

SAR Compliance Test Report

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Number of pages:	43	Responsible Test engineer:	Kalle Orava
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Tested device:	RAIN RFID Sled Reader		
Related reports:	FCC_EMF_Report_R1307I_ID4731_18112025 ISED_EMF_Report_R1307I_ID4731_18112025		
Testing has been carried out in accordance with:	47CFR §2.1093 Radiofrequency Radiation Exposure Evaluation: Portable Devices FCC published RF exposure KDB procedures 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04 447498 D04 Interim General RF Exposure Guidance v01 FCC presentation of "TCB Workshop October 2020" for barcode scanners IEC/IEEE 62209-1528, 2020 Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices RSS-102, Issue 6, 2023 Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)		
Documentation:	The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory		
Test Results:	The EUT complies with the requirements in respect of all parameters subject to the test. The test results relate only to devices specified in this document		

Date and signatures:

21.11.2025

Laboratory Manager

Miia Nurkkala

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1. SUMMARY OF SAR TEST REPORT

1.1 Test Details

Device under Test (DUT):

Product:	RAIN RFID Sled Reader
Manufacturer:	CAEN RFID S.r.l
Model:	R1307I
Serial Number:	0001001824380009, 0001001824380010 (conducted sample)
FCC ID Number:	UVECAFNRFD039
ISED ID Number:	10672A-R1307I
DUT Number:	03957, 03956 (conducted sample)
Battery Type used in testing:	Li-Ion Battery
State of the Sample:	Production sample

Testing information:

Testing performed:	06.11.2025 – 11.11.2025
Notes:	-
Document history & changes:	Initial version
Document ID:	FCC ISED_SAR report_R1307I_ID4731_18112025.docx
Temperature °C	22±2 / Controlled
Humidity RH%	30±20 / Controlled
Measurement performed by:	Kalle Orava
FCC Test Firm Designation Number:	F10005
ISED Company Number:	22218

1.2 Maximum Results

The maximum reported* SAR values for Extremity exposure configuration for transmitting systems are shown in the table below. The device conforms to the requirements of the standards when the maximum reported SAR value is less than or equal to the limit. The SAR limit specified in FCC 47 CFR part 2 (2.1093) and Health Canada's RF exposure guideline, Safety Code 6 for Extremity SAR_{10g} is 4.0 W/kg.

1.2.1 Standalone SAR

System	Highest Reported* SAR _{10g} [W/kg] in Extremity Exposure Condition, 0mm separation distance	Limit [W/kg]	Result
Bluetooth	0.246	4	PASS
RFID	3.2	4	PASS

* Reported SAR Values are scaled to upper limit of power tuning tolerance.

1.2.2 Simultaneous Transmission

Highest Simultaneous Transmission SAR	SAR _{10g} [W/kg] in Extremity Exposure Condition	Limit [W/kg]	Result
RFID + Bluetooth	3.45	4	PASS

1.2.3 Maximum Drift

Maximum Drift During Measurements	1.66 dB*
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*Larger than 5% drifts included to scaling factors

1.2.4 Measurement Uncertainty

DASY5 System, SAR 10g: 300 MHz – 3 GHz:

Expanded Uncertainty (k=2) 95 %	±22.5 %
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2. DESCRIPTION OF THE DEVICE UNDER TEST (DUT)

The DUT is a RAIN RFID sled reader of the easy2read© product line with integrated antenna.



Figure 1. Overview of the DUT

Device Category	Portable
Exposure Environment	General population, uncontrolled

2.1 Supported Frequency Bands and Operational Modes

TX Frequency bands	Modes of Operation	Transmitter Frequency Range
	Wireless charger	128 kHz
	Bluetooth	2402 – 2480 MHz
	RFID	902.75 – 927.25 MHz

*Please see test reports “FCC_EMF_Report_R1307I_ID4731_18112025” and “ISED_EMF_Report_R1307I_ID4731_18112025” for wireless charger

2.2 Simultaneous transmission

Bluetooth and RFID can be operated simultaneously. WPT can only operate when the DUT is being charged with a connected cable. i.e. DUT is not used in a hand when WPT is active. RFID reader/Bluetooth and WPT are not used simultaneously.

3. OUTPUT POWER

3.1 Maximum specified conducted output power

From the customer, including tune-up tolerances;

Bluetooth	Max Output Power [dBm]
Bluetooth BR	11
Bluetooth EDR	5
Bluetooth LE	7

Technology	Max Output Power [dBm]
RFID	30

3.2 Tested conducted power

Measured conducted output power at transmitting antenna connector;

Bluetooth:

Standard	Output power [dBm]			
	CH 0 2402 MHz	CH 38 2440 MHz	CH 40 2442 MHz	CH 78 2480 MHz
BR	9.3	9.74	9.77	10.09

RFID:

RFID	Output Power [dBm]		
	CH 0 902.75 MHz	CH 24 914.75 MHz	CH 49 927.25 MHz
	27.16	28.09	28.16

4. TEST EQUIPMENT

Dasy near field scanning system, manufactured by SPEAG was used for SAR testing. The test system consists of high precision robotics system (Staubli), robot controller, computer, near-field probe, probe alignment sensor, and a phantom containing the tissue equivalent material. The robot is a six-axis industrial robot performing precise movements to position the probe to the location of maximum electromagnetic field.

