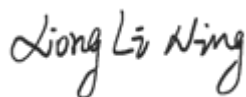


TEST REPORT

Applicant: Shenzhen SEI Robotics Co., Ltd.
Address: 4th Floor, Productivity Building D, #5 Hi-Tech Middle
2nd Road, Shenzhen Hi-Tech Industrial Park,
Nanshan District, Shenzhen, China
Equipment Type: Pocket TV
Model Name: SEI700GHM (refer to section 2.3)
Brand Name: SEI
FCC ID: 2AOVU-SEI700GHM
Test Standard: FCC 47 CFR Part 2.1093
(refer to section 3.1)
Maximum SAR: Body (1 g@10mm): 1.11 W/kg
Limbs (10 g@0mm): 1.49 W/kg
Sample Arrival Date: Jan. 08, 2024
Test Date: Mar. 07, 2024 - Mar. 10, 2024
Date of Issue: Mar. 26, 2024

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Xiong Lining**Checked by:** Xu Rui**Approved by:** Tolan Tu
(Testing Director)

Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Mar. 26, 2024</u>	<u>Initial Issue</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

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

1.2 Test Location

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

1.3 Test Environment Condition

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

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Shenzhen SEI Robotics Co., Ltd.
Address	4th Floor, Productivity Building D, #5 Hi-Tech Middle 2nd Road, Shenzhen Hi-Tech Industrial Park, Nanshan District, Shenzhen, China

2.2 Manufacturer Information

Manufacturer	N/A
Address	N/A

2.3 General Description for Equipment under Test (EUT)

EUT Name	Pocket TV
Model Name Under Test	SEI700GHM
Series Model Name	SN9BKAF, SN9BKAx(x=A-Z)
Description of Model name differentiation	All models are same with electrical parameters and internal circuit structure, but only differ in appearance color. (this information provided by the applicant)
Hardware Version	SMB.403.06
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	SJY
	Model No.	4248104
	Serial No.	N/A
	Capacity	6500 mAh
	Rated Voltage	3.8 V
	Limit Charge Voltage	4.35 V
	Manufacturer	ShenZhenSaiJiaoYangEnergy&ScienceTechnology CO., Ltd

2.5 Technical Information

Network and Wireless connectivity	Bluetooth (BR+EDR+BLE) WIFI 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac and 802.11ax U-NII-1/3
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The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	2.4G WLAN, 5G WLAN, Bluetooth	
Frequency Range	802.11b/g	2412 ~ 2462 MHz
	802.11n(HT20)/ax(HE20)	2412 ~ 2462 MHz
	802.11a	5150 ~ 5250 MHz
		5725 ~ 5850 MHz
	802.11n(HT20/HT40)	5150 ~ 5250 MHz
		5725 ~ 5850 MHz
	802.11ac(VHT20/VHT40/VHT80)	5150 ~ 5250 MHz
		5725 ~ 5850 MHz
	802.11ax(HE20/HE40/HE80)	5150 ~ 5250 MHz
	Bluetooth	2402 ~ 2480 MHz
Antenna Type	WLAN	PCB Antenna
	Bluetooth	PCB Antenna
DTM	N/A	
Hotspot Function	N/A	
Power Reduction	N/A	
Exposure Category	General Population/Uncontrolled exposure	
Product Type	Portable Device	
EUT Type	☒ Production unit	☐ Identical prototype

3 SUMMARY OF TEST RESULT

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2.1093	Radiofrequency radiation exposure evaluation: portable devices
2	ANSI C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01
4	KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
5	KDB 865664 D02 v01r02	RF Exposure Reporting
6	KDB 248227 D01 v02r02	SAR GUIDANCE FOR IEEE 802.11 (Wi-Fi) TRANSMITTERS

3.2 Device Category and SAR Limit

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

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

Table of Exposure Limits:

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

NOTE:

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

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

3.3 Test Result Summary

3.3.1 Highest SAR Values (1 g Value)-Body

Equipment Class	Band	Maximum Scaled SAR (W/kg)	Maximum Scaled SAR (W/kg)
		Body (10mm)	Body (10mm)
DTS	2.4G WLAN	0.73	1.11
U-NII-1	5.2G WLAN	0.28	
U-NII-3	5.8G WLAN	1.11	
DSS	Bluetooth	0.12	
Limits (W/kg)		1.60	
Test Verdict		Pass	

3.3.2 Highest Simultaneous Transmission SAR Values (1 g Value)-Body

Equipment Class	Maximum Report SAR (W/kg)	SPLSR
	Body (10mm)	
DTS	0.84	/
NII	1.42	/
DSS	1.42	/
Limits (W/kg)	1.60	/
Test Verdict	Pass	
Note: The highest simultaneous SAR please refer section 12.2.		

3.3.3 Highest SAR Values (10 g Value)-Limbs

Equipment Class	Band	Maximum Scaled SAR (W/kg)	Maximum Scaled SAR (W/kg)
		Limbs (0mm)	Limbs (0mm)
DTS	2.4G WLAN	1.49	1.49
U-NII-1	5.2G WLAN	0.45	
U-NII-3	5.8G WLAN	0.97	
DSS	Bluetooth	0.26	
Limits (W/kg)		4.00	
Test Verdict		Pass	

3.3.4 Highest Simultaneous Transmission SAR Values (10 g Value)-Limbs

Equipment Class	Maximum Report SAR (W/kg)	SPLSR
	Limbs (0mm)	
DTS	1.82	/
NII	1.46	/
DSS	1.82	/
Limits (W/kg)	4.00	/
Test Verdict	Pass	
Note: The highest simultaneous SAR please refer section 12.2.		

3.4 Test Uncertainty

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

The maximum 1 g SAR for the EUT in this report is 1.11 W/kg, which is lower than 1.5 W/kg, so the extensive SAR measurement uncertainty analysis is not required in this report.

The maximum 10 g SAR for the EUT in this report is 1.49 W/kg, which is lower than 3.75 W/kg, so the extensive SAR measurement uncertainty analysis is not required in this report.

4 MEASUREMENT SYSTEM

4.1 Specific Absorption Rate (SAR) Definition

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

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

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

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

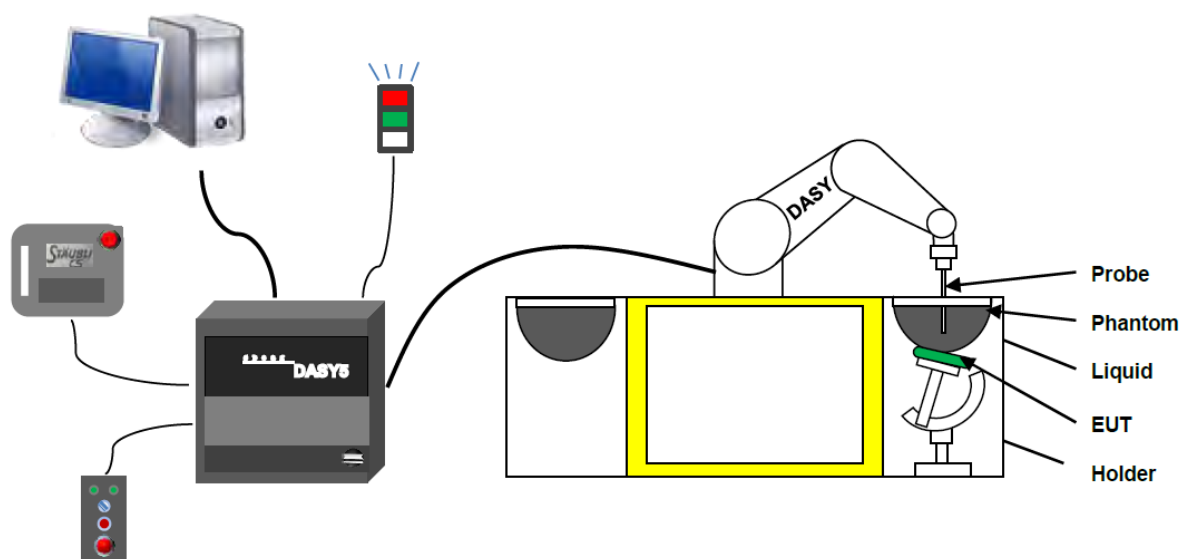
$$\text{SAR} = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue,

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

4.2 DASY SAR System

4.2.1 DASY SAR System Diagram



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

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

4.2.2 Robot

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



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

4.2.3 E-Field Probe

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe EX3DV4- SN: 7607 with following specifications is used.

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



E-Field Probe Calibration Process

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

4.2.4 Data Acquisition Electronics

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



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

4.2.5 Phantoms

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



- Left head
- Right head
- Flat phantom

Photo of Phantom SN1576



Serial Number	Material	Length	Height
SN 1576 SAM	Vinylester, glass fiber reinforced	1000	500

4.2.6 Device Holder

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



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

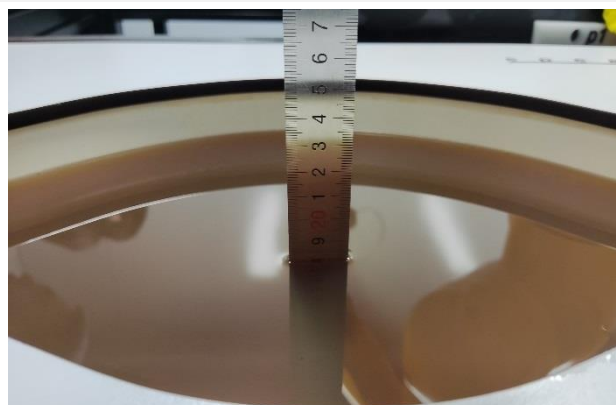
4.2.7 Simulating Liquid

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

Head Liquid Depth



Body Liquid Depth



The following table gives the recipes for tissue simulating liquid.

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

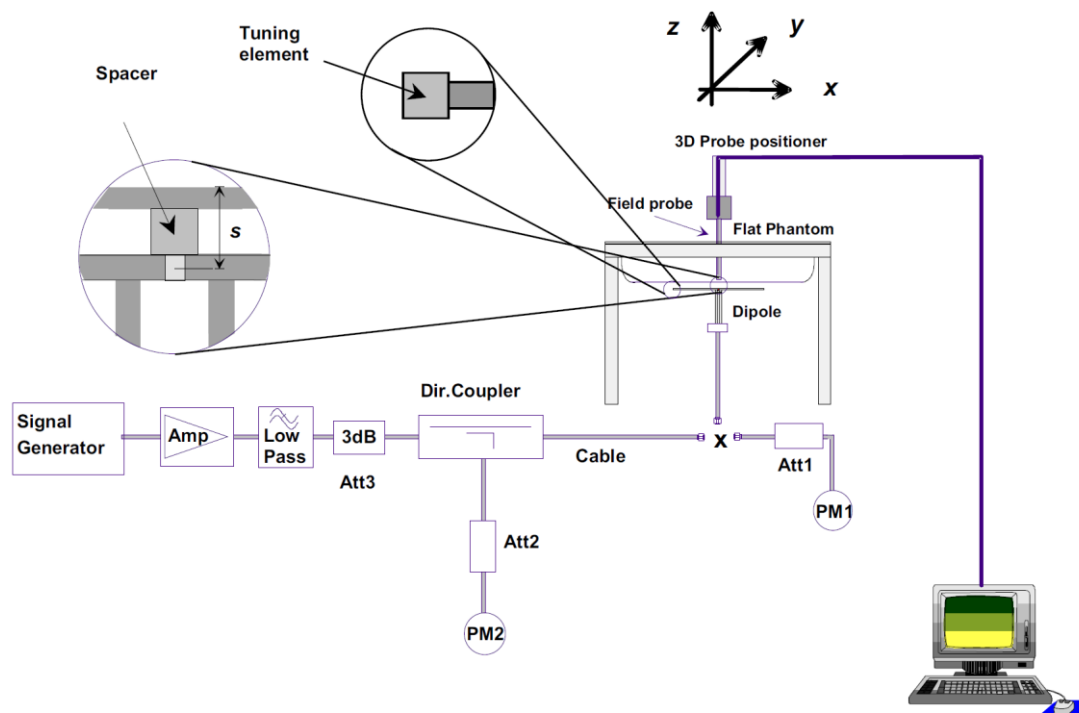
5 SYSTEM VERIFICATION

5.1 Purpose of System Check

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

5.2 System Check Setup

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



6 TEST POSITION CONFIGURATIONS

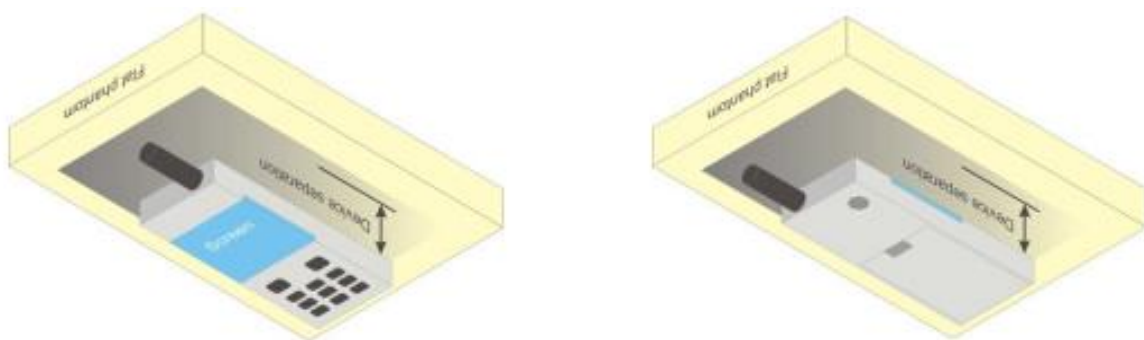
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

6.1 Body-worn Position Conditions

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB 447498 are used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a body-worn accessory.

