

SAR TEST REPORT

for

TCL Communication Ltd.

Tablet PC

Model No.: 8188X

Brand: TCL

FCC ID: 2ACCJB225

The MAX SAR(1g)	
Body SAR	1.17 W/Kg

Maximum SAR Test distance: 13mm

Prepared for : TCL Communication Ltd.

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SAR TEST REPORT

Applicant : TCL Communication Ltd.
Manufacturer : TCL Communication Ltd.
Product : Tablet PC
Model No. : 8188X
Brand : TCL
Test Voltage : DC 3.85V

Measurement Standard Used:

- FCC 47 CFR Part 2 (2.1093)
- IEEE C95.1-1999
- IEC/IEEE 62209-1528: 2020
- IEC62209-1:2016
- IEC62209-2:2010
- IEEE1528-2013
- FCC OET Bulletin 65 Supplement C (Edition 01-01)
- FCC KDB 447498 D04 v01
- FCC KDB 865664 D01/D02
- FCC KDB 248227 D01 v02r02
- KDB 648474 D04
- KDB 616217 D04 v01r02
- KDB 941225 D06 v02r01

The device described above is tested by Audix Technology (Shenzhen) Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Audix Technology (Shenzhen) Co., Ltd. is assumed full responsibility for the accuracy and completeness of test. This report contains data that are not covered by the NVLAP accreditation. Also, this report shows that the EUT is technically compliant with the FCC test requirement.

This report applies to single evaluation of one sample of above mentioned product. And shall not be reproduced in part without written approval of Audix Technology (Shenzhen) Co., Ltd..

Date of Test : Jul.11~25, 2024 Report of date: Jul.26, 2024

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信華科技(深圳)有限公司

Audix Technology (Shenzhen) Co., Ltd.

EMC 部門報告專用章

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REPORT REVISION HISTORY

Edition No.	Revision	Issue Date	Report No.
Original	Initial issue of report	Jul.26, 2024	ACS-SF24006

1. GENERAL INFORMATION

1.1. Description of Equipment Under Test

Applicant	TCL Communication Ltd.	
Applicant Address	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong	
Manufacturer	TCL Communication Ltd.	
Manufacturer Address	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong	
Product	Tablet PC	
Model No.	8188X	
Brand	TCL	
FCC ID	2ACCJB225	
IMEI	354037970000976	
Sample Type	PIO	
Date of Receipt	May.21, 2024	
Date of Test	Jul.11~25, 2024	
Operating Mode	WLAN, Bluetooth	
Frequency Range	802.11 b/g/n(HT20/HT40)	2412MHz~2462MHz
	802.11 a	5150 MHz~5250 MHz
	802.11n(HT20/HT40)	5250 MHz~5350MHz
	802.11ac(VHT20/ VHT40/ VHT80)	5470 MHz~5725 MHz
	Bluetooth	5725 MHz~5850 MHz
		2402 MHz~2480 MHz

2. GENERAL DESCRIPTION

2.1. Product Description For EUT

Please refer to section 1.1

2.2. Applied Standards

The Specific Absorption Rate (SAR) testing specification, method and procedure for this device is in accordance with the following standards:

- FCC 47 CFR Part 2 (2.1093)
- IEEE C95.1-1999
- IEC/IEEE 62209-1528: 2020
- IEC62209-1:2016
- IEC62209-2:2010
- IEEE1528-2013
- FCC OET Bulletin 65 Supplement C (Edition 01-01)
- FCC KDB 447498 D01 v06
- FCC KDB 447498 D04 v01
- FCC KDB 865664 D01/D02
- FCC KDB 248227 D01 v02r02
- KDB 616217 D04 v01r02
- KDB 941225 D06 v02r01

2.3. Device Category and SAR Limits

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.

2.4. Test Conditions

2.4.1. Ambient Condition

Ambient Temperature	20 to 24 °C
Humidity	< 60 %

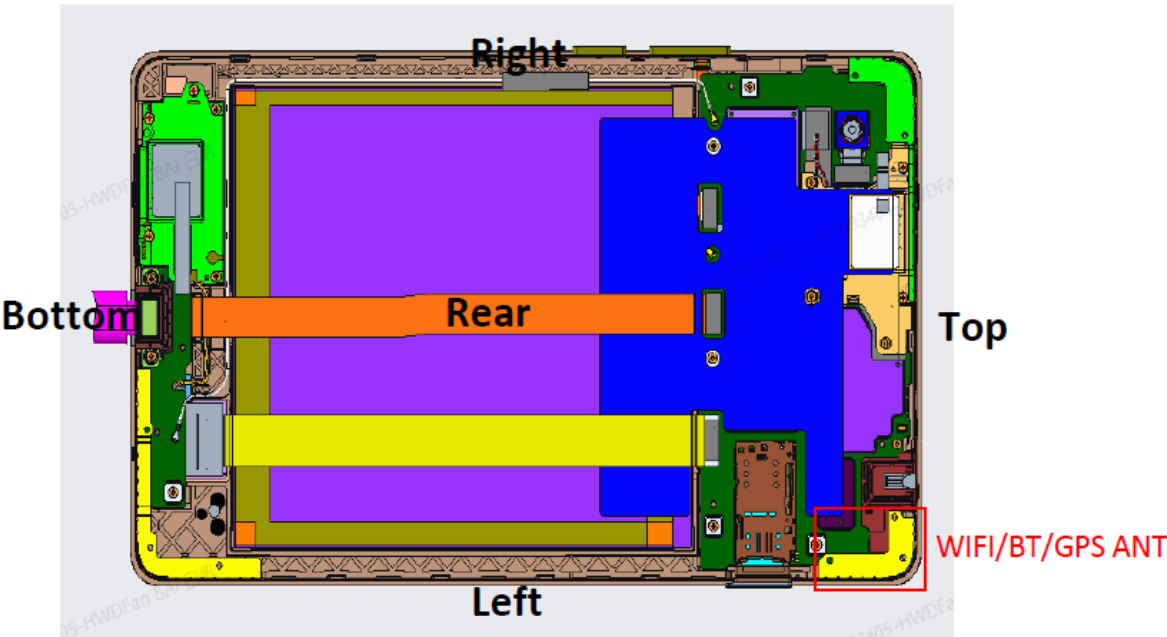
2.4.2. Test Configuration

The distance between the EUT and the antenna of the emulator is larger than 50 cm and the output power radiated from the emulator antenna is at least 30dB smaller than the output power of EUT. The EUT was set from the emulator to radiate maximum output power during all tests.

2.4.3 Sensor Detect Distance of EUT

ANT	P-Sensor Detect	Near	Far
WIFI ANT	Front	<=14mm	>14mm
	Left	<=14mm	>14mm
	Top	<=14mm	>14mm
	Rear	<=14mm	>14mm

2.5.Exposure Positions Consideration



Test Distance for SAR tests							
Band		Distance(mm)					
		Back	Front	Top	Bottom	Left	Right
BT	sensor off	0	X	0	X	0	X
	sensor on	0	X	0	X	0	X
	sensor off	13	X	13	X	13	X

Test Sides for SAR tests							
Band		Body					
		Back	Front	Top	Bottom	Left	Right
BT		✓	X	✓	X	✓	X
WLAN		✓	X	✓	X	✓	X

- Note:**
1. The side which has a distance larger than 2.5cm from antenna can be excluded from SAR measurement.

2.6. Standalone SAR Test Exclusion Considerations

Standalone 1-g head or body SAR evaluation by measurement or numerical simulation is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied. The 1-g SAR test exclusion threshold for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR, where

- $f(\text{GHz})$ 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

According to the KDB447498 appendix A, the SAR test exclusion threshold listed as below

Table B.2—Example Power Thresholds (mW)

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

2.7. Block Diagram of connection between EUT and simulators



(EUT: Tablet PC)

2.8. Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date	Calibration Body
1.	DASY5 SAR Test System	Speag	TX60 L speag	F09/5B1H1/01	NCR	NCR	N/A
2.	ENA SERIES NETWORK ANALYZER	Agilent	E5071C	MY46316760	2023.09.15	2024.09.14	CCIC
3.	Power Meter	Anritsu	ML2487A	6K00003262	2024.06.19	2025.06.18	CCIC
4.	Power Sensor	Anritsu	MA2491A	032516	2024.06.19	2025.06.18	CCIC
5.	Signal Generator	Rohde&Schwarz	SMB100A	181375	2024.03.16	2025.03.15	CCIC
6.	Amplifier	Milmega	ZHL-42W	C620601316	NCR	NCR	N/A
7.	Dipole Validation Kits	Speag	D2450V2	862	2023.05.18	2026.05.17	CCTL
8.	Dipole Validation Kits	Speag	D5GHzV2	1102	2023.05.19	2026.05.18	CCTL
9.	Attenuator	N/A	1527	001	2023.09.15	2024.09.14	CCIC
10.	Date Acquisition Electronics	Speag	DAE4	899	2024.06.06	2025.06.05	CCTL
11.	E-Field Probe	Speag	EX3DV4	3809	2023.09.18	2024.09.17	CCTL
12.	Test Software	Schmid&Partner Englinnering AG	DASY5	52.8.7.1137	NCR	NCR	NCR
13.	Radio Communication Analyzer	Anritsu	MT8821C	6201547828	2024.03.16	2025.03.15	CCIC
14.	Radio Communication Analyzer	Rohde & Schwarz	CMW500	103249	2023.09.15	2024.09.14	CCIC

Note 1: Calibration Method

- a): Calibration conducted by the National Institute of Information and Communications Technology ~ NICT ~ or a designated calibration agency under Article 102-18 paragraph (1) ~ TELEC Engineering Center, Intertek Japan K.K., Keysight Technologies, Inc ~.
- b): Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) ~ Japan Calibration Service System ~
- c): Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1) ~ TELEC Engineering Center, Intertek Japan K.K., Keysight Technologies, Inc ~.
- d): Calibration conducted by using other equipment that listed above from a) to c)

Note 2: CCIC (Shenzhen) Metrology & Testing Service Co., Ltd

Addr : ShengHui Hongxing Chuangzhi Square, Tongren Road, Tianliao Community, Yutang Street, Guangming District, Shenzhen

2.9.Laboratory Environment

Temperature	Min:20℃,Max.25℃
Relative humidity	Min. = 45%, Max. = 70%
Note: Ambient noise is checked and found very low and in compliance with requirement of standards.	

2.10.Measurement Uncertainty

Test Item	Uncertainty
Uncertainty for SAR test	1g: ±21.2
	10g: ±20.7
Uncertainty for test site temperature and humidity	±0.6℃

Source	Type	Uncertainty Value (%)	Probability Distribution	K	C1(1g)	C1(10g)	Standard uncertainty u _i (%)1g	Standard uncertainty u _i (%)10g	Degree of freedom V _{eff} or V _i
Measurement system repeatability	A	0.5	N	1		1	0.5	0.5	9
Probe calibration	B	5.9	N	1	1	1	5.9	5.9	∞
Isotropy	B	4.7	R	√3	1	1	2.7	2.7	∞
Linearity	B	4.7	R	√3	1	1	2.7	2.7	∞
Probe modulation response	B	0	R	√3	1	1	0	0	∞
Detection limits	B	1.0	R	√3	1	1	0.6	0.6	∞
Boundary effect	B	1.9	R	√3	1	1	1.1	1.1	∞
Readout electronics	B	1.0	N	1	1	1	1.0	1.0	∞
Response time	B	0	R	√3	1	1	0	0	∞
Integration time	B	4.32	R	√3	1	1	2.5	2.5	∞
RF ambient conditions – noise	B	0	R	√3	1	1	0	0	∞
RF ambient conditions – reflections	B	3	R	√3	1	1	1.73	1.73	∞
Probe positioner mech. restrictions	B	0.4	R	√3	1	1	0.2	0.2	∞
Probe positioning with respect to phantom shell	B	2.9	R	√3	1	1	1.7	1.7	∞
Post-processing	B	0	R	√3	1	1	0	0	∞
Test sample related									
Device holder uncertainty	A	2.94	N	1	1	1	2.94	2.94	M-1
Test sample positioning	A	4.1	N	1	1	1	4.1	4.1	M-1
Power scaling	B	5.0	R	√3	1	1	2.9	2.9	∞
Drift of output power (measured SAR drift)	B	5.0	R	√3	1	1	2.9	2.9	∞
Phantom and set-up									
Phantom uncertainty (shape and thickness tolerances)	B	4.0	R	√3	1	1	2.3	2.1	∞
Algorithm for correcting SAR for deviations in permittivity and conductivity	B	1.9	N	1	1	0.84	1.9	1.6	∞
Liquid conductivity (meas.)	A	0.55	N	1	0.78	0.71	0.24	0.21	M-1
Liquid permittivity (meas.)	A	0.19	N	1	0.23	0.26	0.09	0.06	M
Liquid permittivity – temperature uncertainty	A	5.0	R	√3	0.78	0.71	1.4	1.1	∞
Liquid conductivity – temperature uncertainty	A	5.0	R	√3	0.23	0.26	1.2	0.8	∞
Combined standard uncertainty	$u_c = \sqrt{\sum_{i=1}^{23} c_i^2 u_i^2}$						10.57	10.32	
Expanded uncertainty (95 % conf. interval)	$u_E = 2u_c$		N	K=2			21.14	20.64	

3. STATEMENT OF COMPLIANCE

The maximum results of Specific Absorption Rate (SAR) found during testing for TCL Communications Ltd. Tablet PC 8188X are as follows:

Highest Reported SAR (1g)

Band	1g SAR (W/kg)
	Body
Bluetooth	0.42
WLAN 2.4GHz	0.80
WLAN 5GHz	1.17

The maximum SAR value of body value is 1.17W/kg (1g).

The SAR values found for the EUT are below the maximum recommended levels as averaged over any 1g tissue according to the ANSI C95.1:1992

Maximum Simultaneous Transmission SAR

/	Position	SUM(W/Kg)
Highest reported SAR value for Body	Back Side 0mm (WLAN 5GHz+Bluetooth)	1.51

Note: The test position of above tables are for the worse case that has been evaluated.

4. MEASURE PROCEDURES

4.1. General description of test procedures

For the 802.11b/g SAR body tests, a communication link is set up with the test mode software for WIFI mode test. During the test, at the each test frequency channel, the EUT is operated at the RF continuous emission mode. Each channel should be tested at the lowest data rate. Testing at higher data rates is not required when the maximum average output power is less than 0.25dB higher than those measured at the lowest data rate. SAR is not required for 802.11g channels when the maximum average output power is less than 0.25dB higher than that measured on the corresponding 802.11b channels. The same test procedure for 802.11a/n/ac mode.

5. SAR MEASUREMENTS SYSTEM

5.1.SAR Measurement Set-up

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. It issues 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. A computer operating Windows 2003.
- (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.

