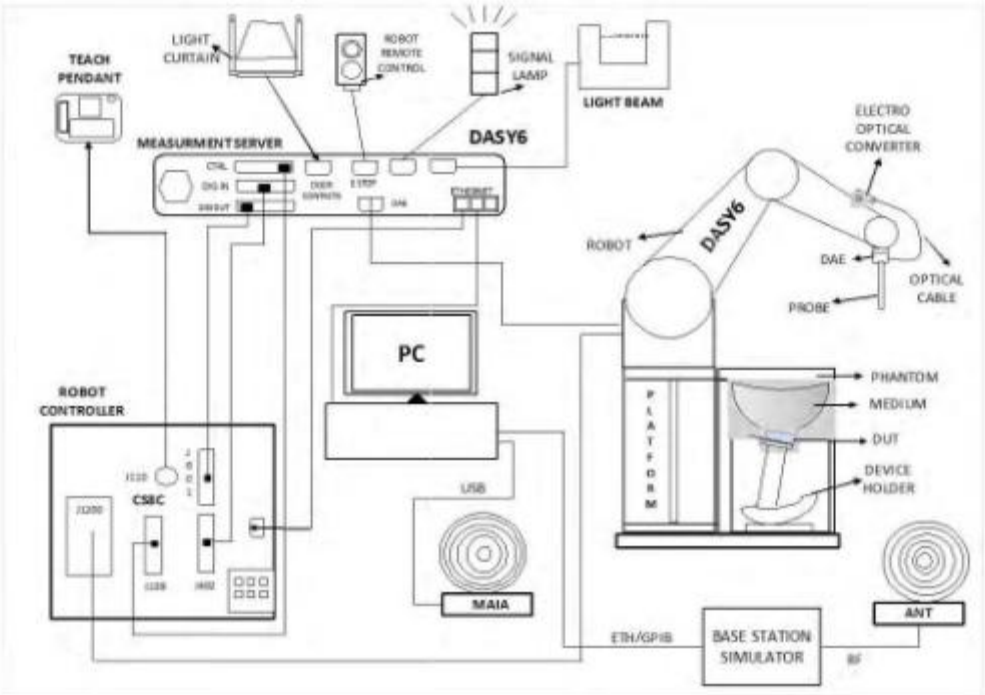
DESCRIPTION OF TEST SYSTEM

These measurements were performed with the automated near-field scanning system DASY6 from Schmid & Partner Engineering AG (SPEAG) which is the Fifth generation of the system shown in the figure hereinafter:



DASY6 System Description

The DASY6 system for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot (Staubli TX=RX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal application, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Win7 professional operating system and the DASY52 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

DASY6 Measurement Server

The DASY6 measurement server is based on a PC/104 CPU board with a 400 MHz Intel ULV Celeron, 128 MB chip-disk and 128 MB RAM. The necessary circuits for communication with the DAE4 (or DAE3) electronics box, as well as the 16-bit AD converter system for optical detection and digital I/O interface are contained on the DASY6 I/O board, which is directly connected to the PC/104 bus of the CPU board.

The measurement server performs all real-time data evaluations of field measurements and surface detection, controls robot movements, and handles safety operations. The PC operating system cannot interfere with these time-critical processes. All connections are supervised by a watchdog, and disconnection of any of the cables to the measurement server will automatically disarm the robot and disable all program- controlled robot movements. Furthermore, the measurement server is equipped with an expansion port, which is reserved for future applications. Please note that this expansion port does not have a standardized pinout, and therefore only devices provided by SPEAG can be connected. Connection of devices from any other supplier could seriously damage the measurement server.

Data Acquisition Electronics

The data acquisition electronics (DAE4) 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.

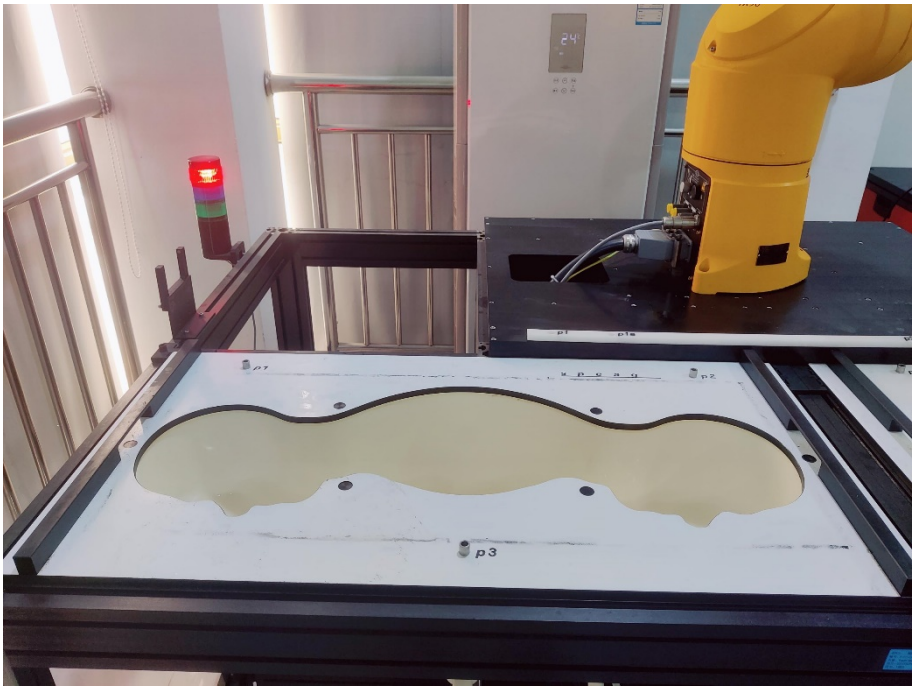
The mechanical probe mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection.

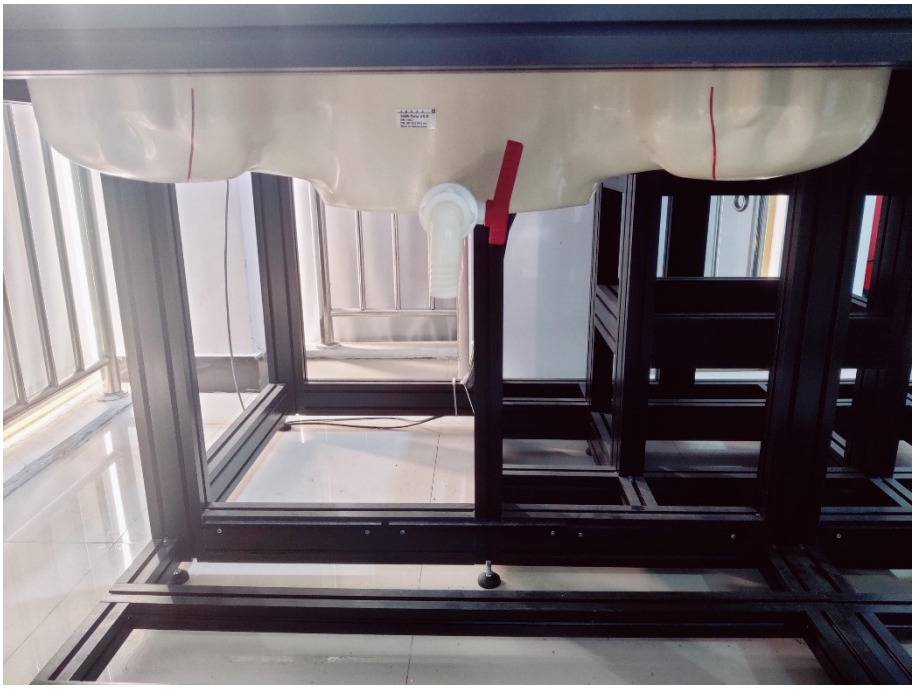
The input impedance of both the DAE4 as well as of the DAE3 box is 200MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

EX3DV4 E-Field Probes

Frequency	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)
Dynamic Range	10 μW/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μW/g)
Dimensions	Overall length: 337 mm (Tip: 9 mm) Tip diameter: 2.5 mm (Body: 10 mm) Typical distance from probe tip to dipole centers: 1 mm
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields); the only probe that enables compliance testing for frequencies up to 6 GHz with precision of better 30%.
Compatibility	DASY3, DASY4, DASY52 SAR and higher, EASY4/MRI

SAM Twin Phantom

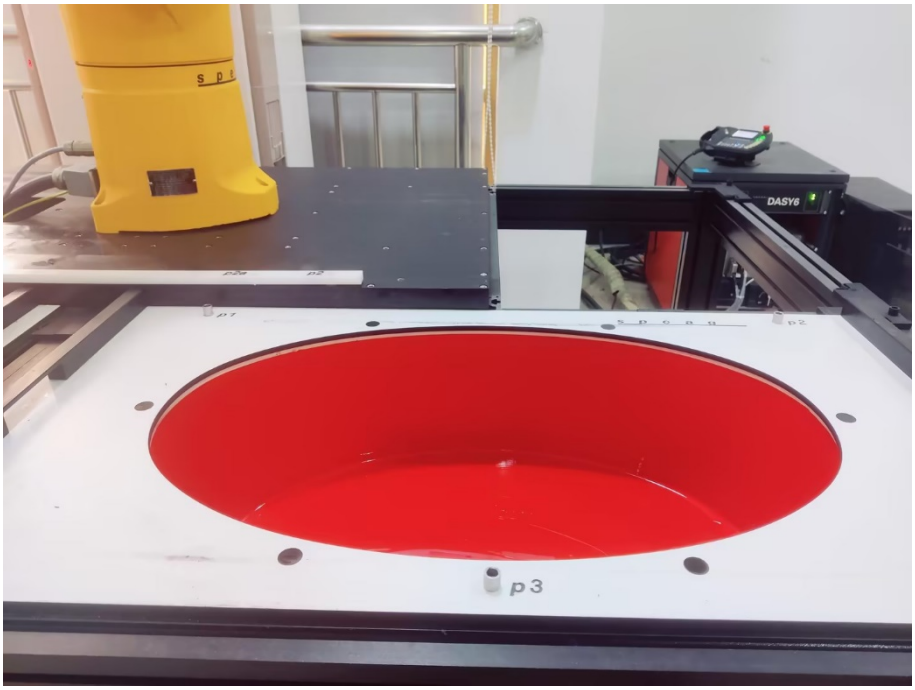




The SAM Twin Phantom (shown in front of DASY6) is a fiberglass shell phantom with shell thickness 2 mm, except in the ear region where the thickness is increased to 6 mm. The phantom has three measurement areas: 1) Left Head, 2) Right Head, and 3) Flat Section. For larger devices, the use of the ELI-Phantom (shown behind DASY6) is required. For devices such as glasses with a wireless link, the Face Down Phantom is the most suitable (between the SAM Twin and ELI phantoms).
When the phantom is mounted inside allocated slot of the DASY6 platform, phantom reference points can be taught directly in the DASY5 V5.2 software. When the DASY6 platform is used to mount the Phantom, some of the phantom teaching points cannot be reached by the robot in DASY5 V5.2. A special tool called P1a-P2aX-Former is provided to transform two of the three points, P1 and P2, to reachable locations. To use these new teaching points, a revised phantom configuration file is required.

In addition to our standard broadband liquids, the phantom can be used with the following tissue simulating liquids:
Sugar-water-based liquids can be left permanently in the phantom. Always cover the liquid when the system is not in use to prevent changes in liquid parameters due to water evaporation.
DGBE-based liquids should be used with care. As DGBE is a softener for most plastics, the liquid should be taken out of the phantom, and the phantom should be dried when the system is not in use (desirable at least once a week).
Do not use other organic solvents without previously testing the solvent resistivity of the phantom.
Approximately 25 liters of liquid is required to fill the SAM Twin phantom.

ELI Phantom



The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30MHz to 6 GHz. ELI is fully compatible with the latest draft of the standard IEEE 1528:2013 and the use of all known tissue simulating liquids. ELI has been optimized for performance and can be integrated into a SPEAG standard phantom table. A cover is provided to prevent evaporation of water and changes in liquid parameters. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points.

The phantom can be used with the following tissue simulating liquids:

- Sugar-water-based liquids can be left permanently in the phantom. Always cover the liquid when the system is not in use to prevent changes in liquid parameters due to water evaporation.

- DGBE-based liquids should be used with care. As DGBE is a softener for most plastics, the liquid should be taken out of the phantom, and the phantom should be dried when the system is not in use (desirable at least once a week).

- Do not use other organic solvents without previously testing the solvent resistivity of the phantom.

Approximately 25 liters of liquid is required to _fill the ELI phantom.

Robots

The DASY6 system uses the high-precision industrial robots TX60L, TX90XL, and RX160L from St aubli SA (France). The TX robot family - the successor of the well-known RX robot family - continues to offer the features important for DASY6 applications:

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

The robots are controlled by the Staubli CS8c robot controllers. All information regarding the use and maintenance of the robot arm and the robot controller is provided

Area Scans

Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for FCC applications utilize a 15mm 2 step integral, with 1.5mm interpolation used to locate the peak SAR area used for zoom scan assessments.

Where the system identifies multiple SAR peaks (which are within 25% of peak value) the system will provide the user with the option of assessing each peak location individually for zoom scan averaging.

Zoom Scan (Cube Scan Averaging)

The averaging zoom scan volume utilized in the DASY5 software is in the shape of a cube and the side dimension of a 1 g or 10 g mass is dependent on the density of the liquid representing the simulated tissue. A density of 1000 kg/m^3 is used to represent the head and body tissue density and not the phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1g cube is 10mm,with the side length of the 10g cube is 21.5mm.

When the cube intersects with the surface of the phantom, it is oriented so that 3 vertices touch the surface of the shell or the center of a face is tangent to the surface. The face of the cube closest to the surface is modified in order to conform to the tangent surface.

The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications (including FCC) utilize a physical step of 7 x7 x 7 (5mmx5mmx5mm) providing a volume of 30 mm in the X & Y & Z axis.

Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEEE 1528:2013

Recommended Tissue Dielectric Parameters for Head liquid

Table 2 – Dielectric properties of the tissue-equivalent medium

Frequency MHz	Real part of the complex relative permittivity, ε_r'	Conductivity, σ S/m	Penetration depth (E-field), δ mm
4	55,0	0,75	293,0
13	55,0	0,75	165,5
30	55,0	0,75	112,8
150	52,3	0,76	62,0
300	45,3	0,87	46,1
450	43,5	0,87	43,0
750	41,9	0,89	39,8
835	41,5	0,90	39,0
900	41,5	0,97	36,2
1 450	40,5	1,20	28,6
1 800	40,0	1,40	24,3
1 900	40,0	1,40	24,3
1 950	40,0	1,40	24,3
2 000	40,0	1,40	24,3
2 100	39,8	1,49	22,8
2 450	39,2	1,80	18,7
2 600	39,0	1,96	17,2
3 000	38,5	2,40	14,0
3 500	37,9	2,91	11,4
4 000	37,4	3,43	10,0
4 500	36,8	3,94	9,7

Frequency MHz	Real part of the complex relative permittivity, ε_r'	Conductivity, σ S/m	Penetration depth (E-field), δ mm
5 000	*36,2*	*4,45*	1,5
5 200	*36,0*	*4,66*	8,4
5 400	*35,8*	*4,86*	8,1
5 600	*35,5*	*5,07*	7,5
5 800	35,3	5,27	7,3
6 000	*35,1*	*5,48*	7,0
6 500	*34,5*	*6,07*	6,7
7 000	*33,9*	*6,65*	6,4
7 500	*33,3*	*7,24*	6,1
8 000	*32,7*	*7,84*	5,9
8 500	*32,1*	*8,46*	5,3
9 000	*31,6*	*9,08*	4,8
9 500	*31,0*	*9,71*	4,4
10 000	*30,4*	*10,40*	4,0

NOTE For convenience, permittivity and conductivity values are linearly interpolated for frequencies that are not a part of the original data from Drossos et al. [2]. They are shown in italics in Table 2. The italicized values are linearly interpolated (below 5 800 MHz) or extrapolated (above 5 800 MHz) from the non-italicized values that are immediately above and below these values.

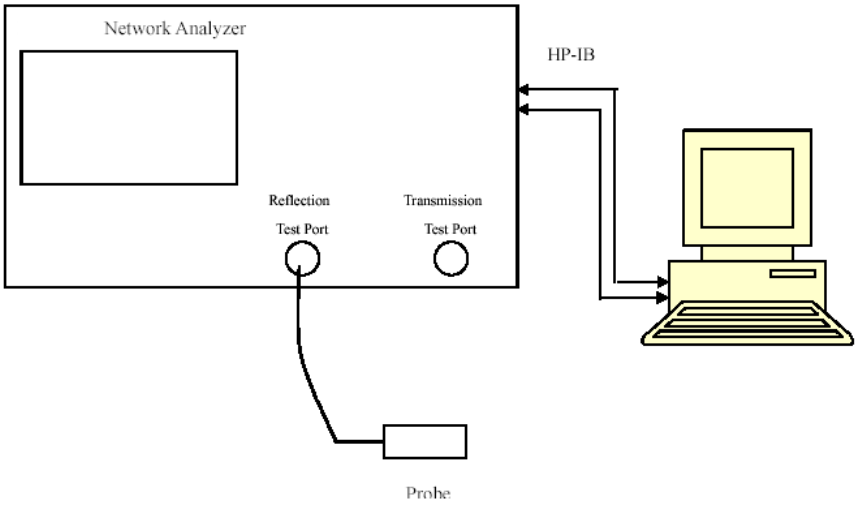
EQUIPMENT LIST AND CALIBRATION

Equipments List & Calibration Information

Equipment	Model	S/N	Calibration Date	Calibration Due Date
DASY5 Test Software	DASY52 52.10.2	N/A	N/A	N/A
DASY6 Measurement Server	DASY6 6.0.31	N/A	N/A	N/A
Data Acquisition Electronics	DAE4	527	2024/03/26	2025/03/25
E-Field Probe	EX3DV4	7557	2024/03/26	2025/03/25
Mounting Device	MD4HHTV5	SD 000 H01 KA	N/A	N/A
ELI V8.0 Phantom	QD OVA 004 Ax	2095	N/A	N/A
Dipole, 750MHz	D750V3	1166	2024/06/17	2027/06/16
Dipole, 835MHz	D835V2	445	2023/02/10	2026/02/09
Dipole,1750MHz	D1750V2	1140	2024/06/17	2027/06/16
Dipole,1900MHz	D1900V2	5d206	2024/06/15	2027/06/14
Dipole,2450MHz	D2450V2	970	2024/06/15	2027/06/14
Dipole,2600MHz	D2600V2	1162	2022/08/22	2025/08/21
Dipole,5GHz	D5GHzV2	1296	2022/08/17	2025/08/16
Simulated Tissue LiquidHead	HBBL600-6000V6	180611-3	Each Time	
Network Analyzer	E5071B	SG42400155	2024/04/23	2025/04/22
Dielectric Assessment Kit	DAK-3.5	SM DAK 300AB	N/A	N/A
Signal Generator	SMBV100A	261558	2024/04/25	2025/04/24
Power Amplifier	ZHL-5W-202-S+	416402204	N/A	N/A
Power Amplifier	ZVE-8G+	558401902	N/A	N/A
Directional Coupler	4242-10	3307	N/A	N/A
Attenuator	3dB	5402	N/A	N/A
Attenuator	10dB	AU 3842	N/A	N/A
Radio Communication Analyzer	MT8820C	6200930956	2024/04/24	2025/04/23
Hygrothermograph	HTC-1	N/A	2024/04/20	2025/04/19
Thermometer	UL-IL01	N/A	2024/04/20	2025/04/19
Power Meter	E4419B	MY41291878	2024/04/23	2025/04/22

SAR MEASUREMENT SYSTEM VERIFICATION

Liquid Verification



Liquid Verification Setup Block Diagram

Liquid Verification Results

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta (%)		Tolerance (%)
		σ (S/m)	ε_r	σ (S/m)	ε_r	Δ σ	Δ ε_r	
750	Head	0.915	41.602	0.890	41.900	2.81	-0.71	±5
707.5	Head	0.876	42.184	0.887	42.112	-1.24	0.17	±5
782	Head	0.926	41.179	0.892	41.711	3.81	-1.28	±5
793	Head	0.936	41.027	0.893	41.644	4.82	-1.48	±5

**Liquid Verification above was performed on 2024/07/15.*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta (%)		Tolerance (%)
		σ (S/m)	ε_r	σ (S/m)	ε_r	Δ σ	Δ ε_r	
835	Head	0.914	42.864	0.900	41.500	1.56	3.29	±5
831.5	Head	0.91	42.911	0.899	41.501	1.22	3.40	±5

**Liquid Verification above was performed on 2024/07/16*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta (%)		Tolerance (%)
		σ (S/m)	ε_r	σ (S/m)	ε_r	Δ σ	Δ ε_r	
1750	Head	1.354	41.396	1.370	40.100	-1.17	3.23	±5
1732.5	Head	1.337	41.463	1.384	40.046	-3.40	3.54	±5

**Liquid Verification above was performed on 2024/07/16.*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta (%)		Tolerance (%)
		σ (S/m)	ε_r	σ (S/m)	ε_r	Δ σ	Δ ε_r	
1900	Head	1.420	41.166	1.400	40.000	1.43	2.91	±5
1880	Head	1.399	41.249	1.400	40.000	-0.07	3.12	±5

**Liquid Verification above was performed on 2024/07/16 .*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta (%)		Tolerance (%)
		σ (S/m)	ε_r	σ (S/m)	ε_r	Δ σ	Δ ε_r	
2450	Head	1.881	39.936	1.800	39.200	4.50	1.88	±5
2412	Head	1.835	40.096	1.765	39.256	3.97	2.14	±5
2462	Head	1.896	39.887	1.812	39.183	4.64	1.80	±5
2535	Head	1.970	39.583	1.888	39.084	4.87	1.28	±5
2437	Head	1.865	39.995	1.788	39.219	4.31	1.98	±5

**Liquid Verification above was performed on 2024/07/17 .*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta (%)		Tolerance (%)
		σ (S/m)	ε_r	σ (S/m)	ε_r	Δ σ	Δ ε_r	
2600	Head	2.008	37.794	1.960	39.000	2.45	-3.09	±5
2593	Head	1.999	37.817	1.952	39.009	2.41	-3.06	±5

**Liquid Verification above was performed on 2024/07/17.*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta (%)		Tolerance (%)
		σ (S/m)	ε_r	σ (S/m)	ε_r	Δ σ	Δ ε_r	
5250	Head	4.657	36.336	4.710	35.900	-1.13	1.21	±5
5200	Head	4.603	36.420	4.660	36.000	-1.22	1.17	±5

**Liquid Verification above was performed on 2024/07/18*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta (%)		Tolerance (%)
		σ (S/m)	ε_r	σ (S/m)	ε_r	Δ σ	Δ ε_r	
5750	Head	5.224	35.584	5.220	35.400	0.08	0.52	±5
5785	Head	5.208	35.615	5.255	35.315	-0.89	0.85	±5
5745	Head	5.167	35.664	5.215	35.355	-0.92	0.87	±5
5825	Head	5.252	35.560	5.296	35.275	-0.83	0.81	±5

**Liquid Verification above was performed on 2024/07/18*

System Accuracy Verification

Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of ±10%. The validation results are tabulated below. And also the corresponding SAR plot is attached as well in the SAR plots files.

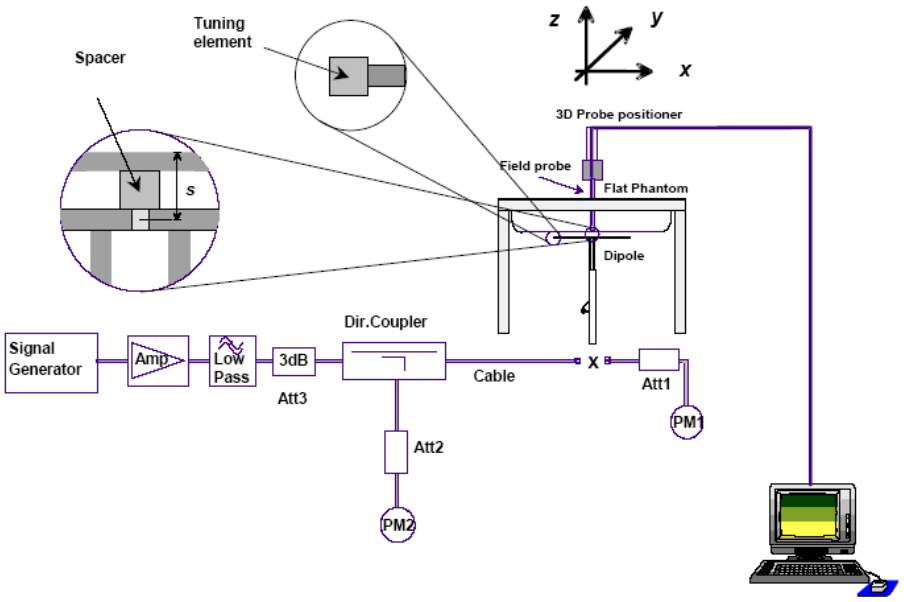
The spacing distance*s* in the **System Verification Setup Block Diagram** is given by the following:

a) s = 15 mm ± 0,2 mm for 300 MHz ≤ f ≤ 1 000 MHz;

b) s = 10 mm ± 0,2 mm for 1 000 MHz < f ≤ 3 000 MHz;

c) s = 10 mm ± 0,2 mm for 3 000 MHz < f ≤ 6 000 MHz.