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

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



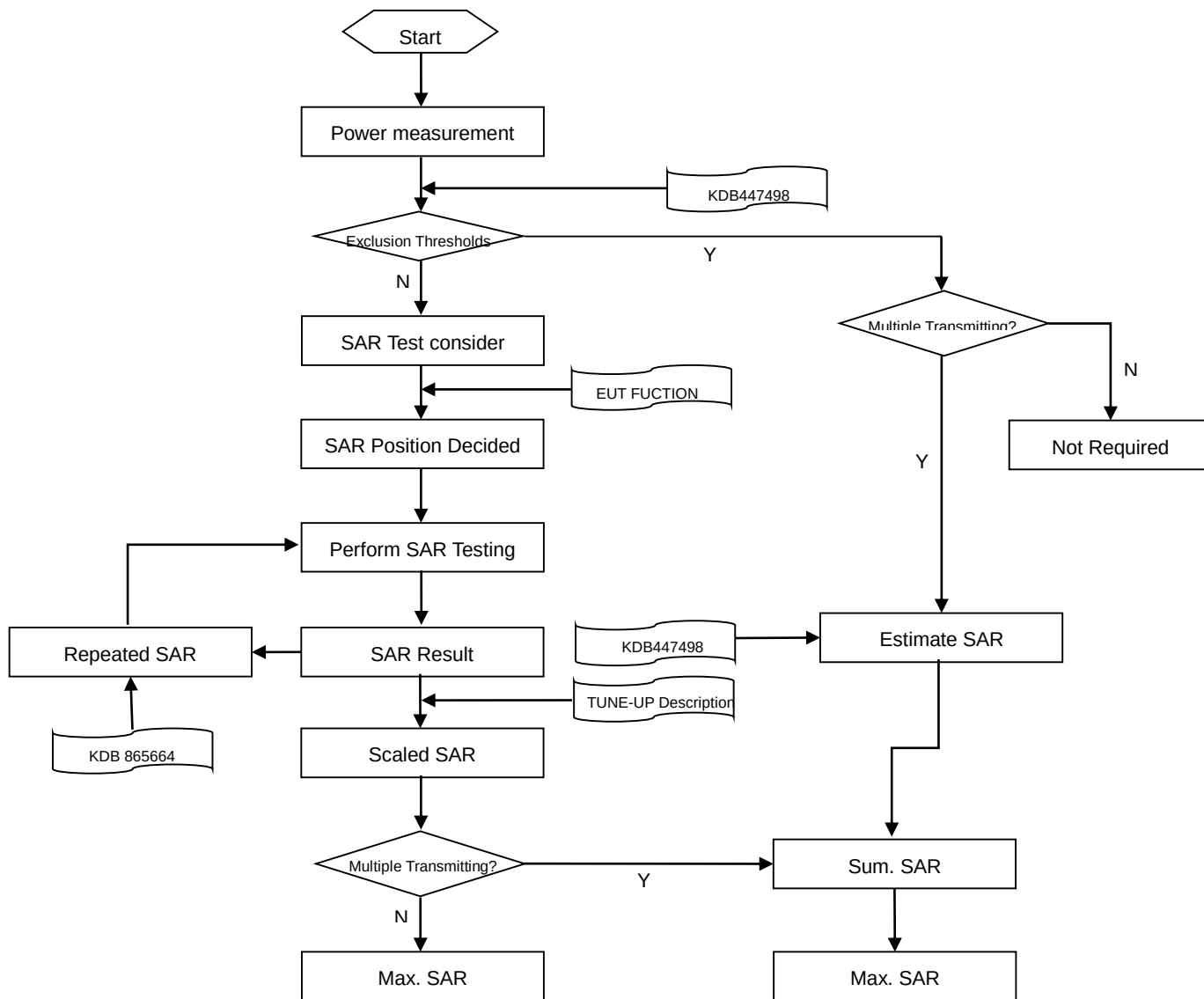
6.2 Product Specific 10g Exposure Consideration

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

The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

7 MEASUREMENT PROCEDURE

7.1 Measurement Process Diagram



7.2 SAR Scan General Requirement

Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1 g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2013.

			≤3GHz	>3GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5±1 mm	½·δ·ln(2)±0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30°±1°	20°±1°
Maximum area scan spatial resolution: Δx Area , Δy Area			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3–4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx Zoom , Δy Zoom			≤ 2 GHz: ≤ 8 mm 2 –3 GHz: ≤ 5 mm*	3–4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: Δz Zoom (n)		≤ 5 mm	3–4 GHz: ≤ 4 mm
				4–5 GHz: ≤ 3 mm
				5–6 GHz: ≤ 2 mm
	graded grid	Δz Zoom (1): between 1st two points closest to phantom surface	≤ 4 mm	3–4 GHz: ≤ 3 mm
				4–5 GHz: ≤ 2.5 mm
		Δz Zoom (n>1): between subsequent points	≤ 1.5·Δz Zoom (n-1)	
Minimum zoom scan volume	x, y, z		≥30 mm	3–4 GHz: ≥ 28 mm
				4–5 GHz: ≥ 25 mm
				5–6 GHz: ≥ 22 mm

Note:

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

7.3 Measurement Procedure

The following steps are used for each test position

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

7.4 Area & Zoom Scan Procedure

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

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

8 CONDUCTED RF OUTPUT POWER

8.1 WIFI

8.1.1 2.4G WIFI (SISO-Antenna 1)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	14.39	15.00	Yes
		6	2437	12.55	14.00	Yes
		11	2462	11.81	13.00	Yes
	802.11g	1	2412	14.92	15.00	No
		6	2437	13.65	14.00	No
		11	2462	12.95	13.00	No
	802.11n(HT20)	1	2412	14.92	15.00	No
		6	2437	14.01	14.00	No
		11	2462	12.78	13.00	No
	802.11ax(HE20)	1	2412	14.59	15.00	No
		6	2437	13.14	14.00	No
		11	2462	13.15	14.00	No

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

- 1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.
- 2) When multiple transmission modes (802.11b/g/n/ax) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n.
- 3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

Adjusted SAR = $0.090 * (31.62\text{mW}/31.62\text{mW}) = 0.090$ W/Kg, so 2.4G OFDM SAR test is not required.

Band (GHz)	Mode	Channel	Freq. (MHz)	RU Config	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11ax (HE20)	1	2412	26	13.66	14.00	No
				52	13.80	14.00	No
				106	12.20	14.00	No
		6	2437	26	13.30	14.00	No
				52	13.37	14.00	No
				106	11.88	12.00	No
		11	2462	26	9.52	10.00	No
				52	9.54	10.00	No
				106	7.78	9.00	No

8.1.2 2.4G WIFI (SISO-Antenna 2)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	17.53	19.00	Yes
		6	2437	17.98	19.00	Yes
		11	2462	17.58	19.00	Yes
	802.11g	1	2412	16.61	17.00	No
		6	2437	18.47	19.00	No
		11	2462	14.67	15.00	No
	802.11n(HT20)	1	2412	16.41	18.00	No
		6	2437	17.80	19.00	No
		11	2462	14.01	16.00	No
	802.11ax(HE20)	1	2412	15.57	16.00	No
		6	2437	17.84	19.00	No
		11	2462	14.04	16.00	No

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

- 1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.
- 2) When multiple transmission modes (802.11b/g/n/ax) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n.
- 3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

Adjusted SAR = $0.730 * (79.43\text{mW}/79.43\text{mW}) = 0.730$ W/Kg, so 2.4G OFDM SAR test is not required.

Band (GHz)	Mode	Channel	Freq. (MHz)	RU Config	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11ax (HE20)	1	2412	26	15.39	16.00	No
				52	14.75	16.00	No
				106	13.00	14.00	No
		6	2437	26	14.63	15.00	No
				52	14.33	15.00	No
				106	12.81	14.00	No
		11	2462	26	13.58	14.00	No
				52	13.50	14.00	No
				106	11.63	12.00	No

8.1.3 2.4G WIFI (MIMO)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	16.02	17.00	No
		6	2437	14.78	15.00	No
		11	2462	13.91	15.00	No
	802.11g	1	2412	16.50	17.00	No
		6	2437	18.81	19.00	No
		11	2462	16.56	18.00	No
	802.11n(HT20)	1	2412	17.92	18.00	No
		6	2437	17.75	18.00	No
		11	2462	17.18	18.00	No
	802.11ax(HE20)	1	2412	17.15	18.00	No
		6	2437	17.75	18.00	No
		11	2462	16.79	18.00	No

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

- 1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.
- 2) When multiple transmission modes (802.11b/g/n/ax) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n.
- 3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

Band (GHz)	Mode	Channel	Freq. (MHz)	RU Config	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11ax (HE20)	1	2412	26	15.19	16.00	No
				52	15.26	16.00	No
				106	13.37	14.00	No
		6	2437	26	14.83	15.00	No
				52	14.93	15.00	No
				106	13.16	14.00	No
		11	2462	26	10.28	12.00	No
				52	10.14	12.00	No
				106	7.75	9.00	No

8.1.4 5G WIFI (SISO-Antenna 1)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	16.75	17.00	Yes
		44	5220	16.87	17.00	Yes
		48	5240	16.62	17.00	Yes
	802.11n(HT20)	36	5180	16.80	17.00	No
		44	5220	16.91	17.00	No
		48	5240	16.83	17.00	No
	802.11n(HT40)	38	5190	14.70	15.00	No
		46	5230	14.77	15.00	No
	802.11ac(VHT20)	36	5180	14.81	15.00	No
		44	5220	14.91	15.00	No
		48	5240	14.39	15.00	No
	802.11ac(VHT40)	38	5190	11.74	12.00	No
		46	5230	11.76	12.00	No
	802.11ac(VHT80)	42	5210	11.72	12.00	No
	802.11ax(HE20)	36	5180	12.88	13.00	No
		44	5220	12.49	13.00	No
		48	5240	12.63	13.00	No
	802.11ax(HE40)	38	5190	10.68	11.00	No
		46	5230	10.76	11.00	No
	802.11ax(HE80)	42	5210	10.84	11.00	No
5.8 (5.725~5.850)	802.11a	149	5745	15.60	16.00	Yes
		157	5785	15.33	16.00	Yes
		165	5825	15.41	16.00	Yes
	802.11n(HT20)	149	5745	14.49	15.00	No
		157	5785	14.40	15.00	No
		165	5825	14.50	15.00	No
	802.11n(HT40)	151	5755	14.88	15.00	No
		159	5795	14.51	15.00	No
	802.11ac(VHT20)	149	5745	12.85	13.00	No
		157	5785	12.56	13.00	No
		165	5825	12.65	13.00	No
	802.11ac(VHT40)	151	5755	10.47	11.00	No
		159	5795	10.49	11.00	No
	802.11ac(VHT80)	155	5775	10.48	11.00	No
	802.11ax(HE20)	149	5745	11.48	12.00	No
		157	5785	11.56	12.00	No

		165	5825	11.78	12.00	No
	802.11ax(HE40)	151	5755	10.51	11.00	No
		159	5795	10.71	11.00	No
	802.11ax(HE80)	155	5775	10.49	11.00	No

Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

Band (GHz)	Mode	Channel	Freq. (MHz)	RU Config	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11ax (HE20)	36	5180	26	11.58	13.00	No
				52	12.55	13.00	No
				106	12.49	13.00	No
		44	5220	26	11.78	13.00	No
				52	12.46	13.00	No
				106	12.67	13.00	No
		48	5240	26	11.59	13.00	No
				52	12.77	13.00	No
				106	12.80	13.00	No
	802.11ax (HE40)	38	5190	26	10.66	11.00	No
				52	10.43	11.00	No
				106	10.36	11.00	No
				242	10.76	11.00	No
		46	5230	26	10.88	11.00	No
				52	10.69	11.00	No
				106	10.59	11.00	No
				242	10.89	11.00	No
	802.11ax (HE80)	42	5210	26	10.48	11.00	No
				52	10.68	11.00	No
				106	10.41	11.00	No
				242	10.44	11.00	No
				484	10.51	11.00	No
5.8 (5.725~5.850)	802.11ax (HE20)	149	5745	26	12.87	13.00	No
				52	12.60	13.00	No
				106	12.54	13.00	No
		157	5785	26	12.45	13.00	No
				52	12.42	13.00	No
				106	12.47	13.00	No
		165	5825	26	12.86	13.00	No