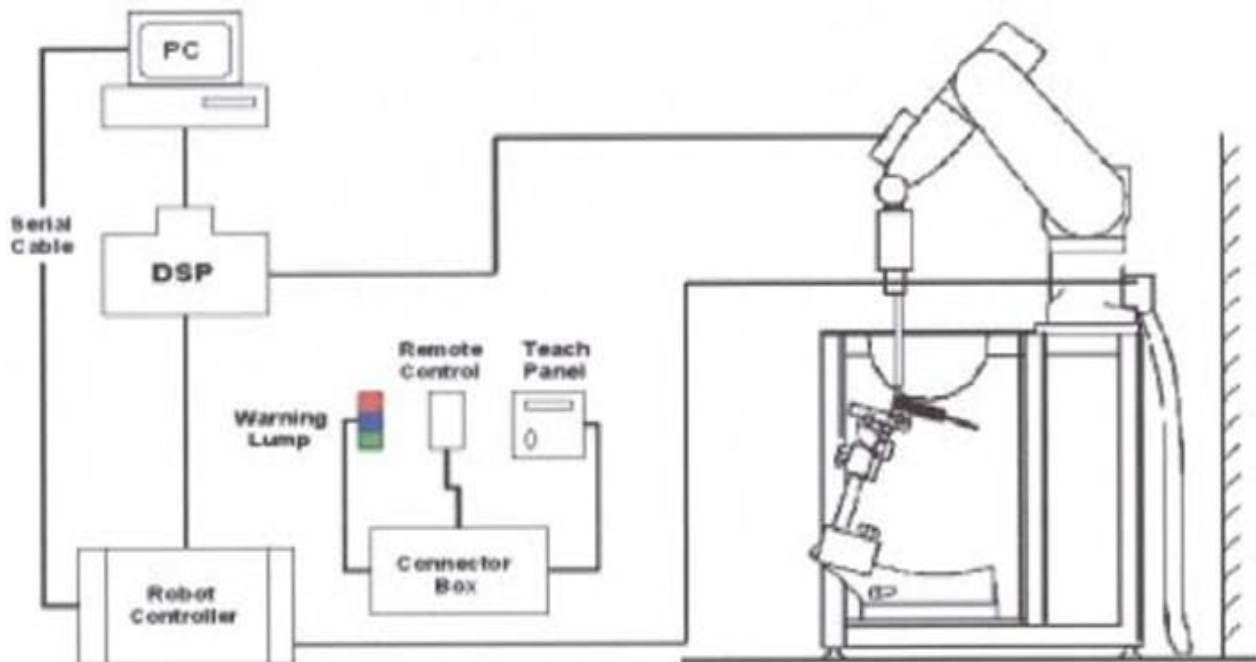


Figure 4.1 SAR Lab Test Measurement Set-up

5.2.ELI Phantom

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

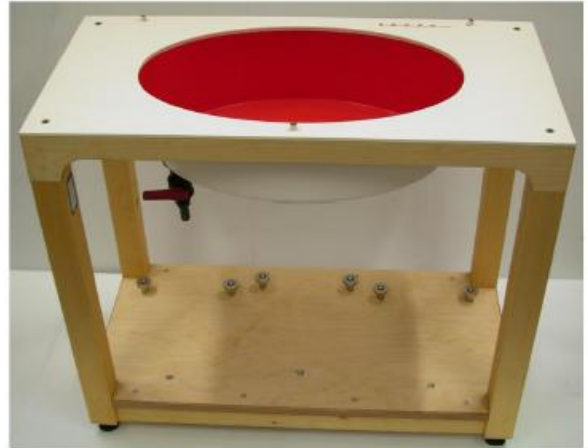


Figure 4.2 Top View of Twin Phantom

Material	Vinylester, glass fiber reinforced (VE-GF)
Liquid Compatibility	Compatible with all SPEAG tissue simulating liquids (incl. DGBE type)
Shell Thickness	2.0 ± 0.2 mm (bottom plate)
Dimensions	Major axis: 600 mm Minor axis: 400 mm
Filling Volume	approx. 30 liters
Wooden Support	SPEAG standard phantom table

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.

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

*Water-sugar based liquid

*Glycol based liquids

5.3. 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 in 5 mm distance, a positioning uncertainty of $\pm 0.5\text{mm}$ would produce a SAR uncertainty of $\pm 20\%$. An accurate device position is therefore crucial for accurate and repeatable measurement. The position in which the devices must be measured, are defined by the standards.

The DASY5 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 centers for both scales is the ear reference point (EPR).

Thus the device needs no repositioning when changing the angles.

The DASY5 device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity $\epsilon_r=3$ and loss tangent $\tan\delta = 0.02$. 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.

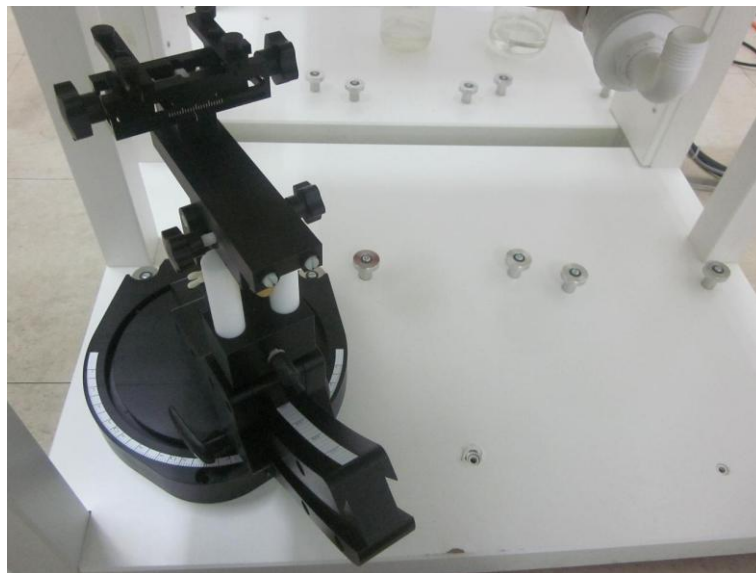


Figure 4.3 Device Holder

5.4.DASY5 E-field Probe System

The SAR measurements were conducted with the dosimetric probe EX3DV4 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.



Figure 4.4 EX3DV4 E-field Probe

5.4.1. EX3DV4 Probe Specification

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 μ W/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)
Dimensions	Overall length: PRS-T2 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.

5.5.E-field Probe Calibration

Each probe is calibrated according to a dosimetric assessment procedure with accuracy better than $\pm 10\%$. The spherical isotropy was evaluated and found to be better than $\pm 0.25\text{dB}$. The sensitivity parameters (Norm X, Norm Y, Norm Z), the diode compression parameter (DCP) and the conversion factor (Conv F) of the probe are tested.

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies below 1 GHz, and in a wave guide above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The measured free space E-field in the medium correlates to temperature rise in a dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$\text{SAR} = C \frac{\Delta T}{\Delta t}$$

Where: Δt = Exposure time (30 seconds),
 C = Heat capacity of tissue (brain or muscle),
 ΔT = Temperature increase due to RF exposure.
Or

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

Where:
 σ = Simulated tissue conductivity,
 ρ = Tissue density (kg/m^3).

5.6. Scanning procedure

The DASY5 installation includes predefined files with recommended procedures for measurements and validation. They are read-only document files and destined as fully defined but unmeasured masks. All test positions (head or body-worn) are tested with the same configuration of test steps differing only in the grid definition for the different test positions.

The "reference" and "drift" measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the EUT's output power and should vary max. $\pm 5\%$.

The "surface check" measurement tests the optical surface detection system of the DASY5 system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above $\pm 0.1\text{mm}$). To prevent wrong results tests are only executed when the liquid is free of air bubbles.

The difference between the optical surface detection and the actual surface depends on the Probe and is specified with each probe. (It does not depend on the surface reflectivity or the probe angle to the surface within $\pm 30^\circ$.)

Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values before running a detailed measurement around the hot spot. Before starting the area scan a grid spacing of 15 mm x 15 mm is set. During the scan the distance of the probe to the phantom remains unchanged.

After finishing area scan, the field maxima within a range of 2 dB will be ascertained.

Zoom Scan

Zoom Scans are used to estimate the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. The default Zoom Scan is done by 7x7x7 points within a cube whose base is centered around the maxima found in the preceding area scan.

Spatial Peak Detection

The procedure for spatial peak SAR evaluation has been implemented and can determine values of masses of 1g and 10g, as well as for user-specific masses. The DASY5 system allows evaluations that combine measured data and robot positions, such as:

- maximum search
- extrapolation
- boundary correction
- peak search for averaged SAR

During a maximum search, global and local maxima searches are automatically performed in 2-D after each Area Scan measurement with at least 6 measurement points. It is based on the evaluation of the local SAR gradient calculated by the Quadratic Shepard's method. The algorithm will find the global maximum and all local maxima within -2 dB of the global maxima for all SAR distributions.

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. Several measurements at different distances are necessary for the extrapolation. Extrapolation routines require at least 10 measurement points in 3-D space. They are used in the Zoom Scan to obtain SAR values between the lowest measurement points and the inner phantom surface. The routine uses the modified Quadratic Sheppard's method for extrapolation. For a grid using 7x7x7 measurement points with 5mm resolution amounting to 343 measurement points, the uncertainty of the extrapolation routines is less than 1% for 1g and 10g cubes.

A Z-axis scan measures the total SAR value at the x-and y-position of the maximum SAR value found during the cube 7x7x7 scan. The probe is moved away in z-direction from the bottom of the SAM phantom in 5mm steps.

6. DATA STORAGE AND EVALUATION

6.1.Data Storage

The DASY5 software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension ".DA4". The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated.

The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [mW/g], [mW/cm²], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

6.2.Data Evaluation by SEMCAD

The SEMCAD software 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	Normi, ai0, ai1, ai2
- Conversion factor	ConvFi
- Diode compression point	Dcpi

Device parameters: - Frequency
- Crest factor cf

Media parameters: - Conductivity
- Density

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 DASY5 components. In the direct measuring mode of the millimeter 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:

$$V_i = U_i + U_i^2 \cdot c_f / d_{cpi}$$

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)

dcpi = diode compression point (DASY parameter)

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

E-field probes: $E_i = (V_i / \text{Norm}_i \cdot \text{ConvF})^{1/2}$

H-field probes: $H_i = (V_i)^{1/2} \cdot (a_{i0} + a_{i1} f + a_{i2} f^2) / f$

With V_i = compensated signal of channel i ($i = x, y, z$)

Norm_i = sensor sensitivity of channel i ($i = x, y, z$)

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

H_i = magnetic field strength of channel i in A/m

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

$$E_{\text{tot}} = (E_x^2 + E_y^2 + E_z^2)^{1/2}$$

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

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

with

SAR = local specific absorption rate in mW/g

E_{tot} = total field strength in V/m

= conductivity in [mho/m] or [Siemens/m]

= equivalent tissue density in g/cm³

Note that the density is normally set to 1 (or 1.06), to account for actual brain density rather than the density of the simulation liquid. The power flow density is calculated assuming the excitation field to be a free space field.

$$P_{\text{pwe}} = E_{\text{tot}}^2 / 3770 \quad \text{or} \quad P_{\text{pwe}} = H_{\text{tot}}^2 \cdot 37.7$$

with P_{pwe} = equivalent power density of a plane wave in mW/cm²

E_{tot} = total electric field strength in V/m

H_{tot} = total magnetic field strength in A/m

7. SYSTEM CHECK

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulates were measured every day using the dielectric probe kit and the network analyzer. A system check measurement was made following the determination of the dielectric parameters of the simulates, using the dipole validation kit. A power level of 250 mW was supplied to the dipole antenna, which was placed under the flat section of the twin SAM phantom. The system check results (dielectric parameters and SAR values) are given in the ANNEX A.

System check results have to be equal or near the values determined during dipole calibration with the relevant liquids and test system ($\pm 10\%$).

System check is performed regularly on all frequency bands where tests are performed with the DASY5 system.

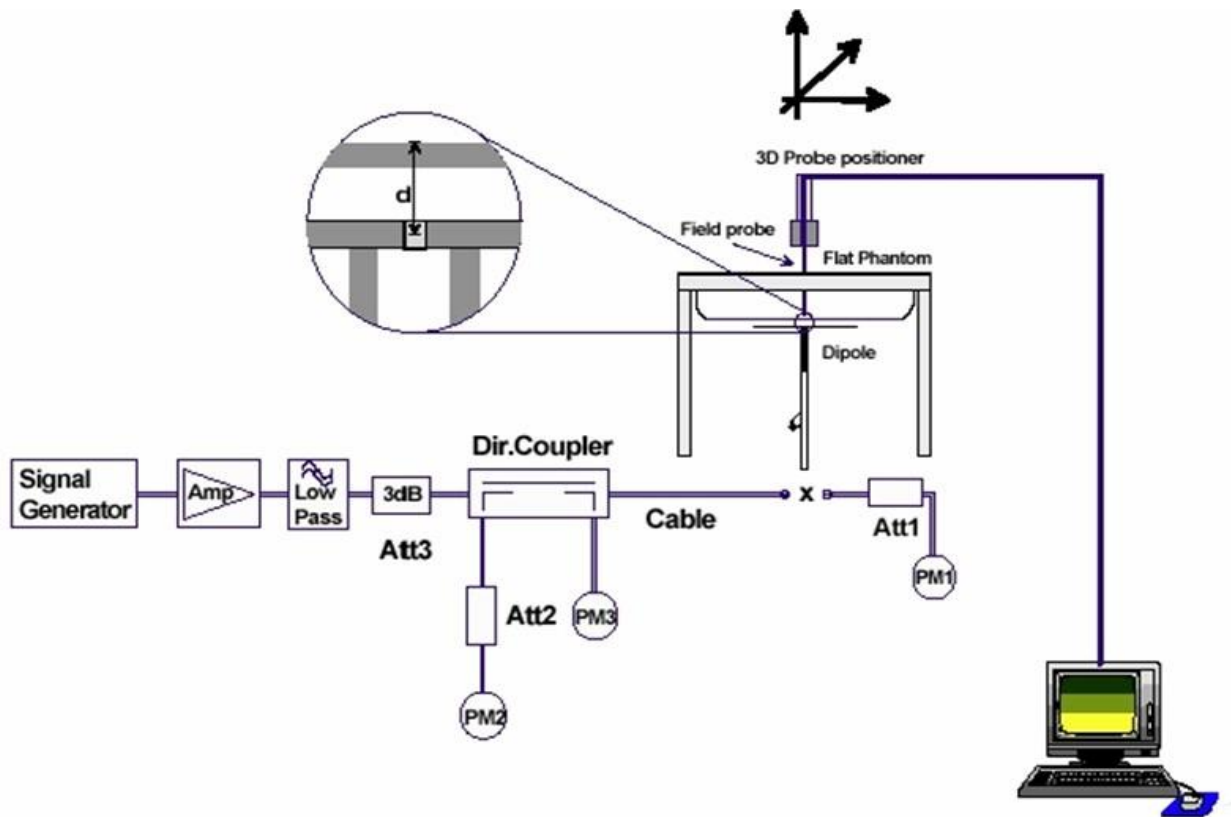


Figure 6.1: System Check Set-up



8. TEST RESULTS

8.1. Output power

Sensor On Power Table

WIFI 2.4G Power Table				
Mode	Channel	power setting	Gain	power
11b	CH1	14	1.92	11.69
	CH6		1.92	11.79
	CH11		1.92	11.71

WIFI Band1 Power Table				
Mode	Channel	power setting	Gain	power
11a	CH36	11	0.58	7.92
	CH40		0.58	7.9
	CH48		0.58	7.93

WIFI Band2A Power Table				
Mode	Channel	power setting	Gain	power
11a	CH52	11	0.58	7.69
	CH60		0.58	7.73
	CH64		0.58	7.77

WIFI Band2C Power Table				
Mode	Channel	power setting	Gain	power
11a	CH100	11	0.58	7.91
	CH120		0.58	8.01
	CH140		0.58	7.95

WIFI Band3 Power Table				
Mode	Channel	power setting	Gain	power
11a	CH149	11	0.58	8.12
	CH157		0.58	8.09
	CH165		0.58	8.1

BT3.0 Power Table			
MODE	Channel	Power set	Peak output power(dbm)
GFSK	CH0	9	5.244
	CH39	9	6.472
	CH78	9	8.065
8-DPSK	CH0	9	5.393
	CH39	9	6.698
	CH78	9	8.301

Sensor Off Power Table

WIFI 2.4G Power Table				
Mode	Channel	power setting	duty cycle factor	Antenna Power (dBm)
11b	CH1	18.5	0.00	15.43
	CH6		0.00	15.72
	CH11		0.00	15.48
11g	CH1	19	0.10	15.80
	CH6		0.10	16.10
	CH11		0.10	15.65
11n HT20	CH1	18	0.11	14.95
	CH6		0.11	14.82
	CH11		0.11	14.80
11n HT40	CH3	16.5	0.22	14.10
	CH6		0.22	13.95
	CH9		0.22	13.63

WIFI Band1 Power Table

Mode	Channel	power setting	duty cycle factor	Antenna Power (dBm)
11a	CH36	17	0.10	13.99
	CH40		0.10	13.98
	CH48		0.10	14.46
11n HT20	CH36	17	0.13	13.74
	CH40		0.13	13.94
	CH48		0.13	14.22
11n HT40	CH38	15	0.25	11.89
	CH46		0.25	12.06
11ac VHT20	CH36	15	0.12	11.33
	CH40		0.12	11.82
	CH48		0.12	12.05
11ac VHT40	CH38	17	0.23	13.41
	CH46		0.23	13.55
11ac VHT80	CH42	17	0.48	13.45