System Verification Setup Block Diagram



System Accuracy Check Results

Date	Frequency Band	Liquid Type	Input Power (mW)	Measured SAR (W/kg)		Normalized to 1W (W/kg)	Target Value (W/kg)	Delta (%)	Tolerance (%)
2024/07/15	750MHz	Head	250	1g	2.13	8.52	8.45	0.83	±10
2024/07/16	835 MHz	Head	250	1g	2.45	9.8	9.53	2.83	±10
2024/07/16	1750 MHz	Head	250	1g	8.80	35.2	36.00	-2.22	±10
2024/07/16	1900MHz	Head	250	1g	9.04	36.16	39.20	-7.76	±10
2024/07/17	2450 MHz	Head	250	1g	12.70	50.8	53.10	-4.33	±10
2024/07/17	2600 MHz	Head	250	1g	13.70	54.8	54.90	-0.18	±10
2024/07/18	5250 MHz	Head	100	1g	8.20	82	79.40	3.27	±10
2024/07/18	5750 MHz	Head	100	1g	7.98	79.8	79.00	1.01	±10

*The SAR values above are normalized to 1 Watt forward power.

SAR SYSTEM VALIDATION DATA

System Check_Head_750MHz

DUT: Dipole 750 MHz D750V3; Type: D750V3; Serial: D750V3 - SN:1166

Communication System: UID 0, CW (0); Frequency: 750 MHz;Duty Cycle: 1:1

Medium parameters used: f = 750 MHz; σ = 0.915 S/m; ε_r = 41.602; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(10.27, 10.27, 10.27); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Pin=250mW/Area Scan (6x6x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.25 W/kg

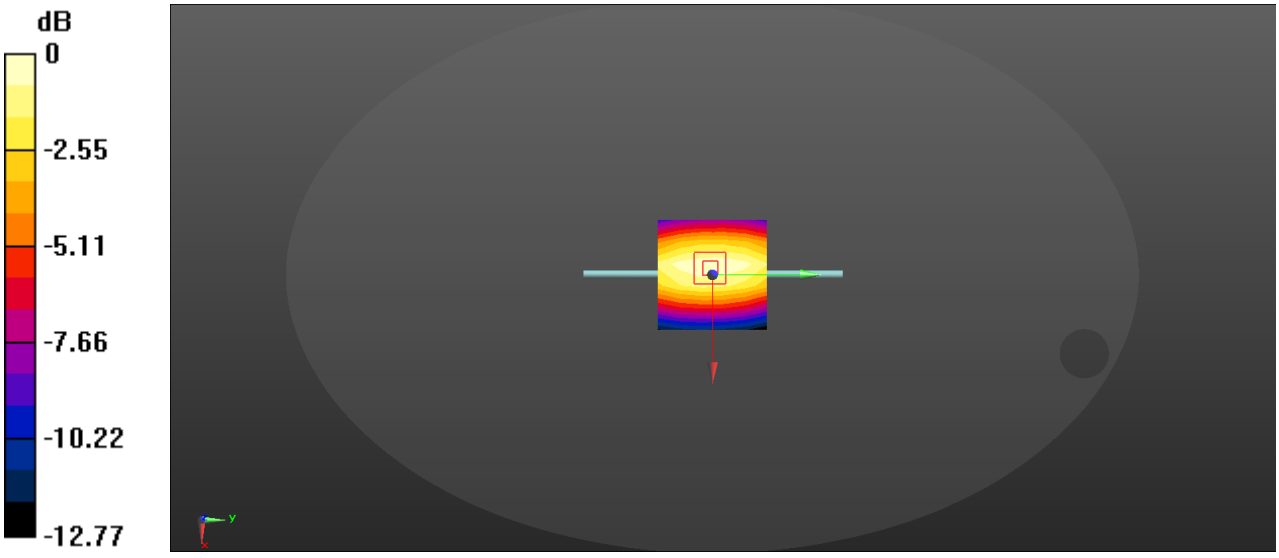
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 49.35 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 3.07 W/kg

SAR(1 g) = 2.13 W/kg; SAR(10 g) = 1.42 W/kg

Maximum value of SAR (measured) = 2.28 W/kg



0 dB = 2.28 W/kg = 3.58 dBW/kg

System Check_Head_835MHz
DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:445

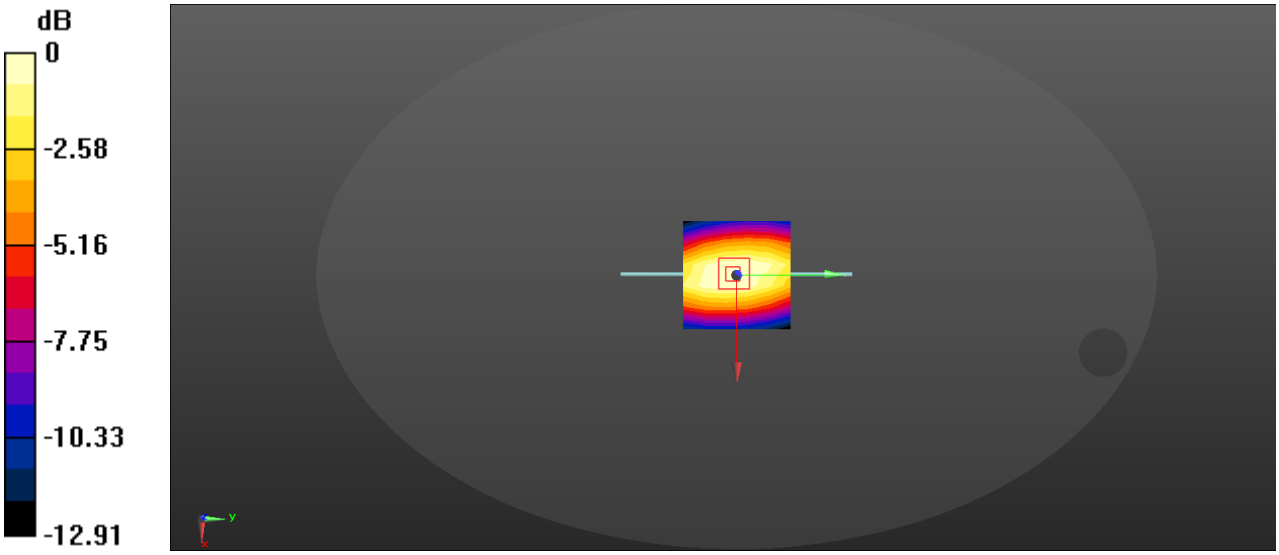
Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.914 S/m; ε_r = 42.864; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(9.88, 9.88, 9.88); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Pin=250mW/Area Scan (6x6x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.49 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 56.45 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 3.61 W/kg
SAR(1 g) = 2.45 W/kg; SAR(10 g) = 1.62 W/kg
Maximum value of SAR (measured) = 2.86 W/kg



0 dB = 2.86 W/kg = 4.56 dBW/kg

System Check_Head_1750MHz
DUT: Dipole 1750 MHz D1750V2; Type: D1750V2; Serial: D1750V2 - SN:1140

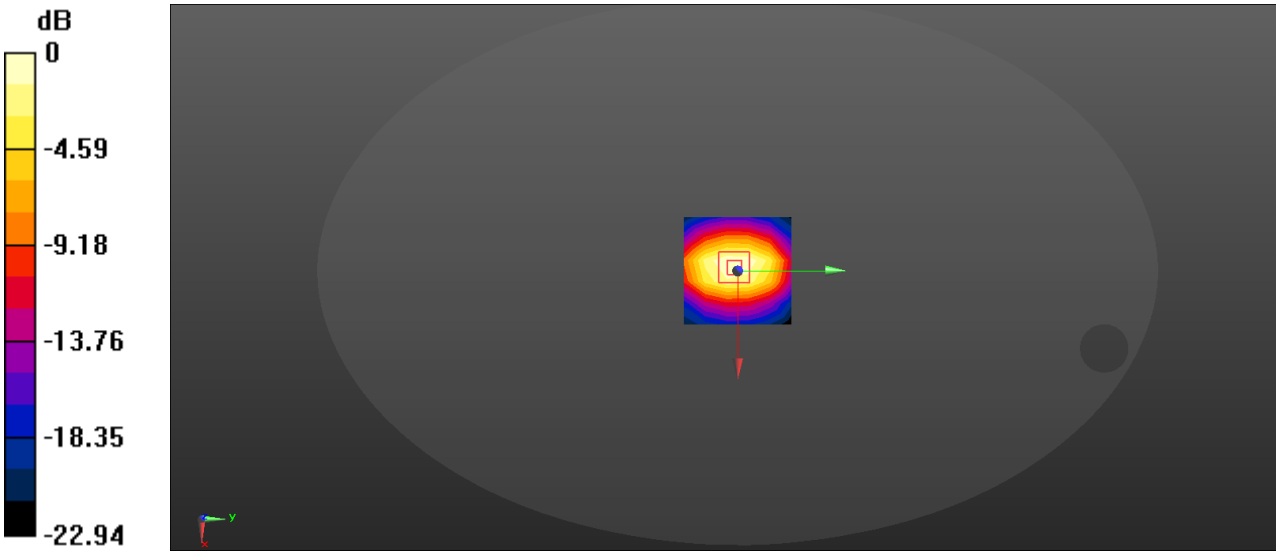
Communication System: UID 0, CW (0); Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.354 S/m; ε_r = 41.396; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(8.28, 8.28, 8.28); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Pin=250mW/Area Scan (6x6x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 9.06 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 89.10 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 15.8 W/kg
SAR(1 g) = 8.8 W/kg; SAR(10 g) = 4.69 W/kg
Maximum value of SAR (measured) = 11.1 W/kg



0 dB = 11.1 W/kg = 10.45 dBW/kg

System Check_Head_1900MHz
DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d206

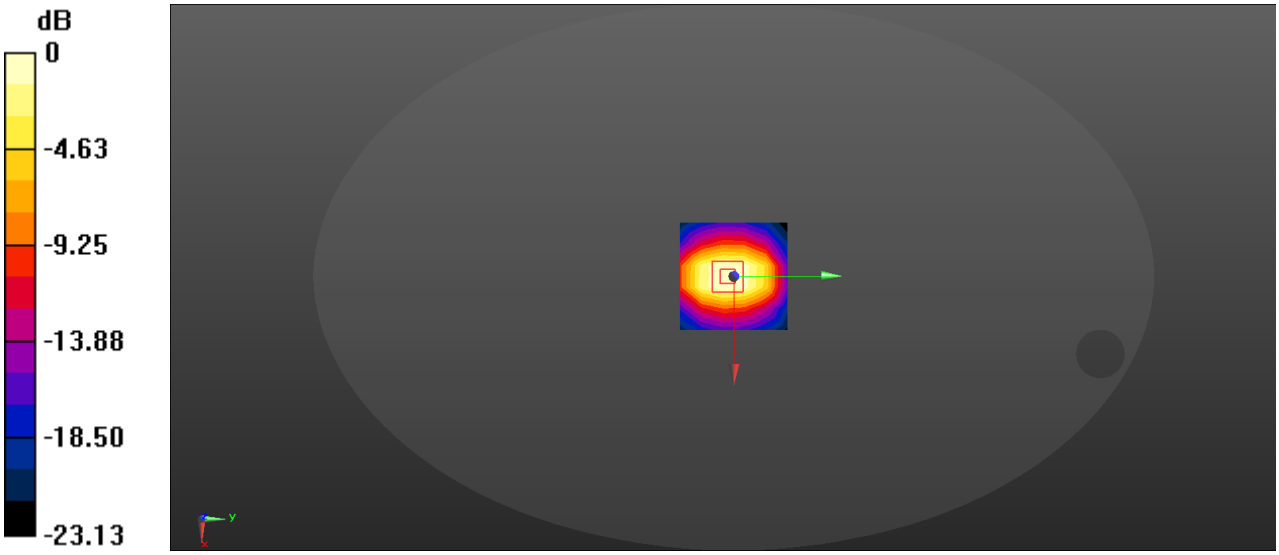
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.42 S/m; ε_r = 41.166; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(7.92, 7.92, 7.92); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Pin=250mW/Area Scan (6x6x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 7.82 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 89.52 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 16.4 W/kg
SAR(1 g) = 9.04 W/kg; SAR(10 g) = 4.74 W/kg
Maximum value of SAR (measured) = 11.3 W/kg



0 dB = 11.3 W/kg = 10.53 dBW/kg

System Check_Head_2450MHz
DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:970

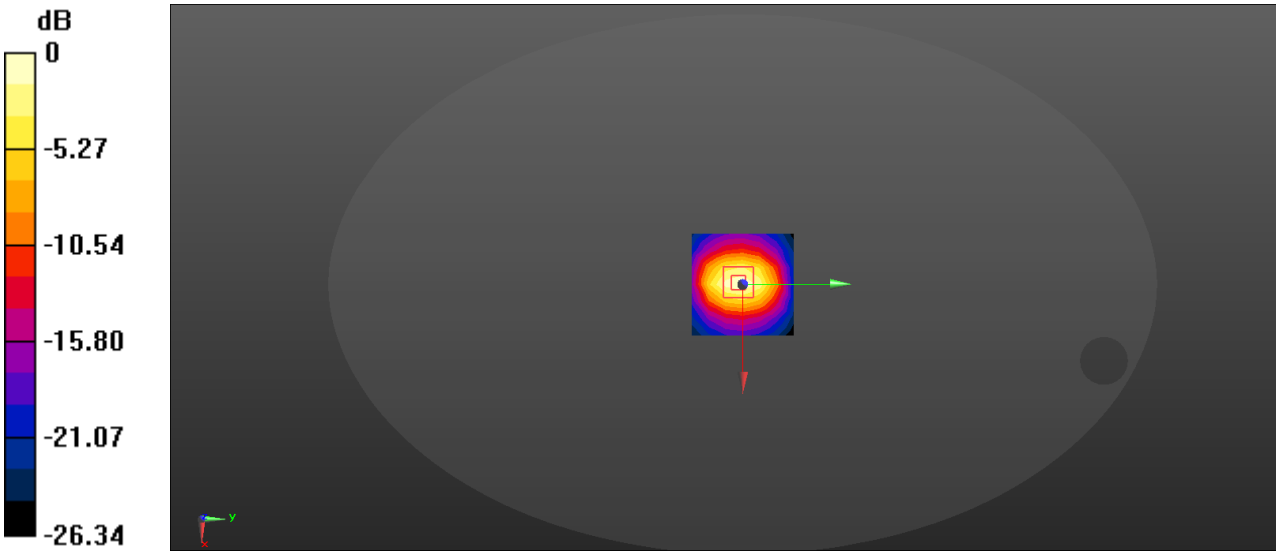
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.881 S/m; ε_r = 39.936; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(7.27, 7.27, 7.27); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Pin=250mW/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 16.1 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 92.94 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 25.8 W/kg
SAR(1 g) = 12.7 W/kg; SAR(10 g) = 5.97 W/kg
Maximum value of SAR (measured) = 16.5 W/kg



0 dB = 16.5 W/kg = 12.17 dBW/kg

System Check_Head_2600MHz
DUT: D2600V2-1162; Type: D2600V2; Serial: D2600V2 - SN:1162

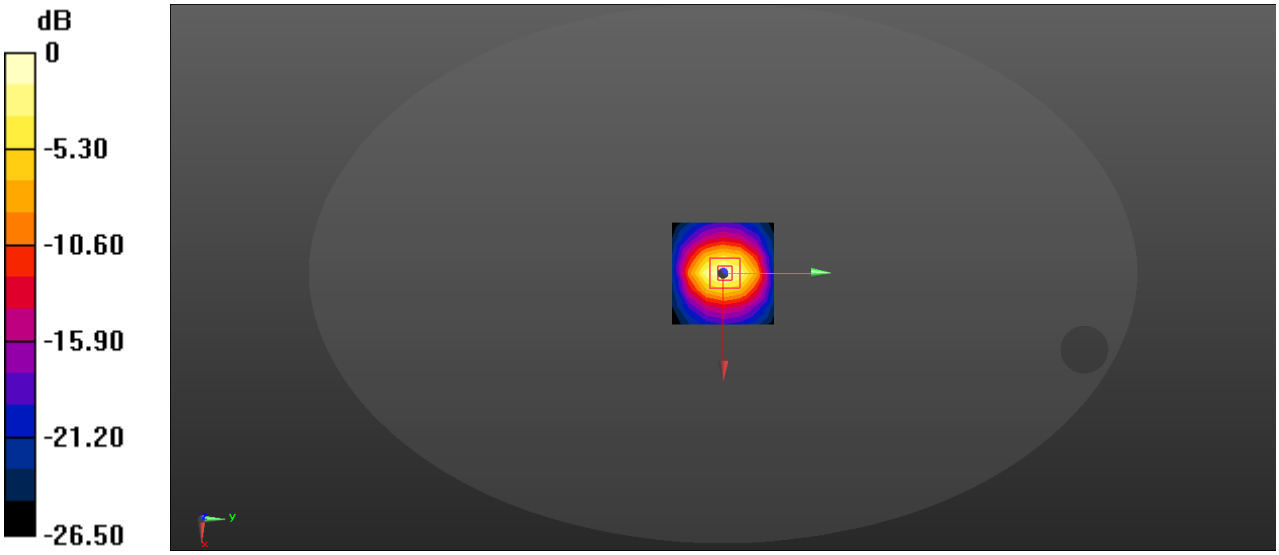
Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 2.008 S/m; ε_r = 37.794; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(7.02, 7.02, 7.02); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Pin=250mW/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 23.2 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 112.6 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 28.8 W/kg
SAR(1 g) = 13.7 W/kg; SAR(10 g) = 6.19 W/kg
Maximum value of SAR (measured) = 23.2 W/kg



0 dB = 23.2 W/kg = 13.65 dBW/kg

System Check_Head_5250MHz
DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1296

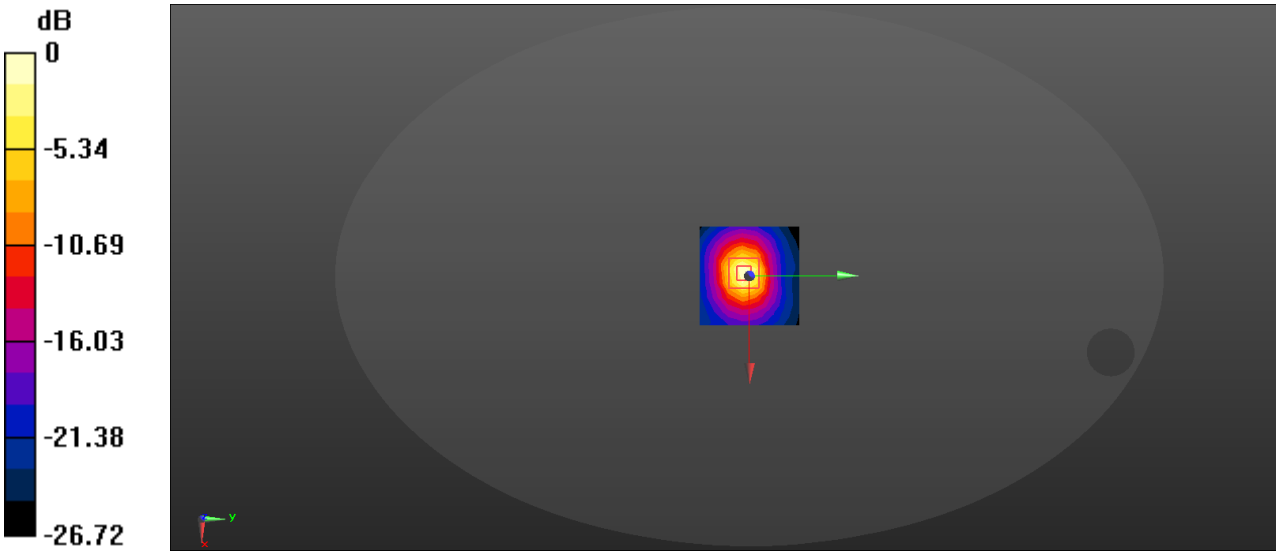
Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5250 MHz; σ = 4.657 S/m; ε_r = 36.336; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(5.25, 5.25, 5.25); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Pin=100mW/Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 17.4 W/kg

Pin=100mW/Zoom Scan (7x7x17)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 65.21 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 32.3 W/kg
SAR(1 g) = 8.2 W/kg; SAR(10 g) = 2.44 W/kg
Maximum value of SAR (measured) = 20.4 W/kg



0 dB = 20.4 W/kg = 13.10 dBW/kg

System Check_Head_5750MHz
DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1296

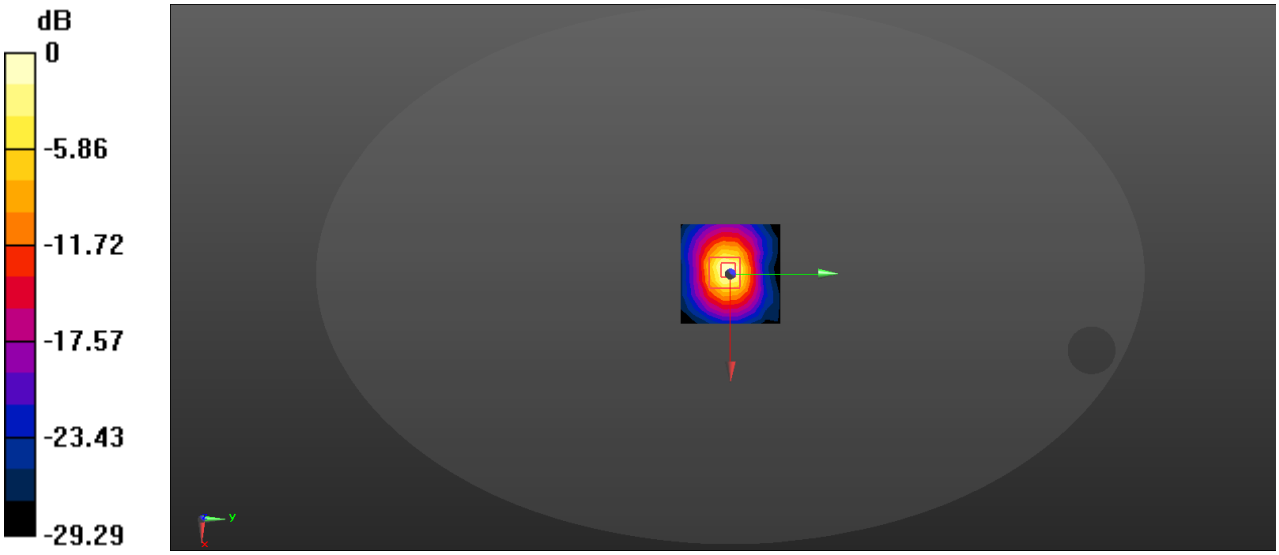
Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5750 MHz; σ = 5.224 S/m; ε_r = 35.584; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(4.78, 4.78, 4.78); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Pin=100mW/Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 17.0 W/kg

Pin=100mW/Zoom Scan (7x7x17)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 65.15 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 36.4 W/kg
SAR(1 g) = 7.98 W/kg; SAR(10 g) = 2.23 W/kg.
Maximum value of SAR (measured) = 20.2 W/kg



0 dB = 20.2 W/kg = 13.05 dBW/kg

EUT TEST STRATEGY AND METHODOLOGY

Test positions for body-worn and other configurations

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations. Devices with a headset output should be tested with a headset connected to the device. When multiple accessories that do not contain metallic components are supplied with the device, the device may be tested with only the accessory that dictates the closest spacing to the body. When multiple accessories that contain metallic components are supplied with the device, the device must be tested with each accessory that contains a unique metallic component. If multiple accessories share an identical metallic component (e.g., the same metallic belt-clip used with different holsters with no other metallic components), only the accessory that dictates the closest spacing to the body must be tested.

Body-worn accessories may not always be supplied or available as options for some devices that are intended to be authorized for body-worn use. A separation distance of 1.5 cm between the back of the device and a flat phantom is recommended for testing body-worn SAR compliance under such circumstances. Other separation distances may be used, but they should not exceed 2.5 cm. In these cases, the device may use body-worn accessories that provide a separation distance greater than that tested for the device provided however that the accessory contains no metallic components.

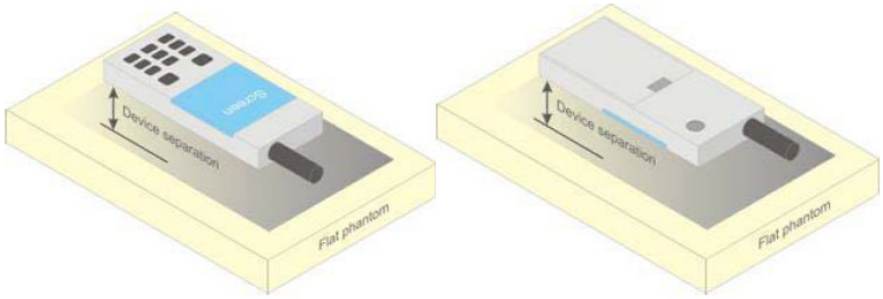


Figure 5 – Test positions for body-worn devices

Test Distance for SAR Evaluation

In this case the EUT (Equipment under Test) is set against from the phantom, the test distance is 0mm (Body supported)/ 6mm sensor Off Full Power（Body supported)

SAR Evaluation Procedure

The evaluation was performed with the following procedure:

Step 1: Measurement of the SAR value at a fixed location above the ear point or central position was used as a reference value for assessing the power drop. The SAR at this point is measured at the start of the test and then again at the end of the testing.

Step 2: The SAR distribution at the exposed side of the head was measured at a distance of 4 mm from the inner surface of the shell. The area covered the entire dimension of the head or radiating structures of the EUT, the horizontal grid spacing was 15 mm x 15 mm, and the SAR distribution was determined by integrated grid of 1.5mm x 1.5mm. Based on these data, the area of the maximum absorption was determined by spline interpolation. The first Area Scan covers the entire dimension of the EUT to ensure that the hotspot was correctly identified.

Step 3: Around this point, a volume of 30 mm x 30 mm x 30 mm was assessed by measuring 7x 7 x 7 points. On the basis of this data set, the spatial peak SAR value was evaluated under the following procedure:

1) The data at the surface were extrapolated, since the center of the dipoles is 1.2 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.3 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.

2) The maximum interpolated value was searched with a straightforward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed by the 3D-Spline interpolation algorithm. The 3D-Spline is composed of three one dimensional splines with the “Not a knot"-condition (in x, y and z-directions). The volume was integrated with the trapezoidal-algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the averages.

