FCC SAR REPORT

Report No.:	JYTSZ-R14-2500042
Applicant:	Unfolded Circle ApS
Address of Applicant:	Nordre Fasanvej 124a 1tv Frederiksberg, 2000 Denmark
Equipment Under Test (EUT)	
Product Name:	Unfolded Circle Remote 3
Model No.:	UCR3
Trade mark	Unfolded Circle
FCC ID:	2BAA9-UCR3
Applicable standards:	FCC 47 CFR Part 2.1093
Date of Test:	31 Mar., 2025 ~ 02 Apr., 2025
Test Result:	Maximum Reported 1-g SAR (W/kg) Front of face: 0.019 Maximum Reported 10-g SAR (W/kg) Extremity: 1.122

Project by:	Eric Wang ***Project Engineer***	***Date:***	*08 Apr., 2025*
Reviewed by:	Peter Zhang ***Senior Engineer***	***Date:***	*08 Apr., 2025*
Approved by:	James Wei ***Manager***	***Date:***	*08 Apr., 2025*

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

2 Version

Version No.	Date	Description
00	*08 Apr., 2025*	*Original*

3 Contents

4 SAR Results Summary

The maximum results of Specific Absorption Rate (SAR) found during test as below:

<Highest Reported standalone SAR Summary>

Exposure Position	Frequency Band	Reported 1-g SAR (W/kg)	Highest Reported 1-g SAR (W/kg)
Front of face: (10mm gap)	WLAN 2.4GHz	0.017	0.019
	WLAN 5.2GHz	0.000	
	WLAN 5.3GHz	0.004	
	WLAN 5.6GHz	0.010	
	WLAN 5.8GHz	0.019	

Exposure Position	Frequency Band	Reported 10-g SAR (W/kg)	Highest Reported 10-g SAR (W/kg)
Extremity (0mm gap)	WLAN 2.4GHz	0.376	1.122
	WLAN 5.2GHz	0.779	
	WLAN 5.3GHz	0.817	
	WLAN 5.6GHz	0.883	
	WLAN 5.8GHz	1.122	

Note:

1. The highest simultaneous transmission is scalar summation of Reported standalone SAR per FCC KDB 690783 D01 v01r03, and scalar SAR summation of all possible simultaneous transmission scenarios are < 1.6W/kg.
2. This device is compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for Front of face, 4.0 W/kg Extremity) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-2005, and had been tested in accordance with the measurement methods and procedures specified in IEEE Std 1528: 2013.

5 General Information

5.1 Client Information

Applicant:	Unfolded Circle ApS
Address of Applicant:	Nordre Fasanvej 124a 1tv Frederiksberg, 2000 Denmark
Manufacturer:	Unfolded Circle ApS
Address of Manufacturer:	Nordre Fasanvej 124a 1tv Frederiksberg, 2000 Denmark
Factory	Unfolded Circle ApS
Address of Address	Nordre Fasanvej 124a 1tv Frederiksberg, 2000 Denmark

5.2 General Description of EUT

<table>
<tr><td>Product Name:</td><td colspan="4">Unfolded Circle Remote 3</td></tr>
<tr><td>Model No.:</td><td colspan="4">UCR3</td></tr>
<tr><td>Category of device</td><td colspan="4">Portable device</td></tr>
<tr><td rowspan="4">Operation Frequency:</td><td rowspan="3">Wi-Fi:</td><td>2412MHz~2462MHz</td><td colspan="2">5150MHz-5250MHz</td></tr>
<tr><td>5250MHz-5350MHz</td><td colspan="2">5470MHz-5725MHz</td></tr>
<tr><td>5725MHz-5850MHz</td><td colspan="2"></td></tr>
<tr><td colspan="4">Bluetooth: 2402 MHz ~ 2480 MHz</td></tr>
<tr><td rowspan="2">Modulation technology:</td><td>Wi-Fi:</td><td>☒802.11b(DSSS)</td><td colspan="2">☒802.11a/g/n/ac (OFDM)</td></tr>
<tr><td>Bluetooth:</td><td>☒BDR(GFSK)</td><td>☒EDR(π/4-DQPSK, 8DPSK)</td><td>☒LE(GFSK)</td></tr>
<tr><td>Antenna Type:</td><td colspan="4">Embedded Ceramic Antenna</td></tr>
<tr><td rowspan="3">Antenna Gain:</td><td>2.4GWLAN:</td><td colspan="3">1.0 dBi</td></tr>
<tr><td>Bluetooth:</td><td colspan="3">1.0 dBi</td></tr>
<tr><td>5GWLAN:</td><td colspan="3">2.6 dBi</td></tr>
<tr><td>Dimensions (L*W*H):</td><td colspan="4">52 mm (L)× 41 mm (W)× 14 mm (H)</td></tr>
<tr><td>Accessories information:</td><td colspan="4">Battery:
3.7V 2400mAh 8.88Wh Li-Ion Polymer Battery</td></tr>
</table>

5.3 Maximum RF Output Power

WLAN 2.4 GHz Band Average Power (dBm)			
Mode/Band	b	g	n (HT-20)
WLAN 2.4GHz	13.85	13.78	14.79

WLAN 5.2 GHz Band Average Power (dBm)						
Mode/Band	a	ac 20	ac 40	ac 80	n 20	n 40
WLAN 5.2GHz	-0.83	-0.86	-3.01	-6.3	-0.91	-3.09

WLAN 5.3 GHz Band Average Power (dBm)						
Mode/Band	a	ac 20	ac 40	ac 80	n 20	n 40
WLAN 5.3GHz	1.76	1.63	0.00	-3.55	1.67	-1.71

WLAN 5.6 GHz Band Average Power (dBm)						
Mode/Band	a	ac 20	ac 40	ac 80	n 20	n 40
WLAN 5.6GHz	4.13	4.04	0.39	-0.56	4.00	-1.92

WLAN 5.8 GHz Band Average Power (dBm)						
Mode/Band	a	ac 20	ac 40	ac 80	n 20	n 40
WLAN 5.8GHz	8.01	7.96	5.77	2.07	7.88	5.69

Bluetooth Peak Power (dBm)				
Mode/Band	1 Mbps(GFSK)	2 Mbps(π/4DQPSK)	3 Mbps (8DPSK)	LE (BT 4.0)
Bluetooth 2.4 GHz	-4.52	-7.65	-7.33	-4.63

5.4 Environment of Test Site

Temperature:	18°C ~25 °C
Humidity:	35%~75% RH
Atmospheric Pressure:	1010 mbar

5.5 Test Sample Plan

Sample Number	Used for Test Items
SZR012500065-4	SAR
***Remark**: JianYan Testing Group Shenzhen Co., Ltd. is only responsible for the test project data of the above samples, and will keep the above samples for a month.*	

5.6 Test Location

JianYan Testing Group Shenzhen Co., Ltd.
No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community,Xinqiao Street, Bao'an District, Shenzhen, Guangdong,People's Republic of China.
Tel: +86-755-23118282, Fax: +86-755-23116366
Email: info-JYTee@lets.com, Website: http://jyt.lets.com

5.7 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

- **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

- **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

6 Introduction

6.1 Introduction

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.

6.2 SAR Definition

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

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

SAR is expressed in units of Watts per kilogram (W/kg)

SAR measurement can be either related to the temperature elevation in tissue by

$$SAR = C\left(\frac{\delta T}{\delta t}\right)$$

Where: C is the specific heat capacity, δT is the temperature rise and δt is the exposure duration, or related to the electrical field in the tissue by

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

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength. However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

7 RF Exposure Limits

7.1 Uncontrolled Environment

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

7.2 Controlled Environment

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

7.3 RF Exposure Limits

Body region	Uncontrolled environment average SAR (W/kg)	Controlled environment average SAR (W/kg)	Averaging time (minutes)	Averaging mass (g)
Whole body	0.08	0.4	6	whole body
Localized head, neck and trunk	1.6	8	6	1
Localized limbs	4	20	6	10

Note:

1. The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2. The Spatial Average value of the SAR averaged over the whole body.
3. The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

8 SAR Measurement System

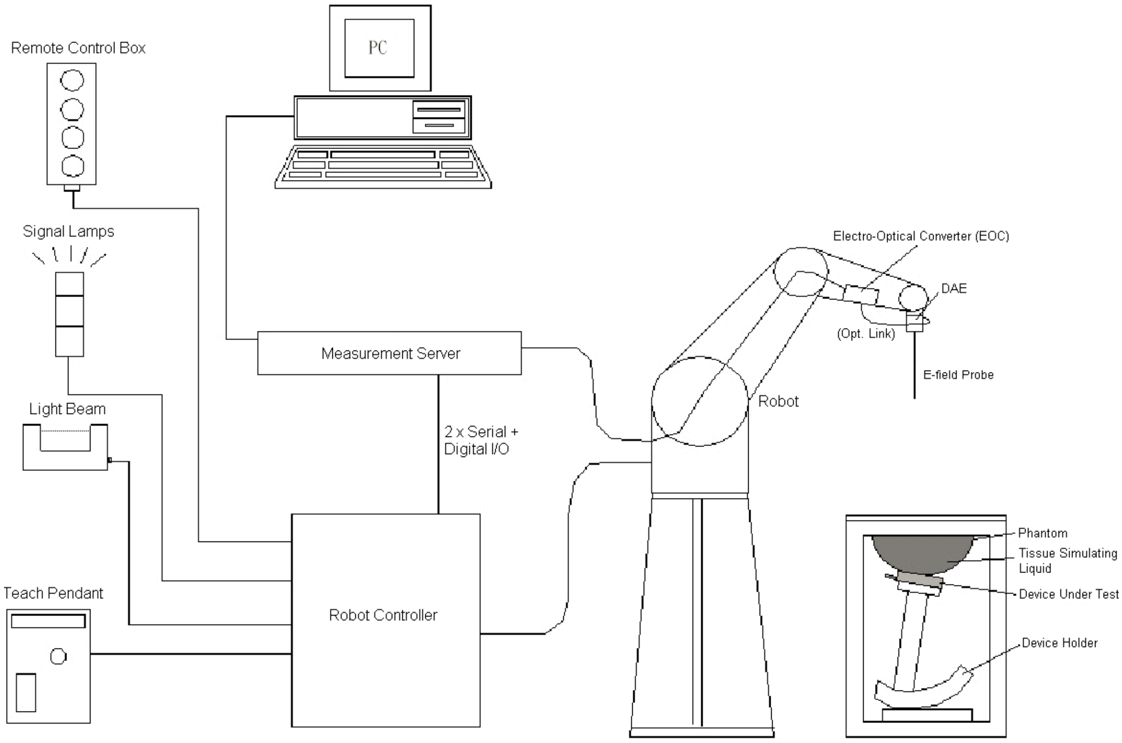


Fig. 8.1 SPEAG DASY System Configurations

The DASY system for performance compliance tests is illustrated above graphically. This system consists of the following items:

- A standard high precision 6-axis robot with controller, a teach pendant and software
- A data acquisition electronic (DAE) attached to the robot arm extension
- A dosimetric probe equipped with an optical surface detector system
- The electro-optical converter (EOC) performs the conversion between optical and electrical signals
- A measurement server performs the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the accuracy of the probe positioning
- A computer operating Windows XP
- DASY software
- Remove control with teach pendant and additional circuitry for robot safety such as warming lamps, etc.
- The SAM twin phantom
- A device holder
- Tissue simulating liquid
- Dipole for evaluating the proper functioning of the system

Component details are described in the following sub-sections.

8.1 E-Field Probe

The SAR measurement is conducted with the dosimetric probe (manufactured by SPEAG). The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. This probe has a built in optical surface detection system to prevent from collision with phantom.

- **E-Field Probe Specification**
  <EX3DV4 Probe>

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Frequency Directivity	10 MHz to 6 GHz; Linearity: ± 0.2 dB ± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (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: 330 mm (Tip: 20mm) Tip diameter: 2.5 mm (Body: 12mm) Typical distance from probe tip to dipole centers: 1 mm

Fig. 8.2 Photo of E-Field Probe

- **E-Field Probe Calibration**
  Each probe needs to be calibrated according to a dosimetric assessment procedure with accuracy better than ± 10%. The spherical isotropy shall be evaluated and within ± 0.25 dB. The sensitivity parameters (Norm X, Norm Y and Norm Z), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested. The calibration data can be referred to appendix E of this report.

8.2 Data Acquisition Electronics (DAE)

The Data acquisition electronics (DAE) consists 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 and 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 input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Fig. 8.3 Photo of DAE

8.3 Robot

The SPEAG DASY system uses the high precision robots (DASY5: TX60L) type from St?ubli SA (France). For the 6-axis controller system, the robot controller version (DASY5: CS8c) from St?ubli is used. The St?ubli 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; nobelt drives)
- Jerk-free straight movements
- Low ELF interference (motor control fields shielded via the closed metallic construction shields)

Fig. 8.4 Photo of Robot

8.4 Measurement Server

The measurement server is based on a PC/104 CPU board with CPU (DASY 5: 400MHz, Intel Celeron), chip-disk (DASY5: 128 MB), RAM (DASY5: 128 MB). The necessary circuits for communication with the DAE electronic box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY I/O board, which is directly connected to the PC/104 bus of the CPU board.

The measurement server performs all the real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operations.