WIFI Band2A Power Table				
Mode	Channel	power setting	duty cycle factor	Antenna Power (dBm)
11a	CH52	17	0.10	14.49
	CH60		0.10	14.60
	CH64		0.10	14.05
11n HT20	CH52	17	0.12	13.88
	CH60		0.12	13.86
	CH64		0.12	13.91
11n HT40	CH54	15	0.25	11.53
	CH62		0.25	11.69
11ac VHT20	CH52	15	0.12	12.06
	CH60		0.12	12.11
	CH64		0.12	11.69
11ac VHT40	CH54	17	0.22	13.48
	CH62		0.22	13.58
11ac VHT80	CH58	17	0.49	13.43

WIFI Band2C Power Table				
Mode	Channel	power setting	duty cycle factor	Antenna Power (dBm)
11a	CH100	17	0.11	13.95
	CH120		0.11	14.16
	CH144		0.11	14.09
11n HT20	CH100	17	0.12	13.93
	CH120		0.12	14.11
	CH144		0.12	14.03
11n HT40	CH102	15	0.25	11.88
	CH118		0.25	11.91
	CH142		0.25	11.98
11ac VHT20	CH100	15	0.11	12.46
	CH120		0.11	12.45
	CH144		0.11	11.83
11ac VHT40	CH102	17	0.24	13.99
	CH118		0.24	14.10
	CH142		0.24	14.08
11ac VHT80	CH155	17	0.49	14.18
	CH122		0.49	14.12
	CH138		0.49	14.04

WIFI Band3 Power Table				
Mode	Channel	power setting	duty cycle factor	Antenna Power (dBm)
11a	CH149	17	0.10	14.24
	CH157		0.10	14.02
	CH165		0.10	14.02
11n HT20	CH149	17	0.12	14.13
	CH157		0.12	13.95
	CH165		0.12	13.96
11n HT40	CH151	15	0.25	11.85
	CH159		0.25	11.80
11ac VHT20	CH149	15	0.11	11.95
	CH157		0.11	11.76
	CH165		0.11	11.80
11ac VHT40	CH151	15	0.23	11.85
	CH159		0.23	11.71
11ac VHT80	CH155	15	0.47	11.81

BT3.0 Power Table			
MODE	Channel	Power set	Peak output power(dbm)
GFSK	CH0	9	5.622
	CH39	9	5.911
	CH78	9	7.811
8-DPSK	CH0	9	5.570
	CH39	9	5.094
	CH78	9	7.902

BLE 1M			
Mode	Channel	Power set	Peak output power(dbm)
BLE	CH0	7	1.271
	CH19	7	2.434
	CH39	7	2.695

BLE 2M			
Mode	Channel	Power set	Peak output power(dbm)
BLE	CH1	7	1.577
	CH19	7	2.505
	CH38	7	2.770

8.2.System Check & Tissue simulating liquid

Frequency	Description	SAR		Dielectric Parameters (±10% for window)		Temp
		1g	10g	εr	σ(s/m)	℃
2450MHz	Recommended value	13.5 10.962-16.038	6.29 5.11377-7.46623	39.2 35.28-43.12	1.80 1.62-1.98	/
	Measurement value 2024-07-11	12.31	5.69	39.440	1.818	22.05
5200MHz	Recommended value	8.20 6.1992-10.2008	2.32 1.75856-2.88144	35.5 31.95-39.05	5.07 4.563-5.577	/
	Measurement value 2024-07-13	8.15	2.37	35.523	4.513	22.03
5300MHz	Recommended value	8.20 6.1992-10.2008	2.32 1.75856-2.88144	35.5 31.95-39.05	5.07 4.563-5.577	/
	Measurement value 2024-07-13	8.16	2.38	35.496	4.5152	22.03
5600MHz	Recommended value	8.20 6.1992-10.2008	2.32 1.75856-2.88144	35.5 31.95-39.05	5.07 4.563-5.577	/
	Measurement value 2024-07-15	7.42	2.14	35.153	4.847	22.03
5800MHz	Recommended value	8.20 6.1992-10.2008	2.32 1.75856-2.88144	35.5 31.95-39.05	5.07 4.563-5.577	/
	Measurement value 2024-07-15	7.80	2.26	35.217	5.286	22.03

Test Laboratory: Audix SAR Lab

Date: 11/07/2024

CW 2450

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:862

Communication System: UID 0, CW (0); Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.818 \text{ S/m}$; $\epsilon_r = 39.440$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(7.46, 7.04, 6.83); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CW 2450MHz/Area Scan (61x71x1): Interpolated grid: $dx=2.000$

mm, $dy=2.000$ mm

Maximum value of SAR (interpolated) = 13.842 W/kg

Configuration/CW 2450MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid:

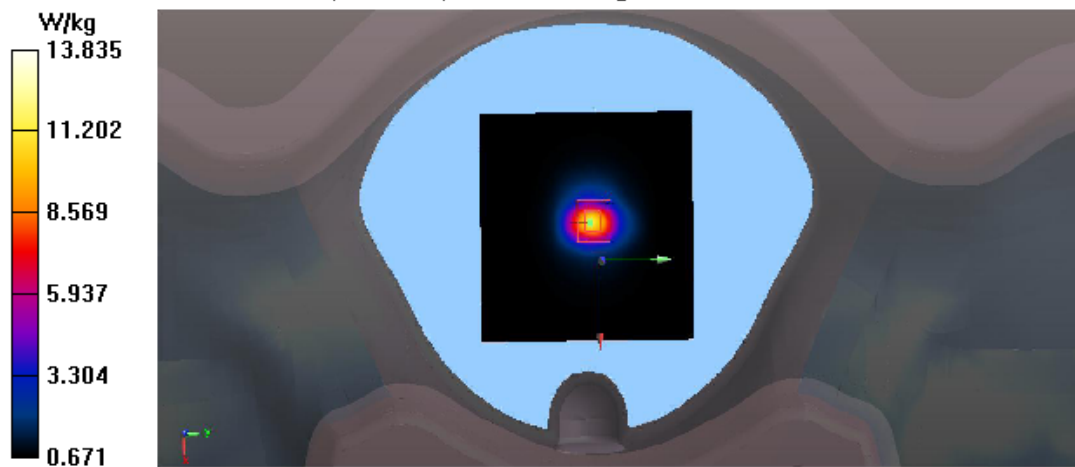
$dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 89.27 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 27.27 W/kg

SAR(1 g) = 12.31 W/kg; SAR(10 g) = 5.69 W/kg

Maximum value of SAR (measured) = 13.835 W/kg



Test Laboratory: Audix SAR Lab

Date: 13/07/2024

CW 5200

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1102

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5200 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 4.513 \text{ S/m}$; $\epsilon_r = 35.523$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(5.79, 5.57, 5.33); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CW 5200MHz/Area Scan (61x71x1): Interpolated grid: $dx=2.000$

mm, $dy=2.000$ mm

Maximum value of SAR (interpolated) = 5.95 W/kg

Configuration/CW 5200MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid:

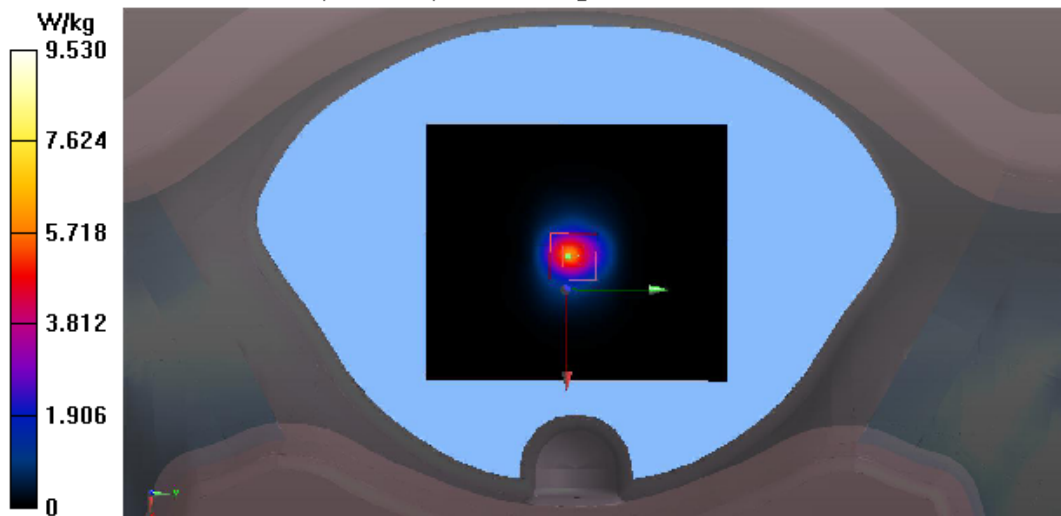
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 46.69 V/m ; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 28.6 W/kg

SAR(1 g) = 8.15 W/kg ; SAR(10 g) = 2.37 W/kg

Maximum value of SAR (measured) = 9.53 W/kg



Test Laboratory: Audix SAR Lab

Date: 13/07/2024

CW 5300

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1102

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5300 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 5300 \text{ MHz}$; $\sigma = 4.515 \text{ S/m}$; $\epsilon_r = 35.496$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(5.53, 5.43, 5.18); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CW 5300MHz/Area Scan (61x71x1): Interpolated grid: $dx=2.000$

mm, $dy=2.000$ mm

Maximum value of SAR (interpolated) = 5.59 W/kg

Configuration/CW 5300MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid:

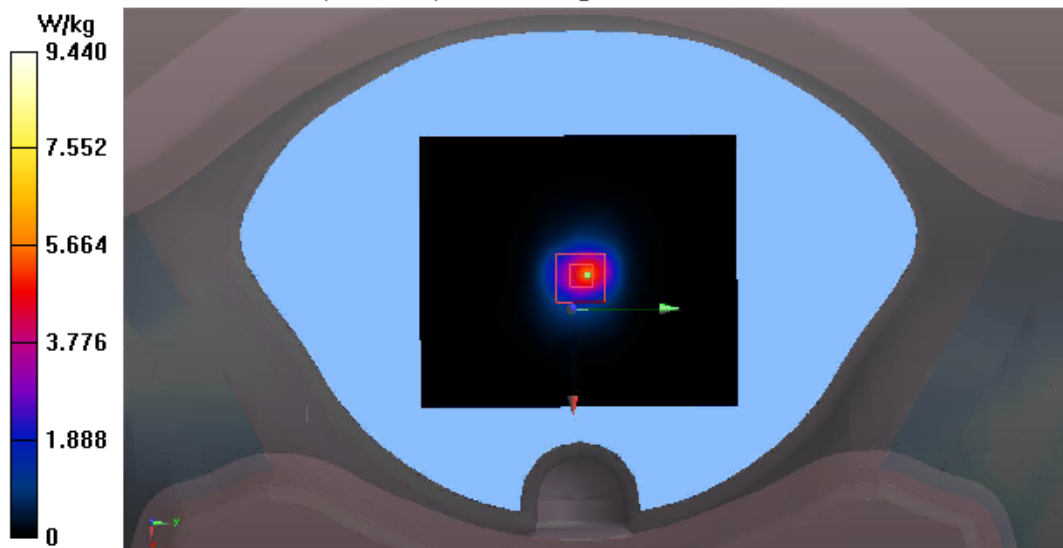
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 46.16 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 28.7 W/kg

SAR(1 g) = 8.16 W/kg; SAR(10 g) = 2.38 W/kg

Maximum value of SAR (measured) = 9.44 W/kg



Test Laboratory: Audix SAR Lab

Date: 15/07/2024

CW 5600

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1102

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5600 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 5600$ MHz; $\sigma = 4.847$ S/m; $\epsilon_r = 35.153$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(4.91, 4.61, 4.49); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CW 5600MHz/Area Scan (61x71x1): Interpolated grid: dx=2.000

mm, dy=2.000 mm

Maximum value of SAR (interpolated) = 5.41 W/kg

Configuration/CW 5600MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid:

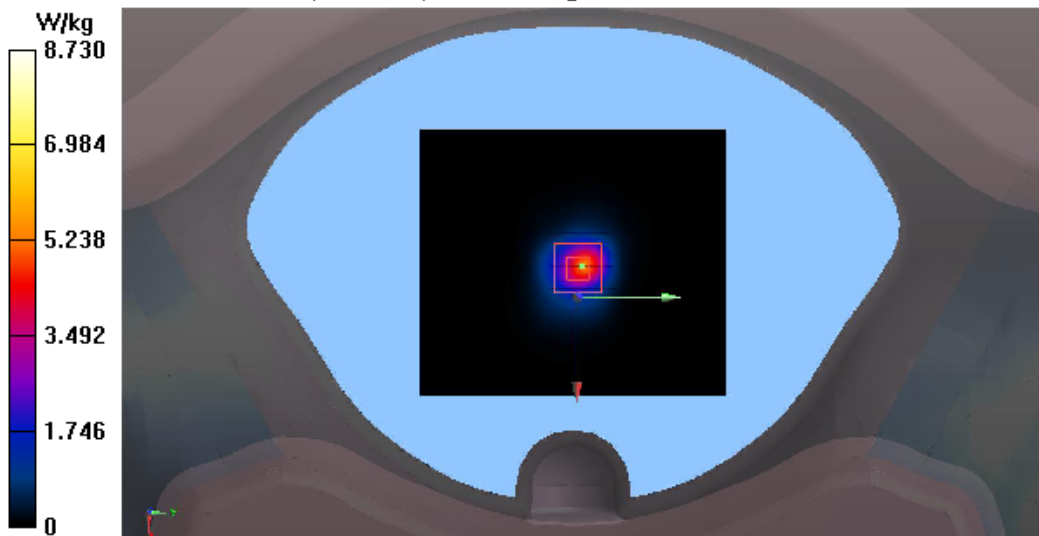
dx=5mm, dy=5mm, dz=5mm

Reference Value = 39.94 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 27.4 W/kg

SAR(1 g) = 7.42 W/kg; SAR(10 g) = 2.14 W/kg

Maximum value of SAR (measured) = 8.73 W/kg



Test Laboratory: Audix SAR Lab

Date: 15/07/2024

CW 5800

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1102

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5800 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 5800 \text{ MHz}$; $\sigma = 5.286 \text{ S/m}$; $\epsilon_r = 35.217$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(4.77, 4.74, 4.51); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CW 5800MHz/Area Scan (61x71x1): Interpolated grid: $dx=2.000$

mm, $dy=2.000$ mm

Maximum value of SAR (interpolated) = 5.62 W/kg

Configuration/CW 5800MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid:

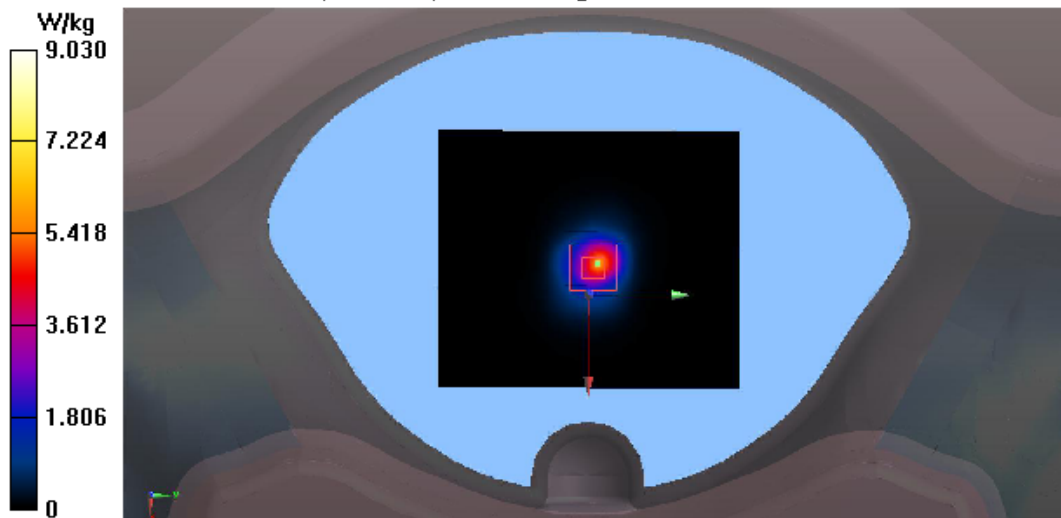
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 38.96 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 28.9 W/kg