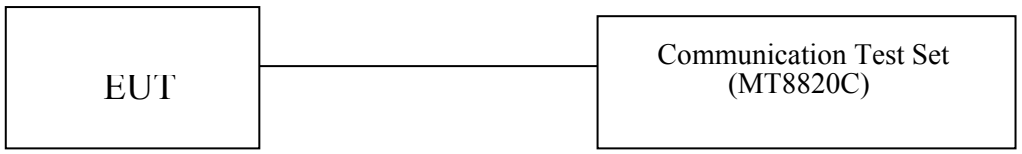
All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

Step 4: Re-measurement of the SAR value at the same location as in Step 1. If the value changed by more than 5%, the evaluation was repeated.

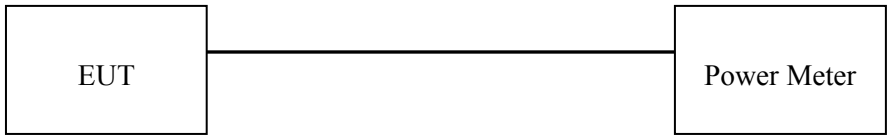
CONDUCTED OUTPUT POWER MEASUREMENT

Test Procedure

The RF output of the transmitter was connected to the input of the Communication Test Set and Power Meter through Connector.



LTE



WLAN /SRD

Radio Configuration

The power measurement was configured by the Wireless Communication Test Set.

FDD-LTE

For UE Power Class 1 and 3, the allowed Maximum Power Reduction (MPR) for the maximum output power in Table 6.2.2-1due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1.

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1 and 3

Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2

For UE Power Class 1 and 3 the specific requirements and identified sub clauses are specified in Table 6.2.4-1 along with the allowed A-MPR values that may be used to meet these requirements. The allowed A-MPR values specified below in Table 6.2.4.-1 to 6.2.4-15 are in addition to the allowed MPR requirements specified in sub clause 6.2.3.

Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)

Network Signalling value	Requirements (subclause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.5-1	1.4, 3, 5, 10, 15, 20	Table 5.6-1	N/A
NS_03	6.6.2.2.1	2, 4,10, 23, 25, 35, 36	3	>5	≤ 1
			5	>6	≤ 1
			10	>6	≤ 1
			15	>8	≤ 1
			20	>10	≤ 1
NS_04	6.6.2.2.2	41	5	>6	≤ 1
			10, 15, 20	Table 6.2.4-4	
NS_05	6.6.3.3.1	1	10,15,20	≥ 50	≤ 1
NS_06	6.6.2.2.3	12, 13, 14, 17	1.4, 3, 5, 10	Table 5.6-1	N/A
NS_07	6.6.2.2.3 6.6.3.3.2	13	10	Table 6.2.4-2	
NS_08	6.6.3.3.3	19	10, 15	> 44	≤ 3
NS_09	6.6.3.3.4	21	10, 15	> 40	≤ 1
				> 55	≤ 2
NS_10		20	15, 20	Table 6.2.4-3	
NS_11	6.6.2.2.1	23	1.4, 3, 5, 10, 15, 20	Table 6.2.4-5	
NS_12	6.6.3.3.5	26	1.4, 3, 5	Table 6.2.4-6	
NS_13	6.6.3.3.6	26	5	Table 6.2.4-7	
NS_14	6.6.3.3.7	26	10, 15	Table 6.2.4-8	
NS_15	6.6.3.3.8	26	1.4, 3, 5, 10, 15	Table 6.2.4-9 Table 6.2.4-10	
NS_16	6.6.3.3.9	27	3, 5, 10	Table 6.2.4-11, Table 6.2.4-12, Table 6.2.4-13	
NS_17	6.6.3.3.10	28	5, 10	Table 5.6-1	N/A
NS_18	6.6.3.3.11	28	5	≥ 2	≤ 1
			10, 15, 20	≥ 1	≤ 4
NS_19	6.6.3.3.12	44	10, 15, 20	Table 6.2.4-14	
NS_20	6.2.2 6.6.2.2.1 6.6.3.2	23	5, 10, 15, 20	Table 6.2.4-15	
...					
NS_32	-	-	-	-	-

TDD-LTE

P TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Table 4.2-2: Uplink-downlink configurations.

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

Calculated Duty Cycle

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

We used configuration 0 for LTE Band 41 SAR test, that is 63.33%(1:1.58)for duty cycle.

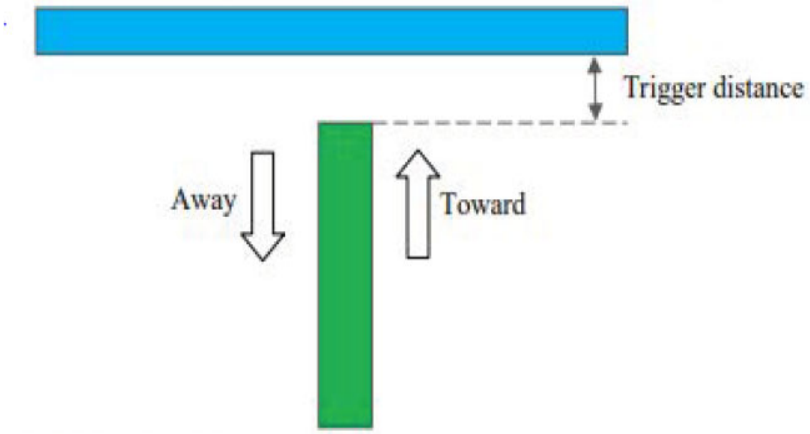
Proximity Sensor Operation

Triggering distances (Per KDB 616217)

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (6000MHz) and lowest (600MHz) frequency was used for proximity sensor triggering testing. It should be applied to determine proximity sensor triggering distances for the back surface and individual edges of a tablet.

2. Capacitive proximity sensor placed coincident with antenna elements at the right of the EUT are utilized to determine when the device comes in proximity of the user's body at the front or right side of the device. There is no need to do sensor coverage testing for the proximity sensor is designed to support. sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the proximity sensor entirely covers the antenna

3. The device employs proximity sensors that detect the presence of the user's body at the Front or right side the device. When Front surface or edge of body worn condition is detected, LTE Band 12&17/LTE Band 26&5/LTE Band 7/LTE Band 25&2/LTE Band 13/LTE Band 14/LTE Band 4/LTE Band 41 reduced power will be active. Other mode or frequency band can't be active. (P-sensor can't work at detecting presence of the user's body at the Back/Left/Top/Bottom edges of the device.)



The minimum detection distances determined as below:

Proximity Sensor Triggering Distance (mm) and Triggering Power(dBm)

LTE Band 12&17:

Distance		0	1	2	3	5	6	7	8	9	10	11	12	19	20	21	24
Front edge	Toward	18	18	18	18	18	23	23	23	23	23	23	23	23	23	23	23
	Away	18	18	18	18	18	18	18	23	23	23	23	23	23	23	23	23
Right edge	Toward	18	18	18	18	18	23	23	23	23	23	23	23	23	23	23	23
	Away	18	18	18	18	18	18	18	23	23	23	23	23	23	23	23	23

LTE Band 26&5:

Distance		0	1	2	3	5	6	7	8	9	10	11	12	19	20	21	24
Front edge	Toward	19	19	19	19	19	24	24	24	24	24	24	24	24	24	24	24
	Away	19	19	19	19	19	19	19	24	24	24	24	24	24	24	24	24
Right edge	Toward	19	19	19	19	19	24	24	24	24	24	24	24	24	24	24	24
	Away	19	19	19	19	19	19	19	24	24	24	24	24	24	24	24	24

LTE Band 7:

Distance		0	1	2	3	5	6	7	8	9	10	11	12	19	20	21	24
Front edge	Toward	19	19	19	19	19	24	24	24	24	24	24	24	24	24	24	24
	Away	19	19	19	19	19	19	19	24	24	24	24	24	24	24	24	24
Right edge	Toward	19	19	19	19	19	24	24	24	24	24	24	24	24	24	24	24
	Away	19	19	19	19	19	19	19	24	24	24	24	24	24	24	24	24

LTE Band 25&2:

Distance		0	1	2	3	5	6	7	8	9	10	11	12	19	20	21	24
Front edge	Toward	18	18	18	18	18	23	23	23	23	23	23	23	23	23	23	23
	Away	18	18	18	18	18	18	18	23	23	23	23	23	23	23	23	23
Right edge	Toward	18	18	18	18	18	23	23	23	23	23	23	23	23	23	23	23
	Away	18	18	18	18	18	18	18	23	23	23	23	23	23	23	23	23

LTE Band 13:

Distance		0	1	2	3	5	6	7	8	9	10	11	12	19	20	21	24
Front edge	Toward	19	19	19	19	19	24	24	24	24	24	24	24	24	24	24	24
	Away	19	19	19	19	19	19	19	24	24	24	24	24	24	24	24	24
Right edge	Toward	19	19	19	19	19	24	24	24	24	24	24	24	24	24	24	24
	Away	19	19	19	19	19	19	19	24	24	24	24	24	24	24	24	24

LTE Band 14:

Distance		0	1	2	3	5	6	7	8	9	10	11	12	19	20	21	24
Front edge	Toward	20	20	20	20	20	25	25	25	25	25	25	25	25	25	25	25
	Away	20	20	20	20	20	20	20	25	25	25	25	25	25	25	25	25
Right edge	Toward	20	20	20	20	20	25	25	25	25	25	25	25	25	25	25	25
	Away	20	20	20	20	20	20	20	25	25	25	25	25	25	25	25	25

LTE Band 4:

Distance		0	1	2	3	5	6	7	8	9	10	11	12	19	20	21	24
Front edge	Toward	19	19	19	19	19	24	24	24	24	24	24	24	24	24	24	24
	Away	19	19	19	19	19	19	19	24	24	24	24	24	24	24	24	24
Right edge	Toward	19	19	19	19	19	24	24	24	24	24	24	24	24	24	24	24
	Away	19	19	19	19	19	19	19	24	24	24	24	24	24	24	24	24

LTE Band 41:

Distance		0	1	2	3	5	6	7	8	9	10	11	12	19	20	21	24
Front edge	Toward	19	19	19	19	19	24	24	24	24	24	24	24	24	24	24	24
	Away	19	19	19	19	19	19	19	24	24	24	24	24	24	24	24	24
Right edge	Toward	19	19	19	19	19	24	24	24	24	24	24	24	24	24	24	24
	Away	19	19	19	19	19	19	19	24	24	24	24	24	24	24	24	24

Note: each side minimum detection distance was performed with below:
Toward: moving toward the phantom
Away: Moving away from the phantom

Summary of trigger distances:

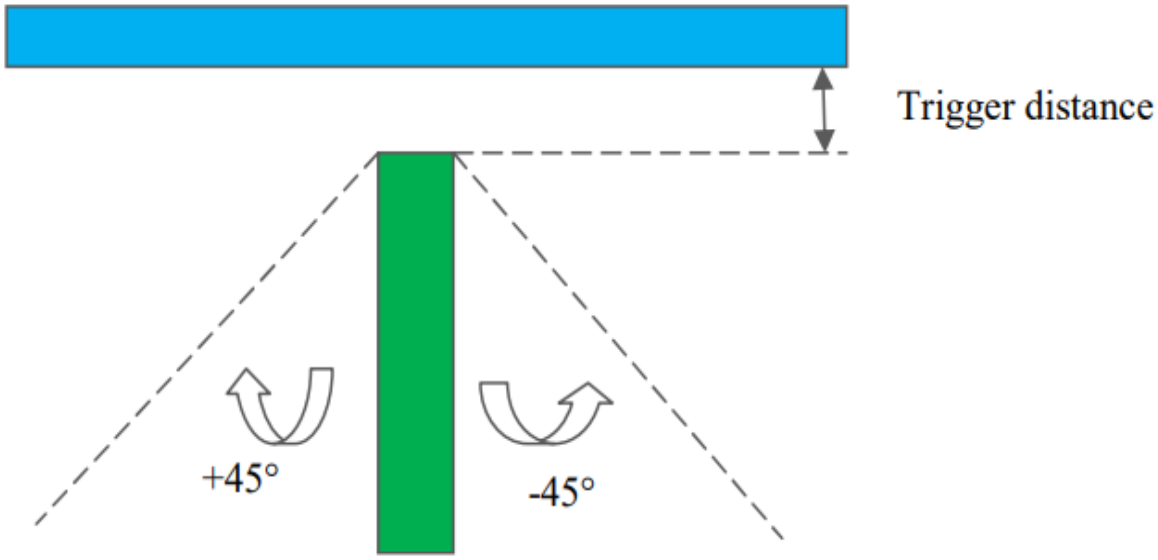
Band	Front edge (mm)		Right edge (mm)	
	Toward	Away	Toward	Away
4G	5	7	5	7

Note: The SAR sensor located in LTE Band 12&17/LTE Band 26&5/LTE Band 7/LTE Band 25&2/LTE Band 13/LTE Band 14 /LTE Band 4/LTE Band 41 antenna

Tilt angle

The influence of device tilt angles to proximity sensor triggering was determined by positioning each device edge that contains a transmitting antenna, perpendicular to the flat phantom, at 4 mm separation.

Rotating the device around the edge next to the phantom in ⩽10°increments until the device is±45°from the vertical position at 0°. And the maximum output power remains in the reduced mode.



Proximity Sensor Status Table

Tilt angle Distance(mm)	-45	-40	-30	-20	-10	0	10	20	30	40	45
5	on	on	on	on	on	on	on	on	on	on	on

Resulting test positions for SAR measurements

Wireless Technologies	Position	Triggering Distance(mm)	Full power distance For SAR(mm)
WWAN	Front	5	6
	Right	5	6
	Curved surface of Right	5	6

Note：
The Curved surface of right Angle is 30 degrees

Maximum Target Output Power

Full Power Target power

Max Target Power(dBm)			
Mode/Band	Channel		
	Low	Middle	High
LTE Band 12	23	23	23
LTE Band 17	23	23	23
LTE Band 26	24	24	24
LTE Band 5	24	24	24
LTE Band 7	24	24	24
LTE Band 25	23	23	23
LTE Band 2	23	23	23
LTE Band 13	24	24	24
LTE Band 14	25	25	25
LTE Band 4	24	24	24
LTE Band 41	24	24	24
WLAN 2.4G(802.11b)	10	10	10
WLAN 2.4G(802.11g)	9	9	9
WLAN 2.4G(802.11n HT20)	9	9	9
WLAN 2.4G802.11n HT40)	9.5	9.5	9.5
WLAN5.2G(802.11a)	8.4	8.4	8.4
WLAN5.2G(802.11ac20)	8	8	8
WLAN5.2G(802.11n-HT20)	8	8	8
WLAN5.2G(802.11ac40)	8	/	8
WLAN5.2G(802.11n-HT40)	8	/	8
WLAN5.2G(802.11ac80)	/	8	/
WLAN5.8G(802.11a)	8	8	8
WLAN5.8G(802.11ac20)	7.5	7.5	7.5
WLAN5.8G(802.11n-HT20)	7.5	7.5	7.5
WLAN5.8G(802.11ac40)	7.5	/	7.5
WLAN5.8G(802.11n-HT40)	7.5	/	7.5
WLAN5.8G(802.11ac80)	/	7.5	/
2.4G SRD	8	8	8
5.2G SRD	8	8	8
5.8G SRD	7.5	7.5	7.5

Note: The Maximum Target Power for LTE bands corresponds to their maximum power in QPSK modes with maximum bandwidth.

Reduction Target power

Max Target Power(dBm)			
Mode/Band	Channel		
	Low	Middle	High
LTE Band 12	18	18	18
LTE Band 17	18	18	18
LTE Band 26	19	19	19
LTE Band 5	19	19	19
LTE Band 7	19	19	19
LTE Band 25	18	18	18
LTE Band 2	18	18	18
LTE Band 13	19	19	19
LTE Band 14	20	20	20
LTE Band 4	19	19	19
LTE Band 41	19	19	19

Note: The Maximum Target Power for LTE bands corresponds to their maximum power in QPSK modes with maximum bandwidth.

Test Results:

Maximum Output Power:

LTE Band 2

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	21.89	21.68	21.6
		1#3	21.93	21.74	21.64
		1#5	22.09	21.67	21.57
		3#0	21.99	21.73	21.58
		3#3	22.05	21.77	21.69
		6#0	21.99	21.75	21.57
	16-QAM	1#0	20.93	20.81	20.66
		1#3	21.39	20.65	20.48
		1#5	21.47	20.7	20.5
		3#0	21.39	20.69	20.5
		3#3	21.3	20.97	20.77
		6#0	21.42	21.02	20.85
3M	QPSK	1#0	21.95	21.82	21.85
		1#8	21.95	21.78	21.85
		1#14	21.97	21.88	21.86
		6#0	21.02	20.97	20.78
		6#9	21.01	20.97	20.73
		15#0	21.07	20.95	20.79
	16-QAM	1#0	21.01	20.92	20.75
		1#8	20.98	20.92	21.16
		1#14	20.92	20.82	21.11
		6#0	20.92	20.89	21.11
		6#9	20.11	20.09	19.85
		15#0	20.14	20.08	19.89

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	22.05	21.98	21.73
		1#13	22.02	21.9	21.68
		1#24	22	21.9	21.62
		15#0	21.11	21.01	20.77
		15#10	21.06	20.95	20.74
		25#0	21.12	20.96	20.79
	16-QAM	1#0	21.06	20.98	20.76
		1#13	21.16	21.05	21.36
		1#24	21.16	20.96	21.35
		15#0	21.18	20.97	21.3
		15#10	20.29	20.11	19.94
		25#0	20.21	20.06	19.93
10M	QPSK	1#0	22.05	21.86	21.85
		1#25	21.97	21.81	21.87
		1#49	21.92	21	21.83
		25#0	21.11	21.04	20.78
		25#25	21.13	20.97	20.84
		50#0	21.06	21.01	20.79
	16-QAM	1#0	21.1	21.04	20.73
		1#25	20.99	20.93	21.14
		1#49	20.92	20.82	21.15
		25#0	20.87	20.18	21.08
		25#25	20.28	20.1	19.94
		50#0	20.22	20.09	19.92

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	21.99	22.02	21.68
		1#38	22.09	21.9	21.91
		1#74	21.99	21.7	21.79
		36#0	21.07	21.04	20.72
		36#39	21.05	20.99	20.68
		75#0	20.98	20.86	20.77
	16-QAM	1#0	21.04	20.93	20.69
		1#38	21.24	21.12	21.19
		1#74	21.07	20.92	21.17
		36#0	21.02	20.8	21.05
		36#39	20.19	20.16	19.85
		75#0	20.19	20.11	19.83
20M	QPSK	1#0	22.25	22.06	22.19
		1#50	21.91	21.89	21.55
		1#99	21.82	21.75	21.5
		50#0	21.95	21.96	21.88
		50#50	21.13	21.08	21.11
		100#0	21.09	21.92	21.68
	16-QAM	1#0	21.04	20.85	20.65
		1#50	21.43	21.78	21.19
		1#99	21.3	21.57	21.01
		50#0	21.21	21.5	20.95
		50#50	20.19	20.04	19.79
		100#0	20.13	20.23	19.92

LTE Band 4

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	22.65	22.77	22.75
		1#3	22.63	22.81	22.81
		1#5	22.63	22.73	22.72
		3#0	22.63	22.73	22.6
		3#3	22.71	22.85	22.67
		6#0	22.63	22.73	22.6
	16-QAM	1#0	21.76	21.73	21.63
		1#3	21.59	21.66	22.01
		1#5	21.62	21.72	22.08
		3#0	21.61	21.67	21.99
		3#3	21.88	22	21.96
		6#0	21.97	22.1	22.02
3M	QPSK	1#0	22.77	22.78	22.84
		1#8	22.7	22.77	22.87
		1#14	22.74	22.81	22.83
		6#0	21.82	21.84	21.7
		6#9	21.83	21.83	21.7
		15#0	21.88	21.85	21.77
	16-QAM	1#0	21.8	21.81	21.67
		1#8	21.72	21.86	22.11
		1#14	21.62	21.79	22.11
		6#0	21.64	21.84	22.14
		6#9	20.83	20.94	20.81
		15#0	20.88	20.94	20.84

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	22.77	22.87	22.64
		1#13	22.77	22.89	22.67
		1#24	22.71	22.8	22.57
		15#0	21.9	21.9	21.73
		15#10	21.8	21.79	21.71
		25#0	21.88	21.87	21.77
	16-QAM	1#0	21.9	21.87	21.72
		1#13	21.92	21.98	22.31
		1#24	21.84	21.93	22.38
		15#0	21.85	21.92	22.3
		15#10	21.01	20.98	20.92
		25#0	20.93	20.94	20.88
10M	QPSK	1#0	22.8	22.93	22.85
		1#25	22.67	22.85	22.84
		1#49	22.7	22.82	22.8
		25#0	21.88	21.92	21.75
		25#25	21.98	21.93	21.73
		50#0	21.9	21.87	21.72
	16-QAM	1#0	21.92	21.89	21.72
		1#25	21.74	21.94	22.13
		1#49	21.62	21.9	22.11
		25#0	21.62	21.79	22.12
		25#25	21.07	21.06	20.89
		50#0	20.94	20.98	20.81

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	22.73	22.78	22.67
		1#38	22.94	22.82	22.81
		1#74	22.8	22.75	22.8
		36#0	21.89	21.87	21.78
		36#39	21.9	21.85	21.71
		75#0	21.78	21.79	21.71
	16-QAM	1#0	21.88	21.83	21.81
		1#38	21.94	21.95	22.34
		1#74	21.9	21.87	22.13
		36#0	21.75	21.79	22.08
		36#39	20.99	20.97	20.95
		75#0	20.99	20.97	20.81
20M	QPSK	1#0	22.92	22.92	23.01
		1#50	22.72	22.81	22.48
		1#99	22.74	22.69	22.44
		50#0	22.57	22.65	22.72
		50#50	22.15	22.2	22.13
		100#0	22.21	22.21	22.15
	16-QAM	1#0	21.92	21.82	21.72
		1#50	22.17	22.46	22.21
		1#99	22.1	22.5	22.02
		50#0	22.12	22.45	21.96
		50#50	20.9	20.92	20.86
		100#0	20.95	20.95	20.91

LTE Band 5

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	23.39	23.42	23.47
		1#3	23.43	23.44	23.48
		1#5	23.36	23.42	23.45
		3#0	23.3	23.35	23.38
		3#3	23.32	23.46	23.43
		6#0	23.27	23.36	23.4
	16-QAM	1#0	22.2	22.5	22.54
		1#3	22.69	22.3	22.29
		1#5	22.79	22.3	22.36
		3#0	22.67	22.3	22.31
		3#3	22.67	22.59	22.58
		6#0	22.8	22.66	22.7
3M	QPSK	1#0	22.53	22.53	22.76
		1#8	23.32	23.5	23.72
		1#14	23.29	23.54	23.71
		6#0	22.46	22.58	22.62
		6#9	22.44	22.62	22.61
		15#0	22.46	22.62	22.62
	16-QAM	1#0	22.38	22.56	22.6
		1#8	22.21	22.54	22.91
		1#14	22.25	22.49	22.89
		6#0	22.25	22.55	22.9
		6#9	21.47	21.71	21.67
		15#0	21.52	21.7	21.76

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	22.19	22.13	22.25
		1#13	22.08	22.51	22.13
		1#24	22.07	22.46	22.46
		15#0	22.68	22.28	21.98
		15#10	21.98	22.78	22.19
		25#0	22.26	22.13	22.47
	16-QAM	1#0	22.62	22.65	22.59
		1#13	21.94	22.76	22.38
		1#24	22.49	21.97	22.04
		15#0	22.64	21.91	22.32
		15#10	22.55	22.78	22.53
		25#0	21.94	22.08	22.21
10M	QPSK	1#0	23.23	23.55	23.76
		1#25	22.76	22.11	22.16
		1#49	22.19	22.78	22.2
		25#0	22.89	23	22.98
		25#25	22.28	22.21	22.22
		50#0	22.06	22.38	22.83
	16-QAM	1#0	22.72	22.4	22.87
		1#25	22.27	22.66	21.89
		1#49	22.24	22.19	22.48
		25#0	22.15	22.57	22.15
		25#25	21.99	22.85	22.04
		50#0	22.52	22.68	22.45

LTE Band 7

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	23.12	22.43	22.78
		1#13	23.07	22.6	23.02
		1#24	23.04	22.16	22.86
		15#0	22.54	22.21	22.18
		15#10	22.52	22.16	22.63
		25#0	22.16	23.03	22.48
	16-QAM	1#0	23.08	22.62	22.99
		1#13	22.67	22.78	22.58
		1#24	22.56	22.65	22.95
		15#0	22.18	22.38	22.27
		15#10	22.95	22.77	22.82
		25#0	22.86	22.9	22.35
10M	QPSK	1#0	22.42	22.29	22.33
		1#25	22.79	22.91	22.07
		1#49	22.28	22.15	23.13
		25#0	22.81	22.33	22.48
		25#25	22.45	22.22	22.74
		50#0	23.14	22.98	23.12
	16-QAM	1#0	22.92	22.46	23.01
		1#25	22.86	22.53	23.03
		1#49	22.73	22.74	22.43
		25#0	22.62	23.09	23.05
		25#25	22.71	22.23	22.3
		50#0	22.59	23.02	22.43

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	22.3	22.17	22.43
		1#38	22.3	22.1	22.1
		1#74	22.8	22.49	22.78
		36#0	22.81	22.84	22.23
		36#39	22.38	22.78	22.95
		75#0	22.2	22.33	21.99
	16-QAM	1#0	22.77	22.67	22.22
		1#38	22.07	22.61	22.34
		1#74	22.77	22.36	22.47
		36#0	22.11	22.31	22.3
		36#39	22.23	22.88	22.96
		75#0	22.82	22.92	22
20M	QPSK	1#0	22.98	23.17	23.07
		1#50	22.51	22.49	22.57
		1#99	22.57	22.27	22.07
		50#0	22.94	22.95	22.86
		50#50	22.11	22.52	22.23
		100#0	22.83	22.93	22.96
	16-QAM	1#0	22.4	22.17	22.71
		1#50	22.92	22.46	22.46
		1#99	22.9	22.4	22.42
		50#0	22.35	22.03	22.69
		50#50	22.88	22.55	22.16
		100#0	22.53	22.65	22.53