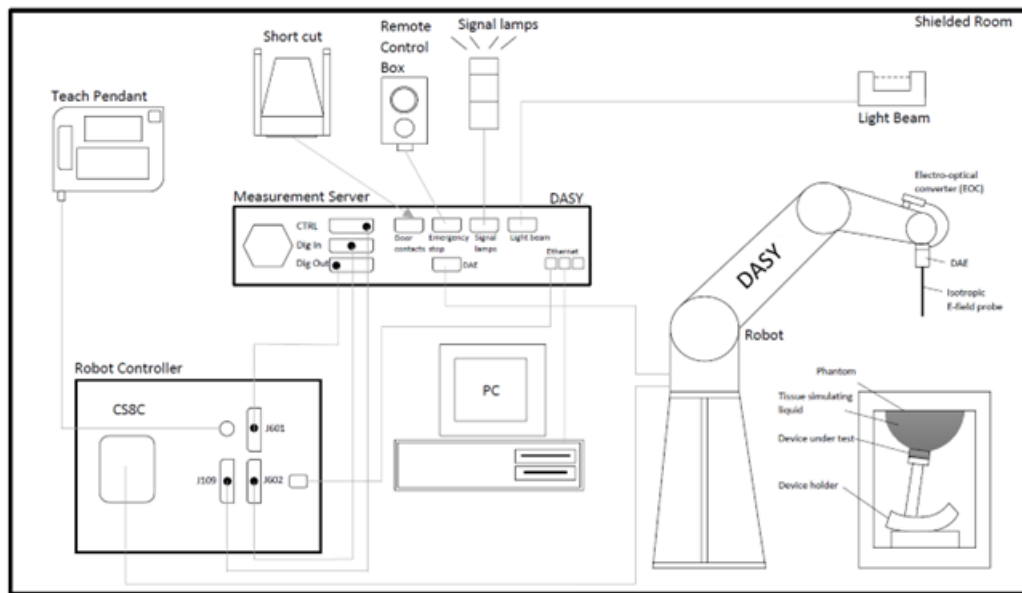


Figure 2 Schematic Laboratory Picture

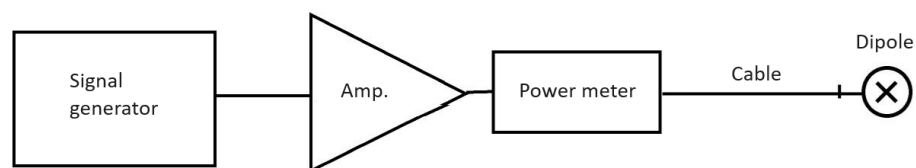


Figure 3. Signal source setup for system check

4.1 Test Equipment List

Test Equipment	Model	Serial Number	Calibration Date	Interval [years]
Amplifier, 800-4200MHz, 50W	5163F	1022	NA	NA
DAE4, converter	DAE4	1332	02/2025	1
DASY5 Software	52.8.8.1258	-	NA	NA
Inline Peak Power Sensor	MA24105A	2102058	11/2025	1
Isotropic DOS probe	EX3DV4	7447	02/2025	1
Network Analyzer	E5071C	MY46102812	05/2025	1
Signal Analyzer	MS2830A	6201180758	NA	NA
System validation dipole	D2450V2	729	05/2025	3
System validation dipole	D835V2	448	03/2023	3

Main used test system components are listed above. For full equipment list and calibration intervals, please contact the testing laboratory.

Dipole calibration period supporting data:

		From calibration certificate			Measured 10/2025		
Dipole and Serial Number	Frequency [MHz]	Return Loss [dB]	Impedance [Ω]		Return Loss [dB]	Impedance [Ω]	
			R	jX		R	jX
D835V2-SN:448	835	-21.5	42.3	-0.1	-20.7	42.6	-4.2

4.1.1 Isotropic E-field Probe Type EX3DV4

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	Calibration certificate in Appendix D
Frequency	4 MHz to 10 GHz (dosimetry) Linearity: ± 0.2 dB (30 MHz to 10 GHz)
Directivity (typical)	± 0.1 dB in TSL (rotation around probe axis) ± 0.3 dB in TSL (rotation normal to probe axis)
Dynamic Range	10 μ W/g – > 100 mW/g Linearity: ± 0.2 dB (noise: typically <1 μ W/g)
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 2.5 mm (body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
Application	General dosimetry up to 6 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms

4.2 Phantoms

Eli Phantom:

The phantom used in SAR tests was an ELI phantom, manufactured by SPEAG. ELI phantom is used for compliance testing of handheld and body-mounted wireless devices in the frequency range of 4 MHz to 10 GHz. The phantom conforms to the requirements of IEC/IEEE 62209-1528 and FCC published RF Exposure KDB Procedures. The shell thickness of the bottom plate is 2 ± 0.2 mm.

4.3 Tissue Simulants

Recommended values for the dielectric parameters of the tissue simulants are given in IEC/IEEE 62209-1528 and FCC published RF Exposure KDB Procedures. The dielectric parameters of the used tissue simulants were within $\pm 10\%$ of the recommended values at frequencies under 3 GHz. A liquid compensation algorithm was used in DASY with which measured peak average SAR values were corrected for the deviation of used liquid. Depth of the tissue simulant was at least 15.0 cm from the inner surface of the flat phantom.