				52	12.72	13.00	No
				106	12.91	13.00	No
	802.11ax (HE40)	151	5755	26	10.89	11.00	No
				52	10.68	11.00	No
				106	10.79	11.00	No
				242	10.46	11.00	No
				26	10.42	11.00	No
		159	5795	52	10.59	11.00	No
				106	10.63	11.00	No
				242	10.54	11.00	No
	802.11ax (HE80)	155	5775	26	10.52	11.00	No
				52	10.53	11.00	No
				106	10.45	11.00	No
				242	10.40	11.00	No
				484	10.86	11.00	No

8.1.5 5G WIFI (SISO-Antenna 2)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	16.95	17.00	Yes
		44	5220	16.73	17.00	Yes
		48	5240	16.90	17.00	Yes
	802.11n(HT20)	36	5180	16.96	17.00	No
		44	5220	16.77	17.00	No
		48	5240	16.60	17.00	No
	802.11n(HT40)	38	5190	12.86	15.00	No
		46	5230	14.67	15.00	No
	802.11ac(VHT20)	36	5180	14.78	15.00	No
		44	5220	14.63	15.00	No
		48	5240	14.95	15.00	No
	802.11ac(VHT40)	38	5190	11.77	12.00	No
		46	5230	11.48	12.00	No
	802.11ac(VHT80)	42	5210	11.56	12.00	No
	802.11ax(HE20)	36	5180	12.74	13.00	No
		44	5220	12.51	13.00	No
		48	5240	12.50	13.00	No
	802.11ax(HE40)	38	5190	10.87	11.00	No
		46	5230	10.73	11.00	No
	802.11ax(HE80)	42	5210	10.52	11.00	No
5.8 (5.725~5.850)	802.11a	149	5745	15.95	16.00	Yes
		157	5785	15.84	16.00	Yes
		165	5825	15.91	16.00	Yes
	802.11n(HT20)	149	5745	14.97	15.00	No
		157	5785	14.69	15.00	No
		165	5825	14.67	15.00	No
	802.11n(HT40)	151	5755	14.65	15.00	No
		159	5795	14.63	15.00	No
	802.11ac(VHT20)	149	5745	12.75	13.00	No
		157	5785	12.53	13.00	No
		165	5825	12.66	13.00	No
	802.11ac(VHT40)	151	5755	10.97	11.00	No
		159	5795	10.82	11.00	No
	802.11ac(VHT80)	155	5775	10.70	11.00	No
	802.11ax(HE20)	149	5745	11.83	12.00	No
		157	5785	11.72	12.00	No

		165	5825	11.74	12.00	No
	802.11ax(HE40)	151	5755	10.95	11.00	No
		159	5795	10.85	11.00	No
	802.11ax(HE80)	155	5775	10.90	11.00	No

Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

Band (GHz)	Mode	Channel	Freq. (MHz)	RU Config	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11ax (HE20)	36	5180	26	12.67	13.00	No
				52	12.37	13.00	No
				106	12.49	13.00	No
		44	5220	26	12.40	13.00	No
				52	12.57	13.00	No
				106	12.42	13.00	No
		48	5240	26	12.78	13.00	No
				52	12.80	13.00	No
				106	12.59	13.00	No
	802.11ax (HE40)	38	5190	26	10.45	11.00	No
				52	10.68	11.00	No
				106	10.45	11.00	No
				242	10.52	11.00	No
		46	5230	26	10.49	11.00	No
				52	10.58	11.00	No
				106	10.42	11.00	No
				242	10.64	11.00	No
	802.11ax (HE80)	42	5210	26	10.45	11.00	No
				52	10.49	11.00	No
				106	10.58	11.00	No
				242	10.39	11.00	No
				484	10.78	11.00	No
5.8 (5.725~5.850)	802.11ax (HE20)	149	5745	26	12.49	13.00	No
				52	12.50	13.00	No
				106	12.74	13.00	No
		157	5785	26	12.42	13.00	No
				52	12.64	13.00	No
				106	12.52	13.00	No
		165	5825	26	12.84	13.00	No

				52	12.88	13.00	No
				106	12.63	13.00	No
	802.11ax (HE40)	151	5755	26	10.52	11.00	No
				52	10.83	11.00	No
				106	10.54	11.00	No
				242	10.55	11.00	No
				26	10.51	11.00	No
		159	5795	52	10.71	11.00	No
				106	10.52	11.00	No
				242	10.42	11.00	No
	802.11ax (HE80)	155	5775	26	10.62	11.00	No
				52	10.46	11.00	No
				106	10.54	11.00	No
				242	10.60	11.00	No
				484	10.50	11.00	No

8.1.6 5G WIFI (MIMO)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	16.75	17.00	No
		44	5220	16.70	17.00	No
		48	5240	16.76	17.00	No
	802.11n(HT20)	36	5180	16.75	17.00	No
		44	5220	16.75	17.00	No
		48	5240	16.82	17.00	No
	802.11n(HT40)	38	5190	14.80	15.00	No
		46	5230	14.73	15.00	No
	802.11ac(VHT20)	36	5180	14.81	15.00	No
		44	5220	14.69	15.00	No
		48	5240	14.71	15.00	No
	802.11ac(VHT40)	38	5190	11.31	12.00	No
		46	5230	11.64	12.00	No
	802.11ac(VHT80)	42	5210	11.44	12.00	No
	802.11ax(HE20)	36	5180	12.90	13.00	No
		44	5220	12.76	13.00	No
		48	5240	12.74	13.00	No
	802.11ax(HE40)	38	5190	10.60	11.00	No
		46	5230	10.89	11.00	No
	802.11ax(HE80)	42	5210	10.51	11.00	No
5.8 (5.725~5.850)	802.11a	149	5745	15.65	16.00	No
		157	5785	15.48	16.00	No
		165	5825	15.62	16.00	No
	802.11n(HT20)	149	5745	14.78	15.00	No
		157	5785	14.55	15.00	No
		165	5825	14.71	15.00	No
	802.11n(HT40)	151	5755	14.76	15.00	No
		159	5795	14.64	15.00	No
	802.11ac(VHT20)	149	5745	12.68	13.00	No
		157	5785	12.48	13.00	No
		165	5825	12.65	13.00	No
	802.11ac(VHT40)	151	5755	10.88	11.00	No
		159	5795	10.70	11.00	No
	802.11ac(VHT80)	155	5775	10.81	11.00	No
	802.11ax(HE20)	149	5745	11.65	12.00	No
		157	5785	11.56	12.00	No

		165	5825	11.62	12.00	No
	802.11ax(HE40)	151	5755	10.62	11.00	No
		159	5795	10.41	11.00	No
	802.11ax(HE80)	155	5775	10.61	11.00	No

Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

Band (GHz)	Mode	Channel	Freq. (MHz)	RU Config	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11ax (HE20)	36	5180	26	12.49	13.00	No
				52	12.64	13.00	No
				106	12.62	13.00	No
		44	5220	26	12.56	13.00	No
				52	12.66	13.00	No
				106	12.50	13.00	No
		48	5240	26	12.78	13.00	No
				52	12.58	13.00	No
				106	12.67	13.00	No
	802.11ax (HE40)	38	5190	26	10.56	11.00	No
				52	10.67	11.00	No
				106	10.58	11.00	No
				242	10.57	11.00	No
		46	5230	26	10.64	11.00	No
				52	10.70	11.00	No
				106	10.61	11.00	No
				242	10.47	11.00	No
	802.11ax (HE80)	42	5210	26	10.57	11.00	No
				52	10.51	11.00	No
				106	10.75	11.00	No
				242	10.57	11.00	No
				484	10.58	11.00	No
5.8 (5.725~5.850)	802.11ax (HE20)	149	5745	26	12.59	13.00	No
				52	12.58	13.00	No
				106	12.42	13.00	No
		157	5785	26	12.73	13.00	No
				52	12.51	13.00	No
				106	12.51	13.00	No
		165	5825	26	12.57	13.00	No

				52	12.60	13.00	No
				106	12.64	13.00	No
	802.11ax (HE40)	151	5755	26	10.86	11.00	No
				52	10.58	11.00	No
				106	10.65	11.00	No
				242	10.68	11.00	No
				26	10.53	11.00	No
		159	5795	52	10.68	11.00	No
				106	10.74	11.00	No
				242	10.54	11.00	No
	802.11ax (HE80)	155	5775	26	10.75	11.00	No
				52	10.43	11.00	No
				106	10.46	11.00	No
				242	10.44	11.00	No
				484	10.64	11.00	No

8.2 Bluetooth

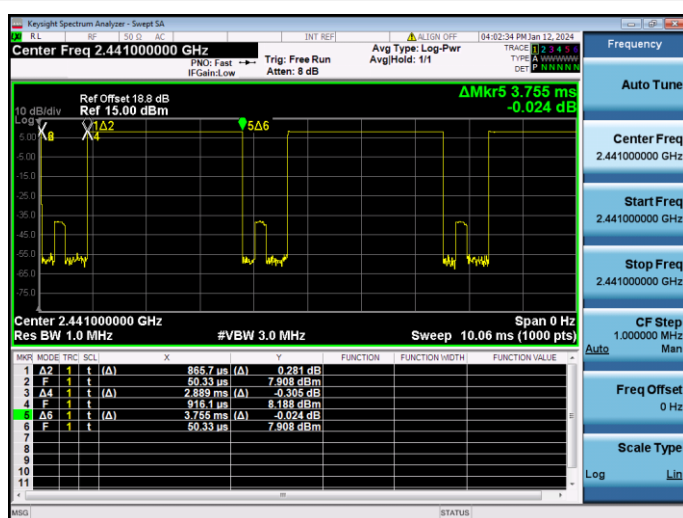
Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Average Power (dBm)	11.03	8.44	10.63	11.12	8.60	10.24
Tune-Up Limit (dBm)	12.00	10.00	12.00	12.00	10.00	12.00
SAR Test Require	Yes	Yes	Yes	No	No	No
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Average Power (dBm)	11.45	9.02	10.67	/	/	/
Tune-Up Limit (dBm)	12.00	10.00	12.00	/	/	/
SAR Test Require	No	No	No	/	/	/
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	1	19	38
Frequency (MHz)	2402	2440	2480	2404	2440	2478
Average Power (dBm)	9.08	9.79	9.65	10.23	10.21	10.08
Tune-Up Limit (dBm)	10.00	10.00	10.00	10.50	10.50	10.50
SAR Test Require	No	No	No	No	No	No

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

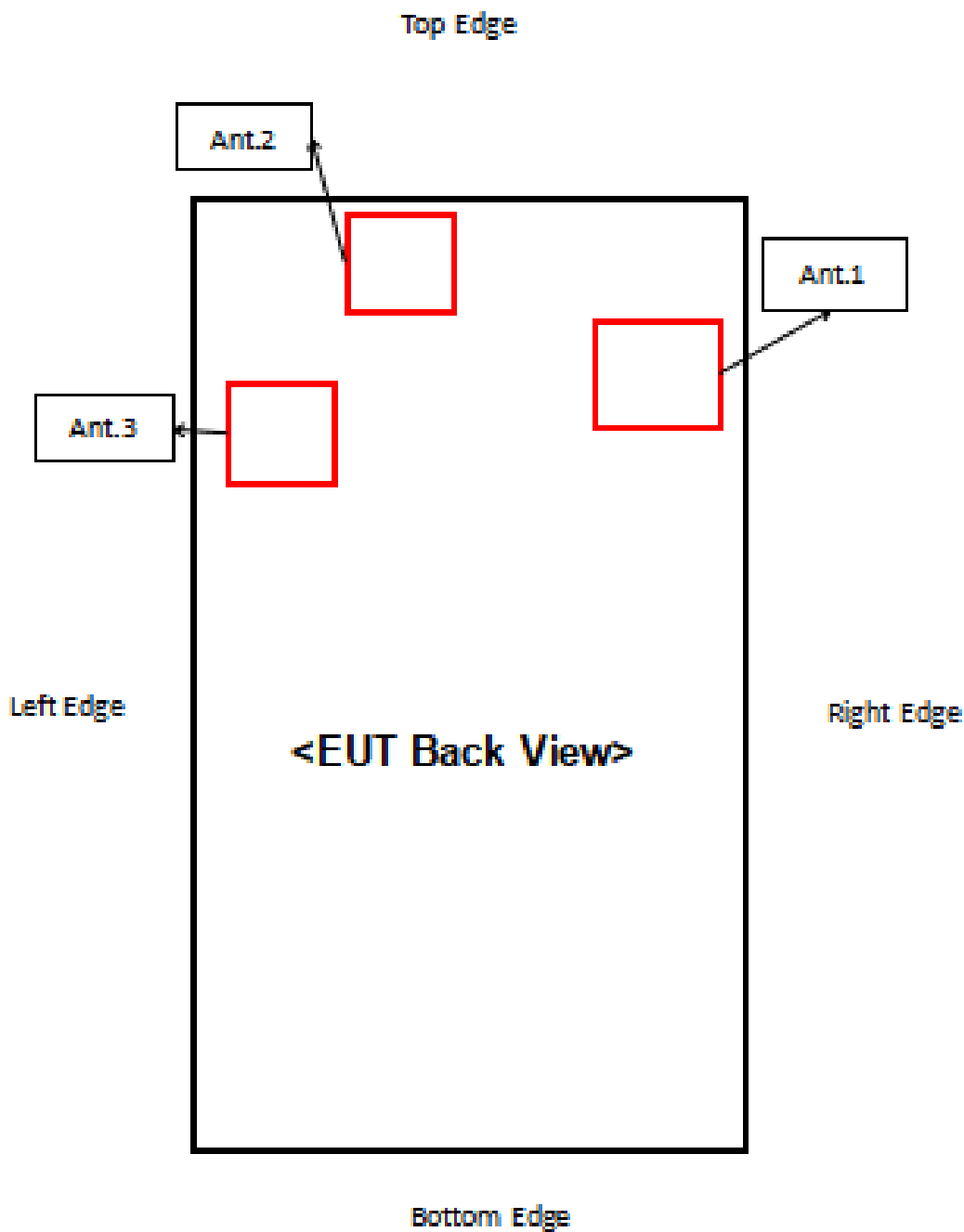
Note: The Bluetooth DH5 duty cycle is 76.94 % as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation.