LTE Band 12

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	22.35	22.82	22.28
		1#3	22.01	22.59	22.68
		1#5	22.05	22.94	22.9
		3#0	22.65	22.77	22.02
		3#3	22.66	22.95	22.09
		6#0	22.71	22.08	22.84
	16-QAM	1#0	22.23	22.65	22.01
		1#3	22.61	22.04	22.4
		1#5	21.99	22.8	22.28
		3#0	22.74	22.02	22.28
		3#3	22.12	22.81	21.94
		6#0	21.92	22.11	22.52
3M	QPSK	1#0	22.55	22.54	22.47
		1#8	22.65	22.41	22.44
		1#14	22.54	22.22	22.44
		6#0	22.68	22.75	22.82
		6#9	22.76	22.4	22.52
		15#0	22.82	22.55	22.53
	16-QAM	1#0	22.6	22.49	22.83
		1#8	22.68	22.18	22.87
		1#14	22.34	22.87	22.3
		6#0	22.28	22.12	21.98
		6#9	22.8	22.34	22.48
		15#0	22.03	22.63	22.5

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	22.4	22.63	22.54
		1#13	22.54	22.29	22.75
		1#24	22	22.2	22.65
		15#0	22.8	22.66	22.74
		15#10	22.81	21.95	22.81
		25#0	22.25	22.37	22.88
	16-QAM	1#0	22.6	22.96	22.27
		1#13	21.95	21.98	22.45
		1#24	22.75	22.46	22.52
		15#0	22.95	22.23	22.11
		15#10	22.66	22.28	22.58
		25#0	22.37	22.47	22.26
10M	QPSK	1#0	22.89	22.78	22.97
		1#25	22.51	21.97	21.92
		1#49	22.34	22.4	22.07
		25#0	22.66	22.43	22.85
		25#25	22.19	22.43	22.33
		50#0	22.54	22.1	22.73
	16-QAM	1#0	21.93	22.2	22.33
		1#25	22.43	22.76	22.37
		1#49	22.36	22.48	22.04
		25#0	22.76	22.65	22.54
		25#25	22.47	22.32	22.82
		50#0	22.74	22.89	22.3

LTE Band 13

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	23.34	22.84	22.77
		1#13	22.99	23.08	23.42
		1#24	23.57	23.7	22.94
		15#0	23.17	23.14	23.5
		15#10	22.87	22.88	23.52
		25#0	23.45	22.78	23.61
	16-QAM	1#0	23.74	23.03	23.52
		1#13	22.82	22.96	23.48
		1#24	23.6	22.89	22.81
		15#0	23.55	22.82	23.25
		15#10	23.65	23.24	23.27
		25#0	23.36	23.73	23.16
10M	QPSK	1#0	/	23.76	/
		1#25	/	23.28	/
		1#49	/	22.76	/
		25#0	/	23.28	/
		25#25	/	23.36	/
		50#0	/	23.18	/
	16-QAM	1#0	/	23.02	/
		1#25	/	22.72	/
		1#49	/	23.2	/
		25#0	/	23.13	/
		25#25	/	23.49	/
		50#0	/	23.15	/

LTE Band 14

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	22.82	23.44	23
		1#13	23.56	23.64	23.35
		1#24	23.53	23.06	23.76
		15#0	23.23	23.78	23.81
		15#10	22.9	23.68	23
		25#0	23.41	23.06	23.1
	16-QAM	1#0	23.65	23.71	23.42
		1#13	23.62	23.73	22.84
		1#24	23.33	23.01	23
		15#0	23.6	23.08	23.41
		15#10	23.14	23.62	23.75
		25#0	23.65	23.78	23.25
10M	QPSK	1#0	/	23.84	/
		1#25	/	23.5	/
		1#49	/	23.73	/
		25#0	/	23.54	/
		25#25	/	23.22	/
		50#0	/	23.22	/
	16-QAM	1#0	/	23.21	/
		1#25	/	22.94	/
		1#49	/	23.13	/
		25#0	/	23.7	/
		25#25	/	23.23	/
		50#0	/	23.83	/

LTE Band 17

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	22.28	22.07	22.79
		1#13	22.04	22.48	22.57
		1#24	22.8	22.57	22.79
		15#0	22.06	22.3	22.89
		15#10	22.44	22.28	22.29
		25#0	22.77	22.83	22.87
	16-QAM	1#0	22.41	22.7	22.17
		1#13	22.91	22.56	22.31
		1#24	22.68	22.32	22.29
		15#0	22.06	22.2	22.43
		15#10	22.84	22.27	22.32
		25#0	22.11	21.94	22.05
10M	QPSK	1#0	22.46	22.94	22.82
		1#25	22.79	22.7	22.82
		1#49	22.29	22.85	22.46
		25#0	22.31	22.76	22.5
		25#25	22.37	22.94	22.78
		50#0	21.99	22.85	22.53
	16-QAM	1#0	22.42	22.14	22.52
		1#25	22.25	22.04	22.77
		1#49	22.61	22.38	22.49
		25#0	22.76	22.23	22.59
		25#25	22.69	21.95	22.76
		50#0	22.38	22.76	21.96

LTE Band 25

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	22.04	22	22.1
		1#3	22.23	21.51	22.22
		1#5	21.51	22.16	21.55
		3#0	21.52	21.49	21.48
		3#3	21.74	21.63	21.67
		6#0	22.15	22.18	21.53
	16-QAM	1#0	21.59	21.95	21.68
		1#3	22.24	21.88	21.88
		1#5	21.95	21.45	21.79
		3#0	21.31	21.97	22.03
		3#3	21.46	22.22	22.21
		6#0	21.94	21.34	22.09
3M	QPSK	1#0	22.26	21.45	21.42
		1#8	21.57	21.72	21.59
		1#14	22.04	22	21.79
		6#0	21.4	21.97	21.95
		6#9	21.98	21.73	22.18
		15#0	21.81	21.57	22.11
	16-QAM	1#0	21.33	21.4	22.11
		1#8	21.71	21.35	21.4
		1#14	22.07	22.18	22.29
		6#0	22.3	21.55	21.97
		6#9	21.66	21.48	22.12
		15#0	22.14	22.29	22

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.44	21.64	21.76
		1#13	21.96	21.54	21.68
		1#24	21.37	21.44	21.58
		15#0	21.38	21.85	22.33
		15#10	22.15	22.25	21.54
		25#0	22.03	21.8	21.54
	16-QAM	1#0	22.26	22.33	21.77
		1#13	21.58	21.85	22.09
		1#24	21.83	21.83	22.24
		15#0	22.15	22.3	21.89
		15#10	21.28	22.25	21.34
		25#0	21.81	21.52	22.13
10M	QPSK	1#0	21.71	21.51	21.77
		1#25	21.32	21.52	21.59
		1#49	21.53	22.1	22.03
		25#0	21.57	22.04	22.16
		25#25	21.77	21.6	21.3
		50#0	21.81	21.94	21.58
	16-QAM	1#0	21.55	21.86	22.28
		1#25	21.81	22.26	21.65
		1#49	21.73	21.46	22.18
		25#0	21.36	21.66	21.9
		25#25	21.52	21.9	21.42
		50#0	22.18	22.15	21.91

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	22.3	22.09	21.62
		1#38	21.37	21.75	21.36
		1#74	22.1	21.98	21.82
		36#0	21.49	21.79	21.87
		36#39	21.37	21.97	22.09
		75#0	22.2	22.03	21.39
	16-QAM	1#0	21.57	22.32	22.1
		1#38	21.99	21.52	22.27
		1#74	21.45	22.22	21.88
		36#0	21.64	22.31	21.54
		36#39	22.09	21.72	21.3
		75#0	21.81	22.17	21.44
20M	QPSK	1#0	22.14	22.34	22
		1#50	21.75	21.85	21.63
		1#99	22.19	21.61	22.06
		50#0	22.07	22.17	22.12
		50#50	22.26	22.1	21.7
		100#0	21.79	21.4	22.03
	16-QAM	1#0	21.48	21.61	21.43
		1#50	22.33	21.62	21.52
		1#99	22.27	21.56	21.94
		50#0	21.34	21.84	22.2
		50#50	22.2	22.24	22.26
		100#0	21.37	22.15	21.71

LTE Band 26

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	23.18	23.23	22.95
		1#3	23.09	23.47	22.84
		1#5	22.78	23.47	23
		3#0	22.62	22.96	23.05
		3#3	22.85	23.52	22.9
		6#0	23.11	23.15	22.74
	16-QAM	1#0	22.81	23.5	23.02
		1#3	22.79	23.56	23.05
		1#5	22.62	23.18	22.9
		3#0	23.12	22.65	23.15
		3#3	23.04	23.11	23.6
		6#0	22.97	23	23.27
3M	QPSK	1#0	23.07	23.17	22.98
		1#8	23.26	23.54	23.26
		1#14	22.92	23.04	23.53
		6#0	22.94	23.08	23.27
		6#9	23.63	22.75	22.68
		15#0	23.59	23.45	23.39
	16-QAM	1#0	23.2	22.73	23.31
		1#8	23.57	22.86	23.28
		1#14	22.91	23.26	23.35
		6#0	23.13	22.92	23.08
		6#9	23.53	23.55	23.65
		15#0	23.1	23.44	23.05

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	23.01	23.05	23.25
		1#13	22.92	23.65	22.77
		1#24	23.54	23.01	23.66
		15#0	23.22	22.88	23.35
		15#10	23.3	22.88	22.97
		25#0	22.78	22.75	23.21
	16-QAM	1#0	23.51	22.76	23.6
		1#13	23.45	23.15	22.87
		1#24	22.76	23.41	22.87
		15#0	22.9	22.84	23.36
		15#10	23.09	23.37	22.75
		25#0	23.6	23.61	22.83
10M	QPSK	1#0	22.86	23.11	23.18
		1#25	22.71	23.34	22.68
		1#49	23.14	23.61	23.07
		25#0	23.42	23.4	23.48
		25#25	22.97	23.6	23.3
		50#0	23.36	22.96	22.89
	16-QAM	1#0	23.59	23.25	23.1
		1#25	23.66	23.4	22.84
		1#49	23.55	23.29	23.38
		25#0	23.61	22.98	23.12
		25#25	22.64	23.19	23.45
		50#0	23.29	23.55	23.27
15M	QPSK	1#0	23.7	23.55	23.38
		1#38	23.44	23.24	22.82
		1#74	23.25	23	23.11
		36#0	23.07	23	22.88
		36#39	23.02	22.72	22.85
		75#0	23.32	22.97	23.09
	16-QAM	1#0	22.73	22.97	23.61
		1#38	22.87	23.05	23.01
		1#74	23.35	22.82	22.73
		36#0	23.22	23	22.92
		36#39	23.63	23.25	22.84
		75#0	23.51	23.19	22.8

LTE Band 41

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Low Middle Channel (dBm)	Middle Channel (dBm)	High Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	22.54	22.34	22.3	22.1	23.32
		1#13	22.51	22.31	22.28	22.08	23.31
		1#24	22.5	22.3	22.29	22.09	23.4
		15#0	21.42	21.22	21.18	20.98	22.32
		15#10	21.38	21.18	21.26	21.06	22.35
		25#0	21.42	21.22	21.23	21.03	22.37
	16-QAM	1#0	21.37	21.17	21.24	21.04	22.27
		1#13	21.71	21.51	21.72	21.52	22.5
		1#24	21.69	21.49	21.7	21.5	22.57
		15#0	21.64	21.44	21.7	21.5	22.57
		15#10	20.45	20.25	20.38	20.18	21.33
		25#0	20.45	20.25	20.37	20.17	21.44
10M	QPSK	1#0	22.53	22.33	22.12	21.92	23.27
		1#25	22.38	22.18	22.05	21.85	23.29
		1#49	22.49	22.29	22.16	21.96	23.38
		25#0	21.38	21.18	21.21	21.01	22.22
		25#25	21.49	21.29	21.21	21.01	22.27
		50#0	21.48	21.28	21.23	21.03	22.32
	16-QAM	1#0	21.5	21.3	21.2	21	22.24
		1#25	21.71	21.51	21.38	21.18	22.57
		1#49	21.59	21.39	21.36	21.16	22.62
		25#0	21.76	21.56	21.43	21.23	22.73
		25#25	20.64	20.44	20.29	20.09	21.35
		50#0	20.62	20.42	20.4	20.2	21.39

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Low Middle Channel (dBm)	Middle Channel (dBm)	High Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	22.51	22.31	22.14	21.94	23.14
		1#38	22.5	22.3	22.12	21.92	23.22
		1#74	22.44	22.24	22.17	21.97	23.31
		36#0	21.5	21.3	21.15	20.95	22.08
		36#39	21.44	21.24	21.18	20.98	22.22
		75#0	21.35	21.15	21.15	20.95	22.28
	16-QAM	1#0	21.35	21.15	21.15	20.95	22.1
		1#38	22.02	21.82	21.42	21.22	22.51
		1#74	21.95	21.75	21.37	21.17	22.61
		36#0	21.9	21.7	21.46	21.26	22.75
		36#39	20.67	20.47	20.34	20.14	21.14
		75#0	20.58	20.38	20.35	20.15	21.2

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Low Middle Channel 2549.5 MHz (dBm)	Middle Channel 2593 MHz (dBm)	High Middle Channel 2636.5 MHz (dBm)	High Channel (dBm)
20M	QPSK	1#0	23.43	23.23	23.2	23	23.24
		1#50	22.48	22.28	22.28	22.08	23.1
		1#99	22.33	22.13	22.3	22.1	23.24
		50#0	23.14	22.94	23.07	22.87	23.11
		50#50	22.48	22.28	22.19	22.19	22.05
		100#0	22.46	22.26	22.23	22.17	22.15
	16-QAM	1#0	21.36	21.16	21.85	21.65	22.19
		1#50	21.71	21.51	21.56	21.36	21.63
		1#99	21.66	21.46	22.52	22.32	22.34
		50#0	21.56	21.36	21.61	21.41	22.01
		50#50	20.5	20.3	21.96	21.76	21.78
		100#0	20.56	20.36	22.5	22.3	22.1

WLAN 2.4G:

Mode	Channel frequency (MHz)	Data Rate	Conducted Average Output Power(dBm)
802.11b	2412	1Mbps	8.99
	2437		9.05
	2462		9.24
802.11g	2412	6Mbps	8.7
	2437		8.61
	2462		8.8
802.11n HT20	2412	MCS0	8.54
	2437		8.51
	2462		8.64
802.11n HT40	2422	MCS0	9.12
	2437		9.06
	2452		9.22

Note:
2.4G wifi duty cycle is 97.69%. Refer to the report for details RKSA240322001-00B

WLAN 5.2G:

Test mode	Band	Frequency (MHz)	Average Conducted Output Power (dBm)
802.11a	5150-5250 MHz	5180	7.4
		5200	7.27
		5240	6.75
802.11ac20	5150-5250 MHz	5180	7.13
		5200	6.93
		5240	6.24
802.11n-HT20	5150-5250 MHz	5180	7.12
		5200	6.91
		5240	6.24
802.11ac40	5150-5250 MHz	5190	7.39
		5230	7.07
802.11n-HT40	5150-5250 MHz	5190	7.42
		5230	7.16
802.11ac80	5150-5250 MHz	5210	7.33

Note:
5.2G wifi duty cycle is 97.81%. Refer to the report for details RKSA240322001-00C

WLAN 5.8G:

Test mode	Band	Frequency (MHz)	Average Conducted Output Power (dBm)
802.11a	5725-5850 MHz	5745	7.38
		5785	6.98
		5825	7.14
802.11ac20	5725-5850 MHz	5745	7.05
		5785	6.76
		5825	6.96
802.11n-HT20	5725-5850 MHz	5745	7.09
		5785	6.73
		5825	6.93
802.11ac40	5725-5850 MHz	5755	6.56
		5795	7.37
802.11n-HT40	5725-5850 MHz	5755	6.93
		5795	6.94
802.11ac80	5725-5850 MHz	5775	6.98

Note:
5.8G wifi duty cycle is 96.97%. Refer to the report for details RKSA240322001-00C

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2.4G SRD

Mode	Channel	Frequency (MHz)	Max Conducted Average Output Power (dBm)
SRD(1.25M)	Low	2411	7.81
	Middle	2444	7.86
	High	2466	7.51
SRD(10M)	Low	2411	6.52
	Middle	2444	6.62
	High	2466	6.19

5.2G SRD

Mode	Channel	Frequency (MHz)	Max Conducted Average Output Power (dBm)
SRD (BW: 1.25 MHz)	Low	5180	6.93
	Middle	5210	7.56
	High	5240	7.47
SRD (BW: 10 MHz)	Low	5180	7.18
	Middle	5210	7.56
	High	5240	7.68

5.8G SRD

Mode	Channel	Frequency (MHz)	Max Conducted Average Output Power (dBm)
SRD (BW: 1.25 MHz)	Low	5735	7.15
	Middle	5775	7.08
	High	5805	6.54
SRD (BW: 10 MHz)	Low	5735	6.91
	Middle	5775	6.89
	High	5805	6.92

WWAN Antenna Reduction Power

LTE Band 2

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	17.06	16.85	16.77
		1#3	17.1	16.91	16.81
		1#5	17.26	16.84	16.74
		3#0	17.16	16.9	16.75
		3#3	17.22	16.94	16.86
		6#0	17.16	16.92	16.74
	16-QAM	1#0	16.1	15.98	15.83
		1#3	16.56	15.82	15.65
		1#5	16.64	15.87	15.67
		3#0	16.56	15.86	15.67
		3#3	16.47	16.14	15.94
		6#0	16.59	16.19	16.02
3M	QPSK	1#0	17.12	16.99	17.02
		1#8	17.12	16.95	17.02
		1#14	17.14	17.05	17.03
		6#0	16.19	16.14	15.95
		6#9	16.18	16.14	15.9
		15#0	16.24	16.12	15.96
	16-QAM	1#0	16.18	16.09	15.92
		1#8	16.15	16.09	16.33
		1#14	16.09	15.99	16.28
		6#0	16.09	16.06	16.28
		6#9	15.28	15.26	15.02
		15#0	15.31	15.25	15.06

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	17.22	17.15	16.9
		1#13	17.19	17.07	16.85
		1#24	17.17	17.07	16.79
		15#0	16.28	16.18	15.94
		15#10	16.23	16.12	15.91
		25#0	16.29	16.13	15.96
	16-QAM	1#0	16.23	16.15	15.93
		1#13	16.33	16.22	16.53
		1#24	16.33	16.13	16.52
		15#0	16.35	16.14	16.47
		15#10	15.46	15.28	15.11
		25#0	15.38	15.23	15.1
10M	QPSK	1#0	17.22	17.03	17.02
		1#25	17.14	16.98	17.04
		1#49	17.09	16.17	17
		25#0	16.28	16.21	15.95
		25#25	16.3	16.14	16.01
		50#0	16.23	16.18	15.96
	16-QAM	1#0	16.27	16.21	15.9
		1#25	16.16	16.1	16.31
		1#49	16.09	15.99	16.32
		25#0	16.04	15.35	16.25
		25#25	15.45	15.27	15.11
		50#0	15.39	15.26	15.09

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	17.16	17.19	16.85
		1#38	17.26	17.07	17.08
		1#74	17.16	16.87	16.96
		36#0	16.24	16.21	15.89
		36#39	16.22	16.16	15.85
		75#0	16.15	16.03	15.94
	16-QAM	1#0	16.21	16.1	15.86
		1#38	16.41	16.29	16.36
		1#74	16.24	16.09	16.34
		36#0	16.19	15.97	16.22
		36#39	15.36	15.33	15.02
		75#0	15.36	15.28	15
20M	QPSK	1#0	17.42	17.23	17.36
		1#50	17.08	17.06	16.72
		1#99	16.99	16.92	16.67
		50#0	17.12	17.13	17.05
		50#50	16.3	16.25	16.95
		100#0	16.26	17.09	16.85
	16-QAM	1#0	16.21	16.02	15.82
		1#50	16.6	16.95	16.36
		1#99	16.47	16.74	16.18
		50#0	16.38	16.67	16.12
		50#50	15.36	15.21	14.96
		100#0	15.3	15.4	15.09

LTE Band 4

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	17.83	17.95	17.93
		1#3	17.81	17.99	17.99
		1#5	17.81	17.91	17.9
		3#0	17.81	17.91	17.78
		3#3	17.89	18.03	17.85
		6#0	17.81	17.91	17.78
	16-QAM	1#0	16.94	16.91	16.81
		1#3	16.77	16.84	17.19
		1#5	16.8	16.9	17.26
		3#0	16.79	16.85	17.17
		3#3	17.06	17.18	17.14
		6#0	17.15	17.28	17.2
3M	QPSK	1#0	17.95	17.96	18.02
		1#8	17.88	17.95	18.05
		1#14	17.92	17.99	18.01
		6#0	17	17.02	16.88
		6#9	17.01	17.01	16.88
		15#0	17.06	17.03	16.95
	16-QAM	1#0	16.98	16.99	16.85
		1#8	16.9	17.04	17.29
		1#14	16.8	16.97	17.29
		6#0	16.82	17.02	17.32
		6#9	16.01	16.12	15.99
		15#0	16.06	16.12	16.02

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	17.95	18.05	17.82
		1#13	17.95	18.07	17.85
		1#24	17.89	17.98	17.75
		15#0	17.08	17.08	16.91
		15#10	16.98	16.97	16.89
		25#0	17.06	17.05	16.95
	16-QAM	1#0	17.08	17.05	16.9
		1#13	17.1	17.16	17.49
		1#24	17.02	17.11	17.56
		15#0	17.03	17.1	17.48
		15#10	16.19	16.16	16.1
		25#0	16.11	16.12	16.06
10M	QPSK	1#0	17.98	18.11	18.03
		1#25	17.85	18.03	18.02
		1#49	17.88	18	17.98
		25#0	17.06	17.1	16.93
		25#25	17.16	17.11	16.91
		50#0	17.08	17.05	16.9
	16-QAM	1#0	17.1	17.07	16.9
		1#25	16.92	17.12	17.31
		1#49	16.8	17.08	17.29
		25#0	16.8	16.97	17.3
		25#25	16.25	16.24	16.07
		50#0	16.12	16.16	15.99

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	17.91	17.96	17.85
		1#38	18.12	18	17.99
		1#74	17.98	17.93	17.98
		36#0	17.07	17.05	16.96
		36#39	17.08	17.03	16.89
		75#0	16.96	16.97	16.89
	16-QAM	1#0	17.06	17.01	16.99
		1#38	17.12	17.13	17.52
		1#74	17.08	17.05	17.31
		36#0	16.93	16.97	17.26
		36#39	16.17	16.15	16.13
		75#0	16.17	16.15	15.99
20M	QPSK	1#0	18.1	18.1	18.19
		1#50	17.9	17.99	17.66
		1#99	17.92	17.87	17.62
		50#0	17.75	17.83	17.9
		50#50	17.13	17.08	17.01
		100#0	17.09	17.09	17.03
	16-QAM	1#0	17.1	17	16.9
		1#50	17.35	17.64	17.39
		1#99	17.28	17.68	17.2
		50#0	17.3	17.63	17.14
		50#50	16.08	16.1	16.04
		100#0	16.13	16.13	16.09

LTE Band 5

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	18.57	18.6	18.65
		1#3	18.61	18.62	18.66
		1#5	18.54	18.6	18.63
		3#0	18.48	18.53	18.56
		3#3	18.5	18.64	18.61
		6#0	18.45	18.54	18.58
	16-QAM	1#0	17.38	17.68	17.72
		1#3	17.87	17.48	17.47
		1#5	17.97	17.48	17.54
		3#0	17.85	17.48	17.49
		3#3	17.85	17.77	17.76
		6#0	17.98	17.84	17.88
3M	QPSK	1#0	17.71	17.71	17.94
		1#8	18.5	18.68	18.9
		1#14	18.47	18.72	18.89
		6#0	17.64	17.76	17.8
		6#9	17.62	17.8	17.79
		15#0	17.64	17.8	17.8
	16-QAM	1#0	17.56	17.74	17.78
		1#8	17.39	17.72	18.09
		1#14	17.43	17.67	18.07
		6#0	17.43	17.73	18.08
		6#9	16.65	16.89	16.85
		15#0	16.7	16.88	16.94

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	17.37	17.31	17.43
		1#13	17.26	17.69	17.31
		1#24	17.25	17.64	17.64
		15#0	17.86	17.46	17.16
		15#10	17.16	17.96	17.37
		25#0	17.44	17.31	17.65
	16-QAM	1#0	17.8	17.83	17.77
		1#13	17.12	17.94	17.56
		1#24	17.67	17.15	17.22
		15#0	17.82	17.09	17.5
		15#10	17.73	17.96	17.71
		25#0	17.12	17.26	17.39
10M	QPSK	1#0	18.41	18.73	18.94
		1#25	17.94	17.1	17.34
		1#49	17.17	17.96	17.08
		25#0	18.07	18.18	18.16
		25#25	17.46	17.09	17.4
		50#0	17.24	17.56	18.01
	16-QAM	1#0	17.9	17.58	18.05
		1#25	17.45	17.84	17.07
		1#49	17.42	17.37	17.66
		25#0	17.33	17.75	17.33
		25#25	17.17	18.03	17.22
		50#0	17.7	17.86	17.63