Tissue simulant liquid Ingredients
Deionized Water, tween, salt

4.4 System Validation Status

Frequency [MHz]	Dipole Type / SN	Probe Type / SN	Calibrated Signal Type	DAE Unit / SN	Dielectric Constant [ϵ']	Conductivity σ [S/m]	Date
2450	D2450V2-758	EX3DV4 - SN: 7447	CW	DAE 4 / 1332	37.65	1.8	03/2025
835	D835V2 - 455	EX3DV4 - SN: 7447	CW	DAE 4 / 1332	41.24	0.92	03/2025

4.5 System Check

Date	Tissue Type	Tissue Temp. [°C]	Frequency [MHz]	Input Power [mW]	Measured SAR1g [W/kg]	1W Target SAR1g [W/kg]	1W Normalized SAR1g [W/kg]	Deviation [%]	Plot #
06.11.2025	WB Head	22.2	2450	250	12.7	52.08	50.8	-2.46	1
10.11.2025	WB Head	21.0	835	250	2.34	9.36	9.36	0.0	2
11.11.2025	WB Head	21.0	835	250	2.44	9.36	9.76	4.27	3

4.5.1 Tissue Simulant Verification

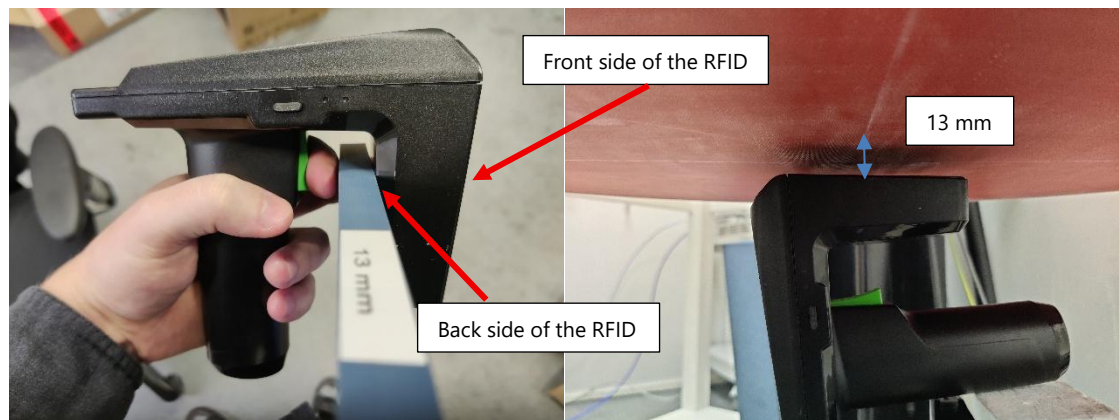
Date	Tissue Type	Tissue Temp [°C]	Frequency [MHz]	Measured		Target		Deviation	
				Dielectric Constant [ϵ']	Conductivity σ [S/m]	Dielectric Constant [ϵ']	Conductivity σ [S/m]	ϵ' [%]	σ [%]
06.11.2025	WB Head	22	2402	38.24	1.7	39.28	1.76	-2.7	-3.2
06.11.2025	WB Head	22	2442	38.18	1.73	39.21	1.79	-2.6	-3.8
06.11.2025	WB Head	22	2450	38.17	1.73	39.2	1.8	-2.6	-3.9
06.11.2025	WB Head	22	2480	38.13	1.75	39.16	1.83	-2.6	-4.6
10.11.2025	WB Head	22	835	40.28	0.89	41.5	0.9	-2.9	-1.6
10.11.2025	WB Head	22	927.25	39.87	0.92	41.45	0.98	-3.8	-6.3
11.11.2025	WB Head	21	835	41.31	0.93	41.5	0.9	-0.5	3.6
11.11.2025	WB Head	21	902.75	40.98	0.96	41.49	0.97	-1.2	-1.6
11.11.2025	WB Head	21	914.75	40.92	0.96	41.47	0.98	-1.3	-1.6
11.11.2025	WB Head	21	927.25	40.87	0.97	41.45	0.98	-1.4	-1.6

5. TEST PROCEDURE

Test configurations for SAR testing were selected based on conducted power measurements. Low, mid and high frequency channels for the configuration with the highest SAR value were tested as per ISED notice 2016-DRS001.

A control software was used for both Bluetooth and RFID to set the DUT to transmit at maximum power.

As per TCB workshop of October 2020, back side of the RFID reader was evaluated from the front side of the reader. Please see images below:



5.1 Device Holder

The device was placed in the device holder (illustrated below) that is supplied by SPEAG as an integral part of the Dasy system.



Device holder supplied by SPEAG

5.2 Test Positions

5.2.1 Extremity Configuration, 0mm separation distance

5.2.1.1 Bluetooth

Extremity SAR was tested from the top, left and right side of the device. BT antenna is located in the top side of the device. Please see appendix A for image.

The device was placed in the SPEAG holder/on the top of a Rohacell and lifted towards the phantom until the distance between the phantom and the device was 0mm.

Photos of the test positions are presented in appendix A.

5.2.1.2 RFID

Extremity SAR was tested from the back of the RFID antenna, top, left and right side of the device.

The device was placed in the SPEAG holder/on the top of a Rohacell and lifted towards the phantom until the distance between the phantom and the device was 0mm.

Please see section 5 for the definition of "back" side.

Photos of the test positions are presented in appendix A.