Fig. 8.5 Photo of Server for DASY5

8.5 Light Beam Unit

The light beam switch allows automatic "tooling" of the probe. During the process, the actual position of the probe tip with respect to the robot arm is measured, as well as the probe length and the horizontal probe offset. The software then corrects all movements, such that the robot coordinates are valid for the probe tip.

The repeatability of this process is better than0.1 mm. If a position has been taught with an aligned probe, the same position will be reached with another aligned probe within 0.1 mm, even if the other probe has different dimensions. During probe rotations, the probe tip will keep its actual position.

Fig. 8.6 Photo of Light Beam

8.6 Phantom

<SAM Twin Phantom>

Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm	 **Fig. 8.7 Photo of SAM Twin Phantom**
Filling Volume Dimensions	Approx. 25 liters Length: 1000mm; Width: 500mm; Height: adjustable feet	
Measurement Areas	Left Head, Right Head, Flat phantom	

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. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

<ELI4 Phantom >

The ELI4 phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30MHz to 6 GHz. ELI4 is fully compatible with the latest draft of the standard IEC 62209-2 and all known tissue simulating liquids.
ELI4 has been optimized regarding its performance and can be integrated into a SPEAG standard phantom table. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points
The phantom can be used with the following tissue simulating liquids:

- Water-sugar based liquids can be left permanently in the phantom. Always cover the liquid if the system is not in use; otherwise the parameters will change 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 phantom resistiveness

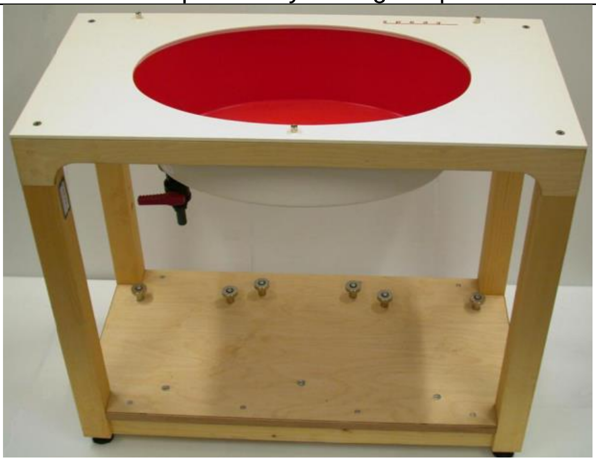


Fig.8.8 Photo of ELI4 Phantom

8.7 Device Holder

<Device Holder for SAM Twin Phantom>

The SAR in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5 mm distance, a positioning uncertainty of ± 0.5 mm would produce a SAR uncertainty of ± 20 %. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.
The DASY device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (ERP).
Thus the device needs no repositioning when changing the angles.
The DASY device holder is constructed of low-low POM material having the following dielectric parameters: relative permittivity ε = 3 and loss tangent δ = 0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.

Fig. 8.9 Photo of Device Holder

8.8 Data storage and Evaluation

- **Data Storage**

The DASY software stores the assessed data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all the necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files. The post-processing software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verifications of the complete software setup even after the measurement and allows correction of erroneous parameter settings. For example, if a measurement has been performed with an incorrect crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be reevaluated.

The measured data can be visualized or exported in different units or formats, depending on the selected probe type (e.g., [V/m], [mW/g]). Some of these units are not available in certain situations or give meaningless results, e.g., a SAR-output in a non-lose media, will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

- **Data Evaluation**

The DASY post-processing software (SEMCAD) automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software:

Probe Parameters:	- Sensitivity	$Norm_i$, a_{i0}, a_{i1}, a_{i2}
	- Conversion	$ConvF_i$
	- Diode compression point	dcp_i
Device Parameters:	- Frequency	f
	- Crest	cf
Media Parameters:	- Conductivity	σ
	- Density	ρ

These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY components. In the direct measuring mode of the multi-meter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics. If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power.

The formula for each channel can be given as:

$$V_i = U_i + U_i^2 \cdot \frac{cf}{dcp_i}$$

With V_i = compensated signal of channel i, (i = x, y, z)
U_i = input signal of channel i, (i = x, y, z)
cf = crest factor of exciting field (DASY parameter)
dcp^i = diode compression point (DASY parameter)

From the compensated input signals, the primary field data for each channel can be evaluated:

E- Field Probes: $$E_i = \sqrt{\frac{V_i}{Norm_i \cdot ConvF}}$$

H-Field Probes: $$H_i = \sqrt{V_i} \cdot \frac{a_{i0} + a_{i1} f + a_{i2} f^2}{f}$$

With V_i = compensated signal of channel i, (i = x, y, z)
$Norm_i$ = senor sensitivity of channel i, (i = x, y, z), μV/ (V/m) ^{2}
ConvF = sensitivity enhancement in solution
a_{ij} = sensor sensitivity factors for H-field probes
f = carrier frequency (GHz)
E_i = electric field strength of channel i in V/m
Hi = magnetic field strength of channel i in A/m

The RSS value of the field components gives the total field strength (Hermitian magnitude):

$$E_{tot} = \sqrt{E_x^2 + E_y^2 + E_z^2}$$

The primary field data are used to calculate the derived field units.

$$SAR = E_{tot}^2 \cdot \frac{\sigma}{\rho \cdot 1000}$$

With SAR = local specific absorption rate in mW/g
E_{tot} = total field strength in V/m
σ = conductivity in (mho/m) or (Siemens/m)
ρ = equipment tissue density in g/cm^3

Note that the density is set to 1, to account for actual head tissue density rather than the density of the tissue simulating liquid.

8.9 Test Equipment List

Manufacturer	Equipment Description	Model	Management Number	Cal. Information	
				Last Cal.	Due Date
SPEAG	2450MHz System Validation Kit	D2450V2	WXJ023-3	06.06.2022	06.05.2025
SPEAG	5GHz System Validation Kit	D5GHzV2	WXJ023-14	01.16.2024	01.15.2027
SPEAG	Data Acquisition Electronics	DAE4	WXJ021	12.31.2024	12.30.2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	WXJ022-1	01.15.2025	01.14.2026
SPEAG	DASY 52 Measurement Software	DASY 52	Version 52.10.4.1527	N.C.R	N.C.R
SPEAG	DASY 52 File Conversion Software	SEMCAD X	Version 14.6.14 (7501)	N.C.R	N.C.R
SPEAG	Robot Controller	CS8Cspeag-TX60	WXG021-1	N.C.R	N.C.R
SPEAG	Phantom	Twin SAM Phantom	WXG021-4	N.C.R	N.C.R
SPEAG	Phantom	ELI V5.0	WXG021-5	N.C.R	N.C.R
SPEAG	Phone Positioner	N/A	WXG021-6	N.C.R	N.C.R
St?ubli	Robot	TX60Lspeag	WXG021-3	N.C.R	N.C.R
KEYSIGHT	Network Analyzer	E5071C	WXJ091	12.16.2024	12.15.2025
KEYSIGHT	EPM Series Power Meter	N1914A	WXJ075	06.11.2024	06.10.2025
KEYSIGHT	E-Series Power Sensor	E9300H	WXJ075-1	06.11.2024	06.10.2025
KEYSIGHT	E-Series Power Sensor	E9300H	WXJ075-2	06.11.2024	06.10.2025
KEYSIGHT	Signal Generator	N5173B	WXJ006-3	09.09.2024	09.08.2025
SPEAG	Dielectric Assessment Kit (Calibration Kit)	3.5 Probe	WXJ022-2	02.17.2025	02.16.2026
Huber Suhner	RF Cable	SUCOFLEX	WXG008-13	See Note 2	
Huber Suhner	RF Cable	SUCOFLEX	WXG008-14	See Note 2	
Huber Suhner	RF Cable	SUCOFLEX	WXG008-15	See Note 2	
Weinschel	Attenuator	23-3-34	WXG008-16	See Note 2	
Weinschel	Attenuator	23-3-34	WXG008-19	See Note 2	
Weinschel	Attenuator	23-3-34	WXG008-20	See Note 2	
Anritsu	Directional Coupler	MP654A	WXG008-17	See Note 2	
SPEAG	DAK Measurement Software	DAK	Version: DAK 3.5	N.C.R	
TXC	Broadband Amplifier	BBA018000	WXG008-11	See Note 3	

Note:

1. The calibration certificate of DASY can be referred to appendix C of this report.
2. The Insertion Loss calibration of Dual Directional Coupler and Attenuator were characterized via the network analyzer and compensated during system check.
3. In system check we need to monitor the level on the power meter, and adjust the power amplifier level to have precise power level to the dipole; the measured SAR will be normalized to 1 W input power according to the ratio of 1 W to the input power to the dipole. For system check, the calibration of the power amplifier is deemed not critically required for correct measurement; the power meter is critical and we do have calibration for it
4. Attenuator insertion loss is calibrated by the network Analyzer, which the calibration is valid, before system check.
5. N.C.R means No Calibration Requirement, these software and hardware will not affect the measurement results.

9 Tissue Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. 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, which is shown in Fig. 9.1, for body SAR testing, the liquid height from the center of the flat phantom to liquid top surface is larger than 15 cm, which is shown in Fig. 9.2. Tissue factory calibrated information reference attachment.

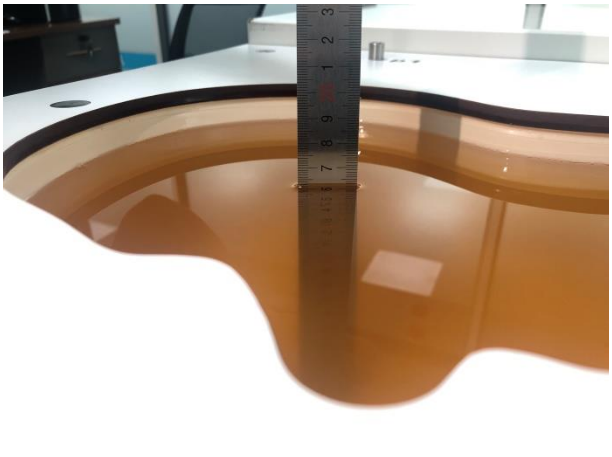


Fig. 9.1 Photo of Liquid Height for Head SAR

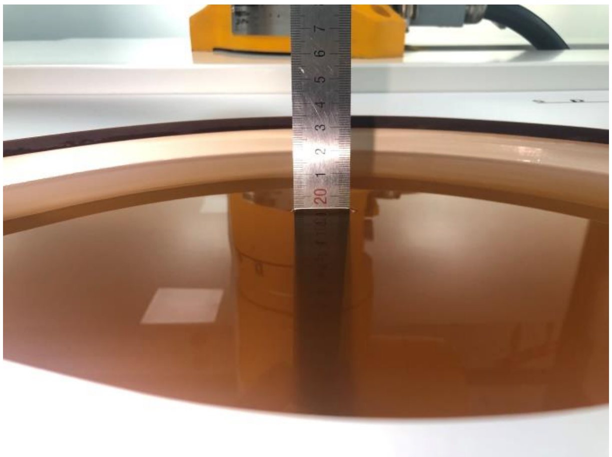


Fig. 9.2 Photo of Liquid Height for Body SAR

The relative permittivity and conductivity of the tissue material should be within ±5% of the values given in the table below recommended by the IEEE Std 1528: 2013.

Target Frequency (MHz)	εr	σ(S/m)
150	52.3	0.76
300	45.3	0.87
450	43.5	0.87
750	41.9	0.89
835	41.5	0.90
900	41.5	0.97
1450	40.5	1.20
1800-2000	40.0	1.40
2100	39.8	1.49
2450	39.2	1.80
2600	29.0	1.96
3000	38.5	2.40
3500	37.9	2.91
4000	37.4	3.43
5200	36.0	4.66
5800	35.3	5.27

(εr = relative permittivity, σ = conductivity and ρ = 1000 kg/m^3)

The dielectric parameters of liquids were verified prior to the SAR evaluation using a Speag Dielectric Probe Kit and an Agilent Network Analyzer.
The following table shows the measuring results for simulating liquid.

Frequency (MHz)	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (εr)	Conductivity Target(σ)	Permittivity Target(εr)	Delta (σ)%	Delta (εr)%	Limit (%)	Date (mm/dd/yy)
2450	20.7	1.82	38.96	1.80	39.20	1.11	-0.61	±5	3/31/2025
5200	20.7	4.66	34.96	4.66	36.00	0.00	-2.89	±5	3/31/2025
5300	20.7	4.77	34.78	4.76	35.90	0.21	-3.12	±5	3/31/2025
5600	21.7	5.10	34.27	5.07	35.50	0.55	-3.47	±5	4/2/2025
5800	21.7	5.32	33.92	5.27	35.30	0.89	-3.92	±5	4/2/2025

10 SAR System Verification

Each DASY system is equipped with one or more system validation kits. These units, together with the predefined measurement procedures within the DASY software, enable the user to conduct the system performance check and system validation. System validation kit includes a dipole, tripod holder to fix it underneath the flat phantom and a corresponding distance holder.

- **Purpose of System Performance 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.