LTE Band 7

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	18.3	17.61	17.96
		1#13	18.25	17.78	18.2
		1#24	18.22	17.34	18.04
		15#0	17.72	17.39	17.36
		15#10	17.7	17.34	17.81
		25#0	17.34	18.21	17.66
	16-QAM	1#0	18.26	17.8	18.17
		1#13	17.85	17.96	17.76
		1#24	17.74	17.83	18.13
		15#0	17.36	17.56	17.45
		15#10	18.13	17.95	18
		25#0	18.04	18.08	17.53
10M	QPSK	1#0	17.6	17.47	17.51
		1#25	17.97	18.09	17.25
		1#49	17.46	17.33	18.31
		25#0	17.99	17.51	17.66
		25#25	17.63	17.4	17.92
		50#0	18.32	18.16	18.3
	16-QAM	1#0	18.1	17.64	18.19
		1#25	18.04	17.71	18.21
		1#49	17.91	17.92	17.61
		25#0	17.8	18.27	18.23
		25#25	17.89	17.41	17.48
		50#0	17.77	18.2	17.61

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	17.48	17.35	17.61
		1#38	17.48	17.28	17.28
		1#74	17.98	17.67	17.96
		36#0	17.99	18.02	17.41
		36#39	17.56	17.96	18.13
		75#0	17.38	17.51	17.17
	16-QAM	1#0	17.95	17.85	17.4
		1#38	17.25	17.79	17.52
		1#74	17.95	17.54	17.65
		36#0	17.29	17.49	17.48
		36#39	17.41	18.06	18.14
		75#0	18	18.1	17.18
20M	QPSK	1#0	18.16	18.35	18.25
		1#50	17.69	17.67	17.75
		1#99	17.75	17.45	17.25
		50#0	18.12	18.13	18.04
		50#50	17.1	17.7	17.41
		100#0	18.01	18.11	18.14
	16-QAM	1#0	17.58	17.35	17.89
		1#50	18.1	17.64	17.64
		1#99	18.08	17.58	17.6
		50#0	17.53	17.21	17.87
		50#50	18.06	17.73	17.34
		100#0	17.71	17.83	17.71

LTE Band 12

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	17.35	17.82	17.28
		1#3	17.01	17.59	17.68
		1#5	17.05	17.94	17.9
		3#0	17.65	17.77	17.02
		3#3	17.66	17.95	17.09
		6#0	17.71	17.08	17.84
	16-QAM	1#0	17.23	17.65	17.01
		1#3	17.61	17.04	17.4
		1#5	16.99	17.8	17.28
		3#0	17.74	17.02	17.28
		3#3	17.12	17.81	16.94
		6#0	16.92	17.11	17.52
3M	QPSK	1#0	17.55	17.54	17.47
		1#8	17.65	17.41	17.44
		1#14	17.54	17.22	17.44
		6#0	17.68	17.75	17.82
		6#9	17.76	17.4	17.52
		15#0	17.82	17.55	17.53
	16-QAM	1#0	17.6	17.49	17.83
		1#8	17.68	17.18	17.87
		1#14	17.34	17.87	17.3
		6#0	17.28	17.12	16.98
		6#9	17.8	17.34	17.48
		15#0	17.03	17.63	17.5

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	17.4	17.63	17.54
		1#13	17.54	17.29	17.75
		1#24	17	17.2	17.65
		15#0	17.8	17.66	17.74
		15#10	17.81	16.95	17.81
		25#0	17.25	17.37	17.88
	16-QAM	1#0	17.6	17.96	17.27
		1#13	16.95	16.98	17.45
		1#24	17.75	17.46	17.52
		15#0	17.95	17.23	17.11
		15#10	17.66	17.28	17.58
		25#0	17.37	17.47	17.26
10M	QPSK	1#0	17.89	17.78	17.95
		1#25	17.51	16.97	16.92
		1#49	17.34	17.4	17.07
		25#0	17.66	17.43	17.85
		25#25	17.19	17.43	17.33
		50#0	17.54	17.1	17.73
	16-QAM	1#0	16.93	17.2	17.33
		1#25	17.43	17.76	17.37
		1#49	17.36	17.48	17.04
		25#0	17.76	17.65	17.54
		25#25	17.47	17.32	17.82
		50#0	17.74	17.89	17.3

LTE Band 13

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	18.51	18.01	17.94
		1#13	18.16	18.25	18.59
		1#24	18.74	18.87	18.11
		15#0	18.34	18.31	18.67
		15#10	18.04	18.05	18.69
		25#0	18.62	17.95	18.78
	16-QAM	1#0	18.91	18.2	18.69
		1#13	17.99	18.13	18.65
		1#24	18.77	18.06	17.98
		15#0	18.72	17.99	18.42
		15#10	18.82	18.41	18.44
		25#0	18.53	18.9	18.33
10M	QPSK	1#0	/	18.93	/
		1#25	/	18.45	/
		1#49	/	17.93	/
		25#0	/	18.45	/
		25#25	/	18.53	/
		50#0	/	18.35	/
	16-QAM	1#0	/	18.19	/
		1#25	/	17.89	/
		1#49	/	18.37	/
		25#0	/	18.3	/
		25#25	/	18.66	/
		50#0	/	18.32	/

LTE Band 14

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	17.99	18.61	18.17
		1#13	18.73	18.81	18.52
		1#24	18.7	18.23	18.93
		15#0	18.4	18.95	18.98
		15#10	18.07	18.85	18.17
		25#0	18.58	18.23	18.27
	16-QAM	1#0	18.82	18.88	18.59
		1#13	18.79	18.9	18.01
		1#24	18.5	18.18	18.17
		15#0	18.77	18.25	18.58
		15#10	18.31	18.79	18.92
		25#0	18.82	18.95	18.42
10M	QPSK	1#0	/	19.01	/
		1#25	/	18.67	/
		1#49	/	18.9	/
		25#0	/	18.71	/
		25#25	/	18.09	/
		50#0	/	18.19	/
	16-QAM	1#0	/	18.38	/
		1#25	/	18.11	/
		1#49	/	18.3	/
		25#0	/	18.87	/
		25#25	/	18.4	/
		50#0	/	19	/

LTE Band 17

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	17.27	17.06	17.78
		1#13	17.03	17.47	17.56
		1#24	17.79	17.56	17.78
		15#0	17.05	17.29	17.88
		15#10	17.43	17.27	17.28
		25#0	17.76	17.82	17.86
	16-QAM	1#0	17.4	17.69	17.16
		1#13	17.9	17.55	17.3
		1#24	17.67	17.31	17.28
		15#0	17.05	17.19	17.42
		15#10	17.83	17.26	17.31
		25#0	17.1	16.93	17.04
10M	QPSK	1#0	17.45	17.93	17.81
		1#25	17.78	17.69	17.81
		1#49	17.28	17.84	17.45
		25#0	17.3	17.75	17.49
		25#25	17.36	17.93	17.77
		50#0	16.98	17.84	17.52
	16-QAM	1#0	17.41	17.13	17.51
		1#25	17.24	17.03	17.76
		1#49	17.6	17.37	17.48
		25#0	17.75	17.22	17.58
		25#25	17.68	16.94	17.75
		50#0	17.37	17.75	16.95

LTE Band 25

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	17.21	17.17	17.27
		1#3	17.4	16.68	17.39
		1#5	16.68	17.33	16.72
		3#0	16.69	16.66	16.65
		3#3	16.91	16.8	16.84
		6#0	17.32	17.35	16.7
	16-QAM	1#0	16.76	17.12	16.85
		1#3	17.41	17.05	17.05
		1#5	17.12	16.62	16.96
		3#0	16.48	17.14	17.2
		3#3	16.63	17.39	17.38
		6#0	17.11	16.51	17.26
3M	QPSK	1#0	17.43	16.62	16.59
		1#8	16.74	16.89	16.76
		1#14	17.21	17.17	16.96
		6#0	16.57	17.14	17.12
		6#9	17.15	16.9	17.35
		15#0	16.98	16.74	17.28
	16-QAM	1#0	16.5	16.57	17.28
		1#8	16.88	16.52	16.57
		1#14	17.24	17.35	17.46
		6#0	17.47	16.72	17.14
		6#9	16.83	16.65	17.29
		15#0	17.31	17.46	17.17

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	16.61	16.81	16.93
		1#13	17.13	16.71	16.85
		1#24	16.54	16.61	16.75
		15#0	16.55	17.02	17.5
		15#10	17.32	17.42	16.71
		25#0	17.2	16.97	16.71
	16-QAM	1#0	17.43	17.5	16.94
		1#13	16.75	17.02	17.26
		1#24	17	17	17.41
		15#0	17.32	17.47	17.06
		15#10	16.45	17.42	16.51
		25#0	16.98	16.69	17.3
10M	QPSK	1#0	16.88	16.68	16.94
		1#25	16.49	16.69	16.76
		1#49	16.7	17.27	17.2
		25#0	16.74	17.21	17.33
		25#25	16.94	16.77	16.47
		50#0	16.98	17.11	16.75
	16-QAM	1#0	16.72	17.03	17.45
		1#25	16.98	17.43	16.82
		1#49	16.9	16.63	17.35
		25#0	16.53	16.83	17.07
		25#25	16.69	17.07	16.59
		50#0	17.35	17.32	17.08

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	17.47	17.26	16.79
		1#38	16.54	16.92	16.53
		1#74	17.27	17.15	16.99
		36#0	16.66	16.96	17.04
		36#39	16.54	17.14	17.26
		75#0	17.37	17.2	16.56
	16-QAM	1#0	16.74	17.49	17.27
		1#38	17.16	16.69	17.44
		1#74	16.62	17.39	17.05
		36#0	16.81	17.48	16.71
		36#39	17.26	16.89	16.47
		75#0	16.98	17.34	16.61
20M	QPSK	1#0	17.31	17.51	17.17
		1#50	16.92	17.02	16.8
		1#99	17.36	16.78	17.23
		50#0	17.24	17.34	17.29
		50#50	17.43	17.27	16.87
		100#0	16.96	16.57	17.2
	16-QAM	1#0	16.65	16.78	16.6
		1#50	17.5	16.79	16.69
		1#99	17.44	16.73	17.11
		50#0	16.51	17.01	17.37
		50#50	17.37	17.41	17.43
		100#0	16.54	17.32	16.88

LTE Band 26

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	18.36	18.41	18.13
		1#3	18.27	18.65	18.02
		1#5	17.96	18.65	18.18
		3#0	17.8	18.14	18.23
		3#3	18.03	18.7	18.08
		6#0	18.29	18.33	17.92
	16-QAM	1#0	17.99	18.68	18.2
		1#3	17.97	18.74	18.23
		1#5	17.8	18.36	18.08
		3#0	18.3	17.83	18.33
		3#3	18.22	18.29	18.78
		6#0	18.15	18.18	18.45
3M	QPSK	1#0	18.25	18.35	18.16
		1#8	18.44	18.72	18.44
		1#14	18.1	18.22	18.71
		6#0	18.12	18.26	18.45
		6#9	18.81	17.93	17.86
		15#0	18.77	18.63	18.57
	16-QAM	1#0	18.38	17.91	18.49
		1#8	18.75	18.04	18.46
		1#14	18.09	18.44	18.53
		6#0	18.31	18.1	18.26
		6#9	18.71	18.73	18.83
		15#0	18.28	18.62	18.23

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	18.19	18.23	18.43
		1#13	18.1	18.83	17.95
		1#24	18.72	18.19	18.84
		15#0	18.4	18.06	18.53
		15#10	18.48	18.06	18.15
		25#0	17.96	17.93	18.39
	16-QAM	1#0	18.69	17.94	18.78
		1#13	18.63	18.33	18.05
		1#24	17.94	18.59	18.05
		15#0	18.08	18.02	18.54
		15#10	18.27	18.55	17.93
		25#0	18.78	18.79	18.01
10M	QPSK	1#0	18.04	18.29	18.36
		1#25	17.89	18.52	17.86
		1#49	18.32	18.79	18.25
		25#0	18.6	18.58	18.66
		25#25	18.15	18.78	18.48
		50#0	18.54	18.14	18.07
	16-QAM	1#0	18.77	18.43	18.28
		1#25	18.84	18.58	18.02
		1#49	18.73	18.47	18.56
		25#0	18.79	18.16	18.3
		25#25	17.82	18.37	18.63
		50#0	18.47	18.73	18.45
15M	QPSK	1#0	18.88	18.73	18.56
		1#38	18.62	18.42	18
		1#74	18.43	18.18	18.29
		36#0	18.25	18.18	18.06
		36#39	18.2	17.9	18.03
		75#0	18.5	18.15	18.27
	16-QAM	1#0	17.91	18.15	18.79
		1#38	18.05	18.23	18.19
		1#74	18.53	18	17.91
		36#0	18.4	18.18	18.1
		36#39	18.81	18.43	18.02
		75#0	18.69	18.37	17.98

LTE Band 41

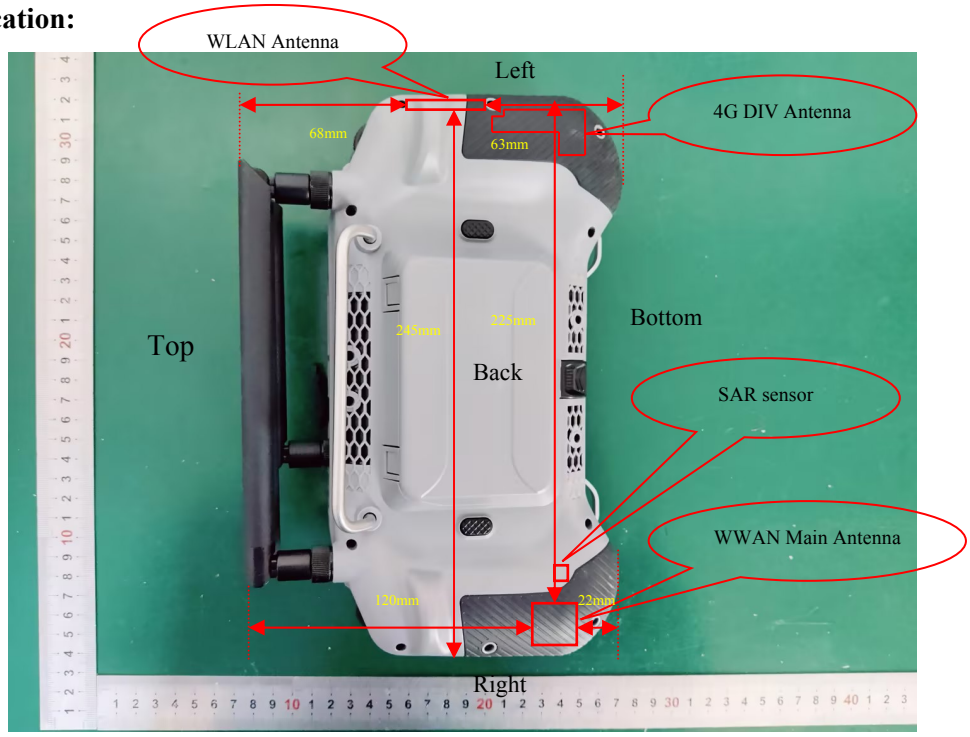
Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Low Middle Channel (dBm)	Middle Channel (dBm)	High Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	17.71	17.51	17.47	17.27	18.49
		1#13	17.68	17.48	17.45	17.25	18.48
		1#24	17.67	17.47	17.46	17.26	18.57
		15#0	16.59	16.39	16.35	16.15	17.49
		15#10	16.55	16.35	16.43	16.23	17.52
		25#0	16.59	16.39	16.4	16.2	17.54
	16-QAM	1#0	16.54	16.34	16.41	16.21	17.44
		1#13	16.88	16.68	16.89	16.69	17.67
		1#24	16.86	16.66	16.87	16.67	17.74
		15#0	16.81	16.61	16.87	16.67	17.74
		15#10	15.62	15.42	15.55	15.35	16.5
		25#0	15.62	15.42	15.54	15.34	16.61
10M	QPSK	1#0	17.7	17.5	17.29	17.09	18.44
		1#25	17.55	17.35	17.22	17.02	18.46
		1#49	17.66	17.46	17.33	17.13	18.55
		25#0	16.55	16.35	16.38	16.18	17.39
		25#25	16.66	16.46	16.38	16.18	17.44
		50#0	16.65	16.45	16.4	16.2	17.49
	16-QAM	1#0	16.67	16.47	16.37	16.17	17.41
		1#25	16.88	16.68	16.55	16.35	17.74
		1#49	16.76	16.56	16.53	16.33	17.79
		25#0	16.93	16.73	16.6	16.4	17.9
		25#25	15.81	15.61	15.46	15.26	16.52
		50#0	15.79	15.59	15.57	15.37	16.56

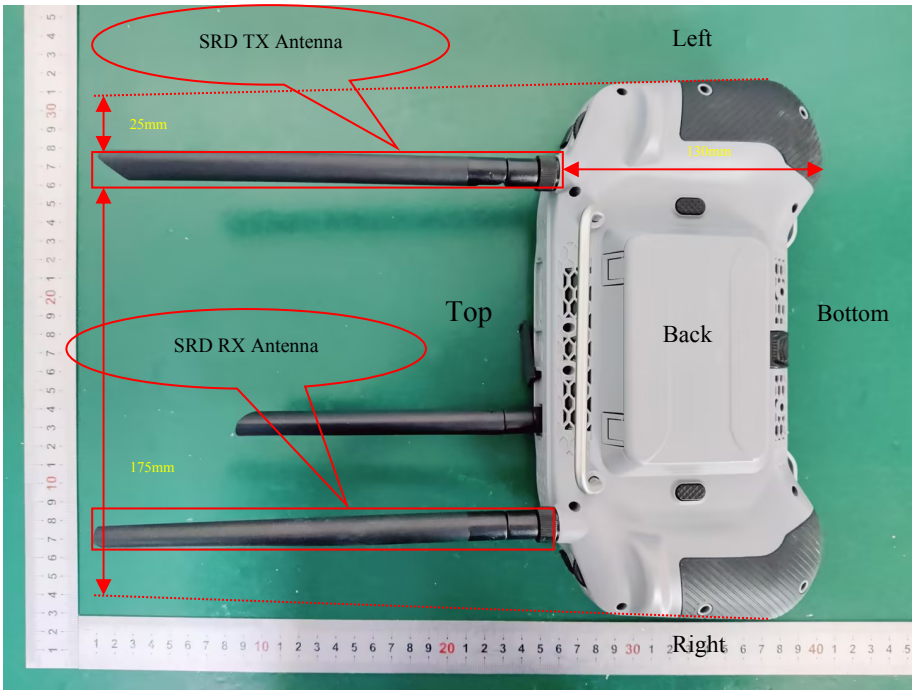
Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Low Middle Channel (dBm)	Middle Channel (dBm)	High Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	17.68	17.48	17.31	17.11	18.31
		1#38	17.67	17.47	17.29	17.09	18.39
		1#74	17.61	17.41	17.34	17.14	18.48
		36#0	16.67	16.47	16.32	16.12	17.25
		36#39	16.61	16.41	16.35	16.15	17.39
		75#0	16.52	16.32	16.32	16.12	17.45
	16-QAM	1#0	16.52	16.32	16.32	16.12	17.27
		1#38	17.19	16.99	16.59	16.39	17.68
		1#74	17.12	16.92	16.54	16.34	17.78
		36#0	17.07	16.87	16.63	16.43	17.92
		36#39	15.84	15.64	15.51	15.31	16.31
		75#0	15.75	15.55	15.52	15.32	16.37

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Low Middle Channel 2549.5 MHz (dBm)	Middle Channel 2593 MHz (dBm)	High Middle Channel 2636.5 MHz (dBm)	High Channel (dBm)
20M	QPSK	1#0	18.6	18.4	18.37	18.17	18.41
		1#50	17.65	17.45	17.45	17.25	18.27
		1#99	17.5	17.3	17.47	17.27	18.41
		50#0	18.31	18.11	18.24	18.04	18.28
		50#50	17.65	17.45	17.36	17.16	17.22
		100#0	17.63	17.43	17.4	17.2	17.32
	16-QAM	1#0	16.53	16.33	17.02	16.82	17.36
		1#50	16.88	16.68	16.73	16.53	16.8
		1#99	16.83	16.63	17.69	17.49	17.51
		50#0	16.73	16.53	16.78	16.58	17.18
		50#50	15.67	15.47	17.13	16.93	16.95
		1#0	18.6	18.4	18.37	18.17	18.41

Standalone SAR test exclusion considerations

Antennas Location:





Antenna Distance To Edge

	Antenna Distance To Edge(mm)					
Antenna	**Back**	**Front**	**Left**	**Right**	**Top**	**Bottom**
WWAN Main	<5	<5	225	<5	120	22
WIFI	<5	<5	<5	245	68	63
SRD	<5	<5	25	175	<5	130

Note: The Main antenna has transmitting and receiving functions, while the DIV antenna only has receiving functions

Standalone SAR Test Exclusion Considerations

Mode	Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Distance (mm)	Calculated value	Threshold (1-g)	SAR Test Exclusion
WLAN 2.4G	2462	10	10.00	0	3.14	3	No
WLAN 5.2G	5240	8.4	6.92	0	3.17	3	No
WLAN 5.8G	5825	8	6.31	0	3.05	3	No
2.4G SRD	2466	8	6.31	0	1.98	3	YES
5.2G SRD	5240	8	6.31	0	2.89	3	YES
5.8G SRD	5805	7.5	5.62	0	2.71	3	YES

According to KDB447498 D01 General RF Exposure Guidance v06: 4.3. General SAR test exclusion guidance
c) For frequencies below 100 MHz, the following may be considered for SAR test exclusion (also illustrated in Appendix C):
1) For test separation distances > 50 mm and < 200 mm, the power threshold at the corresponding test separation distance at 100 MHz in step b) is multiplied by [1 + log(100/f(MHz))]
2) For test separation distances ≤ 50 mm, the power threshold determined by the equation in c) 1) for 50 mm and 100 MHz is multiplied by ½
3) SAR measurement procedures are not established below 100 MHz

Standalone SAR estimation:

Mode	Frequency (MHz)	Pavg (dBm)	Pavg (mW)	Distance (mm)	Estimated 1-g (W/kg)
2.4G SRD Body	2466	8	6.31	0	0.26
5.2G SRD Body	5240	8	6.31	0	0.39
5.8G SRD Body	5805	7.5	5.62	0	0.36

Note: *The SRD based Peak power for calculation.*

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:
[(max. power of channel, including tune-up tolerance , mW)/(min. test separation distance,mm)] · [√f(GHz)/x]
W/kg for test separation distances ≤50 mm;
where x = 7.5 for 1-g SAR. and x= 18.75 for 10-g SAR.
When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion

Standalone SAR test exclusion considerations

Mode	Frequency (MHz)	Pavg (dBm)	Pavg (mW)	Test Exclusion Distance(mm)
LTE Band 12/17	711.0	23	199.53	54.6
LTE Band 26/5	841.5	24	251.19	65.7
LTE Band 7	2560	24	251.19	65.8
LTE Band 25/2	1905.0	23	199.53	59.1
LTE Band 13	782.0	24	251.19	65.7
LTE Band 14	793.0	25	316.23	78.0
LTE Band 4	1745.0	24	251.19	63.8
LTE Band 41	2680	24	251.19	66.0
WLAN 2.4G	2462	10	10	5.3
WLAN 5.2G	5240	8.4	6.92	5.3
WLAN 5.8G	5825	8	6.31	5.1

SAR test exclusion for the EUT edge considerations Result

Mode	Back	Front	Left	Right	Top	Bottom
LTE Band 12/17	**Required**	**Required**	Exclusion	**Required**	Exclusion	**Required**
LTE Band 26/5	**Required**	**Required**	Exclusion	**Required**	Exclusion	**Required**
LTE Band 7	**Required**	**Required**	Exclusion	**Required**	Exclusion	**Required**
LTE Band 25/2	**Required**	**Required**	Exclusion	**Required**	Exclusion	**Required**
LTE Band 13	**Required**	**Required**	Exclusion	**Required**	Exclusion	**Required**
LTE Band 14	**Required**	**Required**	Exclusion	**Required**	Exclusion	**Required**
LTE Band 4	**Required**	**Required**	Exclusion	**Required**	Exclusion	**Required**
LTE Band 41	**Required**	**Required**	Exclusion	**Required**	Exclusion	**Required**
WLAN 2.4G	**Required**	**Required**	**Required**	Exclusion	Exclusion	Exclusion
WLAN 5.2G	**Required**	**Required**	**Required**	Exclusion	Exclusion	Exclusion
WLAN 5.8G	**Required**	**Required**	**Required**	Exclusion	Exclusion	Exclusion

Distance< 50mm(To Edges)

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] ·
[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤7.5 for 10-g extremity SAR, where
1. f(GHz) is the RF channel transmit frequency in GHz.
2. Power and distance are rounded to the nearest mW and mm before calculation.
3. The result is rounded to one decimal place for comparison.
4. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion.
5. The Time based average Power is used for calculation

Distance> 50mm(To Edges)

At 100 MHz to 6 GHz and for *test separation distances* > 50 mm, the SAR test exclusion threshold is determined according to the following:

a) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm)·(f(MHz)/150)] mW, at 100 MHz to 1500 MHz

b) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm)·10] mW at > 1500 MHz and ≤ 6 GHz.

SAR MEASUREMENT RESULTS

This page summarizes the results of the performed dosimetric evaluation.