SAR(1 g) = 7.80 W/kg; SAR(10 g) = 2.26 W/kg

Maximum value of SAR (measured) = 9.03 W/kg



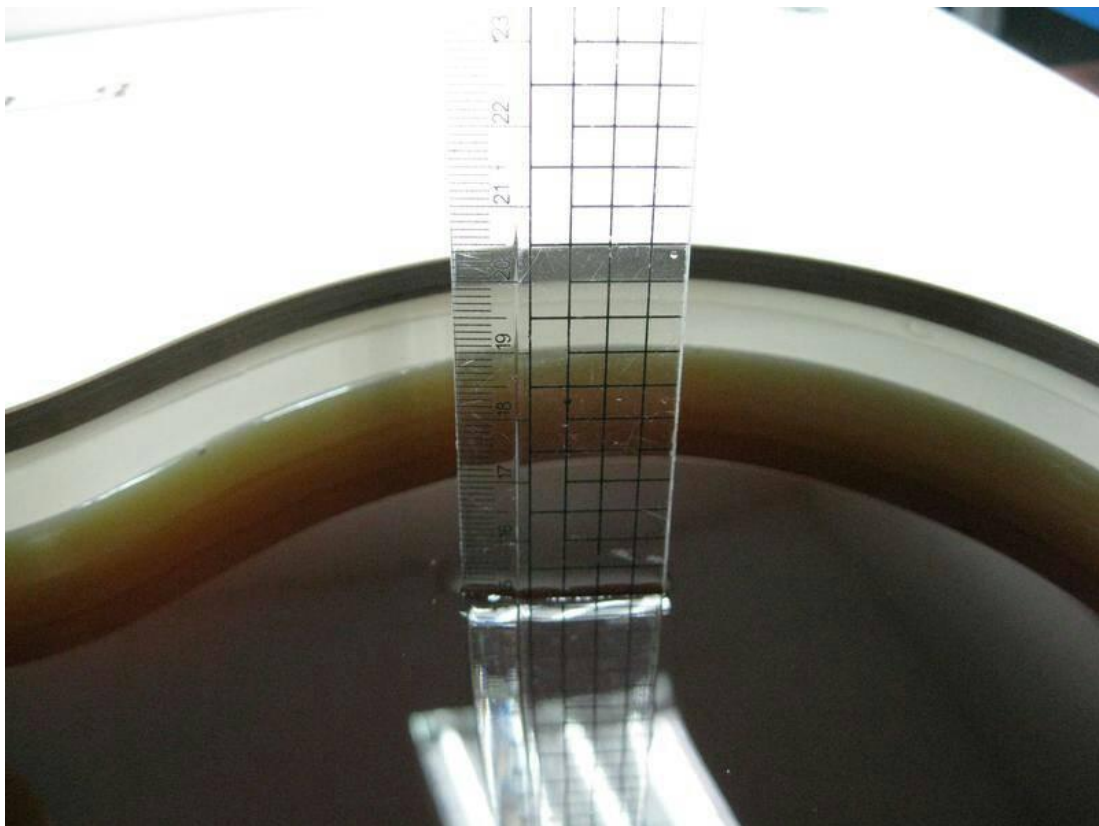
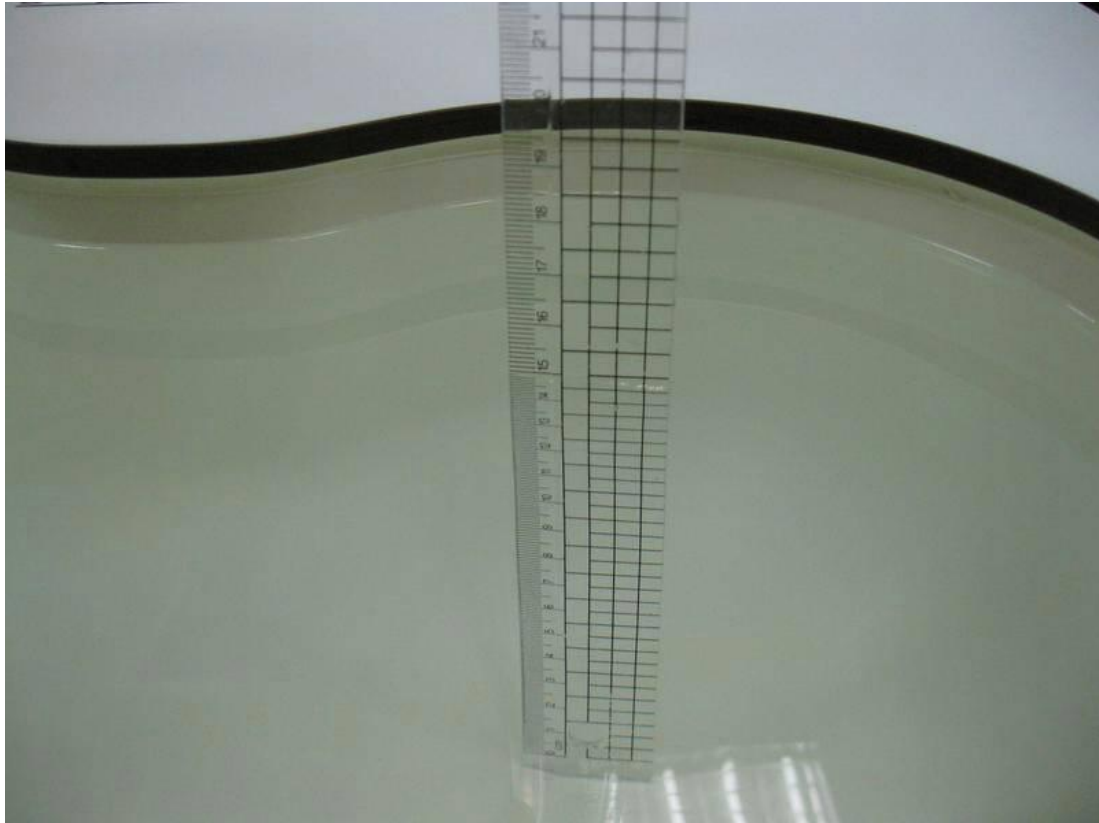


Figure 4.4: Liquid depth in the Flat Phantom

8.3.Test Results

Test Mode: BT
Sensor off

SAR Test Record For BT Powersetting:9

Test distance	Test Position	Test CH	Duty Cycle	Measure SAR 1g(W/kg)	Measure SAR 10g(W/kg)	Conducted Power(dBm)	Tune up Power(dBm)	Factor	Scaled Final SAR 1g(W/kg)	Scaled Final SAR 10g(W/kg)	power drift
0mm	Back	78	0.8	0.26	0.0996	7.902	9	1.287656	0.42	0.16	-0.1
0mm	Top	78	0.8	0.054	0.0208	7.902	9	1.287656	0.09	0.03	0
0mm	Left	78	0.8	0.0845	0.0299	7.902	9	1.287656	0.14	0.05	0.2

Conclusion: PASS

Note:

Factor= Max. Scaled AV Power(W)/Measured Power(W)

Scaled SAR-1= Measured SAR*Factor

Scaled-Final= Scaled SAR-1*(1/Duty Cycle)

Test Mode: WIFI 2.4GHz(11b)
Sensor off

SAR Test Record For WIFI 2.4G Powersetting:18.5

Test distance	Test Position	Test CH	Duty Cycle	Measure SAR 1g(W/kg)	Measure SAR 10g(W/kg)	Conducted Power(dBm)	Tune up Power(dBm)	Factor	Scaled Final SAR 1g(W/kg)	Scaled Final SAR 10g(W/kg)	power drift
13mm	Back	6	1	0.146	0.071	15.72	16	1.066596	0.16	0.08	-0.02
13mm	Top	6	1	0.071	0.037	15.72	16	1.066596	0.08	0.04	-0.17
13mm	Left	6	1	0.193	0.092	15.72	16	1.066596	0.21	0.10	-0.01

Conclusion: PASS

Note:

Factor= Max. Scaled AV Power(W)/Measured Power(W)

Scaled SAR-1= Measured SAR*Factor

Scaled-Final= Scaled SAR-1*(1/Duty Cycle)

Sensor on

SAR Test Record For WIFI 2.4G Powersetting:14

Test distance	Test Position	Test CH	Duty Cycle	Measure SAR 1g(W/kg)	Measure SAR 10g(W/kg)	Conducted Power(dBm)	Tune up Power(dBm)	Factor	Scaled Final SAR 1g(W/kg)	Scaled Final SAR 10g(W/kg)	power drift
0mm	Back	6	1	0.604	0.228	11.79	13	1.321296	0.80	0.30	-0.02
0mm	Top	6	1	0.177	0.0622	11.79	13	1.321296	0.23	0.08	0
0mm	Left	6	1	0.327	0.12	11.79	13	1.321296	0.43	0.16	0
0mm	Back	1	1	0.588	0.241	11.69	13	1.352073	0.80	0.33	-0.15
0mm	Back	11	1	0.589	0.234	11.71	13	1.34586	0.79	0.31	-0.01

Conclusion: PASS

Note:

Factor= Max. Scaled AV Power(W)/Measured Power(W)

Scaled SAR-1= Measured SAR*Factor

Scaled-Final= Scaled SAR-1*(1/Duty Cycle)

Test Mode: WIFI 5GHz-Band 1(11a)
Sensor off

SAR Test Record For WIFI 5G Powersetting:17

Test distance	Test Position	Test CH	Duty Cycle	Measure SAR 1g(W/kg)	Measure SAR 10g(W/kg)	Conducted Power(dBm)	Tune up Power(dBm)	Factor	Scaled Final SAR 1g(W/kg)	Scaled Final SAR 10g(W/kg)	power drift
13mm	Back	48	1	0.654	0.25	14.46	15	1.1324	0.74	0.28	0
13mm	Top	48	1	0.313	0.136	14.46	15	1.1324	0.35	0.15	0.09
13mm	Left	48	1	0.652	0.269	14.46	15	1.1324	0.74	0.30	-0.15
13mm	Back	36	1	0.637	0.191	13.99	15	1.261828	0.80	0.24	-0.01
13mm	Back	40	1	0.641	0.213	13.98	15	1.264736	0.81	0.27	0.03

Conclusion: PASS

Note:

Factor= Max. Scaled AV Power(W)/Measured Power(W)

Scaled SAR-1= Measured SAR*Factor

Scaled-Final= Scaled SAR-1*(1/Duty Cycle)

Sensor on

SAR Test Record For WIFI 5G Powersetting:11

Test distance	Test Position	Test CH	Duty Cycle	Measure SAR 1g(W/kg)	Measure SAR 10g(W/kg)	Conducted Power(dBm)	Tune up Power(dBm)	Factor	Scaled Final SAR 1g(W/kg)	Scaled Final SAR 10g(W/kg)	power drift
0mm	Back	48	1	0.772	0.177	7.93	9	1.279381	0.99	0.23	0
0mm	Top	48	1	0.283	0.101	7.93	9	1.279381	0.36	0.13	-0.14
0mm	Left	48	1	0.403	0.127	7.93	9	1.279381	0.52	0.16	0
0mm	Back	36	1	0.733	0.165	7.88	9	1.294196	0.95	0.21	0.11
0mm	Back	40	1	0.744	0.158	7.89	9	1.291219	0.96	0.20	0.07

Conclusion: PASS

Note:

Factor= Max. Scaled AV Power(W)/Measured Power(W)

Scaled SAR-1= Measured SAR*Factor

Scaled-Final= Scaled SAR-1*(1/Duty Cycle)

Test Mode: WIFI 5GHz-Band 2(11a)
Sensor off

SAR Test Record For WIFI 5G Powersetting:17

Test distance	Test Position	Test CH	Duty Cycle	Measure SAR 1g(W/kg)	Measure SAR 10g(W/kg)	Conducted Power(dBm)	Tune up Power(dBm)	Factor	Scaled Final SAR 1g(W/kg)	Scaled Final SAR 10g(W/kg)	power drift
13mm	Back	64	1	0.689	0.267	14.05	16	1.566751	1.08	0.42	0.03
13mm	Top	64	1	0.473	0.196	14.05	16	1.566751	0.74	0.31	-0.06
13mm	Left	64	1	0.669	0.275	14.05	16	1.566751	1.05	0.43	-0.19
13mm	Back	52	1	0.635	0.253	14.49	16	1.415794	0.90	0.36	-0.03
13mm	Back	60	1	0.655	0.26	14.6	16	1.380384	0.90	0.36	0.02
13mm	Left	52	1	0.616	0.237	14.49	16	1.415794	0.87	0.34	0.01
13mm	Left	60	1	0.628	0.268	14.6	16	1.380384	0.87	0.37	0.11

Conclusion: PASS

Note:

Factor= Max. Scaled AV Power(W)/Measured Power(W)

Scaled SAR-1= Measured SAR*Factor

Scaled-Final= Scaled SAR-1*(1/Duty Cycle)

Sensor on

SAR Test Record For WIFI 5G Powersetting:11

Test distance	Test Position	Test CH	Duty Cycle	Measure SAR 1g(W/kg)	Measure SAR 10g(W/kg)	Conducted Power(dBm)	Tune up Power (dBm)	Factor	Scaled Final SAR 1g(W/kg)	Scaled Final SAR 10g(W/kg)	power drift
0mm	Back	64	1	0.656	0.162	7.77	9	1.327394	0.87	0.22	0.03
0mm	Top	64	1	0.305	0.109	7.77	9	1.327394	0.40	0.14	0.01
0mm	Left	64	1	0.408	0.129	7.77	9	1.327394	0.54	0.17	0
0mm	Back	52	1	0.612	0.155	7.69	9	1.352073	0.83	0.21	0.03
0mm	Back	60	1	0.623	0.158	7.73	9	1.339677	0.83	0.21	0.07

Conclusion: PASS

Note:

Factor= Max. Scaled AV Power(W)/Measured Power(W)

Scaled SAR-1= Measured SAR*Factor

Scaled-Final= Scaled SAR-1*(1/Duty Cycle)

Test Mode: WIFI 5GHz-Band 3(11a)
Sensor off

SAR Test Record For WIFI 5G Powersetting:17

Test distance	Test Position	Test CH	Duty Cycle	Measure SAR 1g(W/kg)	Measure SAR 10g(W/kg)	Conducted Power(dBm)	Tune up Power(dBm)	Factor	Scaled Final SAR 1g(W/kg)	Scaled Final SAR 10g(W/kg)	power drift
13mm	Back	120	1	0.963	0.368	14.16	15	1.213389	1.17	0.45	0.03
13mm	Top	120	1	0.525	0.217	14.16	15	1.213389	0.64	0.26	-0.2
13mm	Left	120	1	0.481	0.207	14.16	15	1.213389	0.58	0.25	0.06
13mm	Back	100	1	0.887	0.347	13.95	15	1.273503	1.13	0.44	0.03
13mm	Back	140	1	0.855	0.356	14.09	15	1.233105	1.05	0.44	-0.01

Conclusion: PASS

Note:

Factor= Max. Scaled AV Power(W)/Measured Power(W)

Scaled SAR-1= Measured SAR*Factor

Scaled-Final= Scaled SAR-1*(1/Duty Cycle)

Sensor on

SAR Test Record For WIFI 5G Powersetting:11

Test distance	Test Position	Test CH	Duty Cycle	Measure SAR 1g(W/kg)	Measure SAR 10g(W/kg)	Conducted Power(dBm)	Tune up Power(dBm)	Factor	Scaled Final SAR 1g(W/kg)	Scaled Final SAR 10g(W/kg)	power drift
0mm	Back	120	1	0.871	0.243	8.01	9	1.25603	1.09	0.31	0
0mm	Top	120	1	0.374	0.134	8.01	9	1.25603	0.47	0.17	-0.16
0mm	Left	120	1	0.484	0.153	8.01	9	1.25603	0.61	0.19	0
0mm	Back	100	1	0.843	0.233	7.91	9	1.285287	1.08	0.30	0.1
0mm	Back	140	1	0.835	0.241	7.95	9	1.273503	1.06	0.31	0.05

Conclusion: PASS

Note:

Factor= Max. Scaled AV Power(W)/Measured Power(W)

Scaled SAR-1= Measured SAR*Factor

Scaled-Final= Scaled SAR-1*(1/Duty Cycle)