Duty Cycle

GFSK



9 TEST EXCLUSION CONSIDERATION



Antenna	Description	Support Bands
Antenna 1	WLAN 2.4/5G TX Antenna	2.4G WLAN Chain1; 5G WLAN Chain1
Antenna 2	WLAN 2.4/5G TX Antenna	2.4G WLAN Chain2; 5G WLAN Chain2
Antenna 3	Bluetooth TX Antenna	Bluetooth

9.1 SAR Test Exclusion Consideration Table

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

RF Exposure Position	RF Exposure Scenarios
Front Side	Body&Limbs
Back Side	Body&Limbs
Left Edge	Body&Limbs
Right Edge	Body&Limbs
Top Edge	Body&Limbs
Bottom Edge	Body&Limbs

ANT1

Test Position Configurations	Mode	WLAN 2.4GHz	WLAN 5.2&3GHz	WLAN 5.8GHz
Front Side	Distance to User (mm)	<5mm		
	Max. Peak Power (dBm)	15.00	17.00	16.00
	Max. Peak Power (mW)	31.62	50.12	39.81
	Separation distance (mm)	5.00	5.00	5.00
	Exclusion Threshold (mW)	2.73	1.49	1.37
	SAR Test Required	Yes	Yes	Yes
Back Side	Distance to User (mm)	<5mm		
	Max. Peak Power (dBm)	15.00	17.00	16.00
	Max. Peak Power (mW)	31.62	50.12	39.81
	Separation distance (mm)	5.00	5.00	5.00
	Exclusion Threshold (mW)	2.73	1.49	1.37
	SAR Test Required	Yes	Yes	Yes
Left Edge	Distance to User (mm)	35.00		
	Max. Peak Power (dBm)	15.00	17.00	16.00
	Max. Peak Power (mW)	31.62	50.12	39.81
	Separation distance (mm)	35.00	35.00	35.00
	Exclusion Threshold (mW)	110.93	83.29	80.08
	SAR Test Required	No	No	No
Right Edge	Distance to User (mm)	5.00		
	Max. Peak Power (dBm)	15.00	17.00	16.00
	Max. Peak Power (mW)	31.62	50.12	39.81
	Separation distance (mm)	5.00	5.00	5.00
	Exclusion Threshold (mW)	2.73	1.49	1.37
	SAR Test Required	Yes	Yes	Yes
Top Edge	Distance to User (mm)	10.00		

	Max. Peak Power (dBm)	15.00	17.00	16.00
	Max. Peak Power (mW)	31.62	50.12	39.81
	Separation distance (mm)	10.00	10.00	10.00
	Exclusion Threshold (mW)	10.22	6.25	5.84
	SAR Test Required	Yes	Yes	Yes
Bottom Edge	Distance to User (mm)	100.00		
	Max. Peak Power (dBm)	15.00	17.00	16.00
	Max. Peak Power (mW)	31.62	50.12	39.81
	Separation distance (mm)	100.00	100.00	100.00
	Exclusion Threshold (mW)	818.08	729.96	718.63
	SAR Test Required	No	No	No

ANT2

Test Position Configurations	Mode	WLAN 2.4GHz	WLAN 5.2&3GHz	WLAN 5.8GHz
Front Side	Distance to User (mm)	<5mm		
	Max. Peak Power (dBm)	19.00	17.00	16.00
	Max. Peak Power (mW)	79.43	50.12	39.81
	Separation distance (mm)	5.00	5.00	5.00
	Exclusion Threshold (mW)	2.73	1.49	1.37
	SAR Test Required	Yes	Yes	Yes
Back Side	Distance to User (mm)	<5mm		
	Max. Peak Power (dBm)	19.00	17.00	16.00
	Max. Peak Power (mW)	79.43	50.12	39.81
	Separation distance (mm)	5.00	5.00	5.00
	Exclusion Threshold (mW)	2.73	1.49	1.37
	SAR Test Required	Yes	Yes	Yes
Left Edge	Distance to User (mm)	13.00		
	Max. Peak Power (dBm)	19.00	17.00	16.00
	Max. Peak Power (mW)	79.43	50.12	39.81
	Separation distance (mm)	13.00	13.00	13.00
	Exclusion Threshold (mW)	16.84	10.75	10.10
	SAR Test Required	Yes	Yes	Yes
Right Edge	Distance to User (mm)	30.00		
	Max. Peak Power (dBm)	19.00	17.00	16.00
	Max. Peak Power (mW)	79.43	50.12	39.81
	Separation distance (mm)	30.00	30.00	30.00
	Exclusion Threshold (mW)	82.73	60.56	58.02
	SAR Test Required	No	No	No
Top Edge	Distance to User (mm)	<5mm		
	Max. Peak Power (dBm)	19.00	17.00	16.00

	Max. Peak Power (mW)	79.43	50.12	39.81
	Separation distance (mm)	5.00	5.00	5.00
	Exclusion Threshold (mW)	2.73	1.49	1.37
	SAR Test Required	Yes	Yes	Yes
Bottom Edge	Distance to User (mm)	120.00		
	Max. Peak Power (dBm)	19.00	17.00	16.00
	Max. Peak Power (mW)	79.43	50.12	39.81
	Separation distance (mm)	120.00	120.00	120.00
	Exclusion Threshold (mW)	1157.43	1064.18	1051.98
	SAR Test Required	No	No	No

ANT3

Test Position Configurations	Mode	Bluetooth
Front Side	Distance to User (mm)	<5mm
	Max. Peak Power (dBm)	12.00
	Max. Peak Power (mW)	15.85
	Separation distance (mm)	5.00
	Exclusion Threshold (mW)	2.72
	SAR Test Required	Yes
Back Side	Distance to User (mm)	<5mm
	Max. Peak Power (dBm)	12.00
	Max. Peak Power (mW)	15.85
	Separation distance (mm)	5.00
	Exclusion Threshold (mW)	2.72
	SAR Test Required	Yes
Left Edge	Distance to User (mm)	<5mm
	Max. Peak Power (dBm)	12.00
	Max. Peak Power (mW)	15.85
	Separation distance (mm)	2.72
	Exclusion Threshold (mW)	4.00
	SAR Test Required	Yes
Right Edge	Distance to User (mm)	35.00
	Max. Peak Power (dBm)	12.00
	Max. Peak Power (mW)	15.85
	Separation distance (mm)	35.00
	Exclusion Threshold (mW)	110.63
	SAR Test Required	No
Top Edge	Distance to User (mm)	10.00
	Max. Peak Power (dBm)	12.00
	Max. Peak Power (mW)	15.85

	Separation distance (mm)	10.00
	Exclusion Threshold (mW)	10.17
	SAR Test Required	Yes
Bottom Edge	Distance to User (mm)	95.00
	Max. Peak Power (dBm)	12.00
	Max. Peak Power (mW)	15.85
	Separation distance (mm)	95.00
	Exclusion Threshold (mW)	741.12
	SAR Test Required	No

Note:

1. Maximum power is the source-based time-average power and represents the maximum RF output power including tune-up tolerance among production units
2. Per KDB 447498 D04, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
3. Per KDB 447498 D04, standalone SAR test exclusion threshold is applied; If the distance of the antenna to the user is < 5mm, 5mm is used to determine SAR exclusion threshold
4. Per KDB 447498 D04, for separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive), the threshold Pth (mW) is given by Following:

$$P_{th}(mW) = \begin{cases} ERP_{20cm}(d/20cm)^x & d \leq 20cm \\ ERP_{20cm} & 20cm < d \leq 40cm \end{cases}$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20cm}\sqrt{f}} \right)$$

- a. f(GHz) is the RF channel transmit frequency in GHz
- b. d is the separation distance (cm), The result is rounded to one decimal place for comparison
- c. ERP_{20cm} are determined by:

$$ERP_{20cm}(mW) = f(x) = \begin{cases} 2040f & 0.3GHz \leq f < 1.5GHz \\ 3060 & 1.5GHz \leq f \leq 6GHz \end{cases}$$

5. Per KDB 941225 D01, RMC 12.2kbps setting is used to evaluate SAR. If HSDPA/HSUPA/DC-HSDPA output power is < 0.25dB higher than RMC12.2Kbps, or reported SAR with RMC 12.2kbps setting is $\leq 1.2W/kg$, HSDPA/HSUPA/DC-HSDPA SAR evaluation can be excluded.
6. Per KDB 248227 D01, choose the highest output power channel to test SAR and determine further SAR exclusion.8. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is less than 1/4dB higher than those measured at the lowest data rate
7. Per KDB 248227 D01 SAR is not required for the following 2.4 GHz OFDM conditions.
 - a. When KDB Publication 447498 D04 SAR test exclusion applies to the OFDM configuration.
 - b. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is $\leq 1.2 W/kg$.
8. Per KDB 248227 D01 SAR is not required for the following U-NII-1 and U-NII-2A bands conditions.
 - a. When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is $\leq 1.2 W/kg$, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.
 - b. When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is $\leq 1.2 W/kg$, SAR is not required for the band with lower maximum output power in that test configuration; otherwise, each band is tested independently for SAR.

10 TEST RESULT

10.1WIFI 2.4GHz

Mode	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
Body														
802.11b	ANT1	Front Side	10	1	2412	0.16	0.073	14.39	15.00	1.151	98.79	1.012	0.085	/
	ANT1	Back Side	10	1	2412	-0.09	0.013	14.39	15.00	1.151	98.79	1.012	0.015	/
	ANT1	Right Edge	10	1	2412	0.07	0.077	14.39	15.00	1.151	98.79	1.012	0.090	/
	ANT1	Top Edge	10	1	2412	-0.07	0.015	14.39	15.00	1.151	98.79	1.012	0.017	/
	ANT1	Right Edge	10	6	2437	-0.12	0.055	12.55	14.00	1.396	98.79	1.012	0.078	/
	ANT1	Right Edge	10	11	2462	-0.18	0.044	11.81	13.00	1.315	98.79	1.012	0.059	/
802.11b	ANT2	Front Side	10	6	2437	0.02	0.517	17.98	19.00	1.265	98.79	1.012	0.662	/
	ANT2	Back Side	10	6	2437	0.00	0.177	17.98	19.00	1.265	98.79	1.012	0.227	/
	ANT2	Left Edge	10	6	2437	-0.13	0.245	17.98	19.00	1.265	98.79	1.012	0.314	/
	ANT2	Top Edge	10	6	2437	0.02	0.448	17.98	19.00	1.265	98.79	1.012	0.574	/
	ANT2	Front Side	10	1	2412	0.15	0.508	17.53	19.00	1.403	98.79	1.012	0.721	/
	ANT2	Front Side	10	11	2462	0.06	0.520	17.58	19.00	1.387	98.79	1.012	0.730	1#

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

Mode	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	10g Scaled SAR (W/kg)	Meas. No.
Limbs														
802.11b	ANT1	Front Side	0	1	2412	-0.01	0.125	14.39	15.00	1.151	98.79	1.012	0.146	/
	ANT1	Back Side	0	1	2412	0.14	0.044	14.39	15.00	1.151	98.79	1.012	0.051	/
	ANT1	Right Edge	0	1	2412	-0.13	0.179	14.39	15.00	1.151	98.79	1.012	0.209	/
	ANT1	Top Edge	0	1	2412	0.14	0.044	14.39	15.00	1.151	98.79	1.012	0.051	/
	ANT1	Right Edge	0	6	2437	-0.02	0.112	12.55	14.00	1.396	98.79	1.012	0.158	/
	ANT1	Right Edge	0	11	2462	0.06	0.083	11.81	13.00	1.315	98.79	1.012	0.111	/
802.11b	ANT2	Front Side	0	6	2437	-0.08	0.937	17.98	19.00	1.265	98.79	1.012	1.200	/
	ANT2	Back Side	0	6	2437	0.16	0.257	17.98	19.00	1.265	98.79	1.012	0.329	/
	ANT2	Left Edge	0	6	2437	0.09	0.270	17.98	19.00	1.265	98.79	1.012	0.346	/
	ANT2	Top Edge	0	6	2437	-0.12	0.519	17.98	19.00	1.265	98.79	1.012	0.664	/
	ANT2	Front Side	0	1	2412	0.04	0.792	17.53	19.00	1.403	98.79	1.012	1.125	/
	ANT2	Front Side	0	11	2462	0.08	1.060	17.58	19.00	1.387	98.79	1.012	1.488	2#