- **System 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:

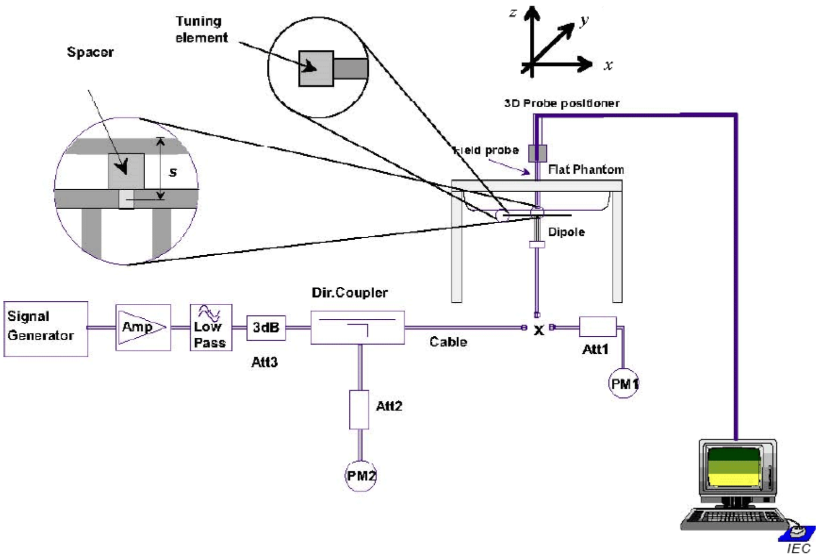


Fig.10.1 System Verification Setup Diagram

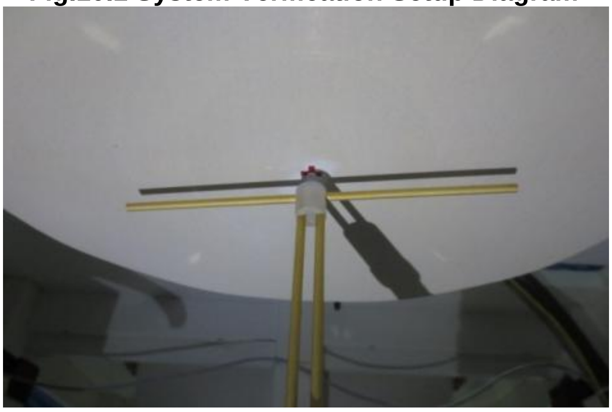


Fig.10.2 Photo of Dipole setup

- **System Verification Results**

  Comparing to the original SAR value provided by SPEAG, the verification data should be within its specification of 10%. The table as below indicates the system performance check can meet the variation criterion and the plots can be referred to Appendix C of this report.

Date (mm/dd/yy)	Frequency (MHz)	Power fed onto dipole (mW)	Measured 1g SAR (W/kg)	Normalized to 1W 1g SAR (W/kg)	1W Target 1g SAR (W/kg)	Deviation (%)
3/31/2025	2450	40	2.190	54.75	53.4	2.53
3/31/2025	5200	40	3.220	80.50	77.00	4.55
3/31/2025	5300	40	3.310	82.75	79.20	4.48
4/2/2025	5600	40	3.350	83.75	81.90	2.26
4/2/2025	5800	40	3.240	81.00	78.90	2.66

Date (mm/dd/yy)	Frequency (MHz)	Power fed onto dipole (mW)	Measured 10g SAR (W/kg)	Normalized to 1W 10g SAR (W/kg)	1W Target 10g SAR (W/kg)	Deviation (%)
3/31/2025	2450	40	1.020	25.50	24.80	2.82
3/31/2025	5200	40	0.917	22.93	21.80	5.18
3/31/2025	5300	40	0.935	23.38	22.30	4.84
4/2/2025	5600	40	0.925	23.13	22.90	1.00
4/2/2025	5800	40	0.915	22.88	21.90	4.47

11 EUT Testing Position

This EUT was tested in seven different positions. They are front of face for head with phantom 10 mm gap, Front/Back/Left Side/Right Side/Top Side/Bottom Side of the EUT with phantom 0 mm gap, as illustrated below, please refer to Appendix B for the test setup photos.

11.1 SAR Evaluations near the Mouth/Jaw Regions of the SAM Phantom

Transmitters that are built-in within a wrist watch or similar wrist-worn devices typically operate in speaker mode for voice communication, with the device worn on the wrist and positioned next to the mouth. Next to the mouth exposure requires 1-g SAR and the wrist-worn condition requires 10-g extremity SAR. The 10-g extremity and 1-g SAR test exclusions may be applied to the wrist and face exposure conditions. When SAR evaluation is required, next to the mouth use is evaluated with the front of the device positioned at 10 mm from a flat phantom filled with head tissue-equivalent medium. The wrist bands should be strapped together to represent normal use conditions. SAR for wrist exposure is evaluated with the back of the device positioned in direct contact against a flat phantom filled with body tissue-equivalent medium. The wrist bands should be unstrapped and touching the phantom. The space introduced by the watch or wrist bands and the phantom must be representative of actual use conditions; otherwise, if applicable, the neck or a curved head region of the SAM phantom may be used, provided the device positioning and SAR probe access issues have been addressed through a KDB inquiry. When other device positioning and SAR measurement considerations are necessary, a KDB inquiry is also required for the test results to be acceptable; for example, devices with rigid wrist bands or electronic circuitry and/or antenna(s) incorporated in the wrist bands. These test configurations are applicable only to devices that are worn on the wrist and cannot support other use conditions; therefore, the operating restrictions must be fully demonstrated in both the test reports and user manuals.

11.2 Extremity SAR Configurations

- To position the device parallel to the phantom surface with either keypad up or down.
- To adjust the device parallel to the flat phantom.
- To adjust the distance between the device surface and the flat phantom to 0 mm or holster surface and the flat phantom to 0 mm.

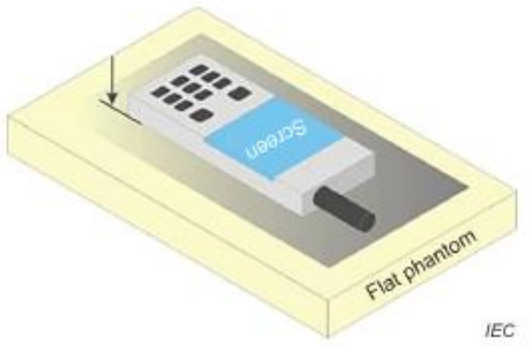


Fig.11.5 Illustration for Extremity Worn Position

12 Measurement Procedures

The measurement procedures are as below:

<Conducted power measurement>

- For WWAN power measurement, use base station simulator to configure EUT WWAN transition in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.
- Read the WWAN RF power level from the base station simulator.
- For WLAN/BT power measurement, use engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power in each supported wireless interface and frequency band.
- Connect EUT RF port through RF cable to the power meter or spectrum analyzer, and measure WLAN/BT output power.

<Conducted power measurement>

- Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power, in the highest power channel.
- Place the EUT in positions as Appendix B demonstrates.
- Set scan area, grid size and other setting on the DASY software.
- Measure SAR results for the highest power channel on each testing position.
- Find out the largest SAR result on these testing positions of each band.
- Measure SAR results for other channels in worst SAR testing position if the Reported SAR or highest power channel is larger than 0.8 W/kg.

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- Power reference measurement
- Area scan
- Zoom scan
- Power drift measurement

12.1 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a “cube” measurement. The measured volume must include the 1g and 10 g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

- Extraction of the measured data (grid and values) from the Zoom Scan.
- Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters).
- Generation of a high-resolution mesh within the measured volume.
- Interpolation of all measured values form the measurement grid to the high-resolution grid
- Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
- Calculation of the averaged SAR within masses of 1g and 10g.

12.2 Power Reference Measurement

The Power Reference Measurement and Power Drift Measurement are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

12.3 Area & Zoom Scan Procedures

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 10g. Area scan and zoom scan resolution setting follows KDB 865664 D01v01r03 quoted below.

Parameter	DUT transmit frequency being tested	
	$f \leq 3$ GHz	3 GHz < $f \leq 10$ GHz
Maximum distance between the measured points (geometric centre of the sensors) and the inner phantom surface (z_{M1} in Figure 20 in mm)	5 ± 1	δ ln(2)/2 ± 0,5 [a]
Maximum spacing between adjacent measured points in mm (see O.8.3.1)[b]	20, or half of the corresponding zoom scan length, whichever is smaller	60 / f, or half of the corresponding zoom scan length, whichever is smaller
Maximum angle between the probe axis and the phantom surface normal (α in Figure 20)[c]	5° (flat phantom only) 30° (other phantoms)	5° (flat phantom only) 20° (other phantoms)
Tolerance in the probe angle	1°	1°

[a] δ is the penetration depth for a plane-wave incident normally on a planar half-space.

[b] See Clause O.8 on how Δx and Δy may be selected for individual area scan requirements.

[c] The probe angle relative to the phantom surface normal is restricted due to the degradation in the measurement accuracy in fields with steep spatial gradients. The measurement accuracy decreases with increasing probe angle and increasing frequency. This is the reason for the tighter probe angle restriction at frequencies above 3 GHz.

Parameter	DUT transmit frequency being tested	
	$f \leq 3$ GHz	3 GHz < $f \leq 10$ GHz
Maximum distance between the closest measured points and the phantom surface (z_{M1} in Figure 20 and Table 3, in mm)	5	δ ln(2)/2 [a]
Maximum angle between the probe axis and the phantom surface normal (α in Figure 20)	5° (flat phantom only) 30° (other phantoms)	5° (flat phantom only) 20° (other phantoms)
Maximum spacing between measured points in the x- and y-directions (Δx and Δy, in mm)	8	24 / f [b]
For uniform grids: Maximum spacing between measured points in the direction normal to the phantom shell (Δz_1 in Figure 20, in mm)	5	10 / (f − 1)
For graded grids: Maximum spacing between the two closest measured points in the direction normal to the phantom shell (Δz_1 in Figure 20, in mm)	4	12 / f
For graded grids: Maximum incremental increase in the spacing between measured points in the direction normal to the phantom shell ($R_z = \Delta z_2/\Delta z_1$ in Figure 20)	1,5	1,5
Minimum edge length of the zoom scan volume in the x- and y-directions (L_z in O.8.3.2, in mm)	30	22
Minimum edge length of the zoom scan volume in the direction normal to the phantom shell (L_h in O.8.3.2 in mm)	30	22
Tolerance in the probe angle	1°	1°

[a] δ is the penetration depth for a plane-wave incident normally on a planar half-space.

[b] This is the maximum spacing allowed, which might not work for all circumstances.

12.4 Volume Scan Procedures

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD post-processor scan combine and subsequently superpose these measurement data to calculating the multiband SAR.

12.5 SAR Averaged Methods

In DASY, the interpolation and extrapolation are both based on the modified Quadratic Shepard's method. The interpolation scheme combines a least-square fitted function method and a weighted average method which are the two basic types of computational interpolation and approximation.

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1g and 10g cubes, the extrapolation distance should not be larger than 5 mm.

12.6 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASY measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drifts more than 5%, the SAR will be retested.

13 Conducted RF Output Power

13.1 WLAN 2.4 GHz Band Conducted Power

Average Power (dBm)				
Channel	Frequency (MHz)	802.11 b	802.11 g	802.11n (HT20)
CH 01	2412	12.01	8.41	5.68
CH 06	2437	**13.85**	13.78	**14.79**
CH 11	2462	13.13	8.11	6.85

Note:
1. SAR test of WLAN 2.4GHz is performed.
2. Per KDB 248227 D01v02r02, choose the highest output power channel to test SAR and determine further SAR exclusion.
3. Per KDB 248227 D01v02r02, In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. SAR is not required for the following 2.4 GHz OFDM conditions:
   1) When KDB Publication 447498 SAR test exclusion applies to the OFDM configuration.
   2) 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.
4. The output power of all data rate were pre-scan, just the worst case (the lowest data rate) of all mode were shown in report.
5. Per KDB 248227 D01V02r02 section 2.2, when the EUT in continuously transmitting mode, the actual duty cycle is 98.86%, so the duty cycle factor is 1.012.

13.2 WLAN 5.2GHz Band Conducted Power

Average Power (dBm)				
Channel	Frequency (MHz)	802.11 a	802.11 ac20	802.11 n20
CH 36	5180	-3.45	-3.71	-3.66
CH 40	5200	-3.19	-3.35	-3.35
CH 48	5240	**-0.83**	-0.86	-0.91

Average Power (dBm)			
Channel	Frequency (MHz)	802.11 ac40	802.11 n40
CH 38	5190	-7.48	-7.41
CH 46	5230	-3.01	-3.09

Average Power (dBm)		
Channel	Frequency (MHz)	802.11 ac80
CH 42	5210	-6.3

Note:
1. SAR test of WLAN 5.2GHz is performed.
2. Per KDB 248227 D01v02r02, choose the highest output power channel to test SAR and determine further SAR exclusion.
3. The output power of all data rate were pre-scan, just the worst case (the lowest data rate) of all mode were shown in report.
4. Per KDB 248227 D01V02r02 section 2.2, when the EUT in continuously transmitting mode, the actual duty cycle is 98.65%, so the duty cycle factor is 1.014.