5.3 Scan Procedures

First, area scans were used for determination of the field distribution. Next, a zoom scan was performed around the highest E-field value to determine the averaged SAR value. Drift was determined by measuring the same point at the start of the area scan and again at the end of the zoom scan.

5.4 SAR Averaging Methods

The maximum SAR value was averaged over a cube of tissue using interpolation and extrapolation.

The interpolation, extrapolation and maximum search routines within Dasy are all based on the modified Quadratic Shepard's method (Robert J. Renka, "Multivariate Interpolation of Large Sets of Scattered Data", University of North Texas ACM Transactions on Mathematical Software, vol. 14, no. 2, June 1988, pp. 139-148).

The interpolation scheme combines a least-square fitted function method with a weighted average method. A trivariate 3-D / bivariate 2-D quadratic function is computed for each measurement point and fitted to neighboring points by a least-square method. For the zoom scan, inverse distance weighting is incorporated to fit distant points more accurately. The interpolating function is finally calculated as a weighted average of the quadratics.

In the zoom scan, the interpolation function is used to extrapolate the Peak SAR from the deepest measurement points to the inner surface of the phantom.

6. MEASUREMENT UNCERTAINTY

Uncertainty Budget According to IEC/IEEE 62209-1528 (Frequency band: 300MHz–3GHz range)								
Symbol	Error Description	Uncert. value	Prob. Dist.	Div.	(c) (1g)	(c) (10g)	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors								
CF	Probe Calibration	±13.3%	N	$\sqrt{2}$	1	1	±6.7%	±6.7%
CF _{drift}	Probe Calibration Drift	±1.7%	R	$\sqrt{3}$	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	$\sqrt{3}$	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±2.8%	R	$\sqrt{3}$	1	1	±1.6%	±1.6%
ISO	Probe Isotropy	±7.6%	R	3	1	1	±4.4%	±4.4%
DAE	Other Probe+Electronic	±0.8%	N	1	1	1	±0.8%	±0.8%
AMB	RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Δ_{sys}	Probe Positioning	±0.006mm	N	1	0.14	0.14	±0.10%	±0.10%
DAT	Data Processing	±1.2%	N	1	1	1	±1.2%	±1.2%
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.) ^{DAK}	±2.5%	N	$\sqrt{1}$	0.78	0.71	±2.0%	±1.8%
LIQ(T_{σ})	Conductivity (temp.) ^{BB}	±3.3%	R	$\sqrt{3}$	0.78	0.71	±1.5%	±1.4%
EPS	Phantom Permittivity	±14.0%	R	3	0	0	±0%	±0%
DIS	Distance DUT – TSL	±2.0%	N	1	2	2	±4.0%	±4.0%
D _{xyz}	Device Positioning	±1.0%	N	1	1	1	±1.0%	±1.0%
H	Device Holder	±3.6%	N	$\sqrt{1}$	1	1	±3.6%	±3.6%
MOD	DUT Modulation ^m	±2.4%	R	$\sqrt{3}$	1	1	±1.4%	±1.4%
TAS	Time-average SAR	±1.7%	R	3	1	1	±1.0%	±1.0%
RF _{drift}	DUT drift	±2.5%	N	1	1	1	±2.5%	±2.5%
VAL	Val Antenna Unc. ^{val}	±0.0%	N	1	1	1	±0.0%	±0.0%
RF _{in}	Unc. Input Power ^{val}	±0.0%	N	1	1	1	±0.0%	±0.0%
Correction to the SAR results								
C(ϵ , σ)	Deviation to Target	±1.9%	N	$\sqrt{1}$	1	0.84	±1.9%	±1.6%
C(R)	SAR scaling ^p	±0.0%	R	3	1	1	±0.0%	±0.0%
u(Δ SAR)	Combined Uncertainty						±11.3%	±11.2%
U	Expanded Uncertainty						±22.6%	±22.5%

7. TEST RESULTS

7.1 SAR Results for Extremity Condition with 0mm separation

Bluetooth:

Channel	Frequency [MHz]	Maximum Power [dBm]	Conducted Power [dBm]	Test Position	Measured SAR _{10g} [W/kg]	Power Drift* [dB]	Duty Cycle [%]	Scaling Factor	Reported SAR _{10g} [W/kg]	Plot #
78	2480	11	10.09	Top, 0mm	0.00989	-0.04	100	1.23	0.012	
78	2480	11	10.09	Left, 0mm	0.00204	1.66	100	1.81	0.004	
78	2480	11	10.09	Right, 0mm	0.129	-0.1	100	1.23	0.159	
0	2402	11	9.3	Right, 0mm	0.152	0.39	100	1.62	0.246	4
40	2442	11	9.77	Right, 0mm	0.132	0.16	100	1.33	0.175	

*Larger than 5% drifts included to scaling factors

RFID:

Channel	Frequency [MHz]	Maximum Power [dBm]	Conducted Power [dBm]	Test Position	Measured SAR _{10g} [W/kg]	Power Drift* [dB]	Duty Cycle [%]	Scaling Factor	Reported SAR _{10g} [W/kg]	Plot #
49	927.25	30	28.16	Back**	0.371	-1.51	100	2.16	0.802	
49	927.25	30	28.16	Top, 0mm	0.11	-0.52	100	1.72	0.189	
49	927.25	30	28.16	Left, 0mm	0.489	-0.73	100	1.81	0.884	
49	927.25	30	28.16	Right, 0mm	0.486	0.84	100	1.85	0.901	
0	902.75	30	27.16	Right, 0mm	1.49	-0.48	100	2.15	3.200	5
24	914.75	30	28.09	Right, 0mm	1.16	-0.73	100	1.84	2.130	