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

10.2WIFI 5GHz

Fre. Band	Mode	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
Body															
5.2G	802.11a	ANT1	Front Side	10	44	5220	0.04	0.163	16.87	17.00	1.030	93.37	1.071	0.180	/
		ANT1	Back Side	10	44	5220	-0.17	0.026	16.87	17.00	1.030	93.37	1.071	0.029	/
		ANT1	Right Edge	10	44	5220	0.12	0.172	16.87	17.00	1.030	93.37	1.071	0.190	/
		ANT1	Top Edge	10	44	5220	-0.11	0.021	16.87	17.00	1.030	93.37	1.071	0.023	/
		ANT1	Right Edge	10	36	5180	-0.05	0.142	16.75	17.00	1.059	93.37	1.071	0.161	/
		ANT1	Right Edge	10	48	5240	-0.14	0.179	16.62	17.00	1.091	93.37	1.071	0.209	/
5.2G	802.11a	ANT2	Front Side	10	36	5180	-0.04	0.187	16.95	17.00	1.012	93.37	1.071	0.203	/
		ANT2	Back Side	10	36	5180	-0.15	0.033	16.95	17.00	1.012	93.37	1.071	0.036	/
		ANT2	Left Edge	10	36	5180	0.14	0.028	16.95	17.00	1.012	93.37	1.071	0.030	/
		ANT2	Top Edge	10	36	5180	-0.05	0.258	16.95	17.00	1.012	93.37	1.071	0.280	3#
		ANT2	Top Edge	10	44	5220	-0.01	0.214	16.73	17.00	1.064	93.37	1.071	0.244	/
		ANT2	Top Edge	10	48	5240	-0.10	0.231	16.90	17.00	1.023	93.37	1.071	0.253	/
5.8G	802.11a	ANT1	Front Side	10	149	5745	-0.01	0.669	15.60	16.00	1.096	93.37	1.071	0.786	/
		ANT1	Back Side	10	149	5745	-0.04	0.071	15.60	16.00	1.096	93.37	1.071	0.083	/
		ANT1	Right Edge	10	149	5745	0.04	0.949	15.60	16.00	1.096	93.37	1.071	1.114	4#
		ANT1	Top Edge	10	149	5745	-0.06	0.101	15.60	16.00	1.096	93.37	1.071	0.119	/
		ANT1	Right Edge	10	157	5785	-0.17	0.867	15.33	16.00	1.167	93.37	1.071	1.083	/
		ANT1	Right Edge	10	165	5825	0.02	0.844	15.41	16.00	1.146	93.37	1.071	1.035	/
5.8G	802.11a	ANT2	Front Side	10	149	5745	0.11	0.560	15.95	16.00	1.012	93.37	1.071	0.607	/
		ANT2	Back Side	10	149	5745	-0.01	0.068	15.95	16.00	1.012	93.37	1.071	0.074	/
		ANT2	Left Edge	10	149	5745	0.08	0.061	15.95	16.00	1.012	93.37	1.071	0.066	/
		ANT2	Top Edge	10	149	5745	0.07	0.730	15.95	16.00	1.012	93.37	1.071	0.791	/
		ANT2	Top Edge	10	157	5785	-0.18	0.822	15.84	16.00	1.038	93.37	1.071	0.913	/
		ANT2	Top Edge	10	165	5825	0.13	0.723	15.91	16.00	1.021	93.37	1.071	0.791	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

Fre. Band	Mode	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	10g Scaled SAR (W/kg)	Meas. No.
Limbs															
5.2G	802.11a	ANT1	Front Side	0	44	5220	0.14	0.261	16.87	17.00	1.030	93.37	1.071	0.288	/
		ANT1	Back Side	0	44	5220	-0.12	0.014	16.87	17.00	1.030	93.37	1.071	0.015	/
		ANT1	Right Edge	0	44	5220	0.06	0.245	16.87	17.00	1.030	93.37	1.071	0.270	/
		ANT1	Top Edge	0	44	5220	-0.12	0.027	16.87	17.00	1.030	93.37	1.071	0.030	/
		ANT1	Front Side	0	36	5180	-0.15	0.359	16.75	17.00	1.059	93.37	1.071	0.407	/
		ANT1	Front Side	0	48	5240	-0.05	0.275	16.62	17.00	1.091	93.37	1.071	0.321	/
5.2G	802.11a	ANT2	Front Side	0	36	5180	0.06	0.413	16.95	17.00	1.012	93.37	1.071	0.447	5#
		ANT2	Back Side	0	36	5180	-0.10	0.046	16.95	17.00	1.012	93.37	1.071	0.050	/
		ANT2	Left Edge	0	36	5180	0.11	0.089	16.95	17.00	1.012	93.37	1.071	0.096	/
		ANT2	Top Edge	0	36	5180	0.12	0.236	16.95	17.00	1.012	93.37	1.071	0.256	/
		ANT2	Front Side	0	44	5220	-0.10	0.391	16.73	17.00	1.064	93.37	1.071	0.446	/
		ANT2	Front Side	0	48	5240	0.03	0.402	16.90	17.00	1.023	93.37	1.071	0.441	/
5.8G	802.11a	ANT1	Front Side	0	149	5745	-0.06	0.560	15.60	16.00	1.096	93.37	1.071	0.658	/
		ANT1	Back Side	0	149	5745	0.12	0.061	15.60	16.00	1.096	93.37	1.071	0.072	/
		ANT1	Right Edge	0	149	5745	0.02	0.826	15.60	16.00	1.096	93.37	1.071	0.970	6#
		ANT1	Top Edge	0	149	5745	-0.13	0.074	15.60	16.00	1.096	93.37	1.071	0.087	/
		ANT1	Right Edge	0	157	5785	-0.02	0.676	15.33	16.00	1.167	93.37	1.071	0.845	/
		ANT1	Right Edge	0	165	5825	-0.03	0.646	15.41	16.00	1.146	93.37	1.071	0.793	/
5.8G	802.11a	ANT2	Front Side	0	149	5745	0.04	0.525	15.95	16.00	1.012	93.37	1.071	0.569	/
		ANT2	Back Side	0	149	5745	-0.17	0.046	15.95	16.00	1.012	93.37	1.071	0.050	/
		ANT2	Left Edge	0	149	5745	0.00	0.095	15.95	16.00	1.012	93.37	1.071	0.103	/
		ANT2	Top Edge	0	149	5745	0.00	0.411	15.95	16.00	1.012	93.37	1.071	0.445	/
		ANT2	Front Side	0	157	5785	0.10	0.560	15.84	16.00	1.038	93.37	1.071	0.622	/
		ANT2	Front Side	0	165	5825	-0.14	0.531	15.91	16.00	1.021	93.37	1.071	0.581	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.3 Bluetooth

Mode	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
Body														
DH5	Front Side	ANT3	10	0	2402	0.17	0.016	11.03	12.00	1.250	76.94	1.300	0.026	/
	Back Side	ANT3	10	0	2402	0.10	0.010	11.03	12.00	1.250	76.94	1.300	0.016	/
	Left Edge	ANT3	10	0	2402	0.11	0.071	11.03	12.00	1.250	76.94	1.300	0.115	7#
	Top Edge	ANT3	10	0	2402	0.13	0.003	11.03	12.00	1.250	76.94	1.300	0.005	/
	Left Edge	ANT3	10	39	2441	0.02	0.052	8.44	10.00	1.432	76.94	1.300	0.097	/
	Left Edge	ANT3	10	78	2480	0.11	0.057	10.63	12.00	1.371	76.94	1.300	0.102	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

Mode	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	10g Scaled SAR (W/kg)	Meas. No.
Limbs														
DH5	Front Side	ANT3	0	0	2402	0.05	0.113	11.03	12.00	1.250	76.94	1.300	0.184	/
	Back Side	ANT3	0	0	2402	0.01	0.021	11.03	12.00	1.250	76.94	1.300	0.034	/
	Left Edge	ANT3	0	0	2402	-0.04	0.160	11.03	12.00	1.250	76.94	1.300	0.260	8#
	Top Edge	ANT3	0	0	2402	-0.16	0.027	11.03	12.00	1.250	76.94	1.300	0.044	/
	Left Edge	ANT3	0	39	2441	0.16	0.134	8.44	10.00	1.432	76.94	1.300	0.249	/
	Left Edge	ANT3	0	78	2480	-0.03	0.141	10.63	12.00	1.371	76.94	1.300	0.251	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

11 SAR Measurement Variability

According to KDB 865664 D01, SAR measurement variability was assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are ≤ 1.45 W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is ≤ 1.10 , the highest SAR configuration for either head or body tissue-equivalent medium may be used to perform the repeated measurement. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR repeated measurement procedure:

1. When the highest measured SAR is < 0.80 W/kg, repeated measurement is not required.
2. When the highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3. If the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 , or when the original or repeated measurement is ≥ 1.45 W/kg, perform a second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 , and the original, first or second repeated measurement is ≥ 1.5 W/kg, perform a third repeated measurement.

Antenna	Frequency Band (MHz)	Wireless Band	RF Exposure Conditions	Test Position	Highest Measured SAR (W/kg)	Repeated SAR (Yes/No)	Repeated ^{1st} Measured SAR (W/kg)	Largest to Smallest SAR Ratio
ANT1	5745	WIFI 5GHz	Body	Right Edge	0.949	Yes	0.908	1.05
ANT1	5785	WIFI 5GHz	Body	Right Edge	0.867	Yes	0.834	1.04
ANT1	5825	WIFI 5GHz	Body	Right Edge	0.844	Yes	0.827	1.02
ANT2	5785	WIFI 5GHz	Body	Top Edge	0.822	Yes	0.803	1.02

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

Note: For product specific 10g SAR, the highest measured 10g SAR is $1.060 < 2.0$ W/kg, repeated measurement is not required.

12 SIMULTANEOUS TRANSMISSION

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

12.1 Simultaneous Transmission Mode Consider

No.	Simultaneous Tx Combination	Body&Limbs
1	Bluetooth + WLAN 2.4GHz (Ant.1) + WLAN 2.4GHz (Ant.2)	Yes
2	Bluetooth + WLAN 5GHz (Ant.1) + WLAN 5GHz (Ant.2)	Yes

Note:

- 1.The EUT supports the Antenna Auxiliary with TX/RX diversity function for WLAN and Bluetooth, the Antenna Main with TX/RX diversity function for WLAN.
2. The simultaneous transmission combinations of the more antennas contain combinations of less antennas, so only the worst simultaneous transmission combinations is shown in this report.

12.2 Sum SAR of Simultaneous Transmission

12.2.1 Body Simultaneous Transmission SAR Evaluation for WLAN Antenna with Bluetooth

State	Position	Stand alone SAR					SUM SAR	
		1	2	3	4	5		
		Bluetooth	WLAN 2.4GHz (Ant.1)	WLAN 2.4GHz (Ant.2)	MAX. WLAN 5GHz (Ant.1)	MAX. WLAN 5GHz (Ant.2)	Sum SAR (1+2+3)	Sum SAR (1+4+5)
Body	Front Side 10mm	0.026	0.085	0.730	0.786	0.607	0.841	1.418
Body	Back Side 10mm	0.016	0.015	0.227	0.083	0.074	0.258	0.173
Body	Left Edge 10mm	0.115	0.000	0.314	0.000	0.066	0.429	0.181
Body	Right Edge 10mm	0.000	0.090	0.000	1.114	0.000	0.090	1.114
Body	Top Edge 10mm	0.005	0.017	0.574	0.119	0.913	0.596	1.037

Note:

1: The highest Summed 1g SAR is 1.418W/Kg > 1.6 W/kg, so Simultaneous Transmission SAR test is required.

12.2.2 Limbs Simultaneous Transmission SAR Evaluation for WLAN Antenna with Bluetooth

State	Position	Stand alone SAR					SUM SAR	
		1	2	3	4	5		
		Bluetooth	WLAN 2.4GHz (Ant.1)	WLAN 2.4GHz (Ant.2)	MAX. WLAN 5GHz (Ant.1)	MAX. WLAN 5GHz (Ant.2)	Sum SAR (1+2+3)	Sum SAR (1+4+5)
Limbs	Front Side 0mm	0.184	0.146	1.488	0.658	0.622	1.817	1.463
Limbs	Back Side 0mm	0.034	0.051	0.329	0.072	0.050	0.414	0.156
Limbs	Left Edge 0mm	0.260	0.000	0.346	0.000	0.103	0.606	0.363
Limbs	Right Edge 0mm	0.000	0.209	0.000	0.970	0.000	0.209	0.970
Limbs	Top Edge 0mm	0.044	0.051	0.664	0.087	0.445	0.760	0.576

Note:

1: The highest Summed 10g SAR is 1.817W/Kg < 4.0 W/kg, so Simultaneous Transmission SAR test is required.