13.3 WLAN 5.3GHz Band Conducted Power

Average Power (dBm)				
Channel	Frequency (MHz)	802.11 a	802.11 ac20	802.11 n20
CH 52	5260	-0.23	-0.19	-0.36
CH 56	5280	**1.76**	1.63	1.67
CH 64	5320	1.44	1.52	1.24

Average Power (dBm)			
Channel	Frequency (MHz)	802.11 ac40	802.11 n40
CH 54	5270	-1.73	-1.71
CH 62	5310	0.00	-3.41

Average Power (dBm)		
Channel	Frequency (MHz)	802.11 ac80
CH 58	5290	-3.55

Note:
1. SAR test of WLAN 5.3GHz is performed.
2. Per KDB 248227 D01v02r02, choose the highest output power channel to test SAR and determine further SAR exclusion.
3. The output power of all data rate were pre-scan, just the worst case (the lowest data rate) of all mode were shown in report.
4. Per KDB 248227 D01V02r02 section 2.2, when the EUT in continuously transmitting mode, the actual duty cycle is 98.65%, so the duty cycle factor is 1.014.

13.4 WLAN 5.6GHz Band Conducted Power

Average Power (dBm)				
Channel	Frequency (MHz)	802.11 a	802.11 ac20	802.11 n20
CH 100	5500	1.28	0.54	0.36
CH 120	5600	**4.13**	4.04	4.00
CH 140	5700	3.92	3.26	2.93

Average Power (dBm)			
Channel	Frequency (MHz)	802.11 ac40	802.11 n40
CH 102	5510	-4.84	-2.06
CH 134	5670	-1.92	0.39

Average Power (dBm)		
Channel	Frequency (MHz)	802.11 ac80
CH 122	5610	-0.56

Note:
1. SAR test of WLAN 5.6GHz is performed.
2. Per KDB 248227 D01v02r02, choose the highest output power channel to test SAR and determine further SAR exclusion.
3. The output power of all data rate were pre-scan, just the worst case (the lowest data rate) of all mode were shown in report.
4. Per KDB 248227 D01V02r02 section 2.2, when the EUT in continuously transmitting mode, the actual duty cycle is 98.62%, so the duty cycle factor is 1.014.

13.5 WLAN 5.8GHz Band Conducted Power

Average Power (dBm)				
Channel	Frequency (MHz)	802.11 a	802.11 ac20	802.11 n20
CH 149	5745	4.95	5.06	4.89
CH 157	5785	7.14	7.07	7.03
CH 165	5825	**8.01**	7.96	7.88

Average Power (dBm)			
Channel	Frequency (MHz)	802.11 ac40	802.11 n40
CH 151	5755	4.18	4.19
CH 159	5795	5.77	5.69

Average Power (dBm)		
Channel	Frequency (MHz)	802.11 ac80
CH 155	5775	2.07

Note:
1. SAR test of WLAN 5.8GHz is performed.
2. Per KDB 248227 D01v02r02, choose the highest output power channel to test SAR and determine further SAR exclusion.
3. The output power of all data rate were pre-scan, just the worst case (the lowest data rate) of all mode were shown in report.
4. Per KDB 248227 D01V02r02 section 2.2, when the EUT in continuously transmitting mode, the actual duty cycle is 98.62%, so the duty cycle factor is 1.014.

13.6 Bluetooth Conducted Power

Peak Power (dBm) (Bluetooth)				
Channel	Frequency (MHz)	GFSK	π/4-DQPSK	8DPSK
CH 00	2402	-6.14	-9.04	-7.33
CH 39	2441	-5.12	-7.93	-8.15
CH 78	2480	**-4.52**	-7.65	-7.61

Peak Power (dBm)		
Channel	Frequency (MHz)	BLE
CH 00	2402	-5.75
CH 20	2442	-4.63
CH 39	2480	-5.41

Note:
1. Per KDB 447498 D01v06, the 1-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 for1-g SAR, where
   - f(GHz) is the RF channel transmit frequency in GHz
   - Power and distance are rounded to the nearest mW and mm before calculation
   - The result is rounded to one decimal place for comparison

Channel	Frequency (GHz)	Max. tune-up Power (dBm)	Max. Power (mW)	Test distance (mm)	Result	exclusion thresholds for 1-g SAR
CH 78	2.480	-4.0	0.40	5	0.127	3.0

2. The max. tune-uppower wasprovided by manufacturer,base on the result of note 1, RF exposure evaluation is not required.
3. The output power of all data rate were pre-scan, just the worst case of all mode were shown in report.
4. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm according is applied to determine SAR test exclusion.

14 SAR Test Results Summary

14.1 Standalone Head SAR

➢ WLAN 2.4GHz Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR_{1g} (W/kg)	Scaling Factor	DC Factor/ Report SAR 1g(W/kg)	Reported SAR_{1g} (W/kg)
1	2.4GHz/802.11b	front of face	6	2437	13.85	0.07	14.0	**0.016**	1.035	1.012	0.017
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					**1.6 W/kg (mW/g) Averaged over 10g**						

➢ WLAN 5.2GHz Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR_{1g} (W/kg)	Scaling Factor	DC Factor/ Report SAR 1g(W/kg)	Reported SAR_{1g} (W/kg)
2	5.2GHz/802.11a	front of face	48	5240	-0.83	0.00	-0.5	<0.001*	1.079	1.014	<0.001*
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					**1.6 W/kg (mW/g) Averaged over 10g**						

➢ WLAN 5.3GHz Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR_{1g} (W/kg)	Scaling Factor	DC Factor/ Report SAR 1g(W/kg)	Reported SAR_{1g} (W/kg)
3	5.3GHz/802.11a	front of face	60	5300	1.76	0.00	2.0	**0.004**	1.057	1.014	0.004
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					**1.6 W/kg (mW/g) Averaged over 10g**						

➢ WLAN 5.6GHz Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR_{1g} (W/kg)	Scaling Factor	DC Factor/ Report SAR 1g(W/kg)	Reported SAR_{1g} (W/kg)
4	5.6GHz/802.11a	front of face	120	5600	4.13	-0.08	4.5	**0.009**	1.089	1.014	0.010
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					**1.6 W/kg (mW/g) Averaged over 10g**						

➢ WLAN 5.8GHz Head SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR_{1g} (W/kg)	Scaling Factor	DC Factor/ Report SAR 1g(W/kg)	Reported SAR_{1g} (W/kg)
5	5.8GHz/802.11a	front of face	165	5825	8.01	-0.09	8.5	**0.017**	1.119	1.014	0.019
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					**1.6 W/kg (mW/g) Averaged over 10g**						

Note:

1. Per KDB 447498 D01v06, for each exposure position, if the highest output power channel Reported SAR ≤ 0.8W/kg, other channels SAR testing is not necessary.
2. Per KDB 248227 D01v02r02, for 802.11b DSSS , when the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in that exposure configuration.
3. Per KDB 248227 D01v02r02, OFDM SAR is not required 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. Cuz the maximum output power specified for OFDM and DSSS are 31.62mW(15dBm) and 25.12mW(14dBm), the scaled SAR would be 0.006×(31.62/25.12)=0.007W/Kg<1.2 W/kg, therefore, SAR is not required for OFDM.
4. *: Due the antenna location and antenna performance results the SAR value lower than the lowest system limit, then we show “<0.001* W/Kg” in the report.

14.2 Standalone Extremity SAR

➢ WLAN 2.4GHz Extremity SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR_{10g} (W/kg)	Scaling Factor	DC Factor/ Report SAR 10g(W/kg)	Reported SAR_{10g} (W/kg)
	2.4GHz/802.11b	Front	6	2437	13.85	-0.12	14.0	0.032	1.035	1.012	0.033
	2.4GHz/802.11b	Back	6	2437	13.85	0.03	14.0	0.324	1.035	1.012	0.339
	2.4GHz/802.11b	Left	6	2437	13.85	0.00	14.0	0.003	1.035	1.012	0.003
	2.4GHz/802.11b	Right	6	2437	13.85	0.00	14.0	0.003	1.035	1.012	0.003
	2.4GHz/802.11b	Top	6	2437	13.85	0.02	14.0	0.018	1.035	1.012	0.018
	2.4GHz/802.11b	Bottom	6	2437	13.85	0.00	14.0	<0.001*	1.035	1.012	<0.001*
6	2.4GHz/802.11b	Back	1	2412	12.01	0.08	12.5	**0.332**	1.119	1.012	0.376
	2.4GHz/802.11b	Back	11	2462	13.13	0.07	13.5	0.182	1.089	1.012	0.201
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					**4.0 W/kg (mW/g) Averaged over 10g**						

➢ WLAN 5.2GHz Extremity SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR_{10g} (W/kg)	Scaling Factor	DC Factor/ Report SAR 10g(W/kg)	Reported SAR_{10g} (W/kg)
	5.2GHz/802.11a	Front	48	5240	-0.83	0.13	-0.5	0.072	1.079	1.014	0.079
7	5.2GHz/802.11a	Back	48	5240	-0.83	0.04	-0.5	**0.712**	1.079	1.014	0.779
	5.2GHz/802.11a	Left	48	5240	-0.83	0.12	-0.5	0.006	1.079	1.014	0.007
	5.2GHz/802.11a	Right	48	5240	-0.83	0.01	-0.5	0.005	1.079	1.014	0.005
	5.2GHz/802.11a	Top	48	5240	-0.83	0.16	-0.5	0.035	1.079	1.014	0.038
	5.2GHz/802.11a	Bottom	48	5240	-0.83	0.00	-0.5	<0.001*	1.079	1.014	<0.001*
	5.2GHz/802.11a	Back	36	5180	-3.45	0.01	-3.0	0.455	1.109	1.014	0.512
	5.2GHz/802.11a	Back	40	5200	-3.19	-0.07	-3.0	0.436	1.045	1.014	0.462
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					**4.0 W/kg (mW/g) Averaged over 10g**						

➢ WLAN 5.3GHz Extremity SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR_{10g} (W/kg)	Scaling Factor	DC Factor/ Report SAR 10g(W/kg)	Reported SAR_{10g} (W/kg)
	5.3GHz/802.11a	Front	60	5300	1.76	-0.14	2.0	0.073	1.057	1.014	0.078
	5.3GHz/802.11a	Back	60	5300	1.76	0.05	2.0	0.734	1.057	1.014	0.787
	5.3GHz/802.11a	Left	60	5300	1.76	-0.11	2.0	0.007	1.057	1.014	0.008
	5.3GHz/802.11a	Right	60	5300	1.76	0.00	2.0	0.007	1.057	1.014	0.008
	5.3GHz/802.11a	Top	60	5300	1.76	0.13	2.0	0.041	1.057	1.014	0.044
	5.3GHz/802.11a	Bottom	60	5300	1.76	0.00	2.0	<0.001*	1.057	1.014	<0.001*
8	5.3GHz/802.11a	Back	52	5260	-0.23	0.01	0.0	**0.764**	1.054	1.014	0.817
	5.3GHz/802.11a	Back	64	5320	1.44	0.03	2.0	0.526	1.138	1.014	0.607
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					**4.0 W/kg (mW/g) Averaged over 10g**						

➢ WLAN 5.6GHz Extremity SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR_{10g} (W/kg)	Scaling Factor	DC Factor/ Report SAR 10g(W/kg)	Reported SAR_{10g} (W/kg)
	5.6GHz/802.11a	Front	120	5600	4.13	-0.16	4.5	0.080	1.089	1.014	0.088
9	5.6GHz/802.11a	Back	120	5600	4.13	0.05	4.5	**0.800**	1.089	1.014	0.883
	5.6GHz/802.11a	Left	120	5600	4.13	-0.12	4.5	0.008	1.089	1.014	0.009
	5.6GHz/802.11a	Right	120	5600	4.13	0.03	4.5	0.009	1.089	1.014	0.010
	5.6GHz/802.11a	Top	120	5600	4.13	-0.19	4.5	0.048	1.089	1.014	0.053
	5.6GHz/802.11a	Bottom	120	5600	4.13	0.00	4.5	<0.001*	1.089	1.014	<0.001*
	5.6GHz/802.11a	Back	100	5500	1.28	0.03	1.5	0.364	1.052	1.014	0.388
	5.6GHz/802.11a	Back	140	5700	3.92	0.00	4.5	0.541	1.143	1.014	0.627
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					**4.0 W/kg (mW/g) Averaged over 10g**						

➢ WLAN 5.8GHz Extremity SAR

Plot No.	Band/Mode	Test Position	CH.	Freq. (MHz)	Ave. Power (dBm)	Power Drift (dB)	Tune-Up Limit (dBm)	Meas. SAR_{10g} (W/kg)	Scaling Factor	DC Factor/ Report SAR 10g(W/kg)	Reported SAR_{10g} (W/kg)
	5.8GHz/802.11a	Front	165	5825	8.01	0.09	8.5	0.086	1.119	1.014	0.098
	5.8GHz/802.11a	Back	165	5825	8.01	0.07	8.5	0.859	1.119	1.014	0.975
	5.8GHz/802.11a	Left	165	5825	8.01	-0.01	8.5	0.009	1.119	1.014	0.010
	5.8GHz/802.11a	Right	165	5825	8.01	0.01	8.5	0.009	1.119	1.014	0.010
	5.8GHz/802.11a	Top	165	5825	8.01	-0.11	8.5	0.052	1.119	1.014	0.059
	5.8GHz/802.11a	Bottom	165	5825	8.01	0.00	8.5	<0.001*	1.119	1.014	<0.001*
	5.8GHz/802.11a	Back	149	5745	4.95	0.06	5.5	0.891	1.135	1.014	1.025
10	5.8GHz/802.11a	Back	157	5785	7.14	0.04	8.0	**0.908**	1.219	1.014	1.122
ANSI / IEEE C95.1 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					**4.0 W/kg (mW/g) Averaged over 10g**						

Note:

1. Per KDB 447498 D01v06, for each exposure position, if the highest output power channel Reported SAR ≤ 0.8W/kg, other channels SAR testing is not necessary.
2. *: Due the antenna location and antenna performance results the SAR value lower than the lowest system limit, then we show “<0.001* W/Kg” in the report.