Test Mode: WIFI 5GHz- Band 4(11a)
Sensor off

SAR Test Record For WIFI 5G Powersetting:17

Test distance	Test Position	Test CH	Duty Cycle	Measure SAR 1g(W/kg)	Measure SAR 10g(W/kg)	Conducted Power(dBm)	Tune up Power(dBm)	Factor	Scaled Final SAR 1g(W/kg)	Scaled Final SAR 10g(W/kg)	power drift
13mm	Back	149	1	0.721	0.28	14.24	16	1.499685	1.08	0.42	0.1
13mm	Top	149	1	0.384	0.164	14.24	16	1.499685	0.58	0.25	-0.07
13mm	Left	149	1	0.479	0.191	14.24	16	1.499685	0.72	0.29	-0.18
13mm	Back	157	1	0.688	0.268	14.02	16	1.577611	1.09	0.42	-0.01
13mm	Back	165	1	0.671	0.273	14.02	16	1.577611	1.06	0.43	0.08

Conclusion: PASS

Note:

Factor= Max. Scaled AV Power(W)/Measured Power(W)

Scaled SAR-1= Measured SAR*Factor

Scaled-Final= Scaled SAR-1*(1/Duty Cycle)

Sensor on

SAR Test Record For WIFI 5G Powersetting:11

Test distance	Test Position	Test CH	Duty Cycle	Measure SAR 1g(W/kg)	Measure SAR 10g(W/kg)	Conducted Power(dBm)	Tune up Power (dBm)	Factor	Scaled Final SAR 1g(W/kg)	Scaled Final SAR 10g(W/kg)	power drift
0mm	Back	149	1	0.884	0.2	8.12	9	1.224616	1.08	0.24	0
0mm	Top	149	1	0.406	0.144	8.12	9	1.224616	0.50	0.18	-0.12
0mm	Left	149	1	0.487	0.155	8.12	9	1.224616	0.60	0.19	0.1
0mm	Back	157	1	0.871	0.17	8.09	9	1.233105	1.07	0.21	0.05
0mm	Back	165	1	0.855	0.164	8.1	9	1.230269	1.05	0.20	0.09

Conclusion: PASS

Note:

Factor= Max. Scaled AV Power(W)/Measured Power(W)

Scaled SAR-1= Measured SAR*Factor

Scaled-Final= Scaled SAR-1*(1/Duty Cycle)

Total SAR:
(Simultaneous)

Test mode			Total SAR 1g	Limit
Position	WLAN 2.4G	BT		
Front	/	/	0.00	1.6W/kg
Back	0.798	0.418	1.22	
Top	0.234	0.087	0.32	
Bottom	/	/	0.00	
Left	0.432	0.136	0.57	
Right	/	/	0.00	

Test mode			Total SAR 1g	Limit
Position	WLAN 5G	BT		
Front	/	/	0.00	1.6W/kg
Back	1.094	0.418	1.51	
Top	0.497	0.087	0.58	
Bottom	/	/	0.00	
Left	0.608	0.136	0.74	
Right	/	/	0.00	

8.4.SAR Measurement Variability

SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. 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.

The following procedures are applied to determine if repeated measurements are required.

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

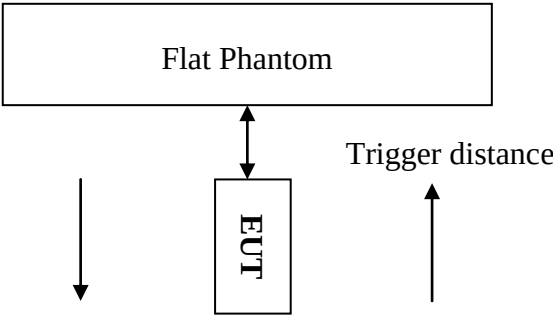
SAR Measurement Variability for Body (1g)

Band	CH	set up	original SAR (1g W/kg)	first repeat SAR (1g W/kg)	ratio
WiFi5G	120	0mm-Back	0.87	0.86	1.018713
WiFi5G	149	0mm-Back	0.88	0.86	1.033918

9. PROXIMITY SENSOR TRIGGERING TEST

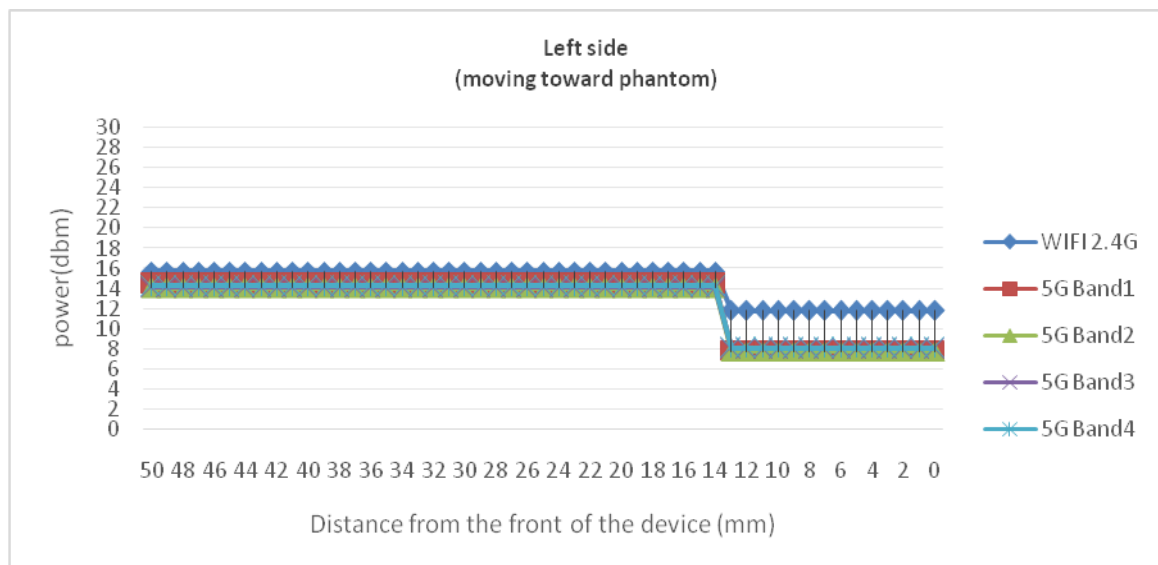
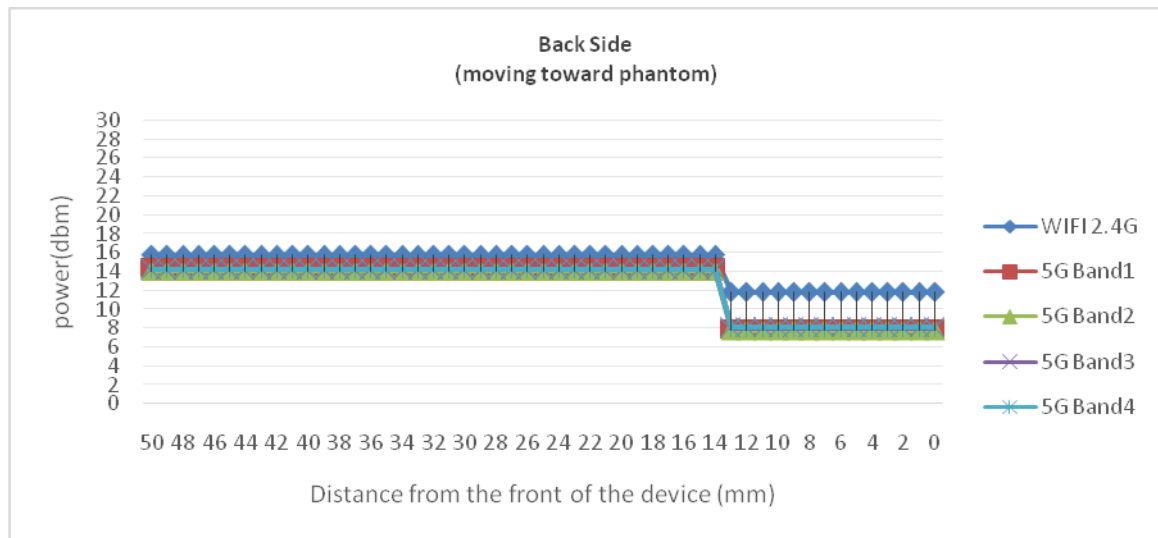
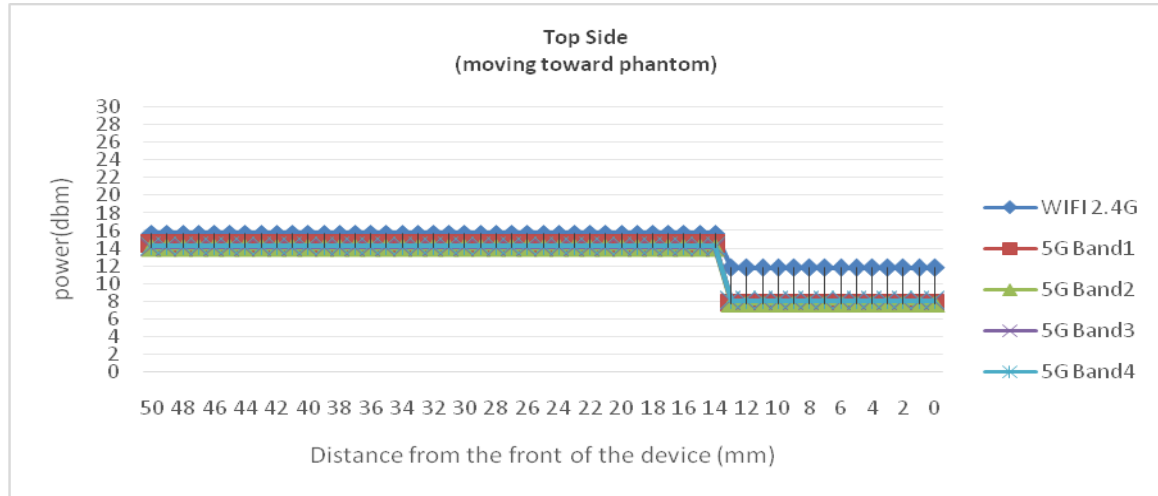
1) Proximity sensor triggering distances

The Proximity sensor triggering was applied to WLAN antenna. Proximity sensor triggering distance testing was performed which the EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed.

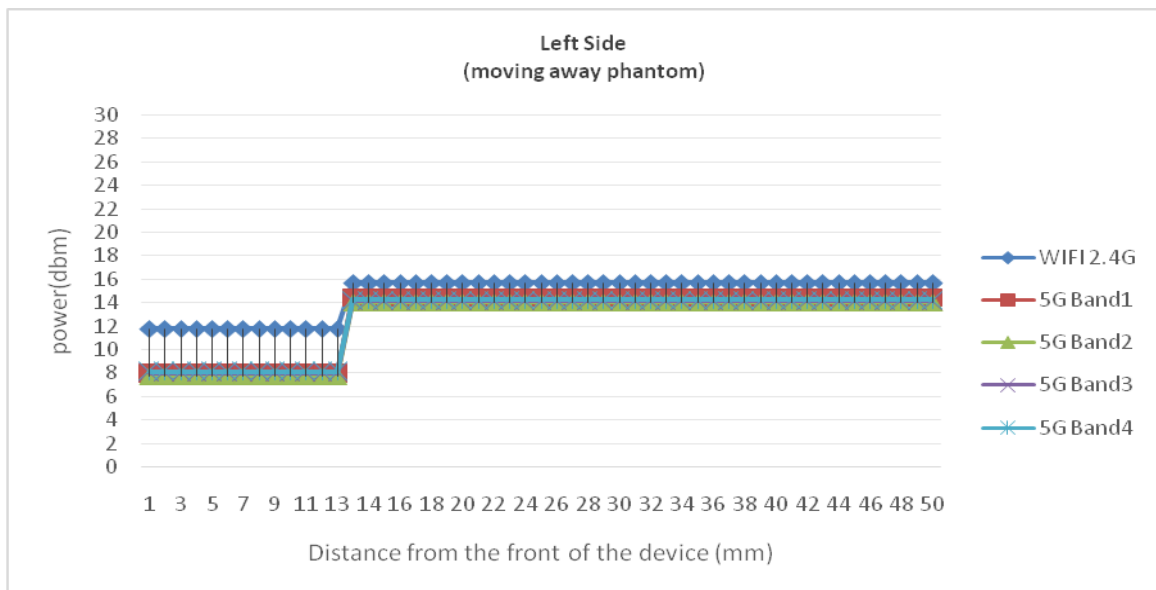
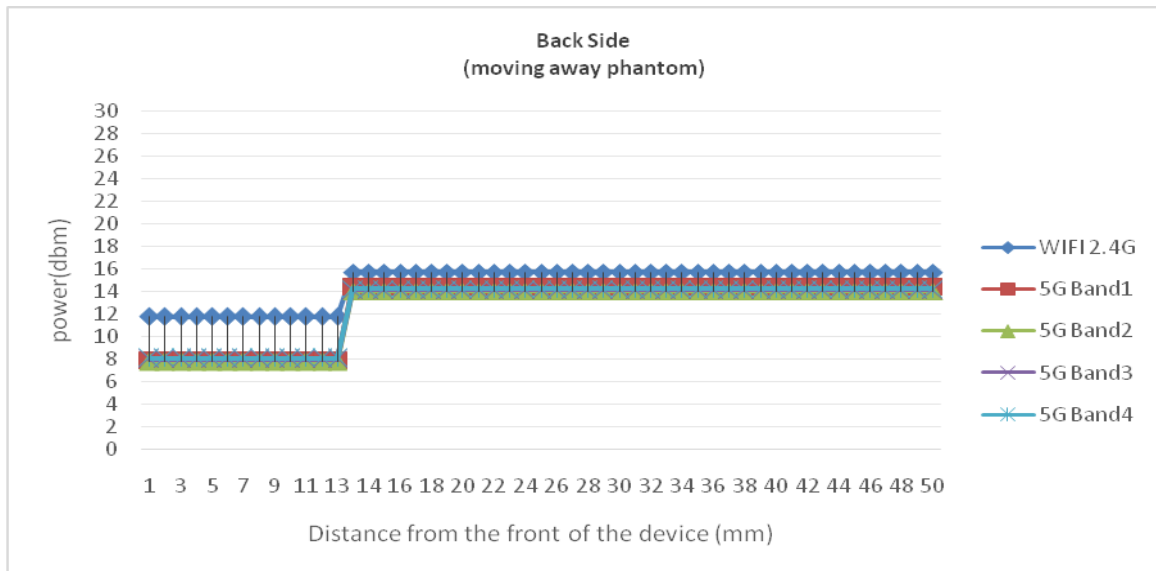
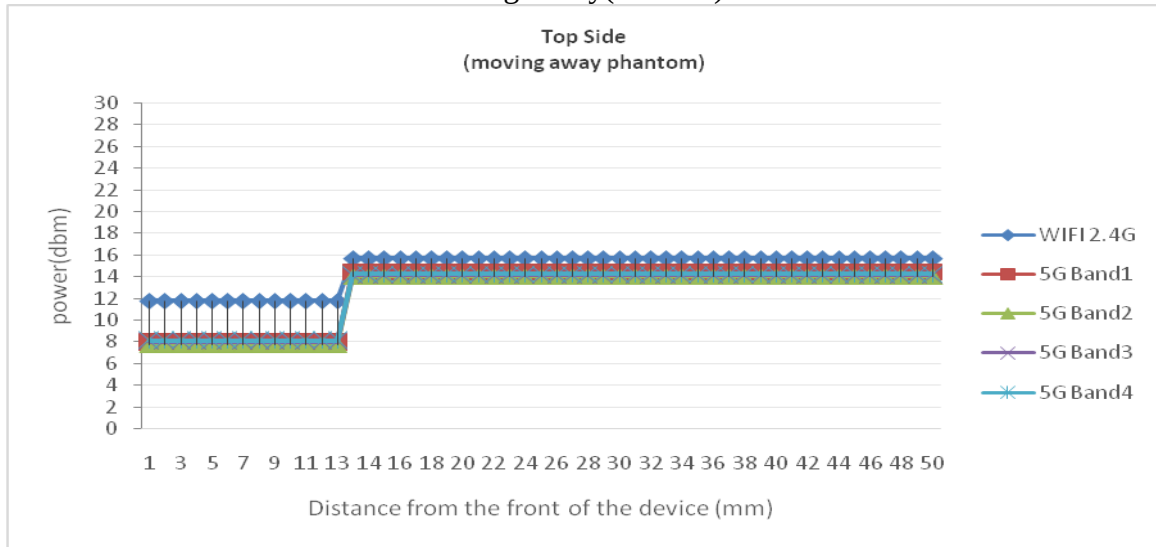


Proximity Sensor Triggering Distance(mm)			
EUT	WLAN		
Position	Back side	Top side	Left side
Minimum	13mm	13mm	13mm
Required SAR Test	13mm	13mm	13mm

EUT Moving Toward(Trigger)the Phantom



EUT Moving Away(Release) from the Phantom



2) Proximity sensor coverage

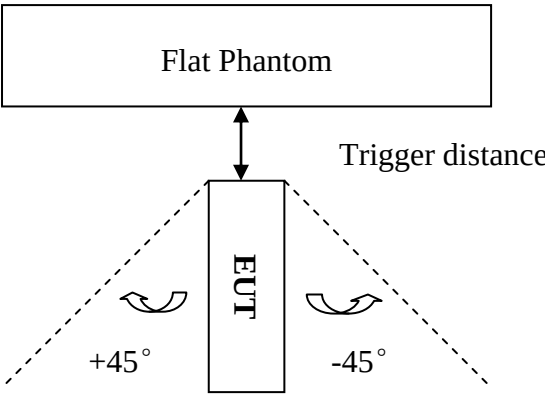
If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage testing, the device is moved and “along the direction of maximum antenna and sensor offset”.