13 TEST EQUIPMENTS LIST

Description	Manufacturer	Model	Serial No./Version	Cal. Date	Cal. Due
PC	Dell	N/A	N/A	N/A	N/A
Test Software	Speag	DASY5	52.8.8.1222	N/A	N/A
2450MHz Validation Dipole	Speag	D2450V2	SN: 952	2021/05/19	2024/05/19
5GHz Validation Dipole	Speag	D5GHzV2	SN: 1200	2021/05/18	2024/05/18
E-Field Probe	Speag	EX3DV4	SN: 7607	2023/07/04	2024/07/04
Data Acquisition Electronicsr	Speag	DAE4	SN: 878	2023/03/23	2024/03/23
Signal Generator	R&S	SMB100A	182396	2023/09/05	2024/09/05
Power Meter	R&S	NRVD-B2	835843/014	2023/09/05	2024/09/05
Power Sensor	R&S	NRV-Z4	100381	2023/09/05	2024/09/05
Power Sensor	R&S	NRV-Z2	100211	2023/09/05	2024/09/05
Network Analyzer	Agilent	E5071C	MY46103472	2023/11/14	2024/11/14
Thermometer	Elitech	RC-4	EF5238001629	2023/10/09	2024/10/09
Thermometer	Elitech	RC-4HC	EF7239002655	2023/11/17	2024/11/17
Power Amplifier	SATIMO	6552B	22374	N/A	N/A
Dielectric Probe Kit	Speag	DAK3.5	SN: 1312	N/A	N/A
Phantom	Speag	SAM	SN: 1576	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A

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

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

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

The dielectric parameters of the liquids were verified prior to the SAR evaluation using a DAK3.5 Dielectric Probe Kit.

Head Liquid

Date	Liquid Type	Fre. (MHz)	Temp. (°C)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ϵ)	Target Conductivity (σ) (S/m)	Target Permittivity (ϵ)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2024.03.07	Head	2450	21.8	1.82	38.33	1.80	39.20	1.11	-2.22
2024.03.08	Head	2450	21.7	1.77	39.09	1.80	39.20	-1.67	-0.28
2024.03.09	Head	5250	21.5	4.79	35.90	4.71	35.93	1.70	-0.08
2024.03.10	Head	5750	21.8	5.20	35.75	5.22	35.36	-0.38	1.10
Note: The tolerance limit of Conductivity and Permittivity is $\pm 5\%$.									

ANNEX B SYSTEM CHECK RESULT

Comparing to the original SAR value provided by SPEAG, the validation data should be within its specification of 10 %.

Head liquid 1g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2024.03.07	Head	2450	100	5.230	52.30	53.00	-1.32
2024.03.08	Head	2450	100	5.330	53.30	53.00	0.57
2024.03.09	Head	5250	100	7.850	78.50	77.80	0.90
2024.03.10	Head	5750	100	7.790	77.90	77.20	0.91
Note: The tolerance limit of System validation $\pm 10\%$.							

Head liquid 10g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2024.03.07	Head	2450	100	2.420	24.20	24.10	0.41
2024.03.08	Head	2450	100	2.450	24.50	24.10	1.66
2024.03.09	Head	5250	100	2.190	21.90	22.10	-0.90
2024.03.10	Head	5750	100	2.200	22.00	21.70	1.38
Note: The tolerance limit of System validation $\pm 10\%$.							

System Performance Check Data (2450MHz)

Date: 2024.03.07

Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.823$ S/m; $\epsilon_r = 38.329$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.47, 7.76, 7.61); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1576
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 2450/Area Scan (101x101x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 6.34 W/kg

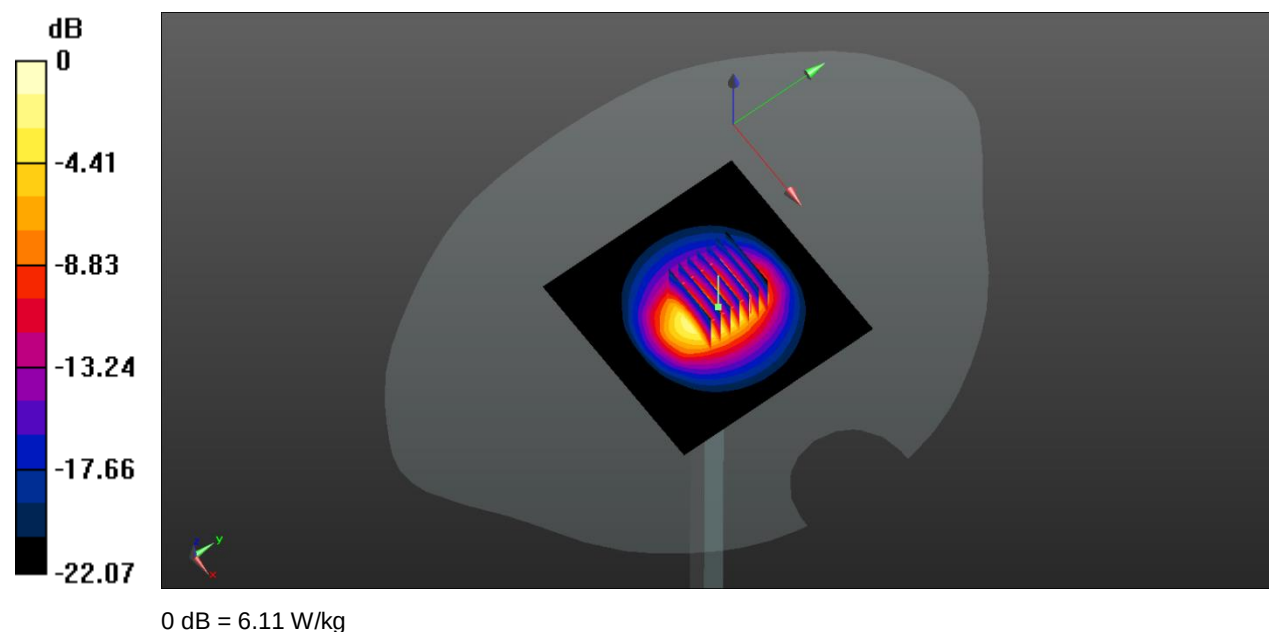
CW 2450/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 58.01 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 11.5 W/kg

SAR(1 g) = 5.23 W/kg; SAR(10 g) = 2.42 W/kg

Maximum value of SAR (measured) = 6.11 W/kg



System Performance Check Data (2450MHz)

Date: 2024.03.08

Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.768$ S/m; $\epsilon_r = 39.089$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.3°C Liquid Temperature: 21.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.47, 7.76, 7.61); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1576
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 2450/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 5.74 W/kg

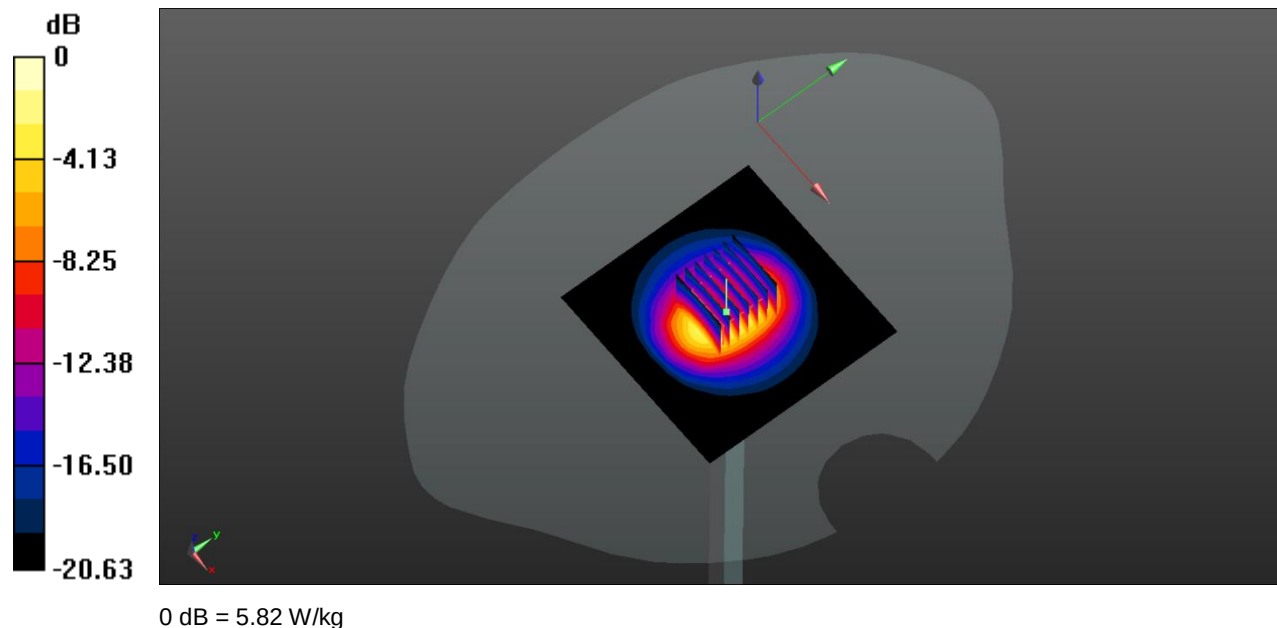
CW 2450/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.72 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 11.1 W/kg

SAR(1 g) = 5.33 W/kg; SAR(10 g) = 2.45 W/kg

Maximum value of SAR (measured) = 5.82 W/kg



System Performance Check Data (5250MHz)

Date: 2024.03.09

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5250 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5250$ MHz; $\sigma = 4.786$ S/m; $\epsilon_r = 35.901$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.41, 5.73, 5.58); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1576
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 5250/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.43 W/kg

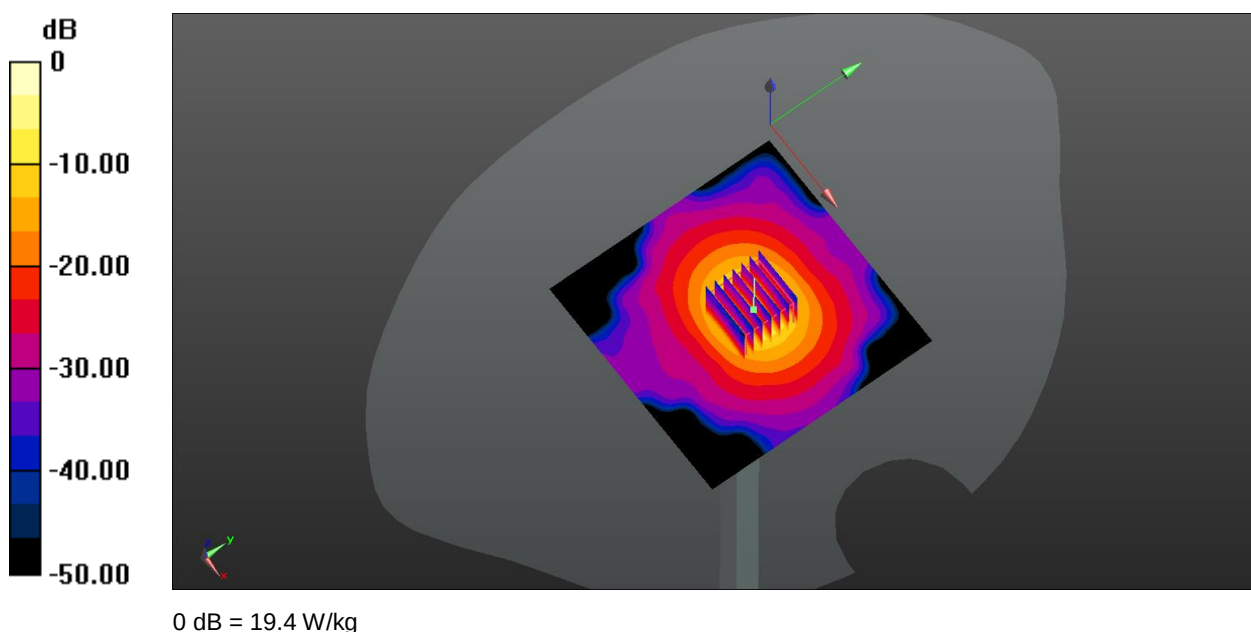
CW 5250/Zoom Scan (7x7x21)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 37.14 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 33.1 W/kg

SAR(1 g) = 7.85 W/kg; SAR(10 g) = 2.19 W/kg

Maximum value of SAR (measured) = 19.4 W/kg



System Performance Check Data (5750MHz)

Date: 2024.03.10

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5750$ MHz; $\sigma = 5.199$ S/m; $\epsilon_r = 35.751$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.78, 5.08, 4.93); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1576
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW 5750/Area Scan (81x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 8.92 W/kg