*Larger than 5% drifts included to scaling factors

**Please see section 5 for the definition of "back" side

7.2 IEC/IEEE 62209-1528:2020, Zoom Scan Evaluation

According to IEC/IEEE 62209-1528:2020, subclause 7.4.2 d.4), the zoom scan complies if the peak spatial-average SAR is below 0.1 W/kg, or if the following criteria is met:

1. The smallest horizontal distance from the local SAR peaks to all points 3 dB below the SAR peak is larger than the horizontal grid step.
2. Ratio of SAR at the second measured point (M2) to the SAR at the closest measured point (M1) at the x-y location of the measured maximum is at least 30%.

Zoom scan compliance according to IEC/IEEE 62209-1528:2020 is automatically verified by DASY software and all zoom scans in this test report do pass the criteria. The horizontal distance and Ratio between measurement points M2 and M1 of the highest SAR results are available in Appendix C.

7.3 Simultaneous Transmission Analysis

Simultaneous transmission analysis for the maximum SAR is in the table below. Direct summation of SAR results was performed.

Exposure Condition	Extremity SAR _{10g} [W/kg]			
Test Position	Back	Top	Left	Right
Bluetooth	-	0.012	0.004	0.246
RFID	0.802	0.189	0.884	3.2
Direct Summation:	0.80	0.20	0.89	3.45