SAR Test Data

Environmental Conditions

Temperature:	22.4-23.5 ℃	22.3-23.8 ℃	22.6-23.8 ℃	22.4-23.6 ℃
Relative Humidity:	51 %	48 %	50 %	53 %
Test Date:	2024/07/15	2024/07/16	2024/07/17	2024/07/18

Testing was performed by Jason and Allen

LTE FDD Band 12& LTE FDD Band 17:

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Sensor	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	Scaled Factor	Meas. (W/Kg)	Scaled SAR (W/Kg)	Limit (W/Kg)	Plot
Front(0mm)	707.5	QPSK	10M	1	ON	17.78	18.00	1.052	0.238	0.250	1.6	/
Front(0mm)	707.5	QPSK	10M	25	ON	17.43	18.00	1.140	**0.239**	**0.273**	1.6	1#
Back(0mm)	707.5	QPSK	10M	1	OFF	22.78	23.00	1.052	0.019	0.020	1.6	/
Back(0mm)	707.5	QPSK	10M	25	OFF	22.43	23.00	1.140	0.019	0.021	1.6	/
Left Side(0mm)	707.5	QPSK	10M	1	OFF	/	/	/	/	/	1.6	/
Left Side(0mm)	707.5	QPSK	10M	25	OFF	/	/	/	/	/	1.6	/
Right Side(0mm)	707.5	QPSK	10M	1	ON	17.78	18.00	1.052	0.067	0.071	1.6	/
Right Side(0mm)	707.5	QPSK	10M	25	ON	17.43	18.00	1.140	0.080	0.091	1.6	/
Top Side(0mm)	707.5	QPSK	10M	1	OFF	/	/	/	/	/	1.6	/
Top Side(0mm)	707.5	QPSK	10M	25	OFF	/	/	/	/	/	1.6	/
BottomSide(0mm)	707.5	QPSK	10M	1	OFF	22.78	23.00	1.052	0.096	0.100	1.6	/
BottomSide(0mm)	707.5	QPSK	10M	25	OFF	22.43	23.00	1.140	0.080	0.091	1.6	/
Front(6mm)	707.5	QPSK	10M	1	OFF	22.78	23.00	1.052	0.067	0.071	1.6	/
Front(6mm)	707.5	QPSK	10M	25	OFF	22.43	23.00	1.140	0.077	0.088	1.6	/
Right Side(6mm)	707.5	QPSK	10M	1	OFF	22.78	23.00	1.052	0.034	0.036	1.6	/
Right Side(6mm)	707.5	QPSK	10M	25	OFF	22.43	23.00	1.140	0.040	0.045	1.6	/
Curved surface of Right(0mm)	707.5	QPSK	10M	1	ON	17.78	18.00	1.052	0.078	0.082	1.6	/
Curved surface of Right(0mm)	707.5	QPSK	10M	25	ON	17.43	18.00	1.140	0.090	0.102	1.6	/
Curved surface of Right(6mm)	707.5	QPSK	10M	1	OFF	22.78	23.00	1.052	0.048	0.050	1.6	/
Curved surface of Right(6mm)	707.5	QPSK	10M	25	OFF	22.43	23.00	1.140	0.055	0.062	1.6	/

Note:
LTE FDD Band 12 and LTE FDD Band 17 have the same power, we only tested the LTE Band 12 because it has a larger frequency range, so the LTE FDD Band 17 does not need to be tested

LTE FDD Band 26& LTE FDD Band 5:

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Sensor	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	Scaled Factor	Meas. (W/Kg)	Scaled SAR (W/Kg)	Limit (W/Kg)	Plot
Front(0mm)	831.5	QPSK	15M	1	ON	18.73	19.00	1.064	0.173	0.184	1.6	/
Front(0mm)	831.5	QPSK	15M	36	ON	18.18	19.00	1.208	0.171	0.207	1.6	/
Back(0mm)	831.5	QPSK	15M	1	OFF	23.55	24.00	1.109	0.097	0.107	1.6	/
Back(0mm)	831.5	QPSK	15M	36	OFF	23.00	24.00	1.259	0.073	0.092	1.6	/
Left Side(0mm)	831.5	QPSK	15M	1	OFF	/	/	/	/	/	1.6	/
Left Side(0mm)	831.5	QPSK	15M	36	OFF	/	/	/	/	/	1.6	/
Right Side(0mm)	831.5	QPSK	15M	1	ON	18.73	19.00	1.064	0.076	0.081	1.6	/
Right Side(0mm)	831.5	QPSK	15M	36	ON	18.18	19.00	1.208	0.074	0.089	1.6	/
Top Side(0mm)	831.5	QPSK	15M	1	OFF	/	/	/	/	/	1.6	/
Top Side(0mm)	831.5	QPSK	15M	36	OFF	/	/	/	/	/	1.6	/
BottomSide(0mm)	831.5	QPSK	15M	1	OFF	23.55	24.00	1.109	0.171	0.190	1.6	/
BottomSide(0mm)	831.5	QPSK	15M	36	OFF	23.00	24.00	1.259	**0.201**	**0.253**	1.6	**2#**
Front(6mm)	831.5	QPSK	15M	1	OFF	23.55	24.00	1.109	0.118	0.131	1.6	/
Front(6mm)	831.5	QPSK	15M	36	OFF	23.00	24.00	1.259	0.113	0.142	1.6	/
Right Side(6mm)	831.5	QPSK	15M	1	OFF	23.55	24.00	1.109	0.053	0.059	1.6	/
Right Side(6mm)	831.5	QPSK	15M	36	OFF	23.00	24.00	1.259	0.052	0.066	1.6	/
Curved surface of Right(0mm)	831.5	QPSK	15M	1	ON	18.73	19.00	1.064	0.102	0.109	1.6	/
Curved surface of Right(0mm)	831.5	QPSK	15M	36	ON	18.18	19.00	1.208	0.100	0.120	1.6	/
Curved surface of Right(6mm)	831.5	QPSK	15M	1	OFF	23.55	24.00	1.109	0.059	0.066	1.6	/
Curved surface of Right(6mm)	831.5	QPSK	15M	36	OFF	23.00	24.00	1.259	0.059	0.074	1.6	/

Note:
LTE FDD Band 26 and LTE FDD Band 5 have the same power, we only tested the LTE Band 26 because it has a larger frequency range, so the LTE FDD Band 5 does not need to be tested

LTE Band 7：

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Sensor	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	Scaled Factor	Meas. (W/Kg)	Scaled SAR (W/Kg)	Limit (W/Kg)	Plot
Front(0mm)	2535	QPSK	20M	1	ON	18.35	19.00	1.161	0.265	0.308	1.6	/
Front(0mm)	2535	QPSK	20M	50	ON	18.13	19.00	1.222	0.263	0.321	1.6	/
Back(0mm)	2535	QPSK	20M	1	OFF	23.17	24.00	1.211	0.213	0.258	1.6	/
Back(0mm)	2535	QPSK	20M	50	OFF	22.95	24.00	1.274	0.159	0.202	1.6	/
Left Side(0mm)	2535	QPSK	20M	1	OFF	/	/	/	/	/	1.6	/
Left Side(0mm)	2535	QPSK	20M	50	OFF	/	/	/	/	/	1.6	/
Right Side(0mm)	2535	QPSK	20M	1	ON	18.35	19.00	1.161	0.116	0.135	1.6	/
Right Side(0mm)	2535	QPSK	20M	50	ON	18.13	19.00	1.222	0.101	0.123	1.6	/
Top Side(0mm)	2535	QPSK	20M	1	OFF	/	/	/	/	/	1.6	/
Top Side(0mm)	2535	QPSK	20M	50	OFF	/	/	/	/	/	1.6	/
BottomSide(0mm)	2535	QPSK	20M	1	OFF	23.17	24.00	1.211	**0.349**	**0.422**	1.6	**3#**
BottomSide(0mm)	2535	QPSK	20M	50	OFF	22.95	24.00	1.274	0.252	0.321	1.6	/
Front(6mm)	2535	QPSK	20M	1	OFF	23.17	24.00	1.211	0.173	0.209	1.6	/
Front(6mm)	2535	QPSK	20M	50	OFF	22.95	24.00	1.274	0.159	0.202	1.6	/
Right Side(6mm)	2535	QPSK	20M	1	OFF	23.17	24.00	1.211	0.086	0.104	1.6	/
Right Side(6mm)	2535	QPSK	20M	50	OFF	22.95	24.00	1.274	0.076	0.097	1.6	/
Curved surface of Right(0mm)	2535	QPSK	20M	1	ON	18.35	19.00	1.161	0.154	0.179	1.6	/
Curved surface of Right(0mm)	2535	QPSK	20M	50	ON	18.13	19.00	1.222	0.136	0.166	1.6	/
Curved surface of Right(6mm)	2535	QPSK	20M	1	OFF	23.17	24.00	1.211	0.123	0.149	1.6	/
Curved surface of Right(6mm)	2535	QPSK	20M	50	OFF	22.95	24.00	1.274	0.131	0.167	1.6	/

LTE FDD Band 25& LTE FDD Band 2:

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Sensor	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	Scaled Factor	Meas. (W/Kg)	Scaled SAR (W/Kg)	Limit (W/Kg)	Plot
Front(0mm)	1880	QPSK	20M	1	ON	17.51	18.00	1.119	0.359	0.402	1.6	/
Front(0mm)	1880	QPSK	20M	50	ON	17.34	18.00	1.164	0.330	0.384	1.6	/
Back(0mm)	1880	QPSK	20M	1	OFF	22.34	23.00	1.164	0.189	0.220	1.6	/
Back(0mm)	1880	QPSK	20M	50	OFF	22.17	23.00	1.211	0.137	0.166	1.6	/
Left Side(0mm)	1880	QPSK	20M	1	OFF	/	/	/	/	/	1.6	/
Left Side(0mm)	1880	QPSK	20M	50	OFF	/	/	/	/	/	1.6	/
Right Side(0mm)	1880	QPSK	20M	1	ON	17.51	18.00	1.119	0.085	0.095	1.6	/
Right Side(0mm)	1880	QPSK	20M	50	ON	17.34	18.00	1.164	0.081	0.094	1.6	/
Top Side(0mm)	1880	QPSK	20M	1	OFF	/	/	/	/	/	1.6	/
Top Side(0mm)	1880	QPSK	20M	50	OFF	/	/	/	/	/	1.6	/
BottomSide(0mm)	1880	QPSK	20M	1	OFF	22.34	23.00	1.164	**0.443**	**0.516**	1.6	4#
BottomSide(0mm)	1880	QPSK	20M	50	OFF	22.17	23.00	1.211	0.334	0.404	1.6	/
Front(6mm)	1880	QPSK	20M	1	OFF	22.34	23.00	1.164	0.193	0.225	1.6	/
Front(6mm)	1880	QPSK	20M	50	OFF	22.17	23.00	1.211	0.168	0.203	1.6	/
Right Side(6mm)	1880	QPSK	20M	1	OFF	22.34	23.00	1.164	0.044	0.051	1.6	/
Right Side(6mm)	1880	QPSK	20M	50	OFF	22.17	23.00	1.211	0.042	0.051	1.6	/
Curved surface of Right(0mm)	1880	QPSK	20M	1	ON	17.51	18.00	1.119	0.129	0.144	1.6	/
Curved surface of Right(0mm)	1880	QPSK	20M	50	ON	17.34	18.00	1.164	0.124	0.144	1.6	/
Curved surface of Right(6mm)	1880	QPSK	20M	1	OFF	22.34	23.00	1.164	0.061	0.071	1.6	/
Curved surface of Right(6mm)	1880	QPSK	20M	50	OFF	22.17	23.00	1.211	0.058	0.070	1.6	/

Note:
LTE FDD Band 25 and LTE FDD Band 2 have the same power, we only tested the LTE Band 25 because it has a larger frequency range, so the LTE FDD Band 2 does not need to be tested

LTE FDD Band 13:

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Sensor	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	Scaled Factor	Meas. (W/Kg)	Scaled SAR (W/Kg)	Limit (W/Kg)	Plot
Front(0mm)	782	QPSK	10M	1	ON	18.93	19.00	1.016	0.242	0.246	1.6	/
Front(0mm)	782	QPSK	10M	25	ON	18.45	19.00	1.135	0.230	0.261	1.6	/
Back(0mm)	782	QPSK	10M	1	OFF	23.76	24.00	1.057	0.193	0.204	1.6	/
Back(0mm)	782	QPSK	10M	25	OFF	23.28	24.00	1.180	0.153	0.181	1.6	/
Left Side(0mm)	782	QPSK	10M	1	OFF	/	/	/	/	/	1.6	/
Left Side(0mm)	782	QPSK	10M	25	OFF	/	/	/	/	/	1.6	/
Right Side(0mm)	782	QPSK	10M	1	ON	18.93	19.00	1.016	0.115	0.117	1.6	/
Right Side(0mm)	782	QPSK	10M	25	ON	18.45	19.00	1.135	0.108	0.123	1.6	/
Top Side(0mm)	782	QPSK	10M	1	OFF	/	/	/	/	/	1.6	/
Top Side(0mm)	782	QPSK	10M	25	OFF	/	/	/	/	/	1.6	/
BottomSide(0mm)	782	QPSK	10M	1	OFF	23.76	24.00	1.057	**0.321**	**0.339**	1.6	**5#**
BottomSide(0mm)	782	QPSK	10M	25	OFF	23.28	24.00	1.180	0.253	0.299	1.6	/
Front(6mm)	782	QPSK	10M	1	OFF	23.76	24.00	1.057	0.196	0.207	1.6	/
Front(6mm)	782	QPSK	10M	25	OFF	23.28	24.00	1.180	0.187	0.221	1.6	/
Right Side(6mm)	782	QPSK	10M	1	OFF	23.76	24.00	1.057	0.082	0.086	1.6	/
Right Side(6mm)	782	QPSK	10M	25	OFF	23.28	24.00	1.180	0.201	0.237	1.6	/
Curved surface of Right(0mm)	782	QPSK	10M	1	ON	18.93	19.00	1.016	0.134	0.136	1.6	/
Curved surface of Right(0mm)	782	QPSK	10M	25	ON	18.45	19.00	1.135	0.128	0.145	1.6	/
Curved surface of Right(6mm)	782	QPSK	10M	1	OFF	23.76	24.00	1.057	0.091	0.096	1.6	/
Curved surface of Right(6mm)	782	QPSK	10M	25	OFF	23.28	24.00	1.180	0.085	0.100	1.6	/

LTE FDD Band 14:

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Sensor	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	Scaled Factor	Meas. (W/Kg)	Scaled SAR (W/Kg)	Limit (W/Kg)	Plot
Front(0mm)	793	QPSK	10M	1	ON	19.01	20.00	1.256	0.184	0.231	1.6	/
Front(0mm)	793	QPSK	10M	25	ON	18.71	20.00	1.346	0.243	0.327	1.6	/
Back(0mm)	793	QPSK	10M	1	OFF	23.84	25.00	1.306	0.181	0.236	1.6	/
Back(0mm)	793	QPSK	10M	25	OFF	23.54	25.00	1.400	0.145	0.203	1.6	/
Left Side(0mm)	793	QPSK	10M	1	OFF	/	/	/	/	/	1.6	/
Left Side(0mm)	793	QPSK	10M	25	OFF	/	/	/	/	/	1.6	/
Right Side(0mm)	793	QPSK	10M	1	ON	19.01	20.00	1.256	0.095	0.120	1.6	/
Right Side(0mm)	793	QPSK	10M	25	ON	18.71	20.00	1.346	0.094	0.126	1.6	/
Top Side(0mm)	793	QPSK	10M	1	OFF	/	/	/	/	/	1.6	/
Top Side(0mm)	793	QPSK	10M	25	OFF	/	/	/	/	/	1.6	/
BottomSide(0mm)	793	QPSK	10M	1	OFF	23.84	25.00	1.306	**0.303**	**0.396**	1.6	**6#**
BottomSide(0mm)	793	QPSK	10M	25	OFF	23.54	25.00	1.400	0.239	0.335	1.6	/
Front(6mm)	793	QPSK	10M	1	OFF	23.84	25.00	1.306	0.166	0.217	1.6	/
Front(6mm)	793	QPSK	10M	25	OFF	23.54	25.00	1.400	0.167	0.234	1.6	/
Right Side(6mm)	793	QPSK	10M	1	OFF	23.84	25.00	1.306	0.214	0.280	1.6	/
Right Side(6mm)	793	QPSK	10M	25	OFF	23.54	25.00	1.400	0.172	0.241	1.6	/
Curved surface of Right(0mm)	793	QPSK	10M	1	ON	19.01	20.00	1.256	0.115	0.144	1.6	/
Curved surface of Right(0mm)	793	QPSK	10M	25	ON	18.71	20.00	1.346	0.115	0.155	1.6	/
Curved surface of Right(6mm)	793	QPSK	10M	1	OFF	23.84	25.00	1.306	0.071	0.092	1.6	/
Curved surface of Right(6mm)	793	QPSK	10M	25	OFF	23.54	25.00	1.400	0.070	0.098	1.6	/

LTE FDD Band 4:

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Sensor	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	Scaled Factor	Meas. (W/Kg)	Scaled SAR (W/Kg)	Limit (W/Kg)	Plot
Front(0mm)	1732.5	QPSK	20M	1	ON	18.10	19.00	1.230	0.248	0.305	1.6	/
Front(0mm)	1732.5	QPSK	20M	50	ON	17.83	19.00	1.309	**0.252**	**0.330**	1.6	7#
Back(0mm)	1732.5	QPSK	20M	1	OFF	22.92	24.00	1.282	0.212	0.272	1.6	/
Back(0mm)	1732.5	QPSK	20M	50	OFF	22.65	24.00	1.365	0.173	0.236	1.6	/
Left Side(0mm)	1732.5	QPSK	20M	1	OFF	/	/	/	/	/	1.6	/
Left Side(0mm)	1732.5	QPSK	20M	50	OFF	/	/	/	/	/	1.6	/
Right Side(0mm)	1732.5	QPSK	20M	1	ON	18.10	19.00	1.230	0.068	0.084	1.6	/
Right Side(0mm)	1732.5	QPSK	20M	50	ON	17.83	19.00	1.309	0.072	0.094	1.6	/
Top Side(0mm)	1732.5	QPSK	20M	1	OFF	/	/	/	/	/	1.6	/
Top Side(0mm)	1732.5	QPSK	20M	50	OFF	/	/	/	/	/	1.6	/
BottomSide(0mm)	1732.5	QPSK	20M	1	OFF	22.92	24.00	1.282	0.232	0.298	1.6	/
BottomSide(0mm)	1732.5	QPSK	20M	50	OFF	22.65	24.00	1.365	0.189	0.258	1.6	/
Front(6mm)	1732.5	QPSK	20M	1	OFF	22.92	24.00	1.282	0.139	0.178	1.6	/
Front(6mm)	1732.5	QPSK	20M	50	OFF	22.65	24.00	1.365	0.142	0.194	1.6	/
Right Side(6mm)	1732.5	QPSK	20M	1	OFF	22.92	24.00	1.282	0.056	0.072	1.6	/
Right Side(6mm)	1732.5	QPSK	20M	50	OFF	22.65	24.00	1.365	0.059	0.080	1.6	/
Curved surface of Right(0mm)	1732.5	QPSK	20M	1	ON	18.10	19.00	1.230	0.066	0.081	1.6	/
Curved surface of Right(0mm)	1732.5	QPSK	20M	50	ON	17.83	19.00	1.309	0.068	0.089	1.6	/
Curved surface of Right(6mm)	1732.5	QPSK	20M	1	OFF	22.92	24.00	1.282	0.036	0.046	1.6	/
Curved surface of Right(6mm)	1732.5	QPSK	20M	50	OFF	22.65	24.00	1.365	0.038	0.052	1.6	/

LTE TDD Band 41:

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Sensor	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	Scaled Factor	Meas. (W/Kg)	Scaled SAR (W/Kg)	Limit (W/Kg)	Plot
Front(0mm)	2593	QPSK	20M	1	ON	18.37	19.00	1.156	0.192	0.222	1.6	/
Front(0mm)	2593	QPSK	20M	50	ON	18.24	19.00	1.191	0.207	0.247	1.6	/
Back(0mm)	2593	QPSK	20M	1	OFF	23.20	24.00	1.202	0.129	0.155	1.6	/
Back(0mm)	2593	QPSK	20M	50	OFF	23.07	24.00	1.239	0.102	0.126	1.6	/
Left Side(0mm)	2593	QPSK	20M	1	OFF	/	/	/	/	/	1.6	/
Left Side(0mm)	2593	QPSK	20M	50	OFF	/	/	/	/	/	1.6	/
Right Side(0mm)	2593	QPSK	20M	1	ON	18.37	19.00	1.156	0.098	0.113	1.6	/
Right Side(0mm)	2593	QPSK	20M	50	ON	18.24	19.00	1.191	0.103	0.123	1.6	/
Top Side(0mm)	2593	QPSK	20M	1	OFF	/	/	/	/	/	1.6	/
Top Side(0mm)	2593	QPSK	20M	50	OFF	/	/	/	/	/	1.6	/
BottomSide(0mm)	2593	QPSK	20M	1	OFF	23.20	24.00	1.202	**0.249**	**0.299**	1.6	**8#**
BottomSide(0mm)	2593	QPSK	20M	50	OFF	23.07	24.00	1.239	0.209	0.259	1.6	/
Front(6mm)	2593	QPSK	20M	1	OFF	23.20	24.00	1.202	0.107	0.129	1.6	/
Front(6mm)	2593	QPSK	20M	50	OFF	23.07	24.00	1.239	0.111	0.138	1.6	/
Right Side(6mm)	2593	QPSK	20M	1	OFF	23.20	24.00	1.202	0.112	0.135	1.6	/
Right Side(6mm)	2593	QPSK	20M	50	OFF	23.07	24.00	1.239	0.117	0.145	1.6	/
Curved surface of Right(0mm)	2593	QPSK	20M	1	ON	18.37	19.00	1.156	0.116	0.134	1.6	/
Curved surface of Right(0mm)	2593	QPSK	20M	50	ON	18.24	19.00	1.191	0.125	0.149	1.6	/
Curved surface of Right(6mm)	2593	QPSK	20M	1	OFF	23.20	24.00	1.202	0.065	0.078	1.6	/
Curved surface of Right(6mm)	2593	QPSK	20M	50	OFF	23.07	24.00	1.239	0.083	0.103	1.6	/

Note:

1. When the SAR value is less than half of the limit, testing for other channels are optional.
2. When the SAR value is greater than half of the limit value, the other two channels should be tested
3. KDB941225D05- For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg.
4. KDB941225D05- other channel bandwidths SAR test is required when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is > ½ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

WLAN 2.4G:

Band	EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	Scaled Factor	Duct cycle Factor	Meas. (W/Kg)	Scaled SAR (W/Kg)	Limit (W/Kg)	Plot
WLAN2.4G	Front(0mm)	2437	802.11b 1Mbps	9.05	10.00	1.245	1.024	0.054	0.069	1.6	/
WLAN2.4G	Back(0mm)	2437	802.11b 1Mbps	9.05	10.00	1.245	1.024	0.013	0.017	1.6	/
WLAN2.4G	Left Side(0mm)	2437	802.11b 1Mbps	9.05	10.00	1.245	1.024	0.691	0.881	1.6	/
WLAN2.4G	Left Side(0mm)	2412	802.11b 1Mbps	8.99	10.00	1.262	1.024	0.674	0.871	1.6	/
WLAN2.4G	Left Side(0mm)	2462	802.11b 1Mbps	9.24	10.00	1.191	1.024	**0.783**	**0.955**	1.6	**9#**
WLAN2.4G	Right Side(0mm)	2437	802.11b 1Mbps	/	/	/	/	/	/	1.6	/
WLAN2.4G	Top Side(0mm)	2437	802.11b 1Mbps	/	/	/	/	/	/	1.6	/
WLAN2.4G	Bottom Side(0mm)	2437	802.11b 1Mbps	/	/	/	/	/	/	1.6	/

Note:
1. For 802.11b mode power is the largest mode of 802.11b/g/n, 802.11b mode is selected to test.

WLAN 5.2G:

Band	EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	Scaled Factor	Duct cycle Factor	Meas. (W/Kg)	Scaled SAR (W/Kg)	Limit (W/Kg)	Plot
WLAN5.2G	Front(0mm)	5200	802.11a 6Mbps	7.27	8.40	1.297	1.022	0.082	0.108	1.6	/
WLAN5.2G	Back(0mm)	5200	802.11a 6Mbps	7.27	8.40	1.297	1.022	0.028	0.037	1.6	/
WLAN5.2G	Left Side(0mm)	5200	802.11a 6Mbps	7.27	8.40	1.297	1.022	**0.587**	**0.778**	1.6	**10#**
WLAN5.2G	Right Side(0mm)	5200	802.11a 6Mbps	/	/	/	/	/	/	1.6	/
WLAN5.2G	Top Side(0mm)	5200	802.11a 6Mbps	/	/	/	/	/	/	1.6	/
WLAN5.2G	Bottom Side(0mm)	5200	802.11a 6Mbps	/	/	/	/	/	/	1.6	/

Note:
1. For 802.11a mode power is the largest mode of 802.11a/ac/n, 802.11a mode is selected to test.

WLAN 5.8G:

Band	EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	Scaled Factor	Duct cycle Factor	Meas. (W/Kg)	Scaled SAR (W/Kg)	Limit (W/Kg)	Plot
WLAN5.8G	Front(0mm)	5785	802.11a 6Mbps	6.98	8.00	1.265	1.031	0.120	0.156	1.6	/
WLAN5.8G	Back(0mm)	5785	802.11a 6Mbps	6.98	8.00	1.265	1.031	0.041	0.053	1.6	/
WLAN5.8G	Left Side(0mm)	5785	802.11a 6Mbps	6.98	8.00	1.265	1.031	0.792	1.033	1.6	/
WLAN5.8G	Left Side(0mm)	5745	802.11a 6Mbps	7.38	8.00	1.153	1.031	0.870	1.035	1.6	/
WLAN5.8G	Left Side(0mm)	5825	802.11a 6Mbps	7.14	8.00	1.219	1.031	**0.836**	**1.051**	1.6	**11#**
WLAN5.8G	Left Side(0mm)	5825	802.11a 6Mbps	7.14	8.00	1.219	1.031	0.796	1.000	1.6	**12#**
WLAN5.8G	Right Side(0mm)	5785	802.11a 6Mbps	/	/	/	/	/	/	1.6	/
WLAN5.8G	Top Side(0mm)	5785	802.11a 6Mbps	/	/	/	/	/	/	1.6	/
WLAN5.8G	Bottom Side(0mm)	5785	802.11a 6Mbps	/	/	/	/	/	/	1.6	/

Note:

1. For 802.11a mode power is the largest mode of 802.11a/ac/n, 802.11a mode is selected to test.
2. When the SAR Value is less than half of the limit, testing for other channels are optional.
3. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.
4. When the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel must be used.
5. According to IEC62209-1, If the correction ΔSAR is within ± 5%, the measured SAR results should not be corrected.