14.3 Multi-Band Simultaneous Transmission Considerations

This device does not contain transmitters that may operate simultaneously. Therefore simultaneous transmission analysis is not required.

14.4 Measurement Uncertainty

Per KDB865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528: 2013 is not required in SAR reports submitted for equipment approval. The equivalent ratio (1.5/1.6) is applied to extremity and occupational exposure conditions.

14.5 Measurement Conclusion

The SAR evaluation indicates that the EUT complies with the RF radiation exposure limits of the FCC and Industry Canada, with respect to all parameters subject to this test. These measurements were taken to simulate the RF effects of RF exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested. Please note that the absorption and distribution of electromagnetic energy in the body are very complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

15 Reference

[1]. FCC 47 CFR Part 2 “Frequency Allocations and Radio Treaty Matters; General Rules and Regulations”

[2]. ANSI/IEEE Std. C95.1-1992, “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz”, September 1992

[3]. IEEE Std. 1528-2013, “IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques”, Sep 2013

[4]. SPEAG DASY52 System Handbook

[5]. KDB 447498 D01 v06, “RF EXPOSURE PROCEDURES AND EQUIPMENT AUTHORIZATION POLICIES FOR MOBILE AND PORTABLE DEVICES”, October 2015

[6]. KDB 941225 D06 v02r01, " SAR EVALUATION PROCEDURES FOR PORTABLE DEVICES WITH WIRELESS ROUTER CAPABILITIES", October 2015

Appendix A: Plots of SAR System Check

Test Laboratory: JYTSZ Date: 2025/3/31

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: SN:910

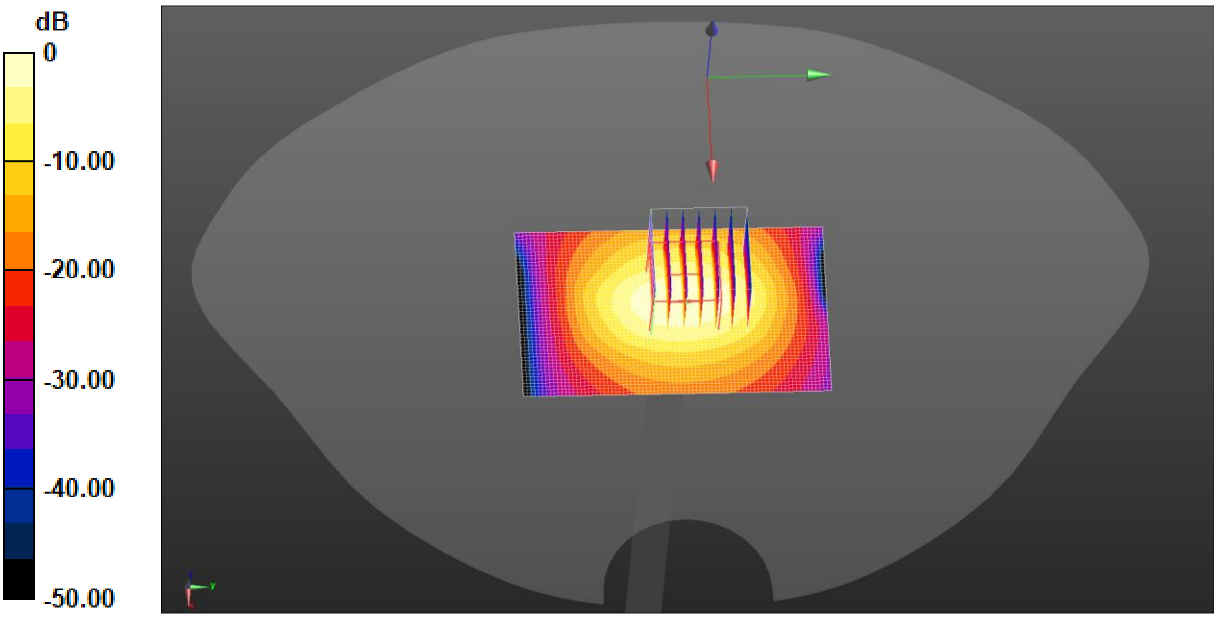
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.822 S/m; ε_r = 38.955; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7601; ConvF(7.84, 7.84, 7.84) @ 2450 MHz; Calibrated: 2025/1/15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1373; Calibrated: 2024/12/31
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

System Performance Check at Frequency2450 MHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (51x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 3.78 W/kg

System Performance Check at Frequency2450 MHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 43.31 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 4.61 W/kg
SAR(1 g) = 2.19 W/kg; SAR(10 g) = 1.02 W/kg
Smallest distance from peaks to all points 3 dB below = 9.1 mm
Ratio of SAR at M2 to SAR at M1 = 48.8%
Maximum value of SAR (measured) = 3.54 W/kg



0 dB = 3.78 W/kg = 5.77 dBW/kg

Test Laboratory: JYTSZ Date: 2025/3/31

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: SN:1320

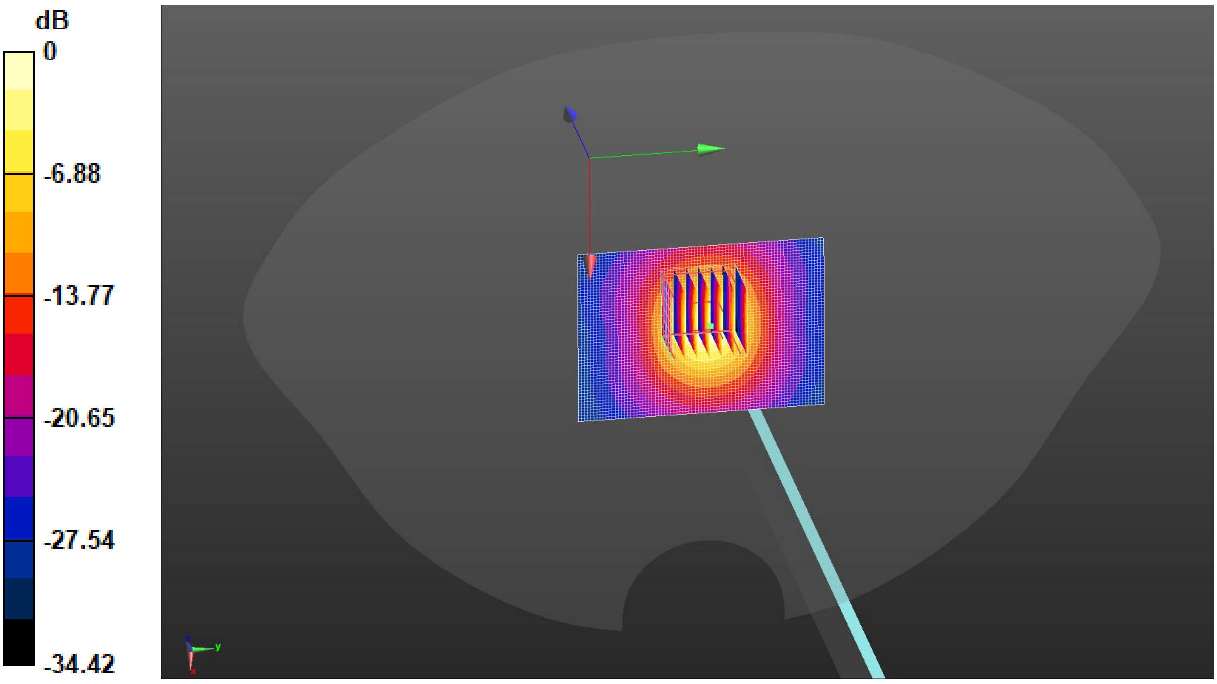
Communication System: UID 0, CW (0); Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 4.664 S/m; ε_r = 34.958; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7601; ConvF(5.52, 5.52, 5.52) @ 5200 MHz; Calibrated: 2025/1/15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1373; Calibrated: 2024/12/31
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

System Performance Check at Frequency5GHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 8.02 W/kg

System Performance Check at Frequency5GHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 43.50 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 12.7 W/kg
SAR(1 g) = 3.22 W/kg; SAR(10 g) = 0.917 W/kg
Smallest distance from peaks to all points 3 dB below = 7.4 mm
Ratio of SAR at M2 to SAR at M1 = 55.1%
Maximum value of SAR (measured) = 7.92 W/kg



0 dB = 7.92 W/kg = 8.99 dBW/kg

Test Laboratory: JYTSZ Date: 2025/3/31

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: SN:1320

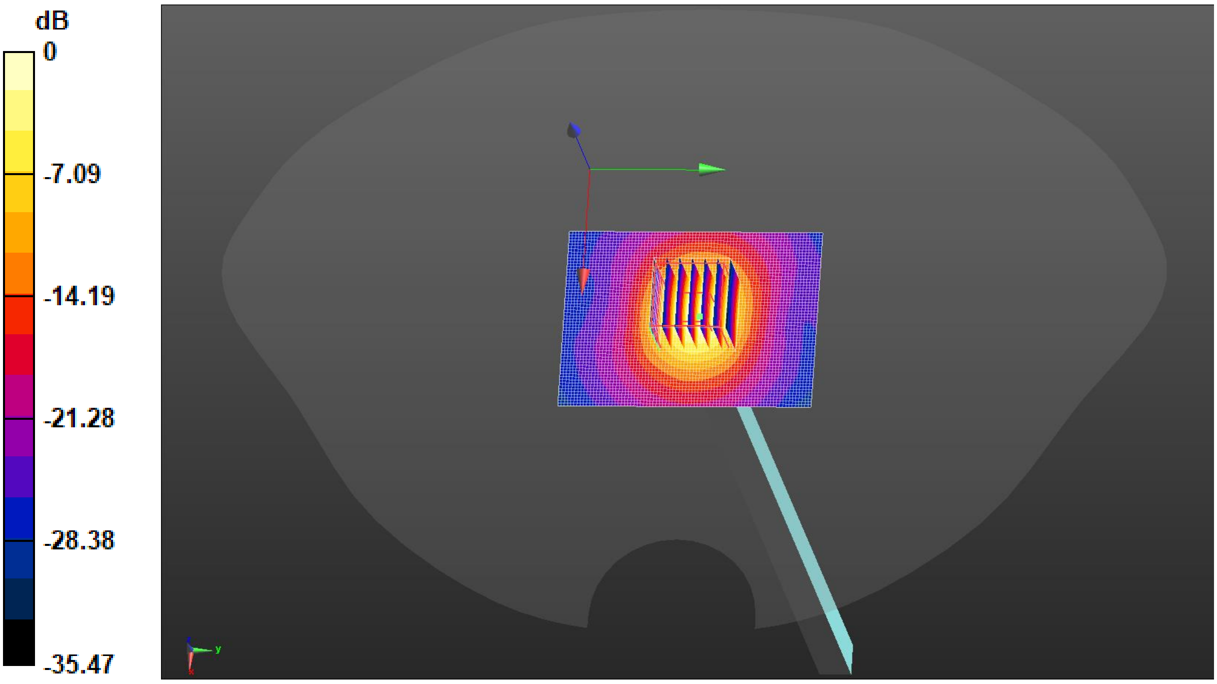
Communication System: UID 0, CW (0); Frequency: 5300 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5300 MHz; $\sigma = 4.771$ S/m; $\varepsilon_r = 34.8$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7601; ConvF(5.52, 5.52, 5.52) @ 5300 MHz; Calibrated: 2025/1/15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1373; Calibrated: 2024/12/31
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

System Performance Check at Frequency5GHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 8.61 W/kg

System Performance Check at Frequency5GHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 43.95 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 13.8 W/kg
SAR(1 g) = 3.31 W/kg; SAR(10 g) = 0.935 W/kg
Smallest distance from peaks to all points 3 dB below = 7.2 mm
Ratio of SAR at M2 to SAR at M1 = 54.2%
Maximum value of SAR (measured) = 8.28 W/kg