APPENDIX A: PHOTOS OF THE DUT

Size of the DUT is: 151 x 150 x 72 mm



Figure 4. Overview of the DUT

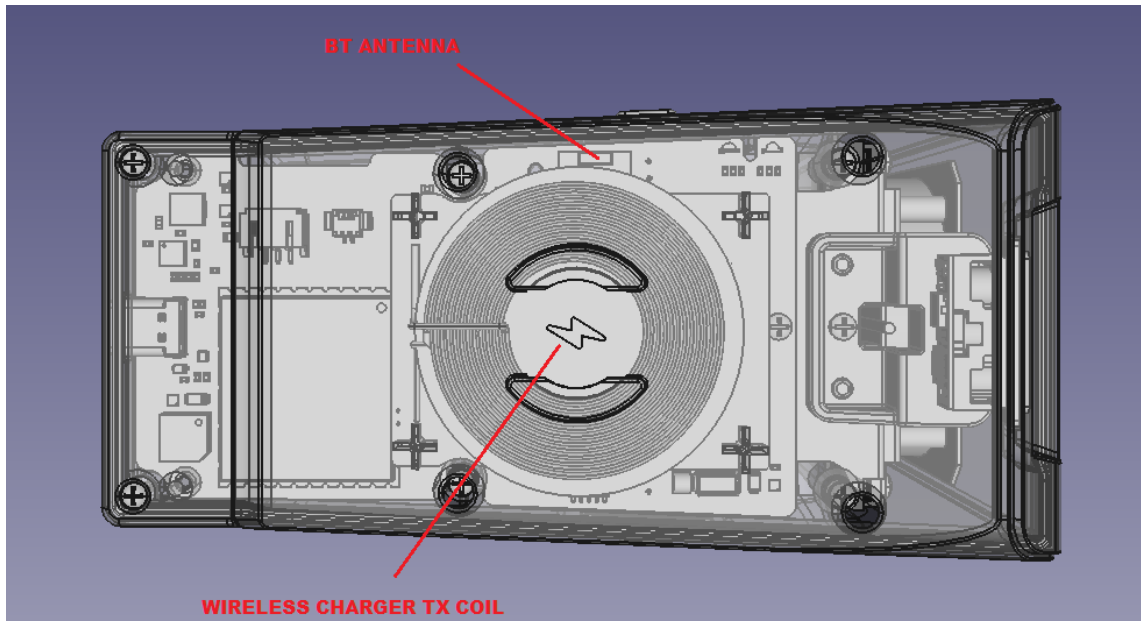


Figure 5. Bluetooth antenna location

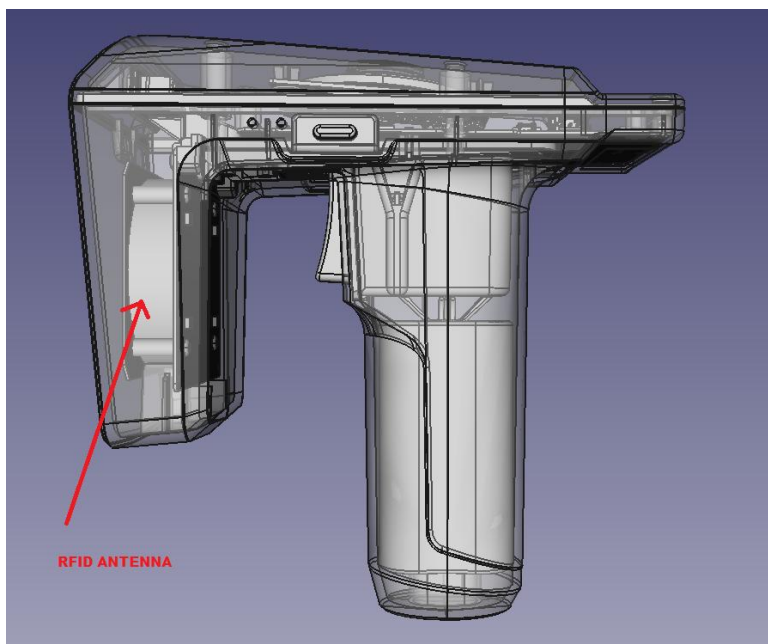


Figure 6. RFID antenna location

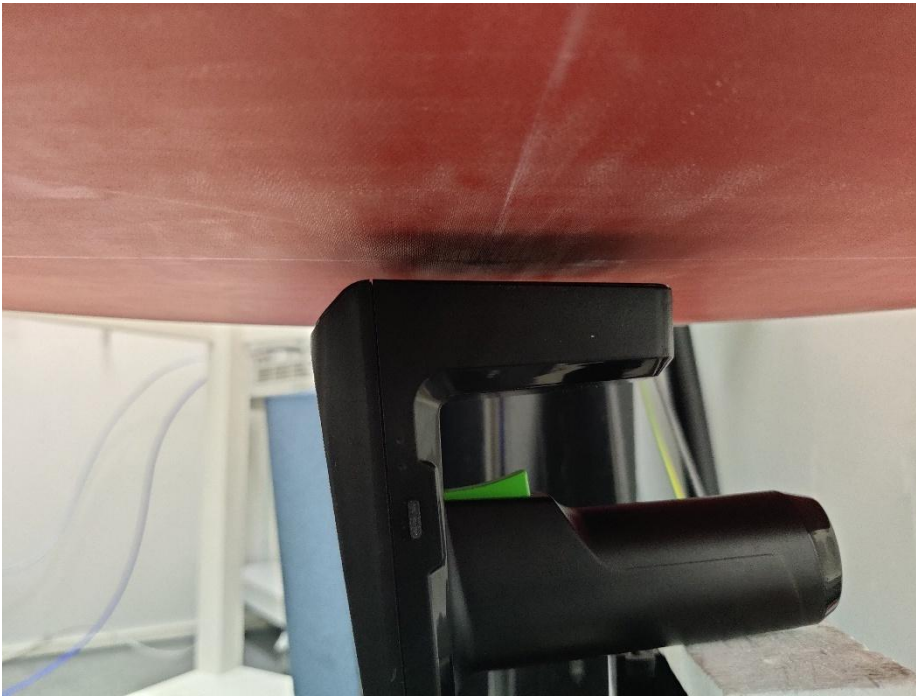


Figure 7. Back side of the RFID



Figure 8. Top side of the DUT



Figure 9. Left side of the DUT



Figure 10. Right side of the DUT

APPENDIX B: SYSTEM CHECK SCAN

Plot 1

Date/Time: 6.11.25 13:28:12

Test Laboratory: Verkotan Oy

DUT: D2450V2 - SN729

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

Communication System PAR: 0 dB;

Medium parameters used (interpolated): $f = 2450$ MHz; $\sigma = 1.73$ S/m; $\epsilon_r = 38.17$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC)

DASY Configuration:

- Probe: EX3DV4 - SN7447; ConvF(7.56, 7.28, 7.65) @ 2450 MHz; Calibrated: 7.2.25
 - Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -4.0, 31.0$
 - Electronics: DAE4 Sn1332; Calibrated: 5.2.25
 - Phantom: SAR1_Phantom1_ELI_right; Type: QD OVA 002 AA;
 - DASYS2 52.10.4(1527); SEMCAD X 14.6.14(7483)

Configuration/System check 2450MHz/Area Scan (61x71x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 22.4 W/kg

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

Reference Value = 115.7 V/m; Power Drift = -0.20 dB

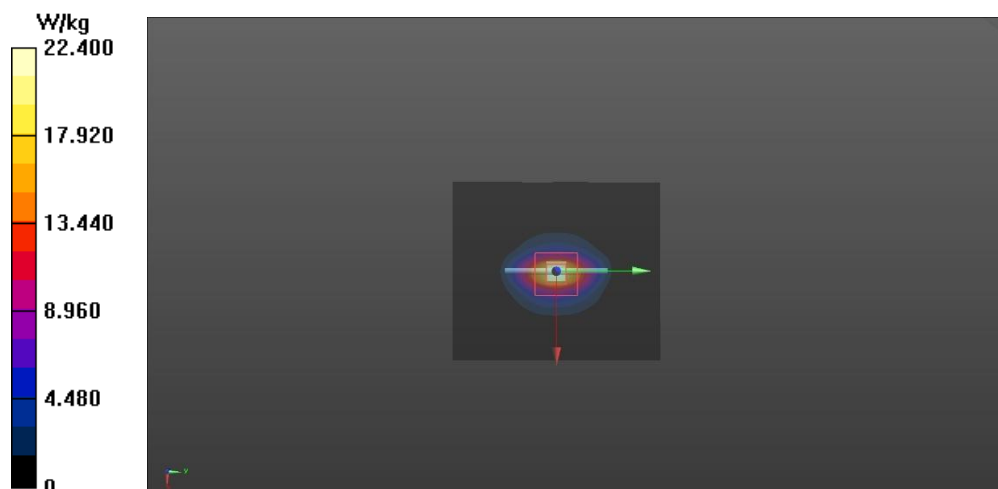
Peak SAR (extrapolated) = 24.4 W/kg

SAR(1 g) = 12.7 W/kg; SAR(10 g) = 5.94 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 52%