In accordance with published RF Exposure KDB procedure 865664 D01 SAR measurement 100 MHz to 6 GHz v01. 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

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Note: The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.

The Highest Measured SAR Configuration in Each Frequency Band

Body

SAR probe calibration point	Frequency Band	Freq.(MHz)	EUT Position	Meas. SAR (W/kg)		Largest to Smallest SAR Ratio
				Original	Repeated	
5750MHz (5700~5860MHz)	WLAN5.8G	5745	Body Left	0.870	0.861	1.01

Note:

1. Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is not > 1.20.
2. The measured SAR results **do not** have to be scaled to the maximum tune-up tolerance to determine if repeated measurements are required.
3. SAR measurement variability must be assessed for each frequency band, which is determined by the **SAR probe calibration point and tissue-equivalent medium** used for the device measurements..

SAR SIMULTANEOUS TRANSMISSION DESCRIPTION

Simultaneous Transmission:

Description of Simultaneous Transmit Capabilities		
Transmitter Combination	**Simultaneous?**	**Hotspot**
WWAN(LTE) + 2.4GWLAN+2.4GSRD	√	√
WWAN(LTE) + 2.4GWLAN+5GSRD	√	√
WWAN(LTE) + 5GWLAN+2.4GSRD	√	√
WWAN(LTE) + 5GWLAN+5GSRD	√	√

Simultaneous Transmission Consideration Detail

Transmitter Combination	Position	Max SAR(W/kg)			∑SAR< 1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	SAR3(SRD)	
WWAN+ 2.4GWLAN+2.4GSRD	Front Side	0.402	0.069	0.26	0.731
	Back Side	0.272	0.017	0.26	0.549
	Left Side	/	0.955	0.26	1.215
	Right Side	0.280	/	0.26	0.54
	Top Side	/	/	0.26	0.26
	Bottom Side	0.516	/	0.26	0.776

Transmitter Combination	Position	Max SAR(W/kg)			∑SAR< 1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	SAR3(SRD)	
WWAN+ 2.4GWLAN+5GSRD	Front Side	0.402	0.069	0.39	0.861
	Back Side	0.272	0.017	0.39	0.679
	Left Side	/	0.955	0.39	1.345
	Right Side	0.280	/	0.39	0.67
	Top Side	/	/	0.39	0.39
	Bottom Side	0.516	/	0.39	0.906

Transmitter Combination	Position	Max SAR(W/kg)			∑SAR< 1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	SAR3(SRD)	
WWAN+ 5GWLAN+2.4GSRD	Front Side	0.402	0.156	0.26	0.818
	Back Side	0.272	0.053	0.26	0.585
	Left Side	/	1.051	0.26	1.311
	Right Side	0.280	/	0.26	0.54
	Top Side	/	/	0.26	0.26
	Bottom Side	0.516	/	0.26	0.776

Transmitter Combination	Position	Max SAR(W/kg)			∑SAR< 1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	SAR3(SRD)	
WWAN+ 5GWLAN+5GSRD	Front Side	0.402	0.156	0.39	0.948
	Back Side	0.272	0.053	0.39	0.715
	Left Side	/	1.051	0.39	1.441
	Right Side	0.280	/	0.39	0.67
	Top Side	/	/	0.39	0.39
	Bottom Side	0.516	/	0.39	0.906

Conclusion:

Sum of SAR: **1.6 W/kg** therefore simultaneous transmission SAR result is **Compliance**.

APPENDIX A SAR PLOTS OF SAR MEASUREMENT

1#_LTE Band 12_10M_QPSK_25RB_0offset_Front_0mm_Ch23095

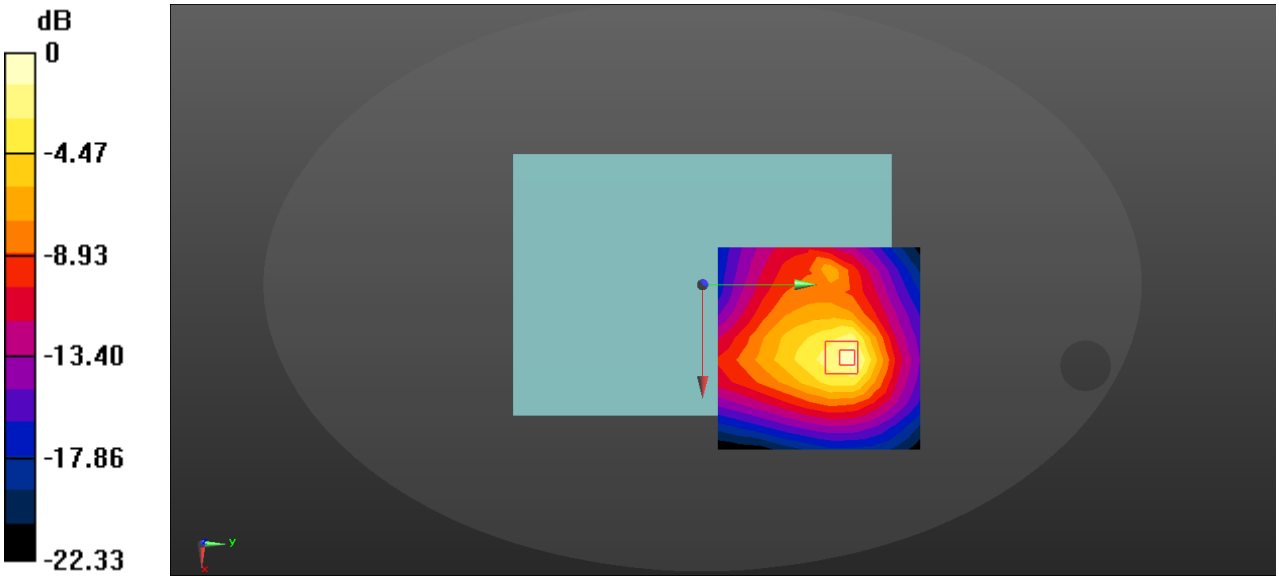
Communication System: UID 0, FDD LTE 4G (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used: f = 707.5 MHz; σ = 0.876 S/m; ε_r = 42.184; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(10.27, 10.27, 10.27); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Area Scan (10x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.385 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.252 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.561 W/kg
SAR(1 g) = 0.239 W/kg; SAR(10 g) = 0.136 W/kg
Maximum value of SAR (measured) = 0.406 W/kg



0 dB = 0.406 W/kg = -3.91 dBW/kg

2#_LTE Band 26_15M_QPSK_36RB_0offset_Bottom_0mm_Ch26865

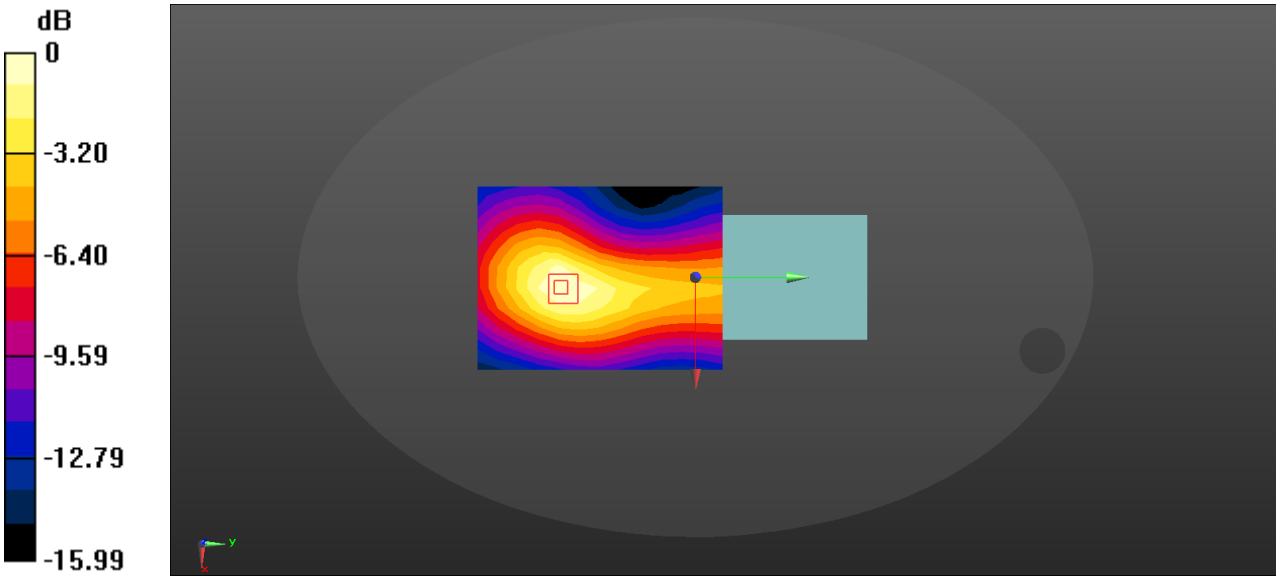
Communication System: UID 0, FDD LTE 4G (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used: f = 831.5 MHz; σ = 0.91 S/m; ε_r = 42.911; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(9.88, 9.88, 9.88); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Area Scan (10x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.248 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.23 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.278 W/kg
SAR(1 g) = 0.201 W/kg; SAR(10 g) = 0.143 W/kg
Maximum value of SAR (measured) = 0.247 W/kg



0 dB = 0.248 W/kg = -6.06 dBW/kg

3#_LTE Band 7_20M_QPSK_1RB_0offset_Bottom_0mm_Ch21100

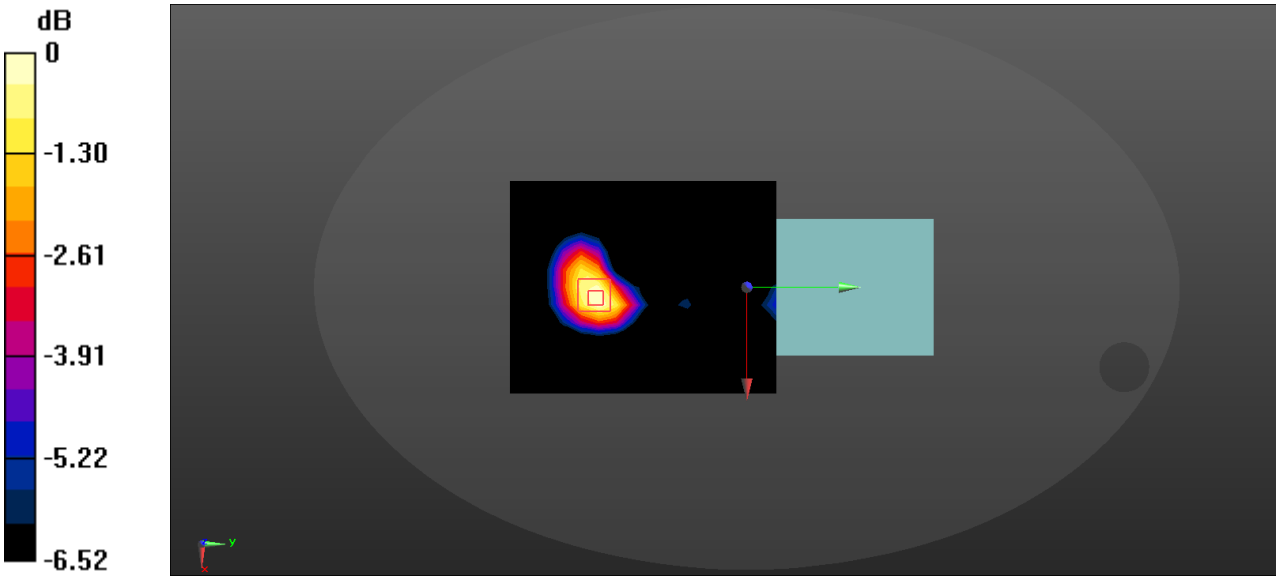
Communication System: UID 0, FDD LTE 4G (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2535 MHz; σ = 1.97 S/m; ε_r = 39.583; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(7.27, 7.27, 7.27); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Area Scan (13x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.456 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.120 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.535 W/kg
SAR(1 g) = 0.349 W/kg; SAR(10 g) = 0.212 W/kg
Maximum value of SAR (measured) = 0.478 W/kg



0 dB = 0.478 W/kg = -3.21 dBW/kg

4#_LTE Band 25_20M_QPSK_1RB_0offset_Bottom_0mm_Ch26340

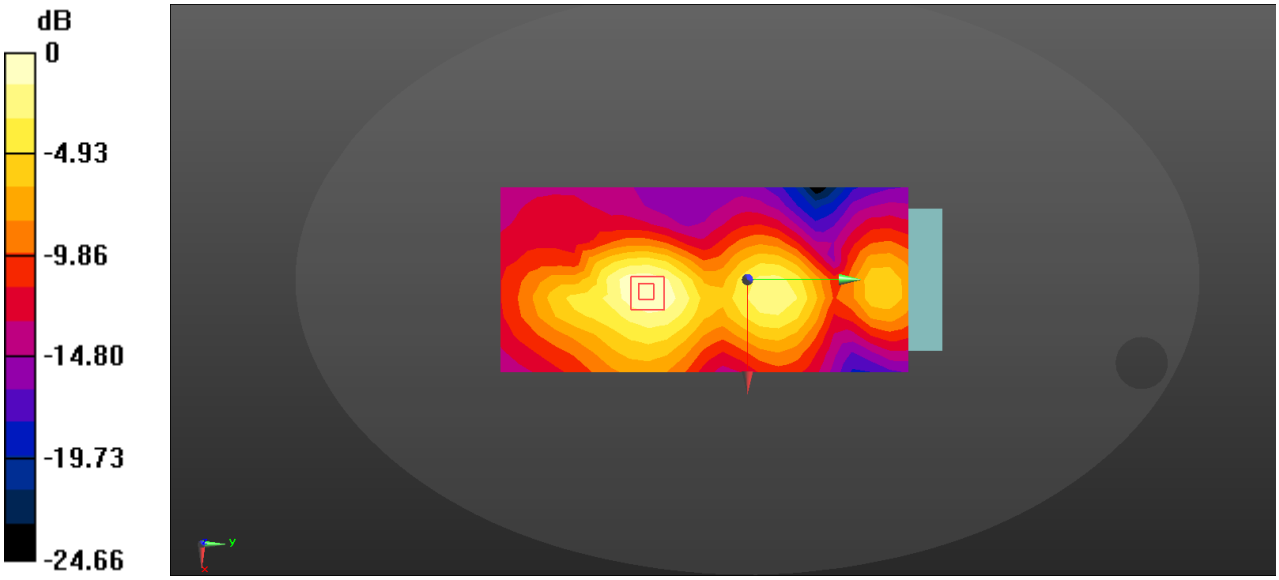
Communication System: UID 0, FDD LTE 4G (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.399 S/m; ε_r = 41.249; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(7.92, 7.92, 7.92); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Area Scan (11x23x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.540 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.35 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.648 W/kg
SAR(1 g) = 0.443 W/kg; SAR(10 g) = 0.289 W/kg
Maximum value of SAR (measured) = 0.582 W/kg



0 dB = 0.582 W/kg = -2.35 dBW/kg

5#_LTE Band 13_10M_QPSK_1RB_0offset_Bottom_0mm_Ch23230

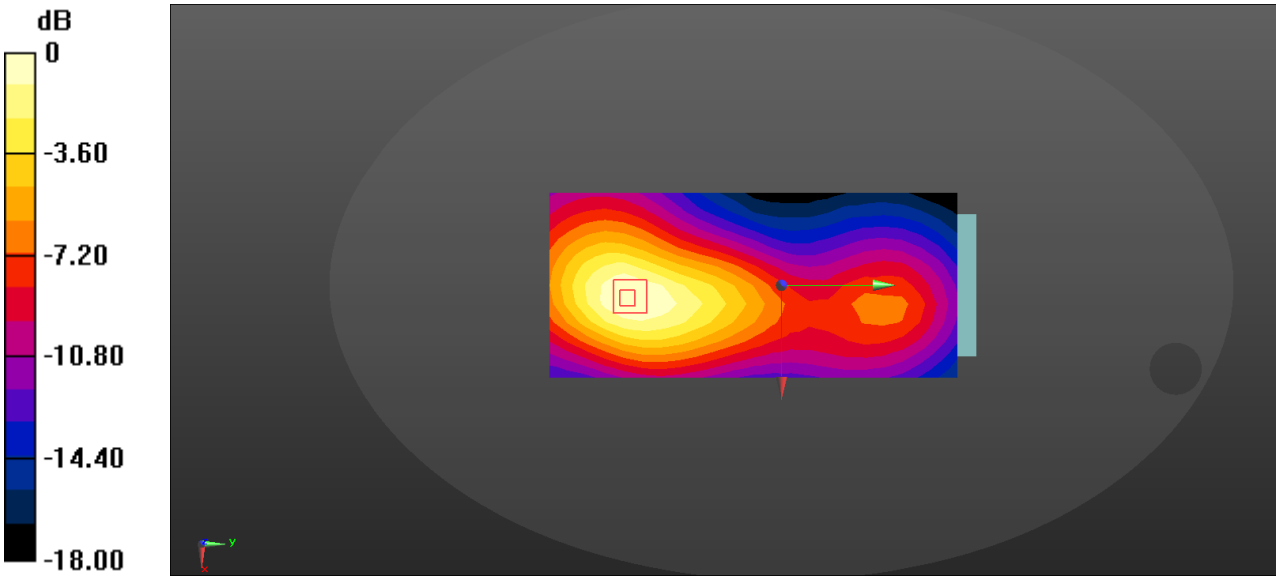
Communication System: UID 0, FDD LTE 4G (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used: f = 782 MHz; σ = 0.926 S/m; ε_r = 41.179; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(10.27, 10.27, 10.27); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Area Scan (11x23x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.393 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.495 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.448 W/kg
SAR(1 g) = 0.321 W/kg; SAR(10 g) = 0.230 W/kg
Maximum value of SAR (measured) = 0.404 W/kg



0 dB = 0.404 W/kg = -3.94 dBW/kg

6#_LTE Band 14_10M_QPSK_1RB_0offset_Bottom_0mm_Ch23330

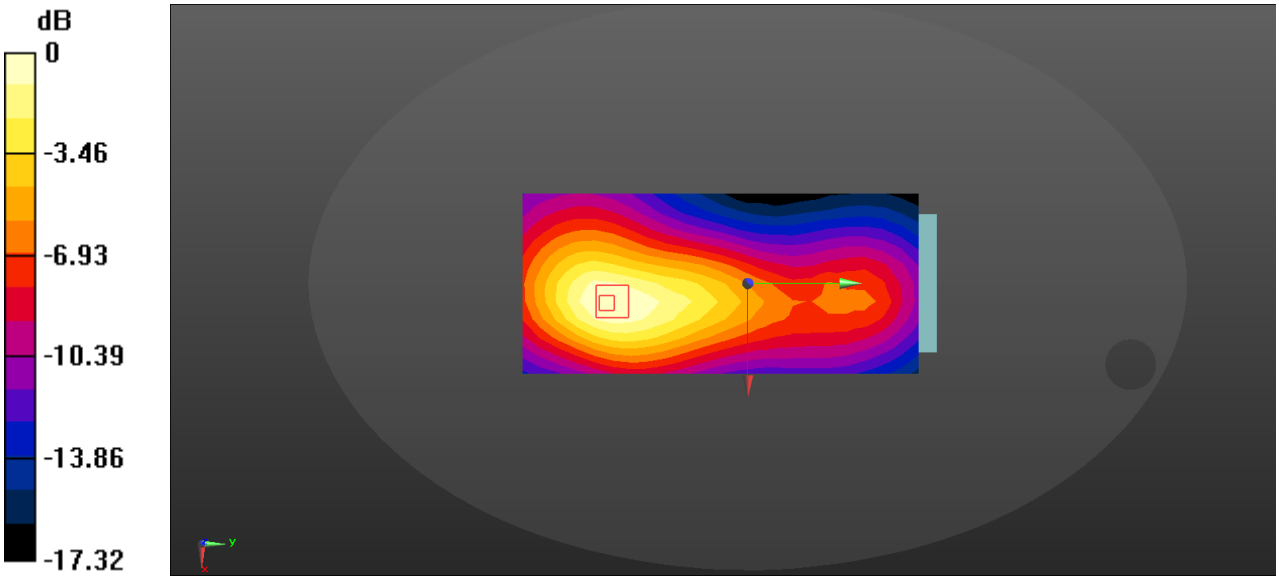
Communication System: UID 0, FDD LTE 4G (0); Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used: f = 793 MHz; σ = 0.936 S/m; ε_r = 41.027; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(10.27, 10.27, 10.27); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Area Scan (11x23x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.365 W/kg

Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.97 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.420 W/kg
SAR(1 g) = 0.303 W/kg; SAR(10 g) = 0.218 W/kg
Maximum value of SAR (measured) = 0.380 W/kg



0 dB = 0.380 W/kg = -4.20 dBW/kg

7#_ LTE Band 4_20M_QPSK_50RB_0offset_Front_0mm_Ch20175

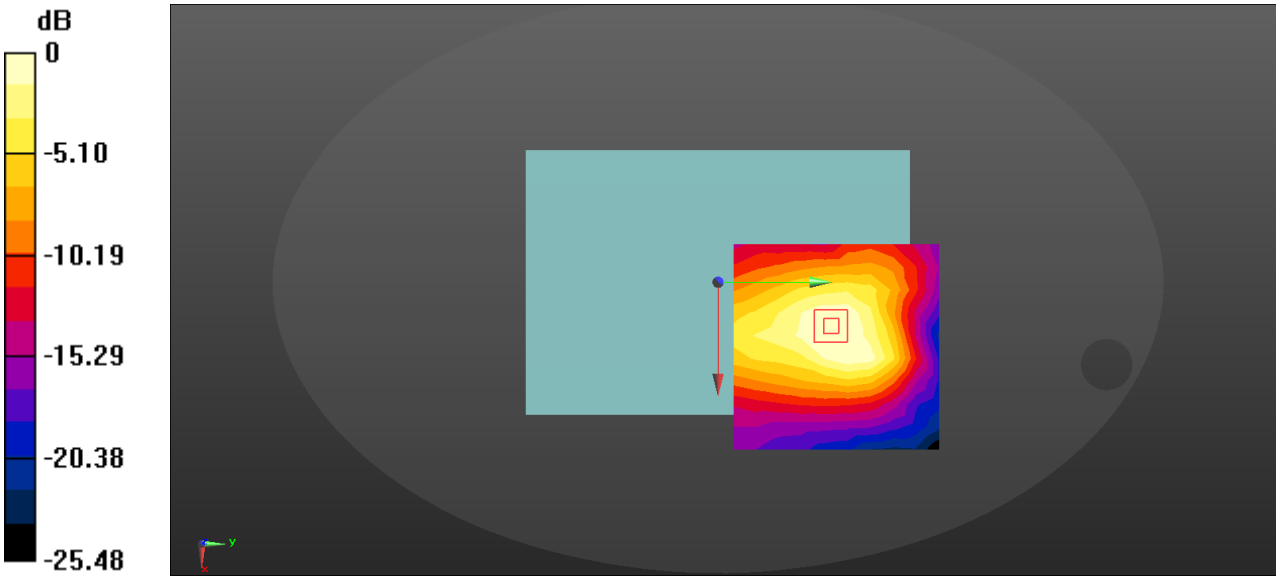
Communication System: UID 0, FDD LTE 4G (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1732.5 MHz; σ = 1.337 S/m; ε_r = 41.463; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(8.28, 8.28, 8.28); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Area Scan (10x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.290 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.508 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.339 W/kg
SAR(1 g) = 0.252 W/kg; SAR(10 g) = 0.175 W/kg
Maximum value of SAR (measured) = 0.311 W/kg



0 dB = 0.311 W/kg = -5.09 dBW/kg

8#_LTE Band 41_20M_QPSK_1RB_0offset_Bottom_0mm_Ch40620

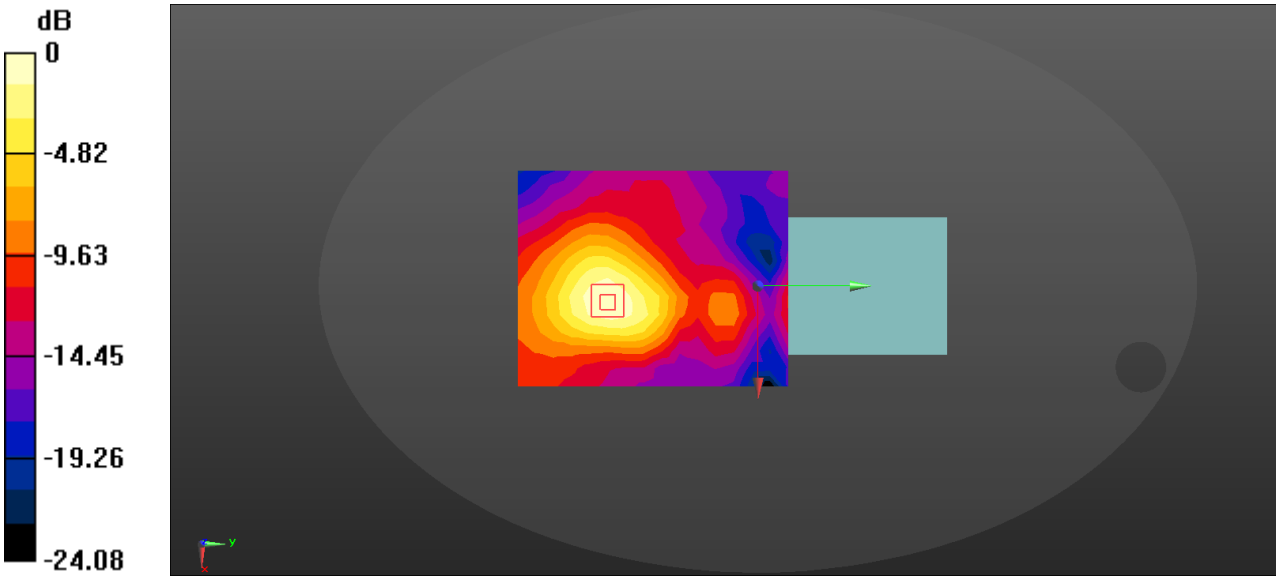
Communication System: UID 0, TDD LTE 4G (0); Frequency: 2593 MHz;Duty Cycle: 1:1.58
Medium parameters used: f = 2593 MHz; σ = 1.999 S/m; ε_r = 37.817; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(7.02, 7.02, 7.02); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Area Scan (13x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.328 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.037 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.365 W/kg
SAR(1 g) = 0.249 W/kg; SAR(10 g) = 0.155 W/kg
Maximum value of SAR (measured) = 0.329 W/kg