0 dB = 8.28 W/kg = 9.18 dBW/kg

Test Laboratory: JYTSZ Date: 2025/4/2

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: SN:1320

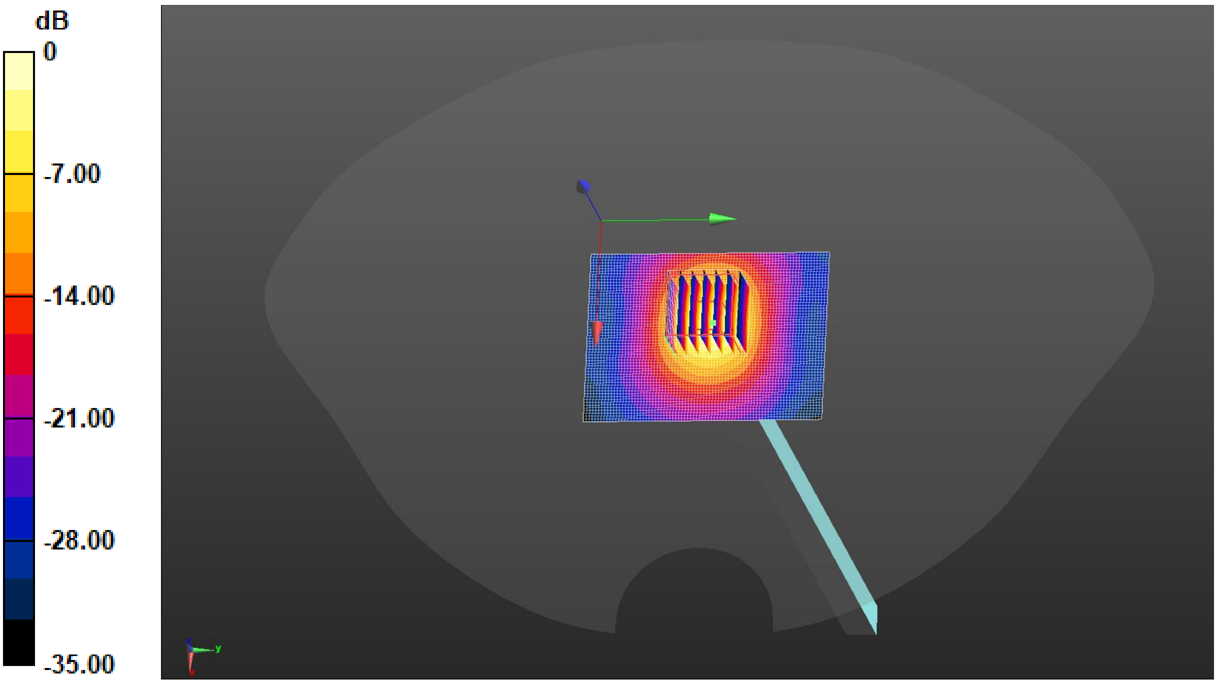
Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 5.098 S/m; ε_r = 34.269; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7601; ConvF(4.95, 4.95, 4.95) @ 5600 MHz; Calibrated: 2025/1/15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1373; Calibrated: 2024/12/31
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

System Performance Check at Frequency5GHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 9.07 W/kg

System Performance Check at Frequency5GHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 38.78 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 14.7 W/kg
SAR(1 g) = 3.35 W/kg; SAR(10 g) = 0.925 W/kg
Smallest distance from peaks to all points 3 dB below = 7.4 mm
Ratio of SAR at M2 to SAR at M1 = 52.4%
Maximum value of SAR (measured) = 8.82 W/kg



0 dB = 8.82 W/kg = 9.45 dBW/kg

Test Laboratory: JYTSZ Date: 2025/4/2

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: SN:1320

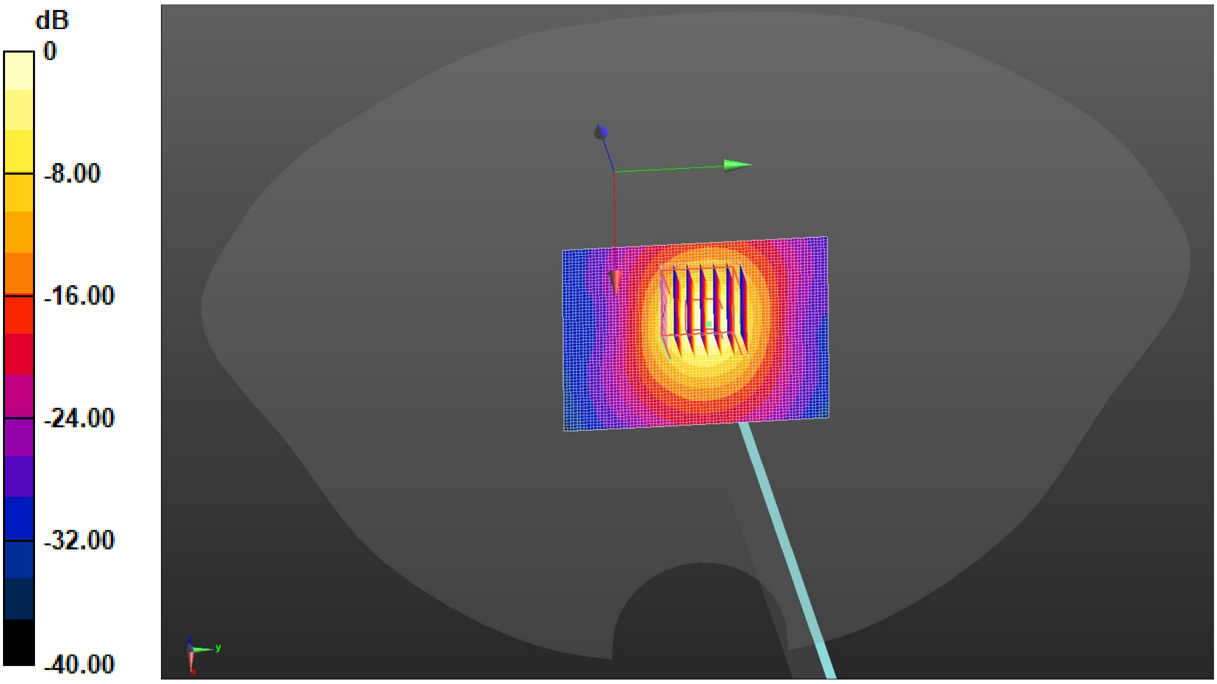
Communication System: UID 0, CW (0); Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.317 S/m; ε_r = 33.918; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7601; ConvF(5.07, 5.07, 5.07) @ 5800 MHz; Calibrated: 2025/1/15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1373; Calibrated: 2024/12/31
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

System Performance Check at Frequency5GHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 8.78 W/kg

System Performance Check at Frequency5GHz Head Tissue/d=10mm, Pin=40 mW, dist=1.4mm (EX-Probe)/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 38.34 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 14.2 W/kg
SAR(1 g) = 3.24 W/kg; SAR(10 g) = 0.915W/kg
Smallest distance from peaks to all points 3 dB below = 7.7 mm
Ratio of SAR at M2 to SAR at M1 = 50.1%
Maximum value of SAR (measured) = 8.37 W/kg



0 dB = 8.37 W/kg = 9.23 dBW/kg

Appendix B: Plots of SAR Test Data

Test Laboratory: JYTSZ   Date: 2025/3/31

DUT: Unfolded Circle Remote 3; Type: UCR3; Serial: SZR142500042-1

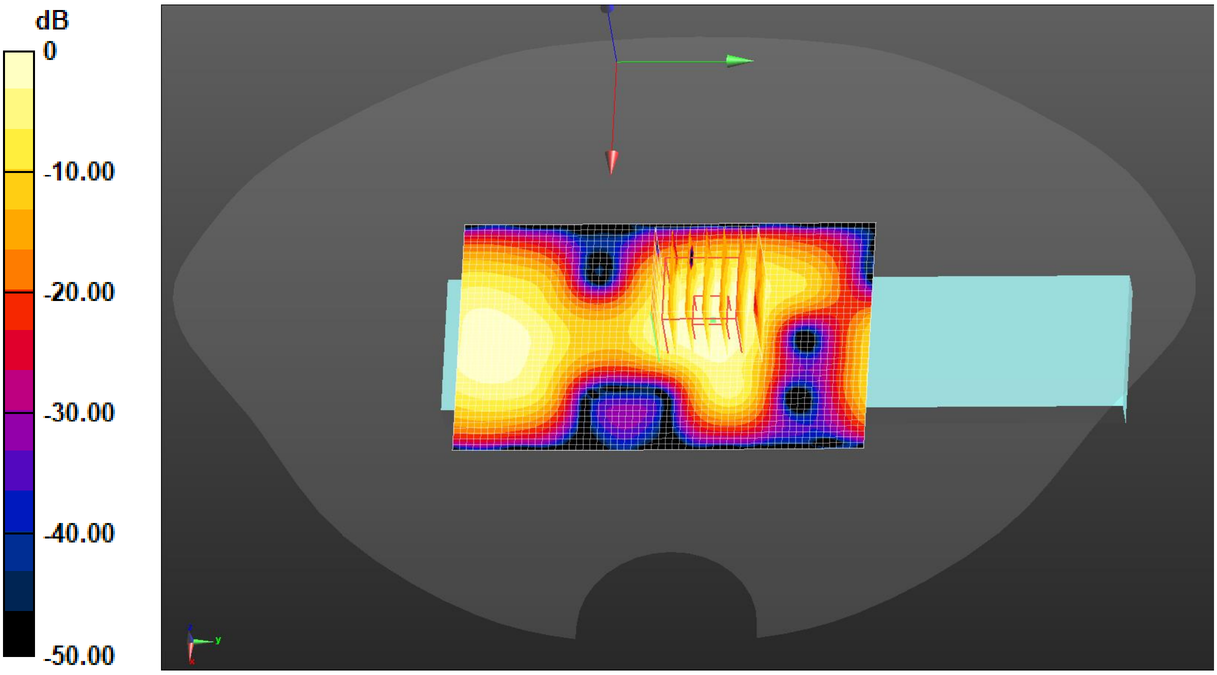
Communication System: UID 0, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps) (0);
Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.811 S/m; ε_r = 38.98; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7601; ConvF(7.84, 7.84, 7.84) @ 2437 MHz; Calibrated: 2025/1/15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1373; Calibrated: 2024/12/31
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

2.4G WiFi Body Front/Middle Channel/Area Scan (41x61x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0404 W/kg

2.4G WiFi Body Front/Middle Channel/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.060 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.0330 W/kg
SAR(1 g) = 0.016 W/kg; SAR(10 g) = 0.008 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 15 mm)
Ratio of SAR at M2 to SAR at M1 = 51.1%
Maximum value of SAR (measured) = 0.0259 W/kg



0 dB = 0.0259 W/kg = -15.86 dBW/kg

Test Laboratory: JYTSZ Date: 2025/3/31

DUT: Unfolded Circle Remote 3; Type: UCR3; Serial: SZR142500042-1

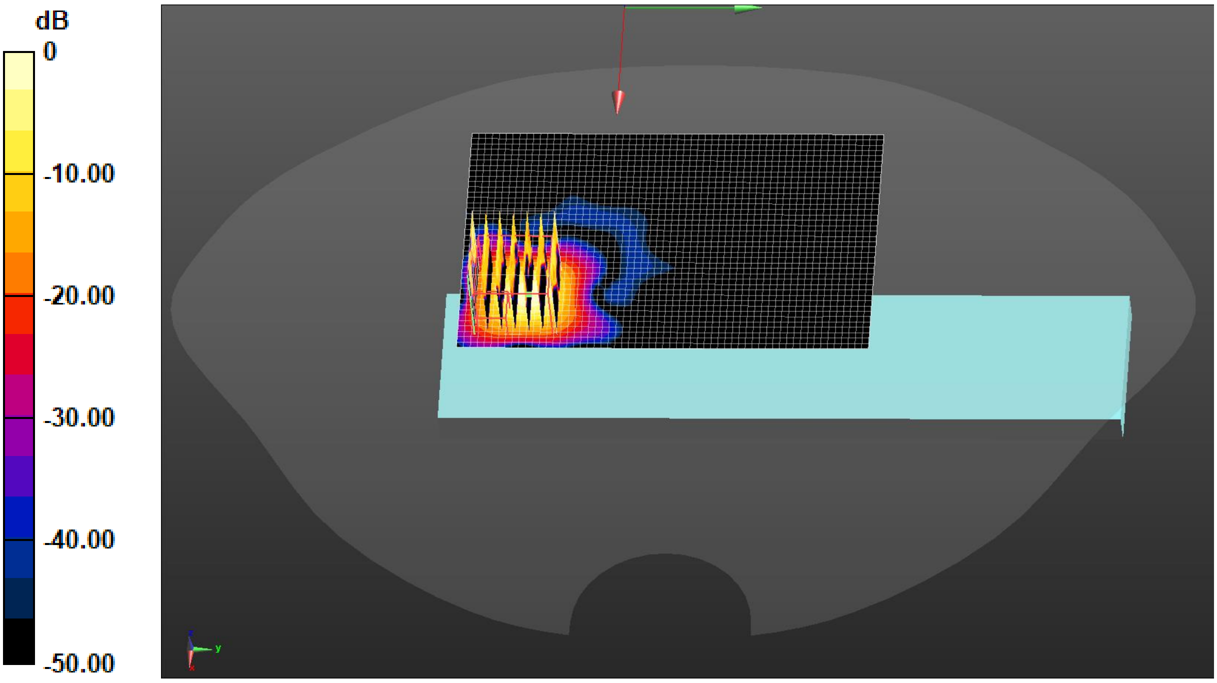
Communication System: UID 0, IEEE 802.11a WiFi 5GHz (0); Frequency: 5300 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5300 MHz; σ = 4.771 S/m; ε_r = 34.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7601; ConvF(5.52, 5.52, 5.52) @ 5300 MHz; Calibrated: 2025/1/15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1373; Calibrated: 2024/12/31
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

5.3G WiFi Body Front/Middle Channel/Area Scan (41x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.00589 W/kg

5.3G WiFi Body Front/Middle Channel/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.0340 W/kg
SAR(1 g) = 0.00397 W/kg; SAR(10 g) = 0.000494 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 12 mm)
Ratio of SAR at M2 to SAR at M1 = 30%
Maximum value of SAR (measured) = 0.0167 W/kg