Maximum value of SAR (measured) = 20.5 W/kg



Plot 2

Date/Time: 10.11.25 10:51:26

Test Laboratory: Verkotan Oy

DUT: D835V2 - SN455

Communication System: UID 0, CW (0); Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz;

Communication System PAR: 0 dB;

Medium parameters used: $f = 835$ MHz; $\sigma = 0.886$ S/m; $\epsilon_r = 40.277$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC)

DASY Configuration:

- Probe: EX3DV4 - SN7447; ConvF(8.84, 8.51, 8.94) @ 835 MHz; Calibrated: 7.2.25
 - Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -4.0, 31.0$
 - Electronics: DAE4 Sn1332; Calibrated: 5.2.25
 - Phantom: SAR1_Phantom1_ELI_right; Type: QD OVA 002 AA;
 - DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Configuration/System check/Area Scan (81x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 3.08 W/kg

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

Reference Value = 62.90 V/m; Power Drift = -0.23 dB

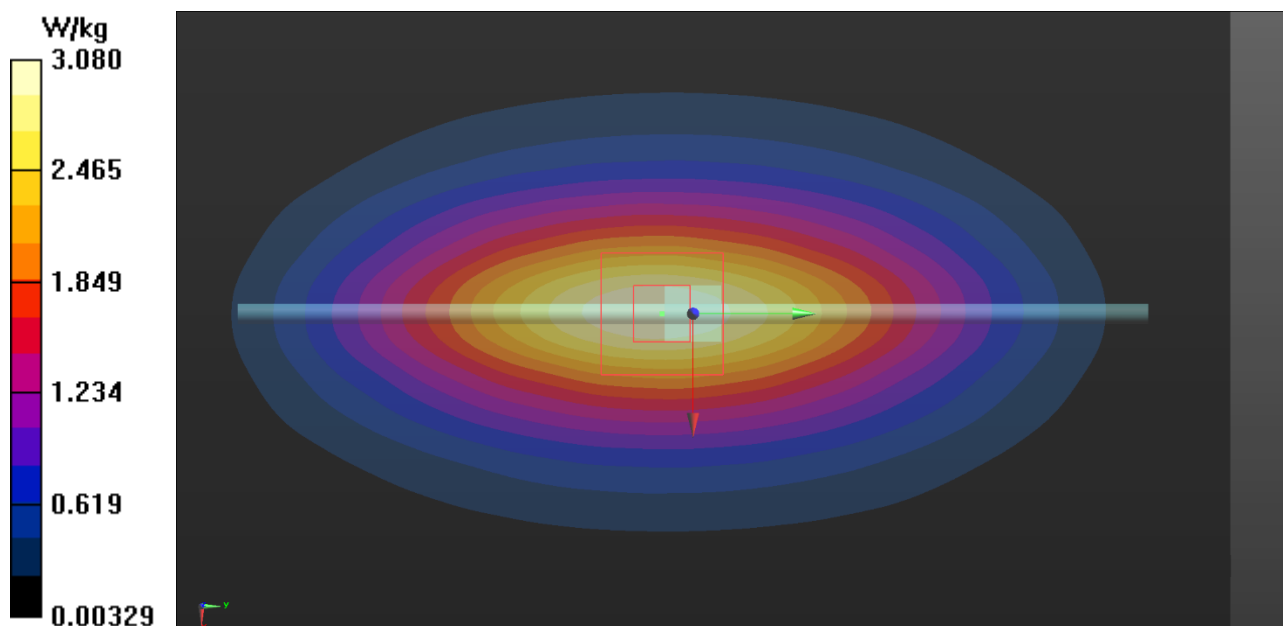
Peak SAR (extrapolated) = 3.38 W/kg

SAR(1 g) = 2.34 W/kg; SAR(10 g) = 1.52 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 18.6 mm

Ratio of SAR at M2 to SAR at M1 = 68.1%

Maximum value of SAR (measured) = 3.08 W/kg



Plot 3

Date/Time: 11.11.25 10:56:06

Test Laboratory: Verkotan Oy

DUT: D835V2 - SN455

Communication System: UID 0, CW (0); Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz;

Communication System PAR: 0 dB;

Medium parameters used: $f = 835$ MHz; $\sigma = 0.933$ S/m; $\epsilon_r = 41.305$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC)

DASY Configuration:

- Probe: EX3DV4 - SN7447; ConvF(8.84, 8.51, 8.94) @ 835 MHz; Calibrated: 7.2.25
 - Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -4.0, 31.0$
 - Electronics: DAE4 Sn1332; Calibrated: 5.2.25
 - Phantom: SAR1_Phantom1_ELI_right; Type: QD OVA 002 AA;
 - DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Configuration/System check/Area Scan (81x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 3.20 W/kg