0 dB = 0.329 W/kg = -4.83 dBW/kg

9#_WLAN 2.4GHz_802.11b 1Mbps_Left_0mm_Ch11

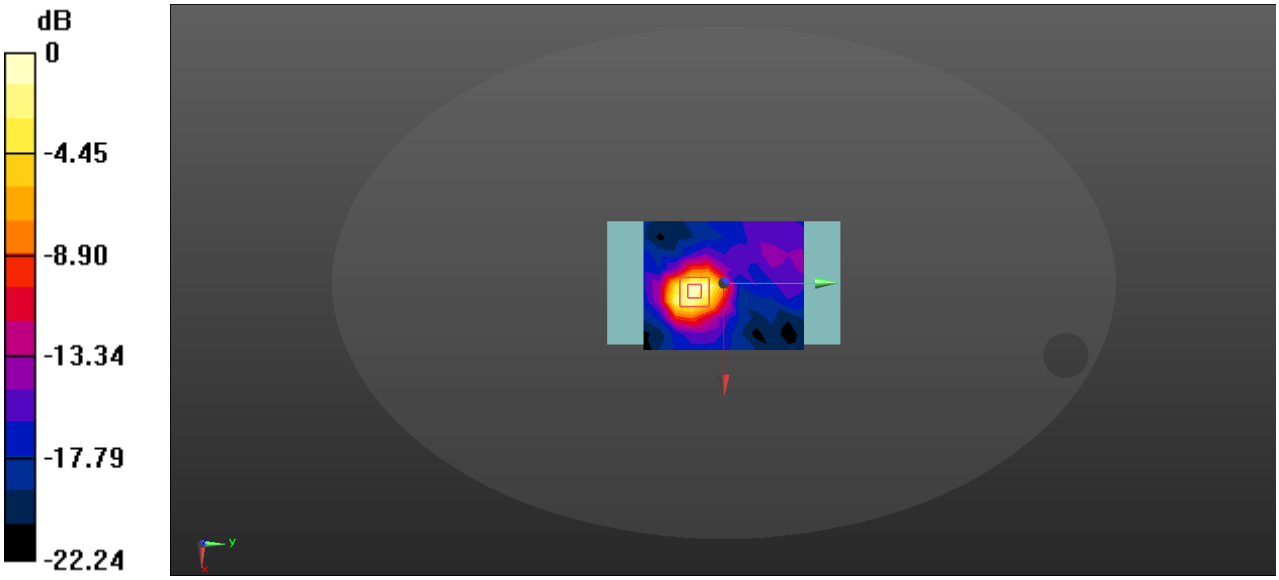
Communication System: UID 0, WIFI2.4G (0); Frequency: 2462 MHz;Duty Cycle: 1:1.024
Medium parameters used: f = 2462 MHz; σ = 1.896 S/m; ε_r = 39.887; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(7.27, 7.27, 7.27); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Area Scan (9x11x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.956 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.360 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.783 W/kg; SAR(10 g) = 0.399 W/kg
Maximum value of SAR (measured) = 1.20 W/kg



0 dB = 1.20 W/kg = 0.79 dBW/kg

10#_WLAN 5.2GHz_802.11a 6Mbps_Left_0mm_Ch40

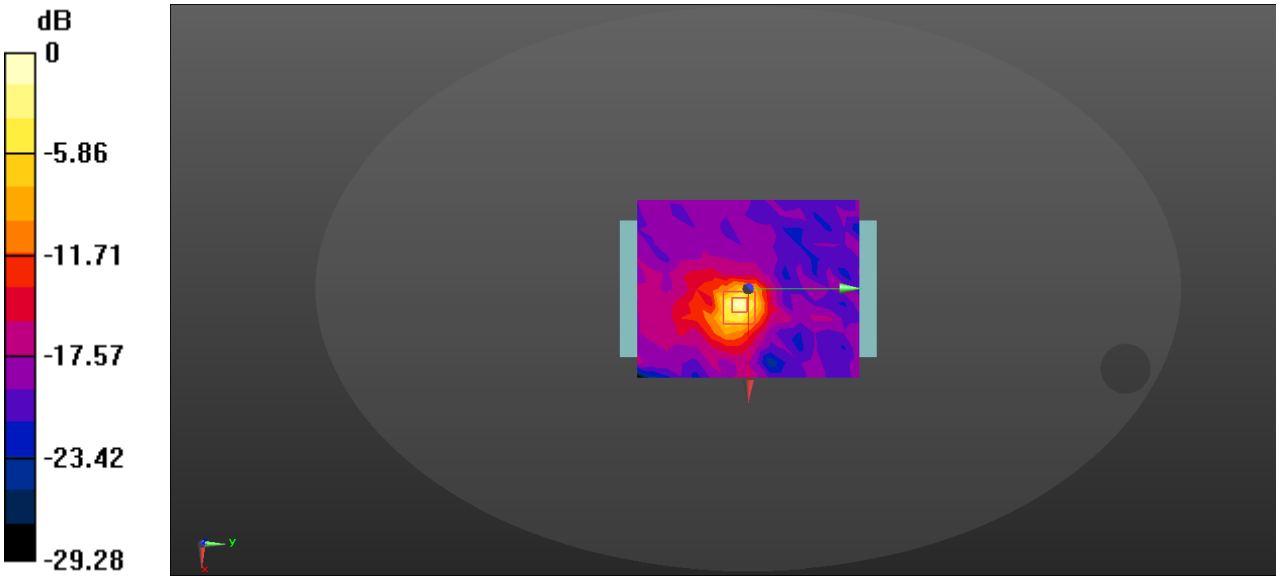
Communication System: UID 0, WIFI 5G (0); Frequency: 5200 MHz;Duty Cycle: 1:1.022
Medium parameters used: f = 5200 MHz; σ = 4.603 S/m; ε_r = 36.42; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(5.25, 5.25, 5.25); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Area Scan (13x16x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.17 W/kg

Zoom Scan (9x9x17)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 7.194 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.48 W/kg
SAR(1 g) = 0.587 W/kg; SAR(10 g) = 0.196 W/kg
Maximum value of SAR (measured) = 1.18 W/kg



0 dB = 1.18 W/kg = 0.72 dBW/kg

11#_WLAN 5.8GHz_802.11a 6Mbps_Left_0mm_Ch165

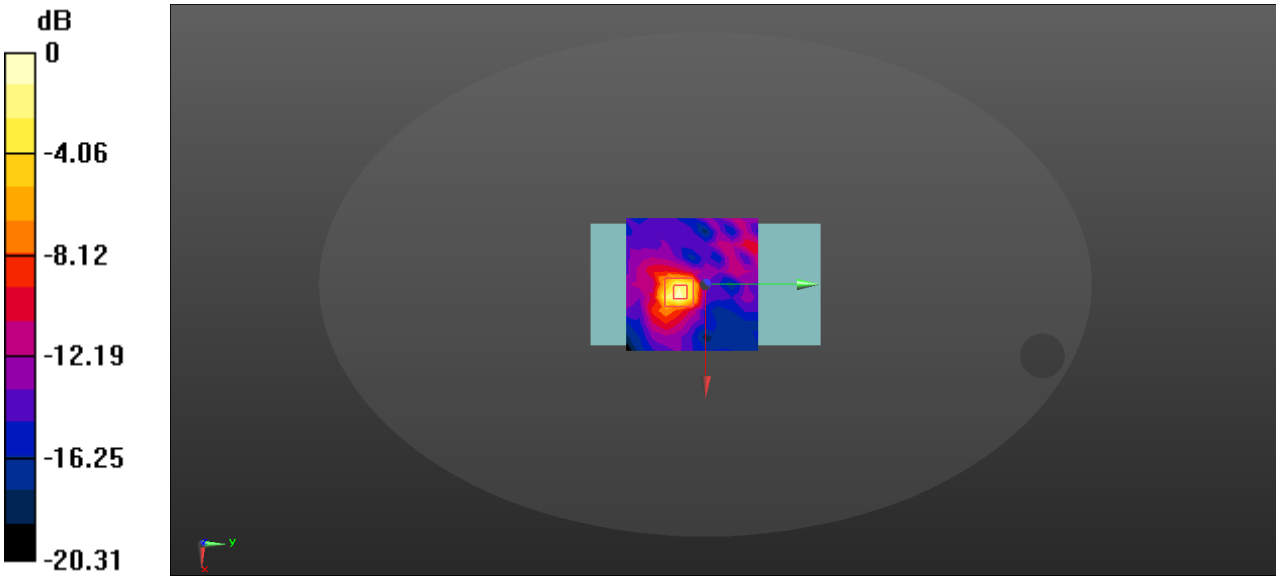
Communication System: UID 0, WIFI 5G (0); Frequency: 5825 MHz;Duty Cycle: 1:1.031
Medium parameters used: f = 5825 MHz; σ = 5.252 S/m; ε_r = 35.56; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(4.78, 4.78, 4.78); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Area Scan (11x11x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.44 W/kg

Zoom Scan (8x8x17)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 3.825 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 2.75 W/kg
SAR(1 g) = 0.836 W/kg; SAR(10 g) = 0.281 W/kg
Maximum value of SAR (measured) = 1.84 W/kg



0 dB = 1.84 W/kg = 2.65 dBW/kg

12#_WLAN 5.8GHz_802.11a 6Mbps_Left_0mm_Ch165

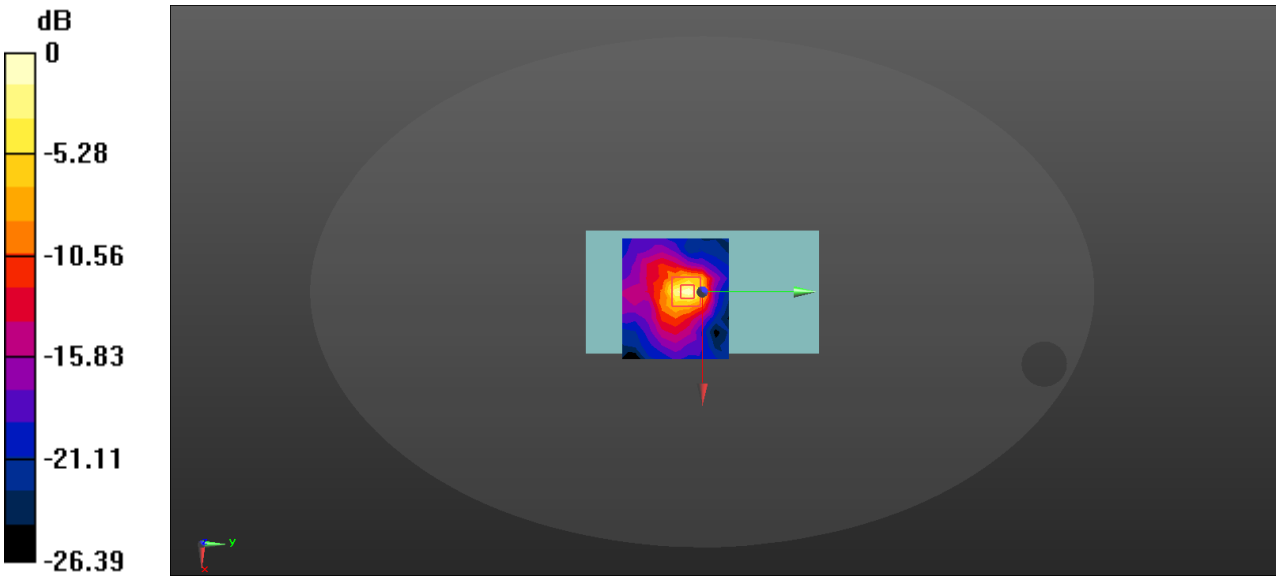
Communication System: UID 0, WIFI 5G (0); Frequency: 5825 MHz;Duty Cycle: 1:1.031
Medium parameters used: f = 5825 MHz; σ = 5.252 S/m; ε_r = 35.56; ρ = 1000 kg/m^3

DASY5 Configuration:

- Probe: EX3DV4 - SN7557; ConvF(4.78, 4.78, 4.78); Calibrated: 3/26/2024;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn527; Calibrated: 3/26/2024
- Phantom: ELI V8.0; Type: QD OVA 004 Ax; Serial: 2095
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7437)

Area Scan (11x11x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.64 W/kg

Zoom Scan (8x8x17)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 10.74 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 2.25 W/kg
SAR(1 g) = 0.796 W/kg; SAR(10 g) = 0.273 W/kg
Maximum value of SAR (measured) = 1.67 W/kg



0 dB = 1.67 W/kg = 2.23 dBW/kg

APPENDIX B MEASUREMENT UNCERTAINTY

The uncertainty budget has been determined for the measurement system and is given in the following Table.

Measurement uncertainty evaluation for IEEE 1528:2013 SAR test

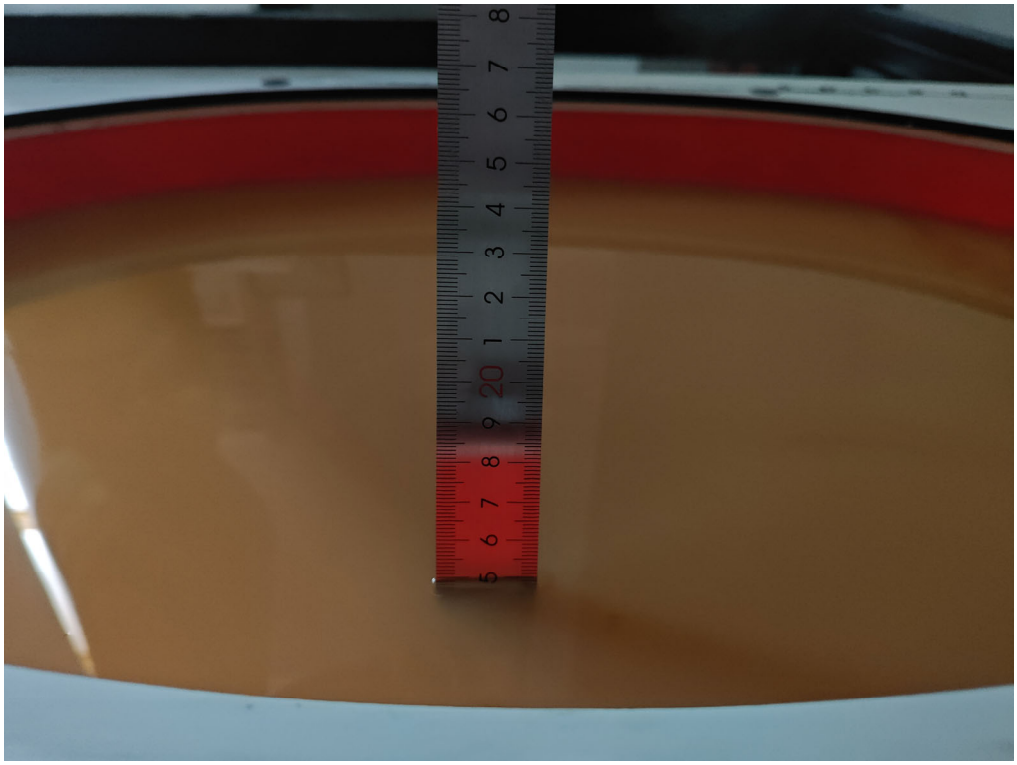
Source of uncertainty	Tolerance/ uncertainty ± %	Probability distribution	Divisor	ci (1 g)	ci (10 g)	Standard uncertainty ± %, (1 g)	Standard uncertainty ± %, (10 g)
Measurement system							
Probe calibration	6.55	N	1	1	1	6.6	6.6
Axial Isotropy	4.7	R	√3	1	1	2.7	2.7
Hemispherical Isotropy	9.6	R	√3	0	0	0.0	0.0
Boundary effect	1.0	R	√3	1	1	0.6	0.6
Linearity	4.7	R	√3	1	1	2.7	2.7
Detection limits	1.0	R	√3	1	1	0.6	0.6
Readout electronics	0.3	N	1	1	1	0.3	0.3
Response time	0.0	R	√3	1	1	0.0	0.0
Integration time	0.0	R	√3	1	1	0.0	0.0
RF ambient conditions – noise	1.0	R	√3	1	1	0.6	0.6
RF ambient conditions–reflections	1.0	R	√3	1	1	0.6	0.6
Probe positioner mech. Restrictions	0.8	R	√3	1	1	0.5	0.5
Probe positioning with respect to phantom shell	6.7	R	√3	1	1	3.9	3.9
Post-processing	2.0	R	√3	1	1	1.2	1.2
Test sample related							
Test sample positioning	2.8	N	1	1	1	2.8	2.8
Device holder uncertainty	6.3	N	1	1	1	6.3	6.3
Drift of output power	5.0	R	√3	1	1	2.9	2.9
Phantom and set-up							
Phantom uncertainty (shape and thickness tolerances)	4.0	R	√3	1	1	2.3	2.3
Liquid conductivity target)	5.0	R	√3	0.64	0.43	1.8	1.2
Liquid conductivity meas.)	2.5	N	1	0.64	0.43	1.6	1.1
Liquid permittivity target)	5.0	R	√3	0.6	0.49	1.7	1.4
Liquid permittivity meas.)	2.5	N	1	0.6	0.49	1.5	1.2
Combined standard uncertainty		RSS				12.2	12.0
Expanded uncertainty 95 % confidence interval)						24.3	23.9

Measurement uncertainty evaluation for IEC 62209-2:2010 SAR test

Source of uncertainty	Tolerance/ uncertainty ± %	Probability distribution	Divisor	ci (1 g)	ci (10 g)	Standard uncertainty ± %, (1 g)	Standard uncertainty ± %, (10 g)
Measurement system							
Probe calibration	6.55	N	1	1	1	6.6	6.6
Axial Isotropy	4.7	R	√3	1	1	2.7	2.7
Hemispherical Isotropy	9.6	R	√3	0	0	0.0	0.0
Linearity	4.7	R	√3	1	1	2.7	2.7
Modulation Response	0.0	R	√3	1	1	0.0	0.0
Detection limits	1.0	R	√3	1	1	0.6	0.6
Boundary effect	1.0	R	√3	1	1	0.6	0.6
Readout electronics	0.3	N	1	1	1	0.3	0.3
Response time	0.0	R	√3	1	1	0.0	0.0
Integration time	0.0	R	√3	1	1	0.0	0.0
RF ambient conditions – noise	1.0	R	√3	1	1	0.6	0.6
RF ambient conditions–reflections	1.0	R	√3	1	1	0.6	0.6
Probe positioner mech. Restrictions	0.8	R	√3	1	1	0.5	0.5
Probe positioning with respect to phantom shell	6.7	R	√3	1	1	3.9	3.9
Post-processing	2.0	R	√3	1	1	1.2	1.2
Test sample related							
Device holder Uncertainty	6.3	N	1	1	1	6.3	6.3
Test sample positioning	2.8	N	1	1	1	2.8	2.8
Power scaling	4.5	R	√3	1	1	2.6	2.6
Drift of output power	5.0	R	√3	1	1	2.9	2.9
Phantom and set-up							
Phantom uncertainty (shape and thickness tolerances)	4.0	R	√3	1	1	2.3	2.3
Algorithm for correcting SAR for deviations in permittivity and conductivity	1.9	N	1	1	0.84	1.1	0.9
Liquid conductivity (meas.)	2.5	N	1	0.64	0.43	1.6	1.1
Liquid permittivity (meas.)	2.5	N	1	0.6	0.49	1.5	1.2
Temp. unc. - Conductivity	1.7	R	√3	0.78	0.71	0.8	0.7
Temp. unc. - Permittivity	0.3	R	√3	0.23	0.26	0.0	0.0
Combined standard uncertainty		RSS				12.2	12.1
Expanded uncertainty 95 % confidence interval)						24.5	24.2

APPENDIX C EUT TEST POSITION PHOTOS

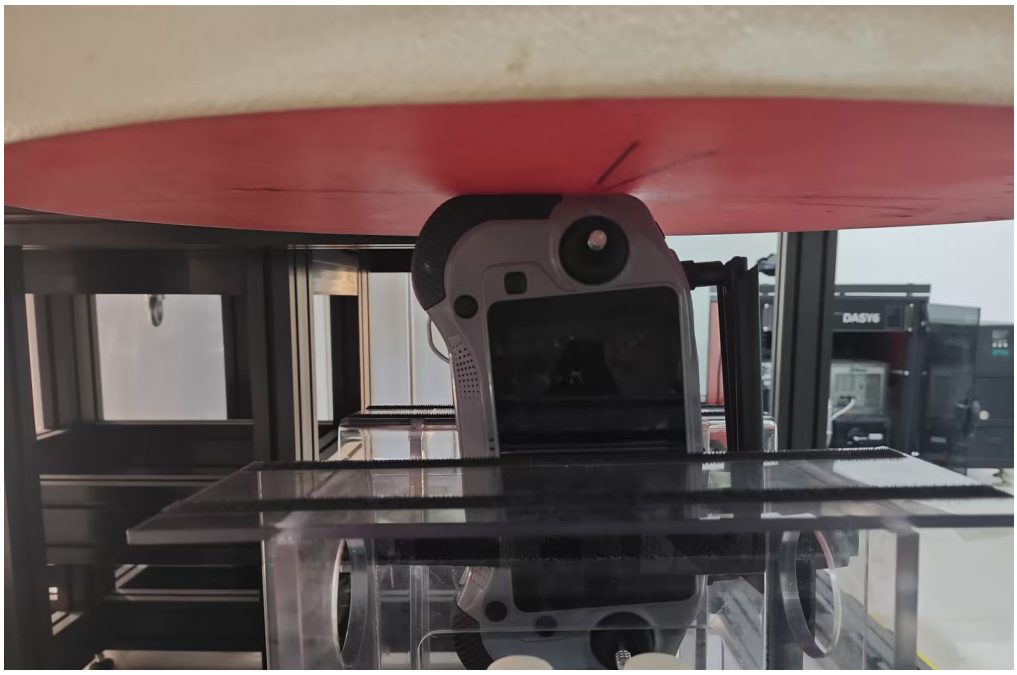
Liquid depth ≥ 15cm



WWAN/WLAN- Front

WWAN/WLAN - Back

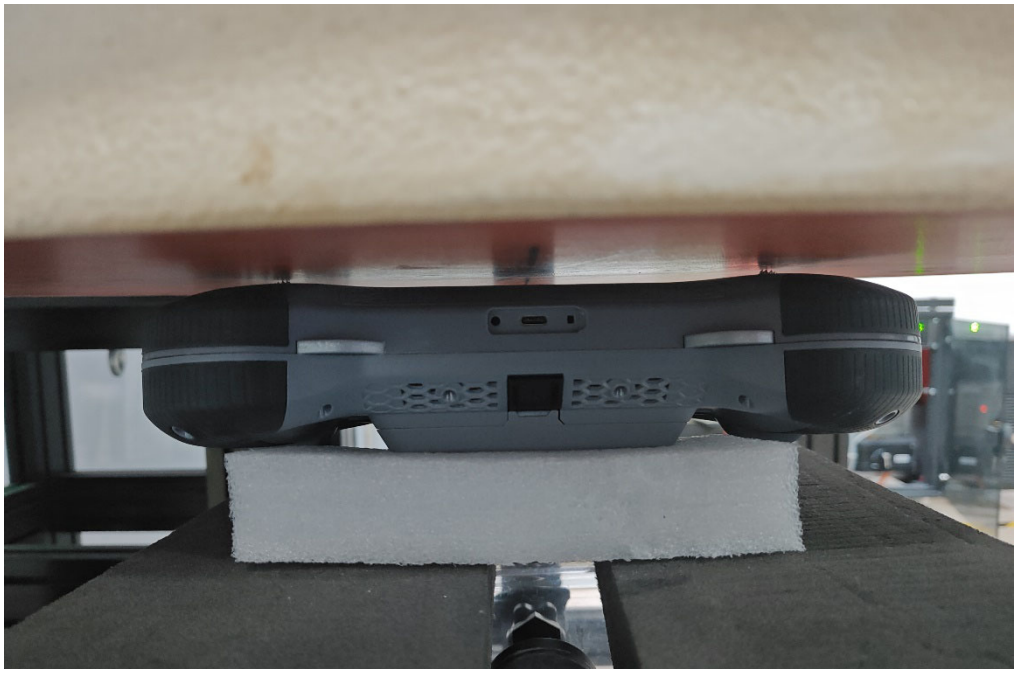
WLAN - Left



WWAN - Right

WWAN - Bottom

WWAN – Front（6mm）



WWAN – Right（6mm）

WWAN -Curved surface of Right（0mm）

WWAN -Curved surface of Right（6mm）

APPENDIX D CALIBRATION CERTIFICATES

Please Refer to the Attachment.

Declarations

1. The laboratory is not responsible for the authenticity of any information provided by the applicant. Information from the applicant that may affect test results is marked with "★".

2. The test data was only valid for the test sample(s).

3. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

4. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

5. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor k=2 with the 95.45% confidence interval.

6. This report may contain standards and test items that are not covered by the accreditation scope and shall be marked with an asterisk "▲".

******* END OF REPORT *******