0 dB = 0.00589 W/kg = -22.30 dBW/kg

Test Laboratory: JYTSZ　　Date: 2025/4/2

DUT: Unfolded Circle Remote 3; Type: UCR3; Serial: SZR142500042-1

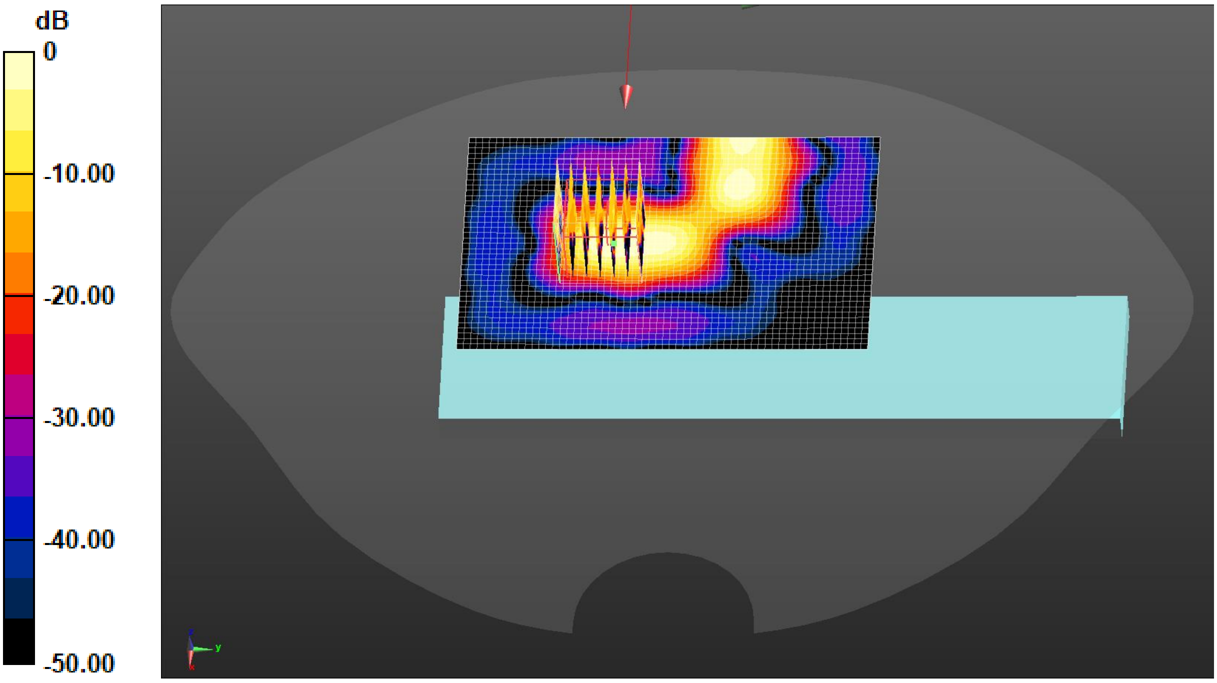
Communication System: UID 0, IEEE 802.11a WiFi 5GHz (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 5.097 S/m; ε_r = 34.269; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7601; ConvF(4.95, 4.95, 4.95) @ 5600 MHz; Calibrated: 2025/1/15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1373; Calibrated: 2024/12/31
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

5.6G WiFi Body Front/Middle Channel/Area Scan (41x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.0207 W/kg

5.6G WiFi Body Front/Middle Channel/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.3980 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.0580 W/kg
SAR(1 g) = 0.00871 W/kg; SAR(10 g) = 0.00174 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 12 mm)
Ratio of SAR at M2 to SAR at M1 = 32.7%
Maximum value of SAR (measured) = 0.0274 W/kg



0 dB = 0.0207 W/kg = -16.83 dBW/kg

Test Laboratory: JYTSZ Date: 2025/4/2

DUT: Unfolded Circle Remote 3; Type: UCR3; Serial: SZR142500042-1

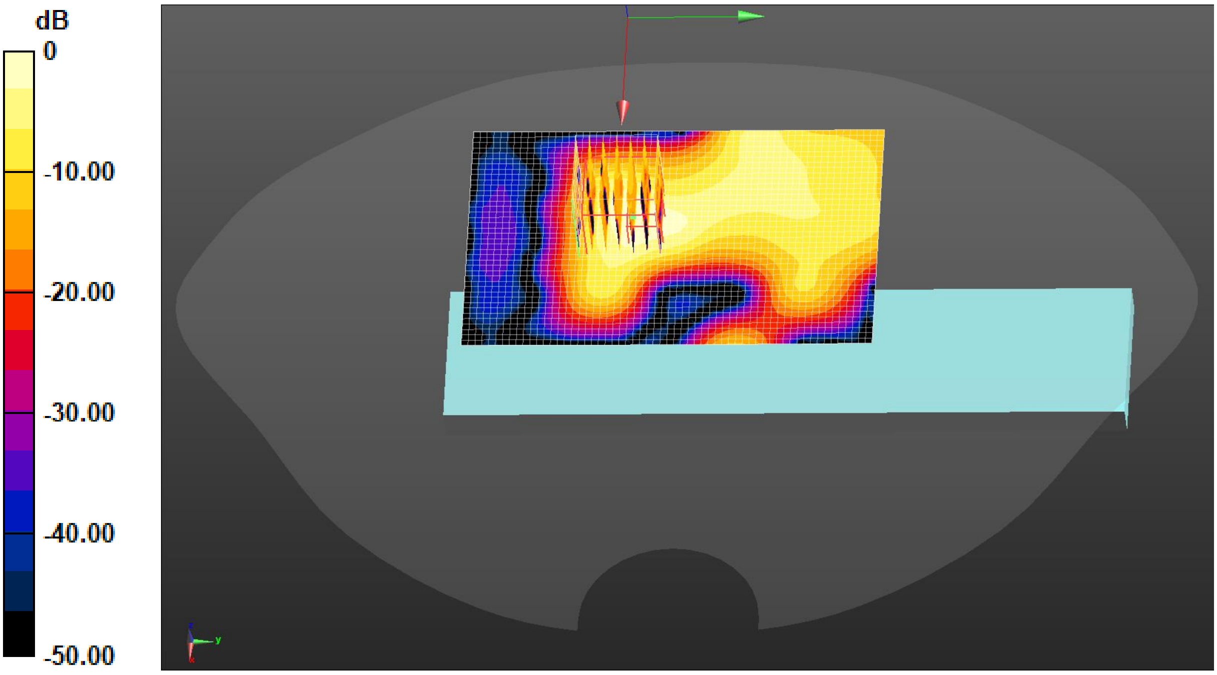
Communication System: UID 0, IEEE 802.11a WiFi 5GHz (0); Frequency: 5825 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5825 MHz; σ = 5.346 S/m; ε_r = 33.874; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7601; ConvF(5.07, 5.07, 5.07) @ 5825 MHz; Calibrated: 2025/1/15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1373; Calibrated: 2024/12/31
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

5.8G WiFi Body Front/High Channel/Area Scan (41x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.0981 W/kg

5.8G WiFi Body Front/High Channel/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.6080 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.0960 W/kg
SAR(1 g) = 0.017 W/kg; SAR(10 g) = 0.00543 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 12 mm)
Ratio of SAR at M2 to SAR at M1 = 30.3%
Maximum value of SAR (measured) = 0.0453 W/kg



0 dB = 0.0981 W/kg = -10.08 dBW/kg

Test Laboratory: JYTSZ Date: 2025/3/31

DUT: Unfolded Circle Remote 3; Type: UCR3; Serial: SZR142500042-1

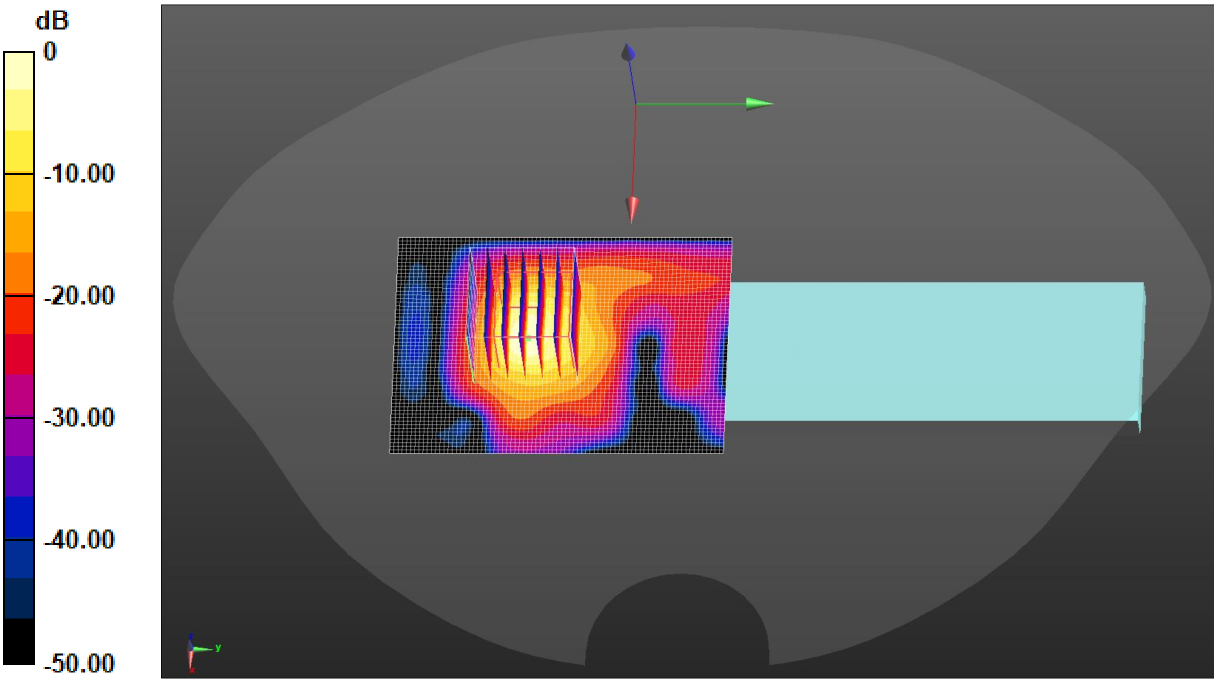
Communication System: UID 0, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps) (0);
Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2412 MHz; σ = 1.79 S/m; ε_r = 39.027; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7601; ConvF(7.84, 7.84, 7.84) @ 2412 MHz; Calibrated: 2025/1/15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1373; Calibrated: 2024/12/31
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

2.4G WiFi Body Back/Low Channel/Area Scan (61x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 3.63 W/kg

2.4G WiFi Body Back/Low Channel/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.294 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 6.30 W/kg
SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.332 W/kg
Smallest distance from peaks to all points 3 dB below = 4 mm
Ratio of SAR at M2 to SAR at M1 = 31%
Maximum value of SAR (measured) = 2.59 W/kg



0 dB = 3.63 W/kg = 5.60 dBW/kg

Test Laboratory: JYTSZ Date: 2025/3/31

DUT: Unfolded Circle Remote 3; Type: UCR3; Serial: SZR142500042-1

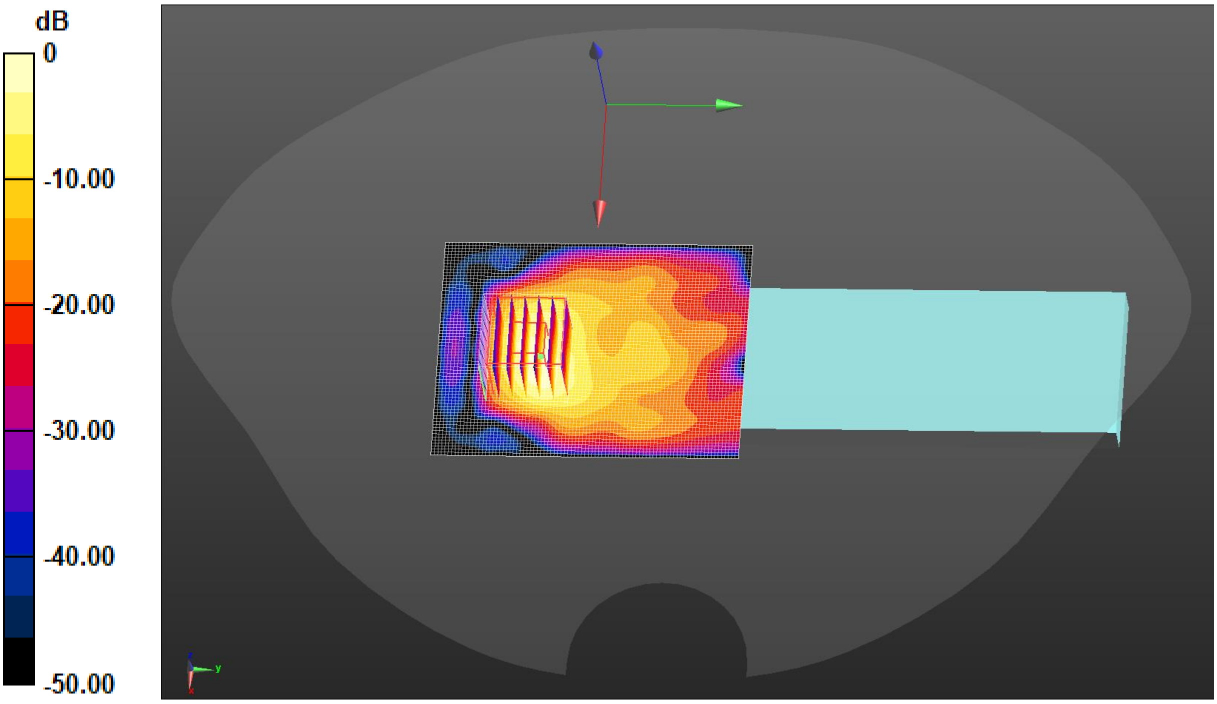
Communication System: UID 0, IEEE 802.11a WiFi 5GHz (0); Frequency: 5240 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5240 MHz; σ = 4.707 S/m; ε_r = 34.892; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7601; ConvF(5.52, 5.52, 5.52) @ 5240 MHz; Calibrated: 2025/1/15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1373; Calibrated: 2024/12/31
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