The proximity sensor and main antenna use same metallic electrode, so there is no spatial offset.

3) Device tilt angle influences to proximity sensor triggering

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

Rotating the tablet around the edge next to the phantom in $\leq 10^\circ$ increments until the tablet is $\pm 45^\circ$ from the vertical position at 0° , and the maximum output power remains in the reduced mode.



Summary of Tablet Tilt Angle Influence to Proximity Sensor Triggering												
Band	Minimum trigger distance at which power reduction was maintained over $\pm 45^\circ$	Power Reduction Status										
		-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
WLAN	Top Side 13mm	on	on	on	on	on	on	on	on	on	on	on

APPENDIX A

Graph Results (BT & WIFI 2.4GHz & WIFI 5GHz)

Test Mode: BT:

Test Laboratory: Audix SAR Lab

Date: 11/07/2024

CH78(2480MHz Back)

DUT: Tablet PC MN:8188X

Communication System: UID 0, Blue Tooth (0); Communication System Band: Mid;

Frequency: 2480 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 2480 \text{ MHz}$; $\sigma = 1.981 \text{ S/m}$; $\epsilon_r = 54.144$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(7.46, 7.04, 6.83); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH78(2480MHz Back)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.241 W/kg

Configuration/CH78(2480MHz Back)/Zoom Scan (5x5x7)/Cube 0:

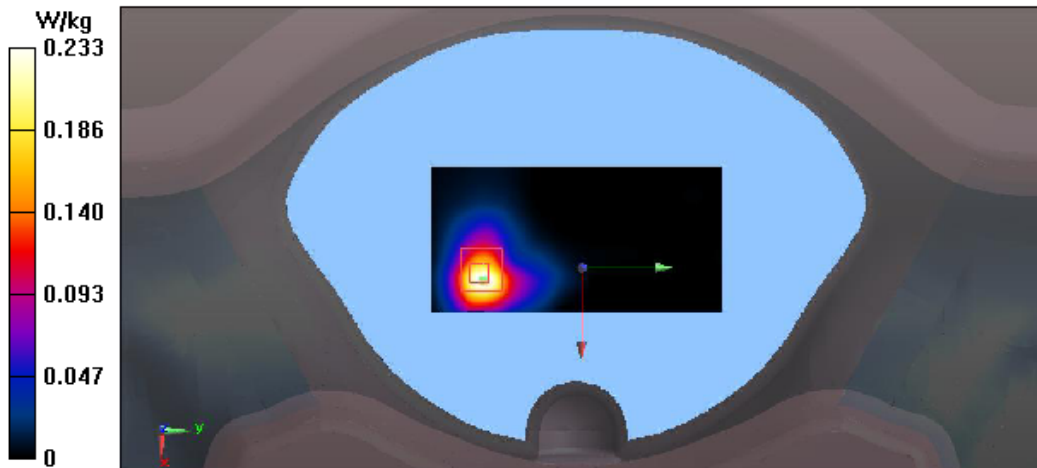
Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 0.7320 V/m ; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 1.06 W/kg

SAR(1 g) = 0.260 W/kg ; SAR(10 g) = 0.100 W/kg

Maximum value of SAR (measured) = 0.233 W/kg



Test Laboratory: Audix SAR Lab

Date: 11/07/2024

CH78(2480MHz Top)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, Blue Tooth (0); Communication System Band: Mid;

Frequency: 2480 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 2480 \text{ MHz}$; $\sigma = 1.981 \text{ S/m}$; $\epsilon_r = 54.144$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(7.46, 7.04, 6.83); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH78(2480MHz Top)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.0695 W/kg

Configuration/CH78(2480MHz Top)/Zoom Scan (5x5x7)/Cube 0: Measurement

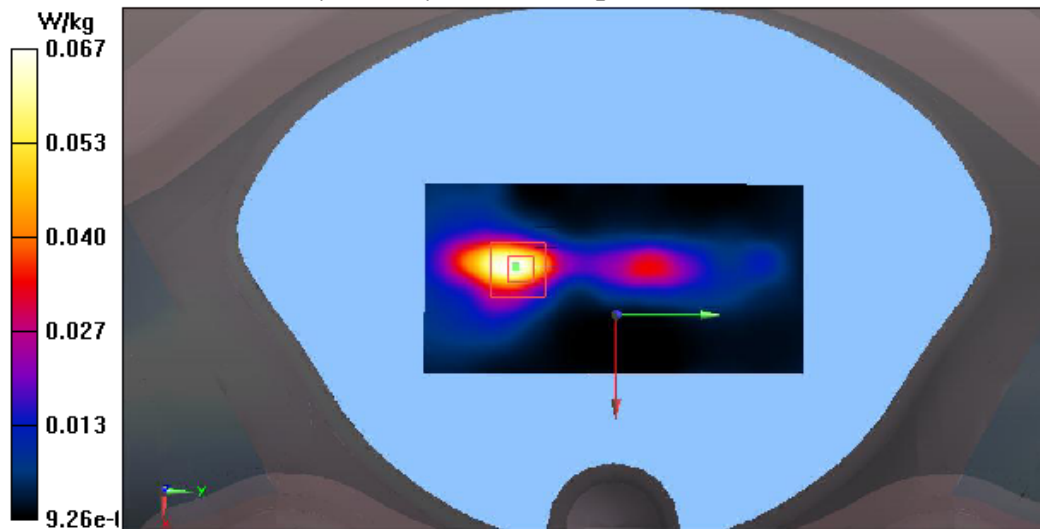
grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.245 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.155 W/kg

SAR(1 g) = 0.054 W/kg; SAR(10 g) = 0.021 W/kg

Maximum value of SAR (measured) = 0.0667 W/kg



Test Mode: WIFI 2.4GHz(0mm):

Test Laboratory: Audix SAR Lab

Date: 11/07/2024

CH6(2437MHz Back)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps) (0);

Communication System Band: ISM 2.4GHz Band (2400.0-2483.5MHz); Frequency:

2437 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.936$ S/m; $\epsilon_r = 53.415$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(7.46, 7.04, 6.83); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH6(2437MHz Back)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.547 W/kg

Configuration/CH6(2437MHz Back)/Zoom Scan (5x5x7)/Cube 0: Measurement

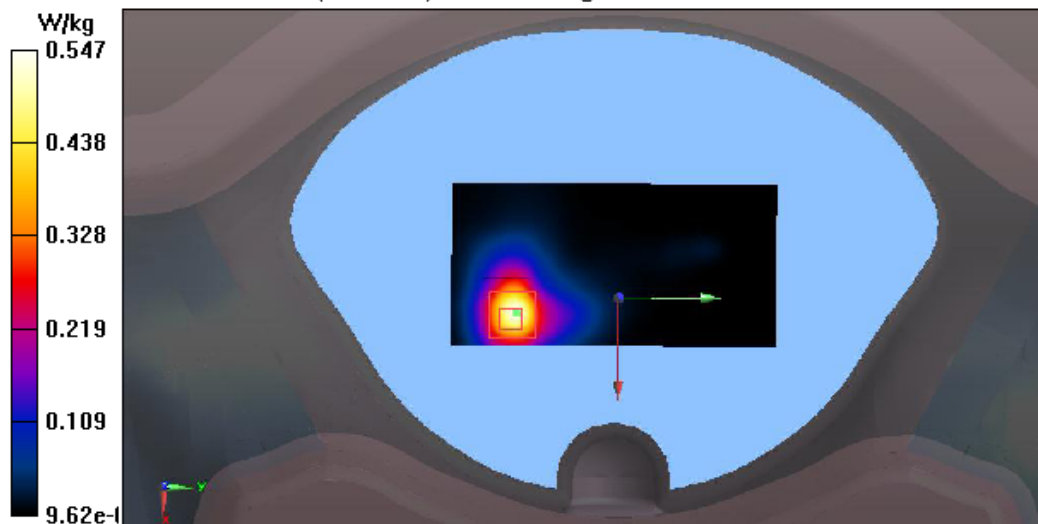
grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 1.897 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 2.48 W/kg

SAR(1 g) = 0.604 W/kg; SAR(10 g) = 0.228 W/kg

Maximum value of SAR (measured) = 0.547 W/kg



Test Laboratory: Audix SAR Lab

Date: 11/07/2024

CH6(2437MHz Top)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps) (0);

Communication System Band: ISM 2.4GHz Band (2400.0-2483.5MHz); Frequency:

2437 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.936$ S/m; $\epsilon_r = 53.415$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(7.46, 7.04, 6.83); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH6(2437MHz Top)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.160 W/kg

Configuration/CH6(2437MHz Top)/Zoom Scan (5x5x7)/Cube 0: Measurement

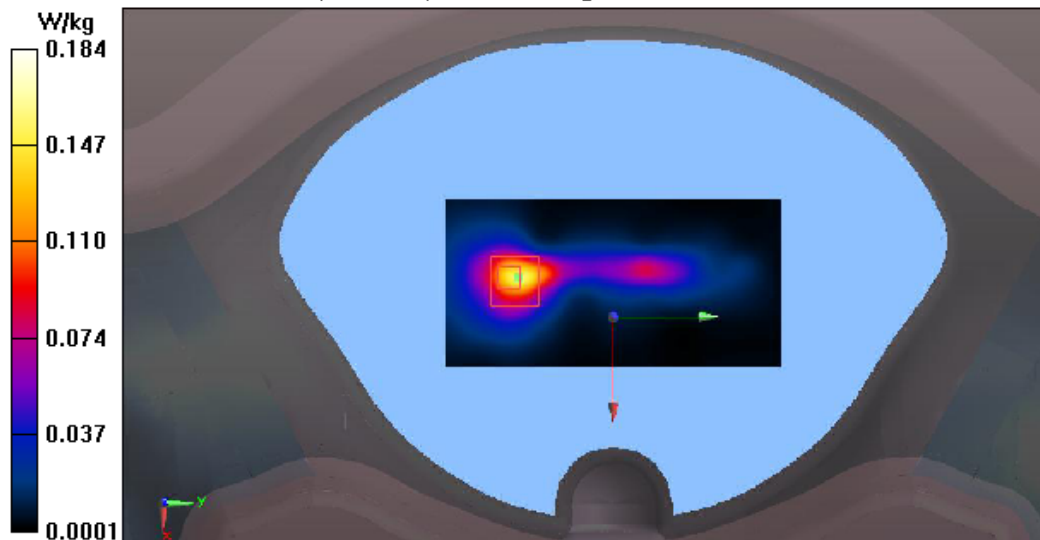
grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 5.622 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.955 W/kg

SAR(1 g) = 0.177 W/kg; SAR(10 g) = 0.062 W/kg

Maximum value of SAR (measured) = 0.184 W/kg



Test Mode: WIFI 2.4GHz(15mm):

Test Laboratory: Audix SAR Lab

Date: 11/07/2024

CH6(2437MHz Back)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps) (0);

Communication System Band: ISM 2.4GHz Band (2400.0-2483.5MHz); Frequency: 2437 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.936$ S/m; $\epsilon_r = 53.415$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(7.46, 7.04, 6.83); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH6(2437MHz Back)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.156 W/kg

Configuration/CH6(2437MHz Back)/Zoom Scan (5x5x7)/Cube 0: Measurement

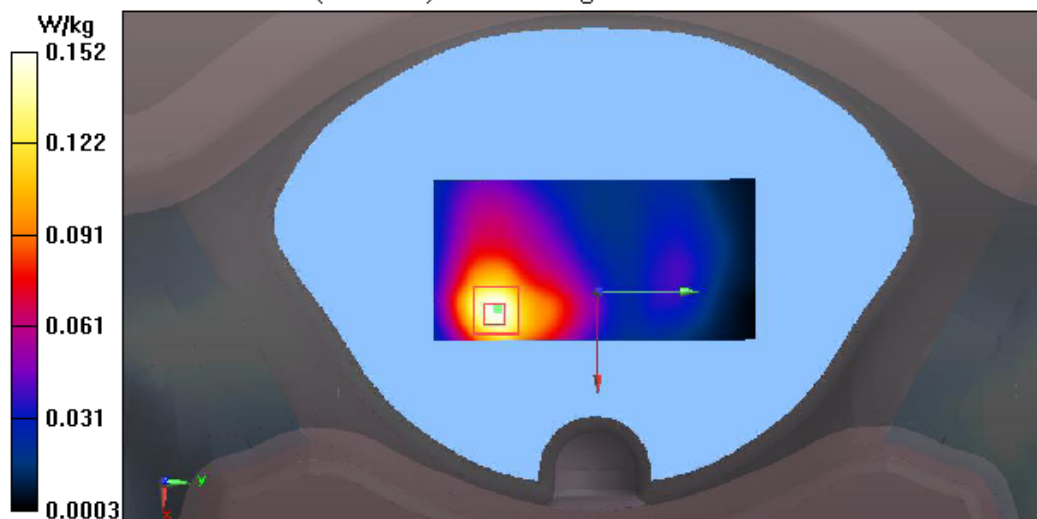
grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 3.739 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.355 W/kg

SAR(1 g) = 0.146 W/kg; SAR(10 g) = 0.071 W/kg

Maximum value of SAR (measured) = 0.152 W/kg



Test Laboratory: Audix SAR Lab

Date: 11/07/2024

CH6(2437MHz Top)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps) (0);

Communication System Band: ISM 2.4GHz Band (2400.0-2483.5MHz); Frequency: 2437 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.936$ S/m; $\epsilon_r = 53.415$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(7.46, 7.04, 6.83); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH6(2437MHz Top)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.0789 W/kg

Configuration/CH6(2437MHz Top)/Zoom Scan (5x5x7)/Cube 0: Measurement

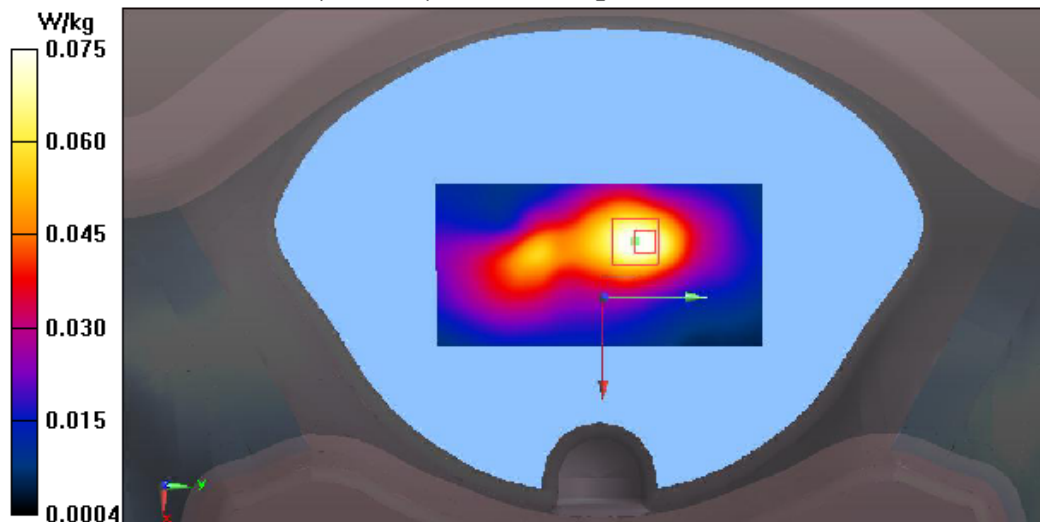
grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 5.767 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 0.166 W/kg