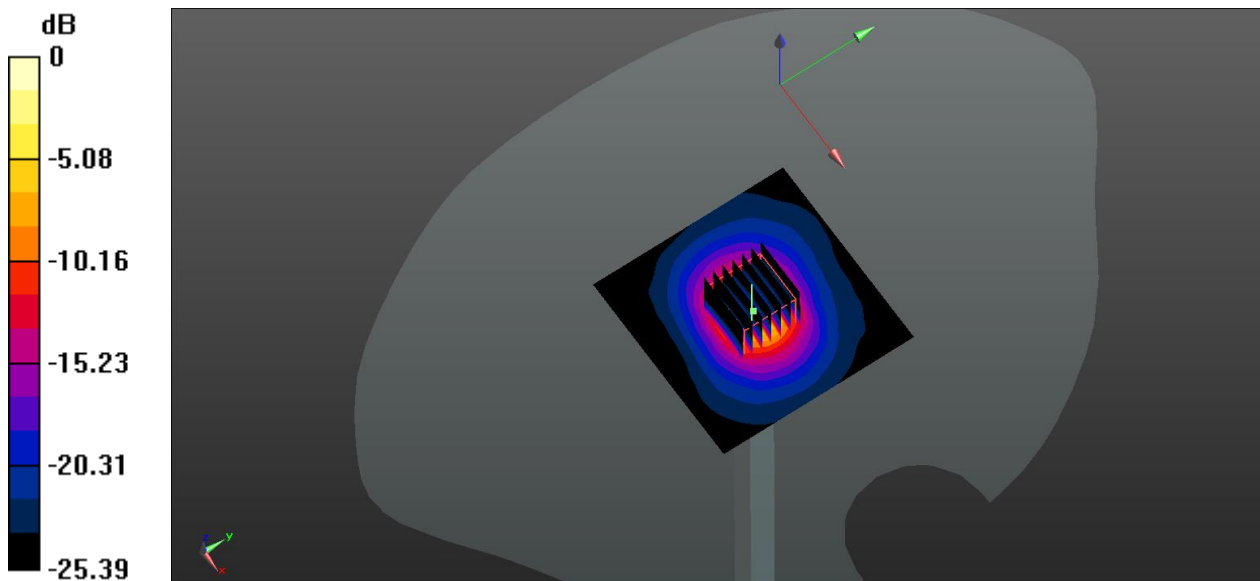
CW 5750/Zoom Scan (7x7x15)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 40.25 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 36.7 W/kg

SAR(1 g) = 7.79 W/kg; SAR(10 g) = 2.20 W/kg

Maximum value of SAR (measured) = 15.6 W/kg



0 dB = 15.6 W/kg

ANNEX C TEST DATA

Meas.1 Body Plane with Front Side 10mm on 11 Channel in IEEE802.11b mode with Antenna 2

Date: 2024.03.07

Communication System Band: 2.4G; Frequency: 2462 MHz; Duty Cycle: 1:1.012

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.808$ S/m; $\epsilon_r = 38.406$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.47, 7.76, 7.61); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1576
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch11/Area Scan (71x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.619 W/kg

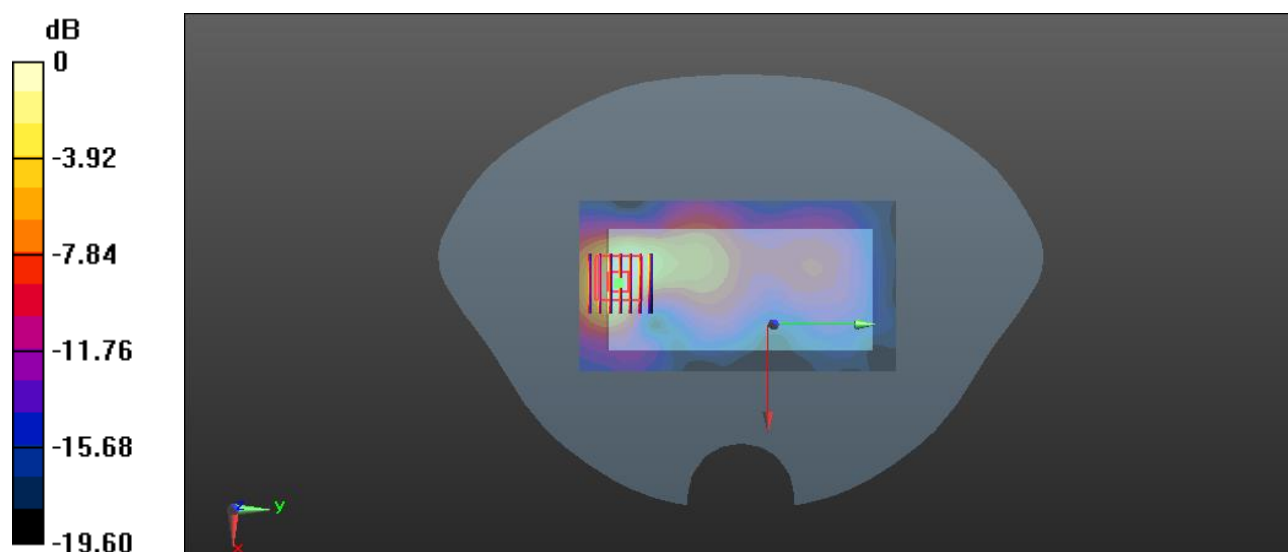
Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.738 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.997 W/kg

SAR(1 g) = 0.520 W/kg; SAR(10 g) = 0.259 W/kg

Maximum value of SAR (measured) = 0.586 W/kg



0 dB = 0.586 W/kg

Meas.2 Limbs Plane with Front Side 0mm on 11 Channel in IEEE802.11b mode with Antenna 2

Date: 2024.03.07

Communication System Band: 2.4G; Frequency: 2462 MHz; Duty Cycle: 1:1.012

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.840$ S/m; $\epsilon_r = 38.099$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.47, 7.76, 7.61); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1576
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch11/Area Scan (71x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 3.82 W/kg

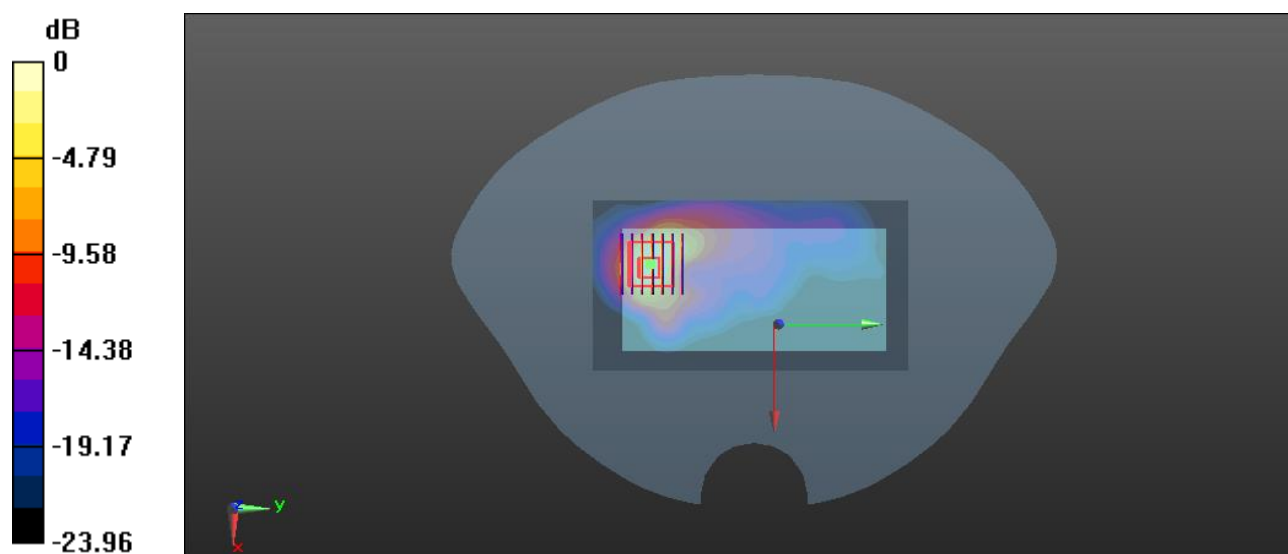
Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.027 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 6.68 W/kg

SAR(1 g) = 2.72 W/kg; SAR(10 g) = 1.06 W/kg

Maximum value of SAR (measured) = 3.18 W/kg



Meas.3 Body Plane with Top Edge 10mm on 36 Channel in IEEE802.11a mode with Antenna 2

Date: 2024.03.09

Communication System Band: 5.2G; Frequency: 5180 MHz; Duty Cycle: 1:1.071

Medium parameters used (interpolated): $f = 5180$ MHz; $\sigma = 4.681$ S/m; $\epsilon_r = 36.298$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.41, 5.73, 5.58); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1576
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch36/Area Scan (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.467 W/kg

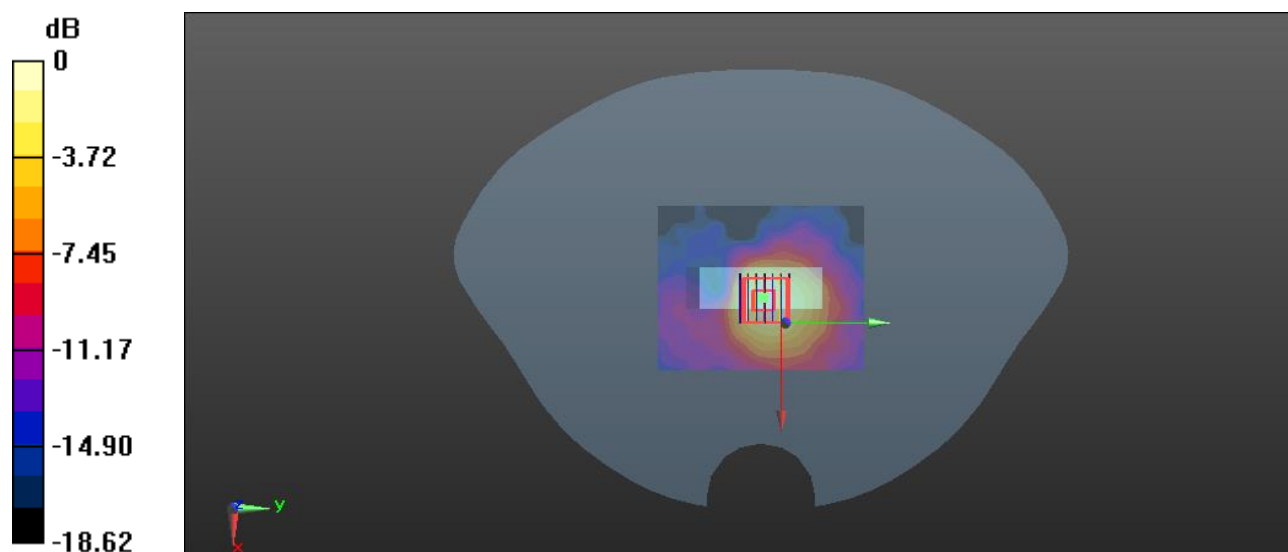
Ch36/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 7.014 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.820 W/kg

SAR(1 g) = 0.258 W/kg; SAR(10 g) = 0.107 W/kg

Maximum value of SAR (measured) = 0.460 W/kg



0 dB = 0.460 W/kg

Meas.4 Body Plane with Right Edge 10mm on 149 Channel in IEEE802.11a mode with Antenna 1

Date: 2024.03.10

Communication System Band: 5.8G; Frequency: 5745 MHz; Duty Cycle: 1:1.071

Medium parameters used (interpolated): $f = 5745$ MHz; $\sigma = 5.183$ S/m; $\epsilon_r = 35.895$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.78, 5.08, 4.93); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1576
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch149/Area Scan (81x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.977 W/kg

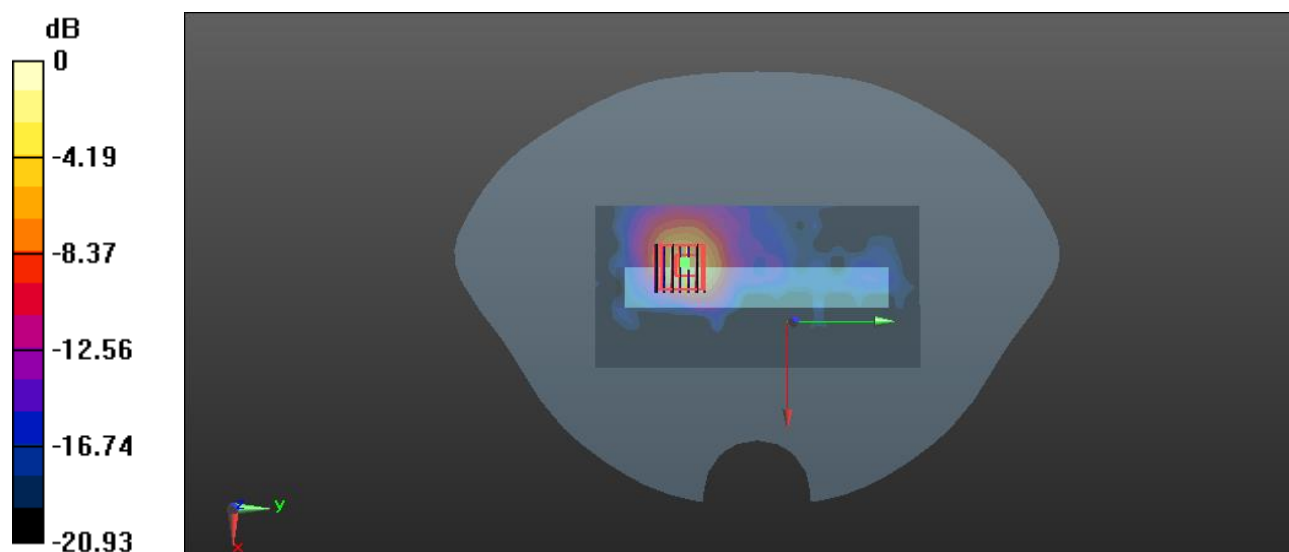
Ch149/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.140 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 3.58 W/kg