5.2G WiFi Body Back/High Channel/Area Scan (71x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 5.58 W/kg

5.2G WiFi Body Back/High Channel/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 5.289 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 16.2 W/kg
SAR(1 g) = 2.57 W/kg; SAR(10 g) = 0.712 W/kg
Smallest distance from peaks to all points 3 dB below = 2.4 mm
Ratio of SAR at M2 to SAR at M1 = 45.3%
Maximum value of SAR (measured) = 7.42 W/kg



0 dB = 7.42 W/kg = 8.70 dBW/kg

Test Laboratory: JYTSZ Date: 2025/3/31

DUT: Unfolded Circle Remote 3; Type: UCR3; Serial: SZR142500042-1

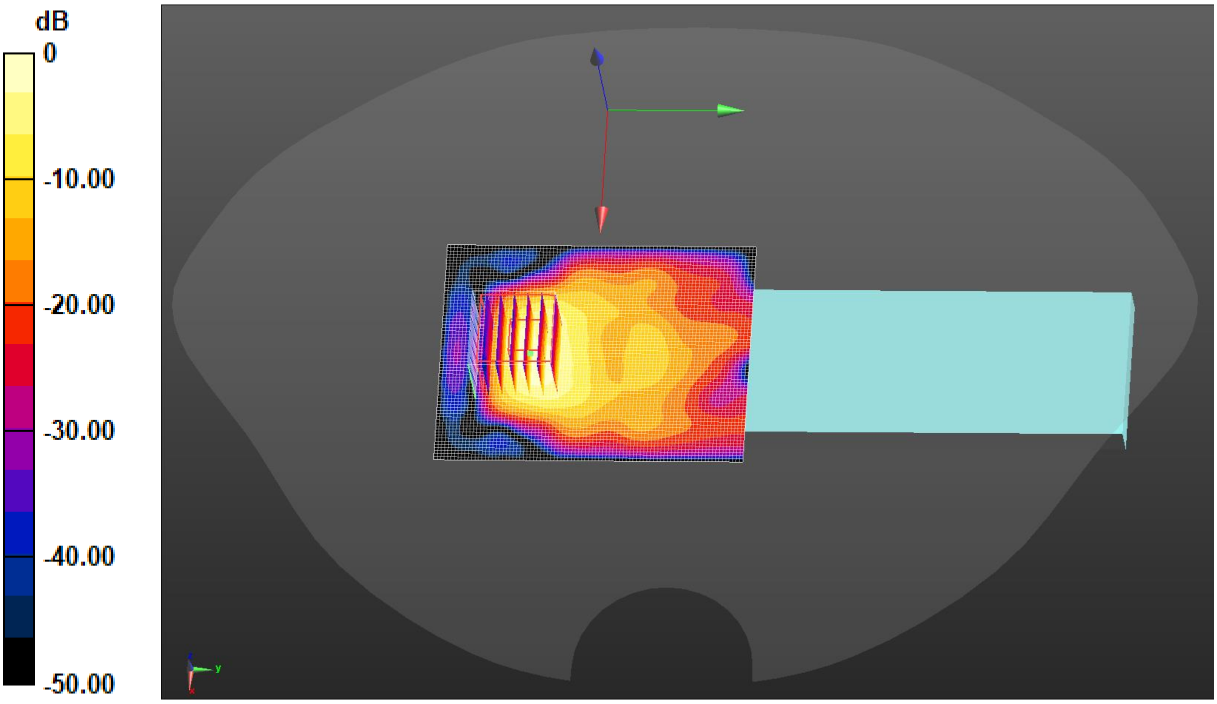
Communication System: UID 0, IEEE 802.11a WiFi 5GHz (0); Frequency: 5260 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5260 MHz; σ = 4.728 S/m; ε_r = 34.862; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7601; ConvF(5.52, 5.52, 5.52) @ 5260 MHz; Calibrated: 2025/1/15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1373; Calibrated: 2024/12/31
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

5.3G WiFi Body Back/Low Channel/Area Scan (71x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 6.96 W/kg

5.3G WiFi Body Back/Low Channel/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 5.208 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 18.2 W/kg
SAR(1 g) = 2.95 W/kg; SAR(10 g) = 0.764 W/kg
Smallest distance from peaks to all points 3 dB below = 2.5 mm
Ratio of SAR at M2 to SAR at M1 = 46.8%
Maximum value of SAR (measured) = 8.87 W/kg



0 dB = 8.87 W/kg = 9.48 dBW/kg

Test Laboratory: JYTSZ Date: 2025/4/2

DUT: Unfolded Circle Remote 3; Type: UCR3; Serial: SZR142500042-1

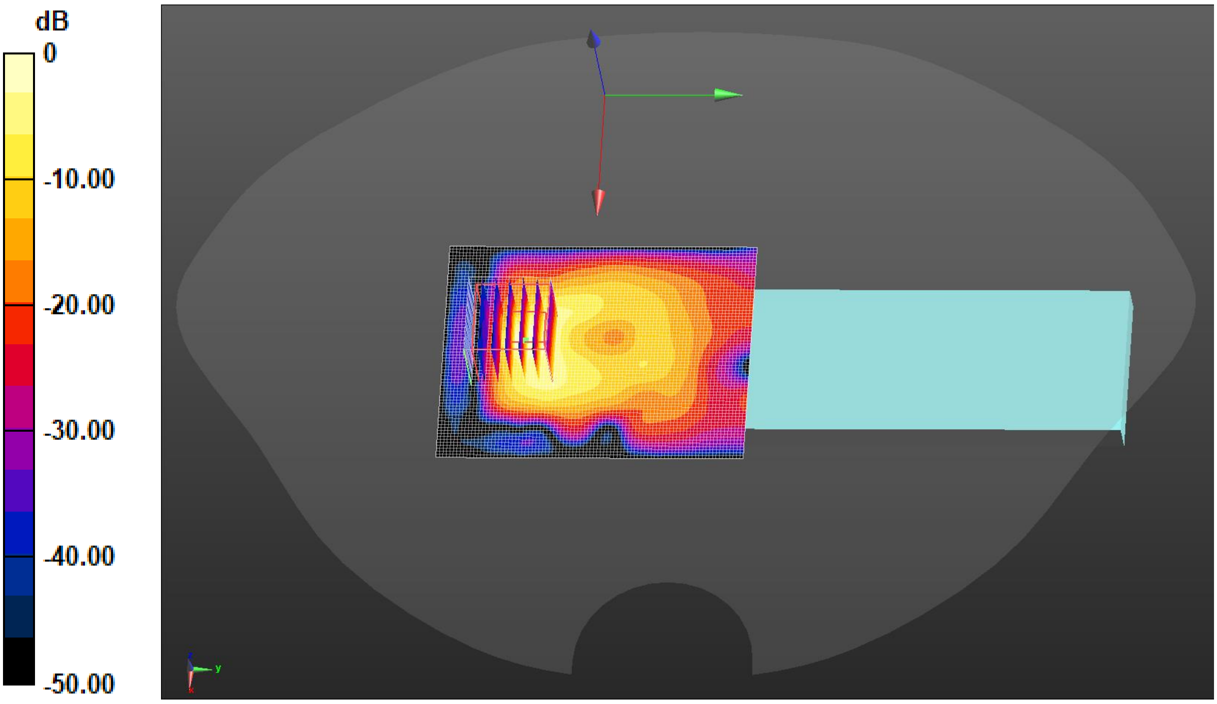
Communication System: UID 0, IEEE 802.11a WiFi 5GHz (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 5.097 S/m; ε_r = 34.269; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7601; ConvF(4.95, 4.95, 4.95) @ 5600 MHz; Calibrated: 2025/1/15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1373; Calibrated: 2024/12/31
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

5.6G WiFi Body Back/Middle Channel/Area Scan (71x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 11.7 W/kg

5.6G WiFi Body Back/Middle Channel/Zoom Scan (7x7x12)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 7.992 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 31.6 W/kg
SAR(1 g) = 4.14 W/kg; SAR(10 g) = 0.800 W/kg
Smallest distance from peaks to all points 3 dB below = 2.3 mm
Ratio of SAR at M2 to SAR at M1 = 48.6%
Maximum value of SAR (measured) = 13.2 W/kg



0 dB = 13.2 W/kg = 11.21 dBW/kg

Test Laboratory: JYTSZ Date: 2025/4/2

DUT: Unfolded Circle Remote 3; Type: UCR3; Serial: SZR142500042-1

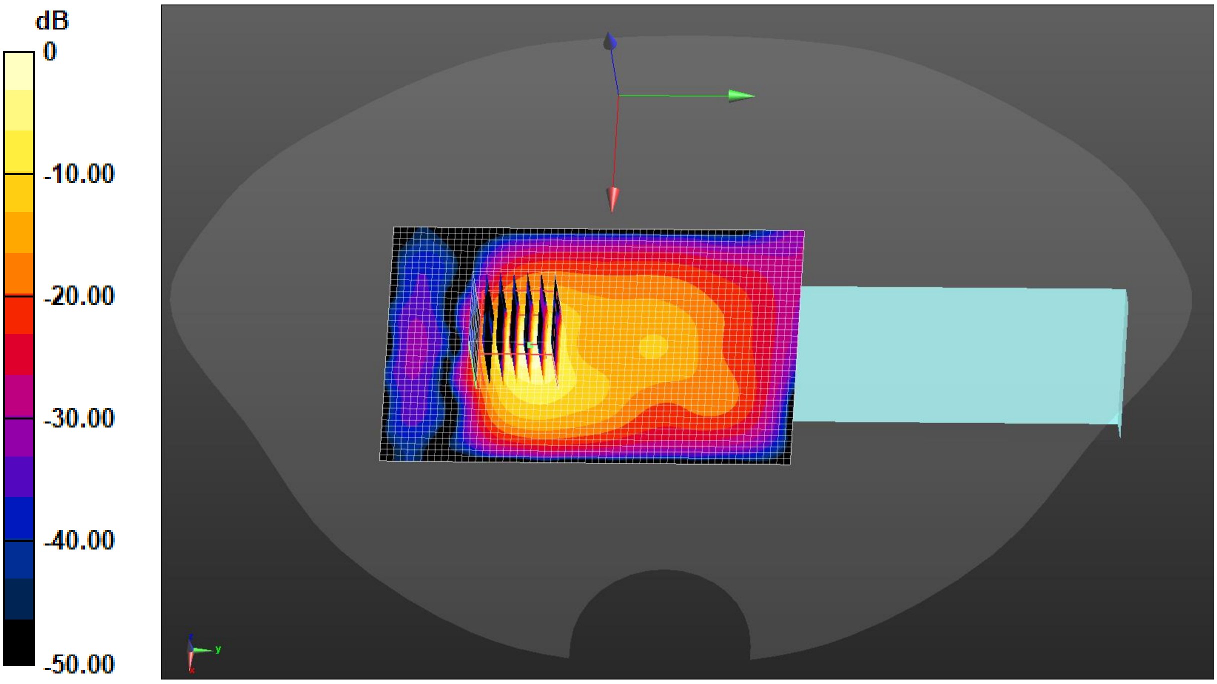
Communication System: UID 0, IEEE 802.11a WiFi 5GHz (0); Frequency: 5785 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5785 MHz; σ = 5.299 S/m; ε_r = 33.946; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7601; ConvF(5.07, 5.07, 5.07) @ 5785 MHz; Calibrated: 2025/1/15
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1373; Calibrated: 2024/12/31
- Phantom: SAM-Twin; Type: QD 000 P40 CD; Serial: 1885
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

5.8G WiFi Body Back/Middle Channel/Area Scan (41x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 14.4 W/kg

5.8G WiFi Body Back/Middle Channel/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 12.50 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 32.7 W/kg
SAR(1 g) = 4.45 W/kg; SAR(10 g) = 0.908 W/kg
Smallest distance from peaks to all points 3 dB below = 3.3 mm
Ratio of SAR at M2 to SAR at M1 = 43.7%
Maximum value of SAR (measured) = 13.9 W/kg



0 dB = 14.4 W/kg = 11.59 dBW/kg

------End of report------

No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street,
Bao'an District, Shenzhen, Guangdong, People's Republic of China.
Telephone: +86 (0) 755 23118282 Fax: +86 (0) 755 23116366, E-mail: info-JYTee@lets.com