SAR(1 g) = 0.071 W/kg; SAR(10 g) = 0.037 W/kg

Maximum value of SAR (measured) = 0.0753 W/kg



Test Mode: WIFI 5GHz-Band 1(0mm):

Test Laboratory: Audix SAR Lab

Date: 13/07/2024

CH48(5240MHz Back)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.2GHz (0); Communication

System Band: IEEE 802.11a WiFi 5.2GHz; Frequency: 5240 MHz; Communication

System PAR: 0 dB

Medium parameters used: $f = 5240 \text{ MHz}$; $\sigma = 4.958 \text{ S/m}$; $\epsilon_r = 47.19$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(5.79, 5.57, 5.33); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH48(5240MHz Back)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.649 W/kg

Configuration/CH48(5240MHz Back)/Zoom Scan (5x5x7)/Cube 0:

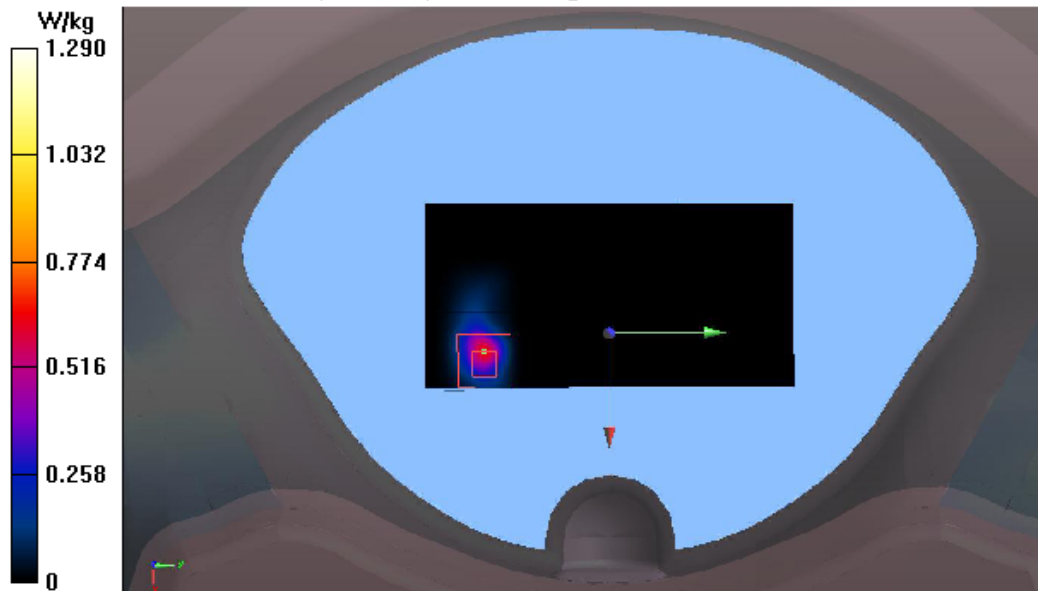
Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 0 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 2.94 W/kg

SAR(1 g) = 0.772 W/kg; SAR(10 g) = 0.177 W/kg

Maximum value of SAR (measured) = 1.29 W/kg



Test Laboratory: Audix SAR Lab

Date: 13/07/2024

CH48(5240MHz Top)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.2GHz (0); Communication System Band: IEEE 802.11a WiFi 5.2GHz; Frequency: 5240 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 5240 \text{ MHz}$; $\sigma = 4.958 \text{ S/m}$; $\epsilon_r = 47.19$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(5.79, 5.57, 5.33); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH48(5240MHz Top)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.376 W/kg

Configuration/CH48(5240MHz Top)/Zoom Scan (5x5x7)/Cube 0: Measurement

grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 0.7160 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.954 W/kg

SAR(1 g) = 0.283 W/kg; SAR(10 g) = 0.101 W/kg

Maximum value of SAR (measured) = 0.328 W/kg



Test Mode: WIFI 5GHz-Band 1(15mm):

Test Laboratory: Audix SAR Lab

Date: 13/07/2024

CH48(5240MHz Back)

DUT: Tablet PC MN:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.2GHz (0); Communication System Band: IEEE 802.11a WiFi 5.2GHz; Frequency: 5240 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 5240 \text{ MHz}$; $\sigma = 4.958 \text{ S/m}$; $\epsilon_r = 47.19$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(5.79, 5.57, 5.33); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH48(5240MHz Back)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.725 W/kg

Configuration/CH48(5240MHz Back)/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 0 V/m ; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 1.95 W/kg

SAR(1 g) = 0.654 W/kg ; SAR(10 g) = 0.250 W/kg

Maximum value of SAR (measured) = 0.732 W/kg



Test Laboratory: Audix SAR Lab

Date: 13/07/2024

CH48(5240MHz Top)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.2GHz (0); Communication System Band: IEEE 802.11a WiFi 5.2GHz; Frequency: 5240 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 5240 \text{ MHz}$; $\sigma = 4.958 \text{ S/m}$; $\epsilon_r = 47.19$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(5.79, 5.57, 5.33); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH48(5240MHz Top)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.258 W/kg

Configuration/CH48(5240MHz Top)/Zoom Scan (5x5x7)/Cube 0: Measurement

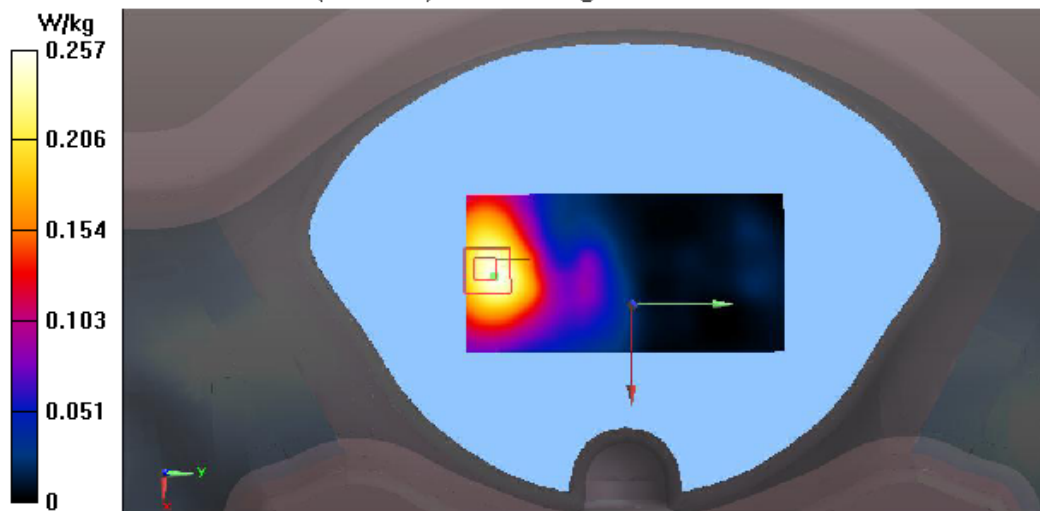
grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.026 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.60 W/kg

SAR(1 g) = 0.313 W/kg; SAR(10 g) = 0.136 W/kg

Maximum value of SAR (measured) = 0.257 W/kg



Test Mode: WIFI 5GHz-Band 2(0mm):

Test Laboratory: Audix SAR Lab

Date: 13/07/2024

CH64(5320MHz Back)

DUT: Tablet PC MN:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.3GHz (0); Communication System Band: IEEE 802.11a WiFi 5.3GHz ; Frequency: 5320 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 5320 \text{ MHz}$; $\sigma = 5.196 \text{ S/m}$; $\epsilon_r = 49.96$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(5.53, 5.43, 5.18); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH64(5320MHz Back)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.546 W/kg

Configuration/CH64(5320MHz Back)/Zoom Scan (5x5x7)/Cube 0:

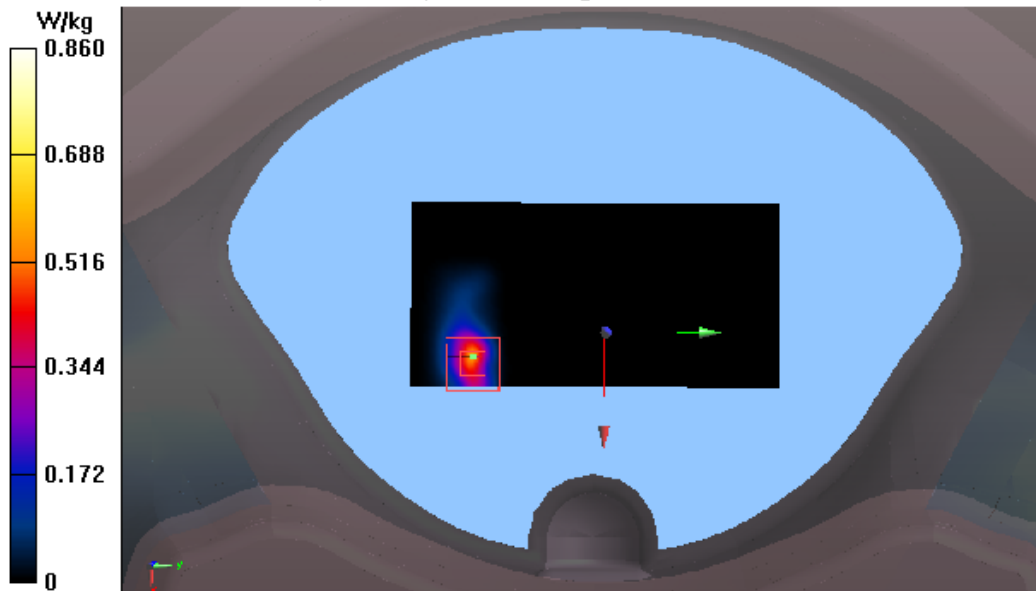
Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 0 V/m ; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 2.47 W/kg

SAR(1 g) = 0.656 W/kg ; SAR(10 g) = 0.162 W/kg

Maximum value of SAR (measured) = 0.860 W/kg



Test Laboratory: Audix SAR Lab

Date: 13/07/2024

CH64(5320MHz Top)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.3GHz (0); Communication
System Band: IEEE 802.11a WiFi 5.3GHz ; Frequency: 5320 MHz; Communication
System PAR: 0 dB

Medium parameters used: $f = 5320 \text{ MHz}$; $\sigma = 5.196 \text{ S/m}$; $\epsilon_r = 49.96$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(5.53, 5.43, 5.18); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH64(5320MHz Top)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.396 W/kg

Configuration/CH64(5320MHz Top)/Zoom Scan (5x5x7)/Cube 0: Measurement

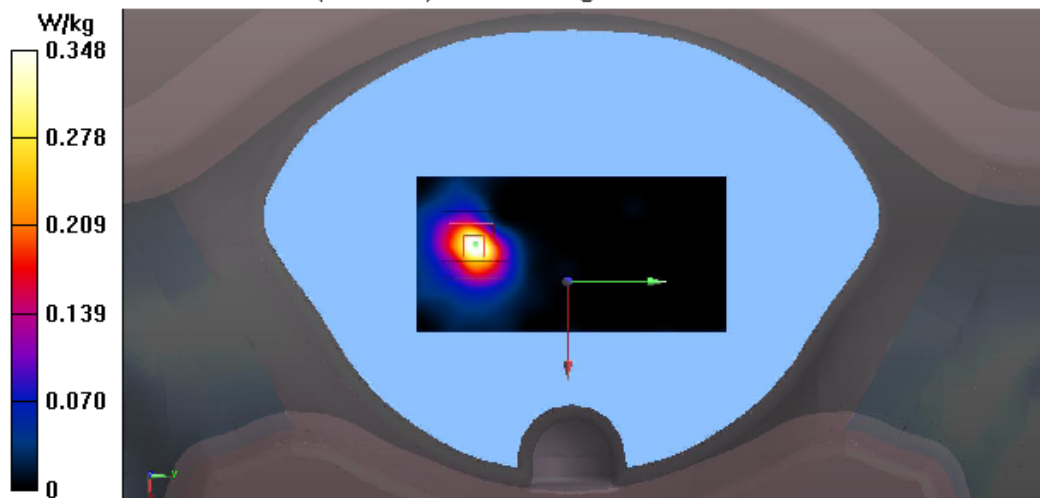
grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 0 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.305 W/kg; SAR(10 g) = 0.109 W/kg

Maximum value of SAR (measured) = 0.348 W/kg



Test Mode: WIFI 5GHz-Band 2(15mm):

Test Laboratory: Audix SAR Lab

Date: 13/07/2024

CH64(5320MHz Back)

DUT: Tablet PC MN:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.3GHz (0); Communication
System Band: IEEE 802.11a WiFi 5.3GHz ; Frequency: 5320 MHz; Communication
System PAR: 0 dB

Medium parameters used: $f = 5320 \text{ MHz}$; $\sigma = 5.196 \text{ S/m}$; $\epsilon_r = 49.96$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(5.53, 5.43, 5.18); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH64(5320MHz Back)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.736 W/kg

Configuration/CH64(5320MHz Back)/Zoom Scan (5x5x7)/Cube 0:

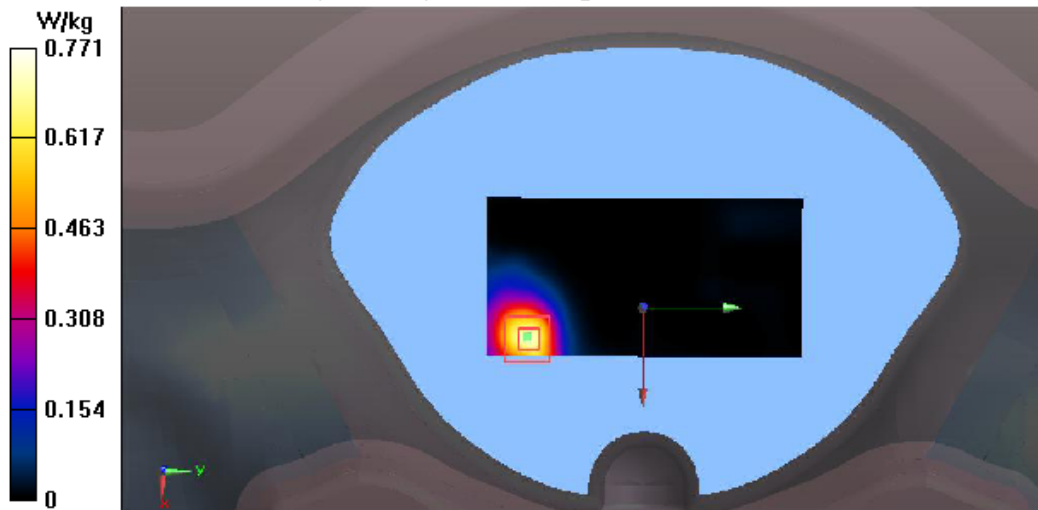
Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 0 V/m ; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 2.09 W/kg

SAR(1 g) = 0.689 W/kg ; SAR(10 g) = 0.267 W/kg

Maximum value of SAR (measured) = 0.771 W/kg



Test Laboratory: Audix SAR Lab

Date: 13/07/2024

CH64(5320MHz Top)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.3GHz (0); Communication
System Band: IEEE 802.11a WiFi 5.3GHz ; Frequency: 5320 MHz; Communication
System PAR: 0 dB

Medium parameters used: $f = 5320 \text{ MHz}$; $\sigma = 5.196 \text{ S/m}$; $\epsilon_r = 49.96$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(5.53, 5.43, 5.18); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH64(5320MHz Top)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.370 W/kg

Configuration/CH64(5320MHz Top)/Zoom Scan (5x5x7)/Cube 0: Measurement

grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 1.693 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 2.60 W/kg

SAR(1 g) = 0.473 W/kg; SAR(10 g) = 0.196 W/kg

Maximum value of SAR (measured) = 0.353 W/kg



Test Mode: WIFI 5GHz- Band 3(0mm):

Test Laboratory: Audix SAR Lab

Date: 15/07/2024

CH120(5600MHz Back)