SAR(1 g) = 0.949 W/kg; SAR(10 g) = 0.337 W/kg

Maximum value of SAR (measured) = 1.78 W/kg



Meas.5 Limbs Plane with Front Side 0mm on 36 Channel in IEEE802.11a mode with Antenna 2

Date: 2024.03.09

Communication System Band: 5.2G; Frequency: 5180 MHz; Duty Cycle: 1:1.071

Medium parameters used (interpolated): $f = 5180$ MHz; $\sigma = 4.681$ S/m; $\epsilon_r = 36.298$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(5.41, 5.73, 5.58); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1576
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch36/Area Scan (91x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 2.38 W/kg

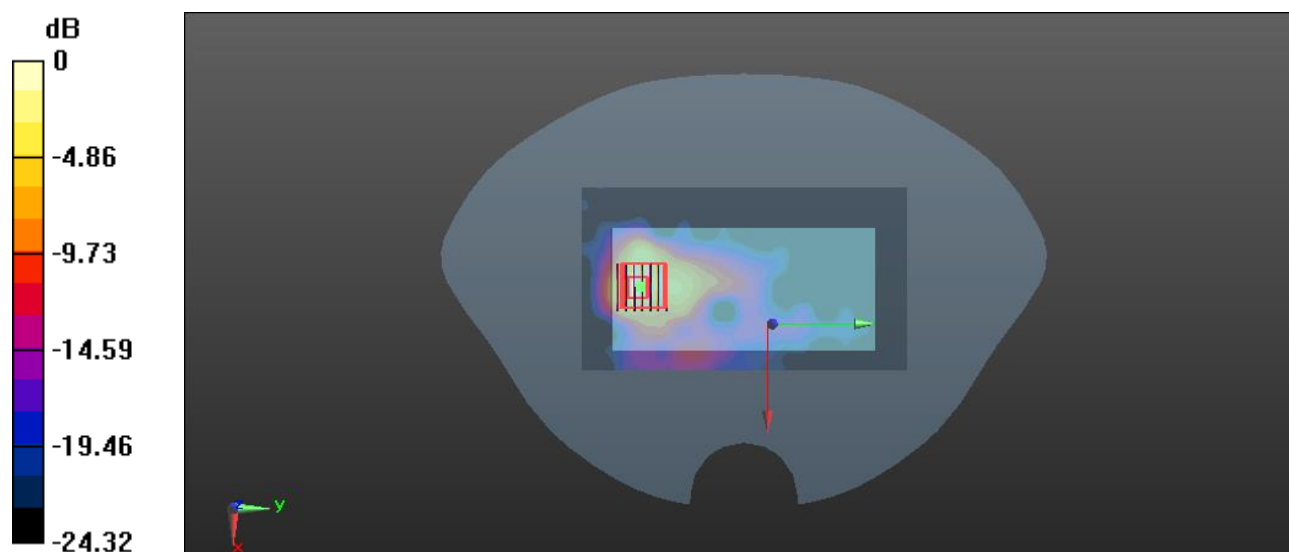
Ch36/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 4.192 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 5.41 W/kg

SAR(1 g) = 1.31 W/kg; SAR(10 g) = 0.413 W/kg

Maximum value of SAR (measured) = 2.58 W/kg



0 dB = 2.58 W/kg

Meas.6 Limbs Plane with Right Edge 0mm on 149 Channel in IEEE802.11a mode with Antenna 1

Date: 2024.03.10

Communication System Band: 5.8G; Frequency: 5745 MHz; Duty Cycle: 1:1.071

Medium parameters used (interpolated): $f = 5745$ MHz; $\sigma = 5.183$ S/m; $\epsilon_r = 35.895$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(4.78, 5.08, 4.93); Calibrated: 2023.07.04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1576
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch149/Area Scan (81x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 4.20 W/kg

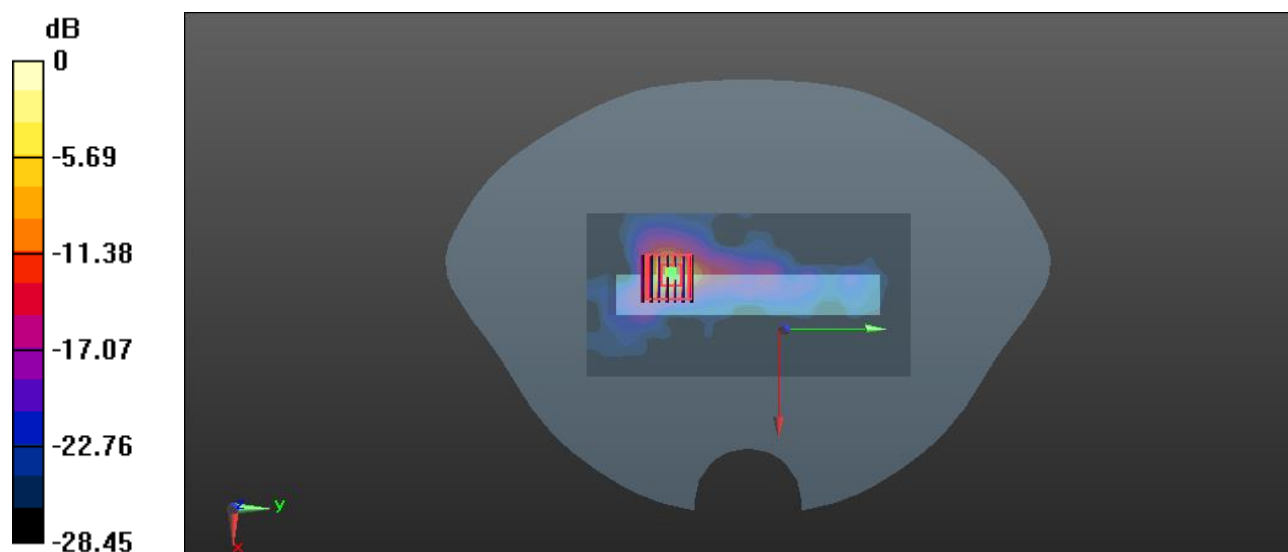
Ch149/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 4.621 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 19.5 W/kg

SAR(1 g) = 3.65 W/kg; SAR(10 g) = 0.826 W/kg

Maximum value of SAR (measured) = 8.08 W/kg



0 dB = 8.08 W/kg

Meas.7 Body Plane with Left Edge 10mm on 0 Channel in Bluetooth mode with Antenna 1

Date: 2024.03.08

Communication System Band: BT; Frequency: 2402 MHz; Duty Cycle: 1:1.300

Medium parameters used (interpolated): $f = 2402$ MHz; $\sigma = 1.716$ S/m; $\epsilon_r = 39.404$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.3°C Liquid Temperature: 21.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.47, 7.76, 7.61); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1576
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch0/Area Scan (61x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0790 W/kg

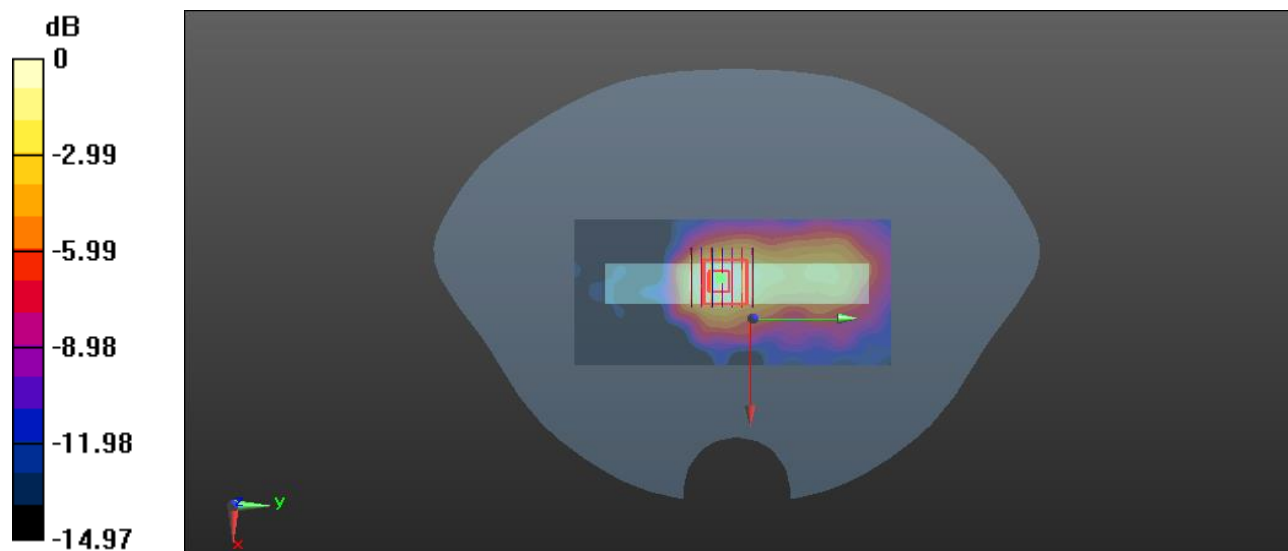
Ch0/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.212 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.122 W/kg

SAR(1 g) = 0.071 W/kg; SAR(10 g) = 0.040 W/kg

Maximum value of SAR (measured) = 0.0781 W/kg



0 dB = 0.0781 W/kg

Meas.8 Limbs Plane with Left Edge 0mm on 0 Channel in Bluetooth mode with Antenna 1

Date: 2024.03.08

Communication System Band: BT; Frequency: 2402 MHz; Duty Cycle: 1:1.300

Medium parameters used (interpolated): $f = 2402$ MHz; $\sigma = 1.716$ S/m; $\epsilon_r = 39.404$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.3°C Liquid Temperature: 21.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN7607; ConvF(7.47, 7.76, 7.61); Calibrated: 2023.07.04;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn878; Calibrated: 2023.03.23
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1576
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Ch0/Area Scan (61x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.450 W/kg

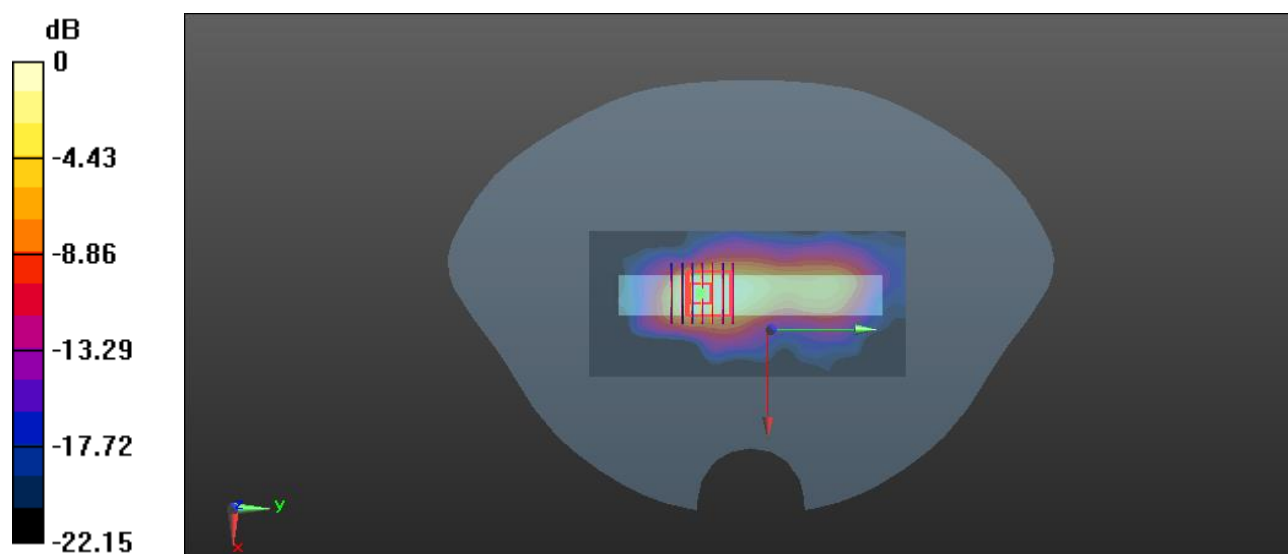
Ch0/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.28 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.778 W/kg

SAR(1 g) = 0.355 W/kg; SAR(10 g) = 0.160 W/kg

Maximum value of SAR (measured) = 0.424 W/kg



0 dB = 0.424 W/kg

ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2410372-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SZ2410372-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL-SZ2410372-AC.pdf”.

ANNEX G TUNE-UP PROCEDURE

Please refer the document “BL-SZ2410372-AT.pdf”.

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