DUT: Tablet PC MN:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.5GHz (0); Communication System Band: IEEE 802.11a WiFi 5.5GHz; Frequency: 5600 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 5600 \text{ MHz}$; $\sigma = 5.350 \text{ S/m}$; $\epsilon_r = 49.65$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(4.91, 4.61, 4.49); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH120(5600MHz Back)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.10 W/kg

Configuration/CH120(5600MHz Back)/Zoom Scan (5x5x7)/Cube 0:

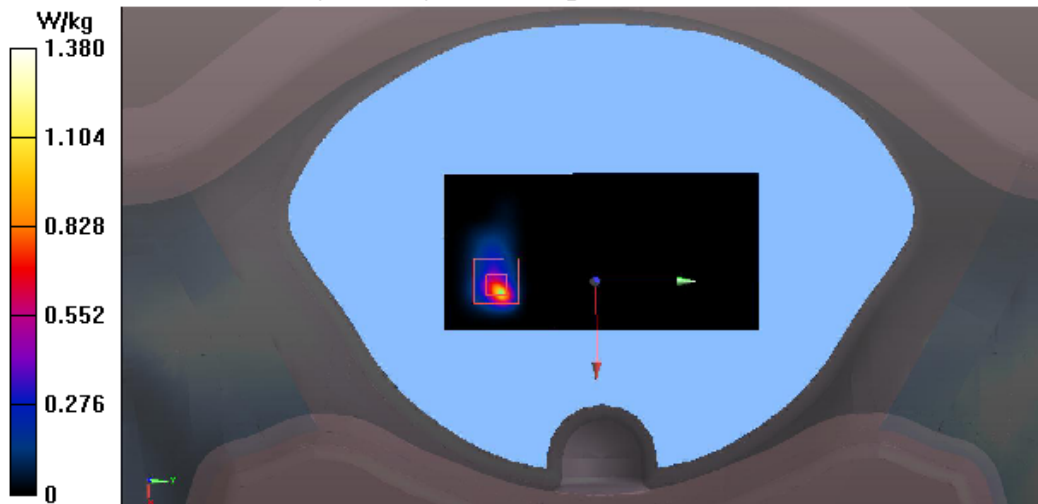
Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 0 V/m ; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 3.38 W/kg

SAR(1 g) = 0.871 W/kg ; SAR(10 g) = 0.243 W/kg

Maximum value of SAR (measured) = 1.38 W/kg



Test Laboratory: Audix SAR Lab

Date: 15/07/2024

CH120(5600MHz Top)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.5GHz (0); Communication
System Band: IEEE 802.11a WiFi 5.5GHz; Frequency: 5600 MHz; Communication
System PAR: 0 dB

Medium parameters used: $f = 5600 \text{ MHz}$; $\sigma = 5.350 \text{ S/m}$; $\epsilon_r = 49.65$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(4.91, 4.61, 4.49); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH120(5600MHz Top)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.488 W/kg

Configuration/CH120(5600MHz Top)/Zoom Scan (5x5x7)/Cube 0:

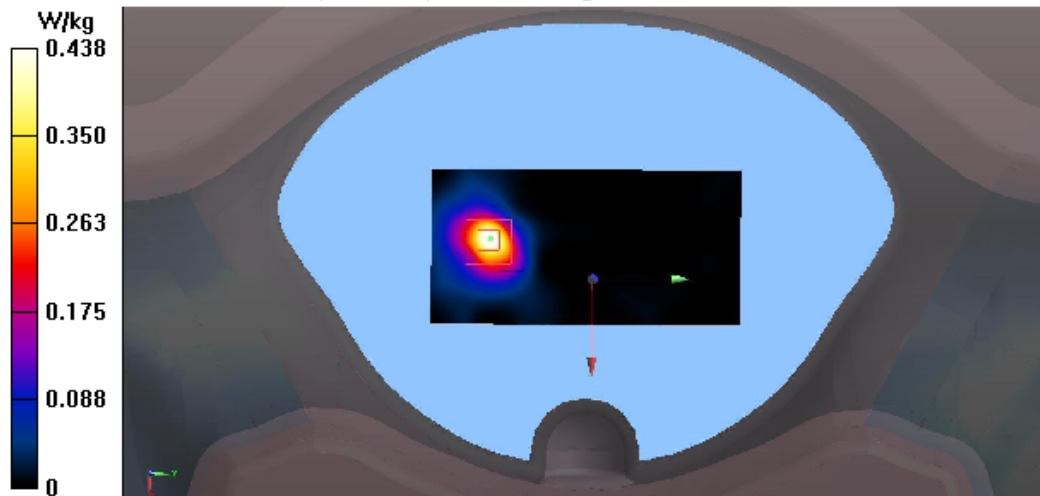
Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 0.4420 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 1.23 W/kg

SAR(1 g) = 0.374 W/kg; SAR(10 g) = 0.134 W/kg

Maximum value of SAR (measured) = 0.438 W/kg



Test Mode: WIFI 5GHz-Band 3(15mm):

Test Laboratory: Audix SAR Lab

Date: 15/07/2024

CH120(5600MHz Back)

DUT: Tablet PC MN:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.5GHz (0); Communication System Band: IEEE 802.11a WiFi 5.5GHz; Frequency: 5600 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 5600 \text{ MHz}$; $\sigma = 5.350 \text{ S/m}$; $\epsilon_r = 49.65$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(4.91, 4.61, 4.49); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH120(5600MHz Back)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.10 W/kg

Configuration/CH120(5600MHz Back)/Zoom Scan (5x5x7)/Cube 0:

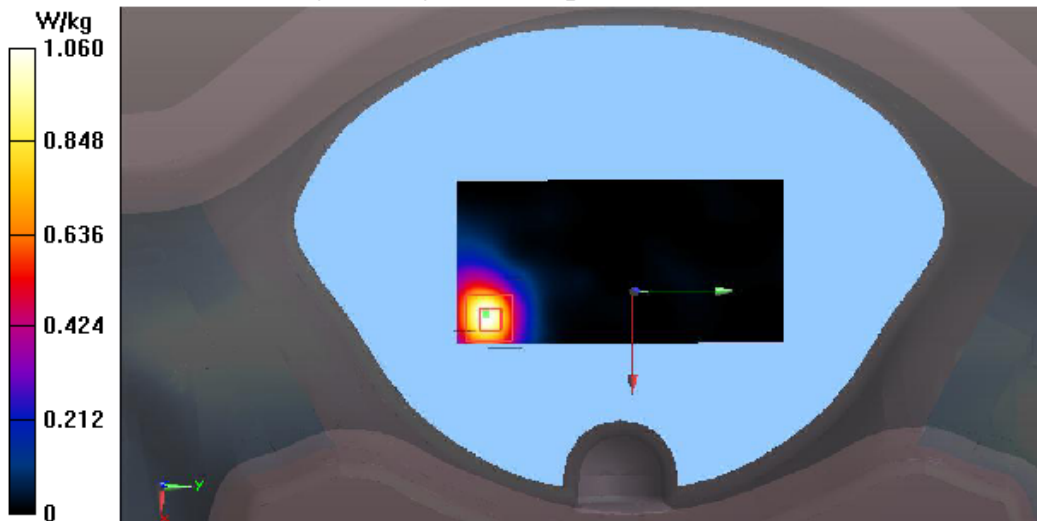
Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 0.7430 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 2.93 W/kg

SAR(1 g) = 0.963 W/kg; SAR(10 g) = 0.368 W/kg

Maximum value of SAR (measured) = 1.06 W/kg



Test Laboratory: Audix SAR Lab

Date: 15/07/2024

CH120(5600MHz Top)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.5GHz (0); Communication System Band: IEEE 802.11a WiFi 5.5GHz; Frequency: 5600 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 5600 \text{ MHz}$; $\sigma = 5.350 \text{ S/m}$; $\epsilon_r = 49.65$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(4.91, 4.61, 4.49); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH120(5600MHz Top)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.419 W/kg

Configuration/CH120(5600MHz Top)/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 1.518 V/m; Power Drift = -0.20 dB

Peak SAR (extrapolated) = 2.85 W/kg

SAR(1 g) = 0.525 W/kg; SAR(10 g) = 0.217 W/kg

Maximum value of SAR (measured) = 0.384 W/kg



Test Mode: WIFI 5GHz-Band 4(0mm):

Test Laboratory: Audix SAR Lab

Date: 15/07/2024

CH149(5745MHz Back)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.8GHz (0); Communication
System Band: IEEE 802.11a WiFi 5.8GHz ; Frequency: 5745 MHz; Communication
System PAR: 0 dB

Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 5.713 \text{ S/m}$; $\epsilon_r = 48.21$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(4.77, 4.74, 4.51); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH149(5745MHz Back)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.924 W/kg

Configuration/CH149(5745MHz Back)/Zoom Scan (5x5x7)/Cube 0:

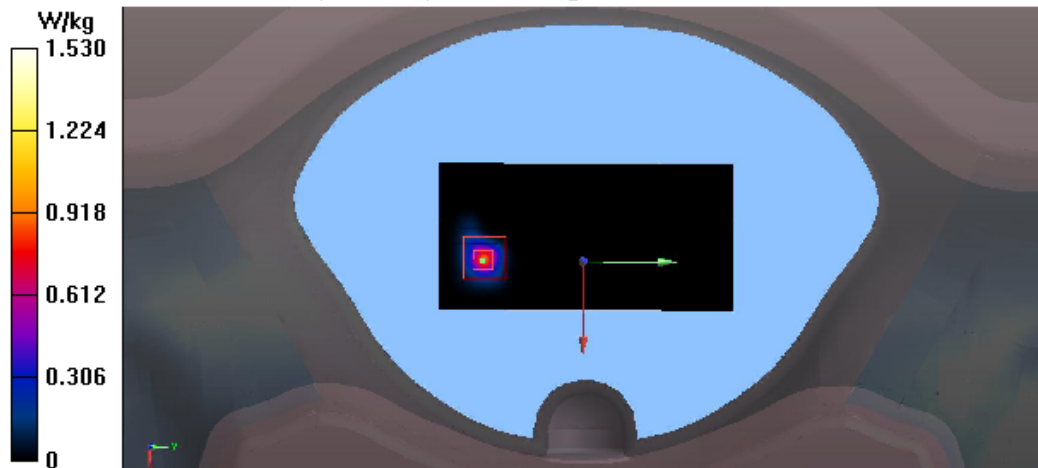
Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 0 V/m ; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 3.63 W/kg

SAR(1 g) = 0.884 W/kg ; SAR(10 g) = 0.200 W/kg

Maximum value of SAR (measured) = 1.53 W/kg



Test Laboratory: Audix SAR Lab

Date: 15/07/2024

CH149(5745MHz Top)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.8GHz (0); Communication
System Band: IEEE 802.11a WiFi 5.8GHz ; Frequency: 5745 MHz; Communication
System PAR: 0 dB

Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 5.713 \text{ S/m}$; $\epsilon_r = 48.21$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(4.77, 4.74, 4.51); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH149(5745MHz Top)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.601 W/kg

Configuration/CH149(5745MHz Top)/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.200 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 1.33 W/kg

SAR(1 g) = 0.406 W/kg; SAR(10 g) = 0.144 W/kg

Maximum value of SAR (measured) = 0.469 W/kg



Test Mode: WIFI 5GHz-Band 4(15mm):

Test Laboratory: Audix SAR Lab

Date: 15/07/2024

CH149(5745MHz Back)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.8GHz (0); Communication System Band: IEEE 802.11a WiFi 5.8GHz ; Frequency: 5745 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 5.713 \text{ S/m}$; $\epsilon_r = 48.21$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(4.77, 4.74, 4.51); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH149(5745MHz Back)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.762 W/kg

Configuration/CH149(5745MHz Back)/Zoom Scan (5x5x7)/Cube 0:

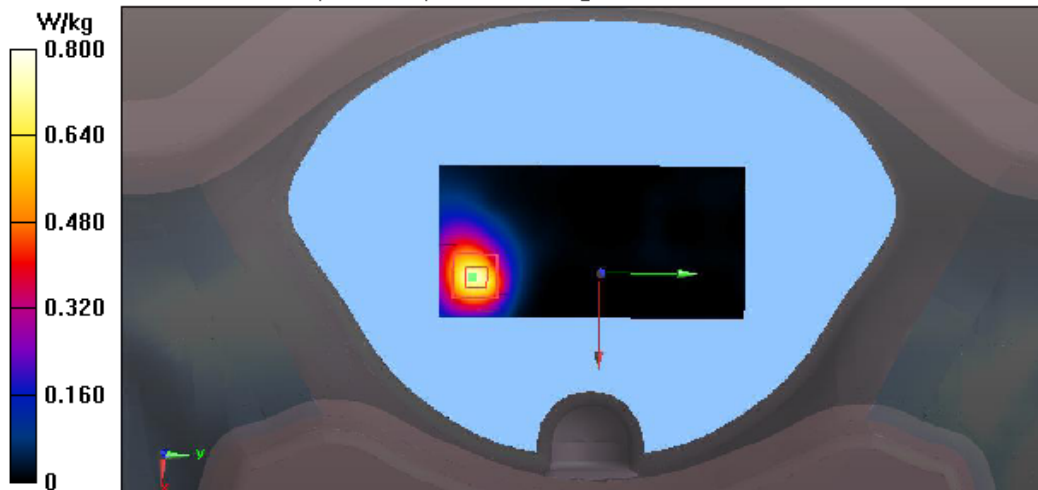
Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 0.2930 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 2.23 W/kg

SAR(1 g) = 0.721 W/kg; SAR(10 g) = 0.280 W/kg

Maximum value of SAR (measured) = 0.800 W/kg



Test Laboratory: Audix SAR Lab

Date: 15/07/2024

CH149(5745MHz Top)

DUT: Tablet PC M/N:8188X

Communication System: UID 0, IEEE 802.11a WiFi 5.8GHz (0); Communication System Band: IEEE 802.11a WiFi 5.8GHz ; Frequency: 5745 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 5.713 \text{ S/m}$; $\epsilon_r = 48.21$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3809; ConvF(4.77, 4.74, 4.51); Calibrated: 18/12/2023;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn899; Calibrated: 06/06/2024
- Phantom: SAM 1; Type: SAM; Serial: TP-1543
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Configuration/CH149(5745MHz Top)/Area Scan (51x101x1): Interpolated grid:

$dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.410 W/kg

Configuration/CH149(5745MHz Top)/Zoom Scan (5x5x7)/Cube 0:

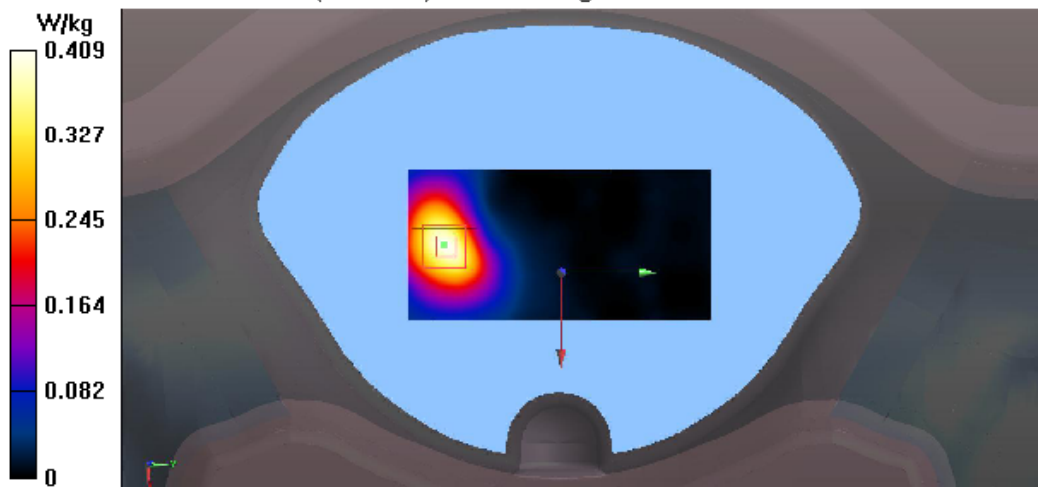
Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 1.132 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.384 W/kg; SAR(10 g) = 0.164 W/kg

Maximum value of SAR (measured) = 0.409 W/kg



APPENDIX B

DASY Calibration Certificate