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

Reference Value = 63.86 V/m; Power Drift = -0.43 dB

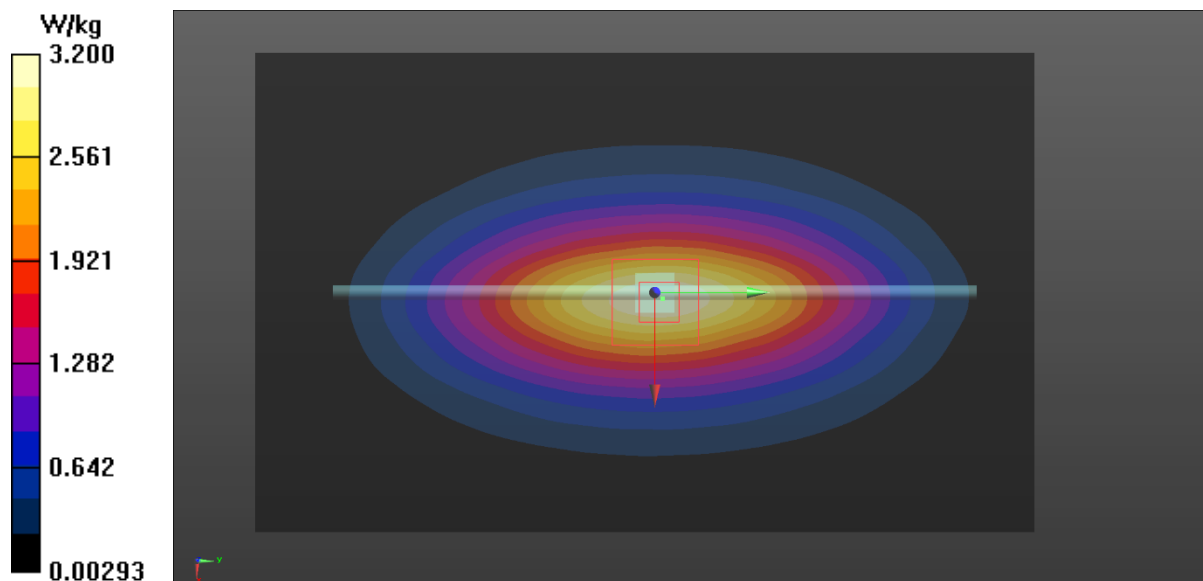
Peak SAR (extrapolated) = 3.55 W/kg

SAR(1 g) = 2.44 W/kg; SAR(10 g) = 1.59 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 17.5 mm

Ratio of SAR at M2 to SAR at M1 = 68.2%

Maximum value of SAR (measured) = 3.23 W/kg



APPENDIX C: MEASUREMENT SCANS

Plot 4

Date/Time: 7.11.25 12:25:00

Test Laboratory: Verkotan Oy

DUT: Caen RFID

Communication System: UID 0, Bluetooth (0); Communication System Band: Bluetooth; Frequency: 2402 MHz;

Communication System PAR: 0 dB;

Medium parameters used (interpolated): $f = 2402$ MHz; $\sigma = 1.701$ S/m; $\epsilon_r = 38.238$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC)

DASY Configuration:

- Probe: EX3DV4 - SN7447; ConvF(7.56, 7.28, 7.65) @ 2402 MHz; Calibrated: 7.2.25
 - Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 31.0, -4.0$
 - Electronics: DAE4 Sn1332; Calibrated: 5.2.25
 - Phantom: SAR1_Phantom1_ELI_right; Type: QD OVA 002 AA;
 - DASYS2 52.10.4(1527); SEMCAD X 14.6.14(7483)

Configuration/Bluetooth, DH5, 1Mbps, CH0, Right, 0mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 3.447 V/m; Power Drift = 0.39 dB

Peak SAR (extrapolated) = 0.902 W/kg

SAR(1 g) = 0.380 W/kg; SAR(10 g) = 0.152 W/kg (SAR corrected for target medium)

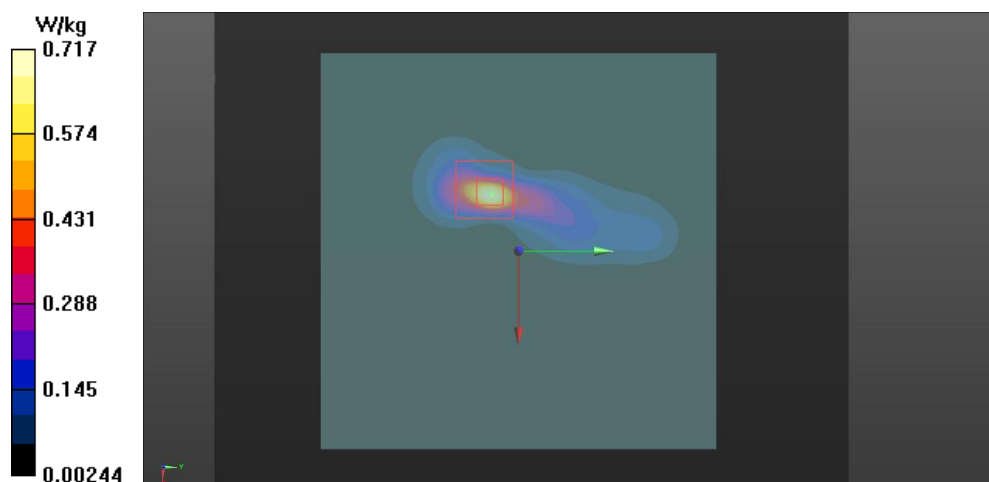
Smallest distance from peaks to all points 3 dB below = 5.4 mm

Ratio of SAR at M2 to SAR at M1 = 43.7%

Maximum value of SAR (measured) = 0.717 W/kg

Configuration/Bluetooth, DH5, 1Mbps, CH0, Right, 0mm/Area Scan (161x161x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.662 W/kg



Plot 5

Date/Time: 11.11.25 15:08:26

Test Laboratory: Verkotan Oy

DUT: Caen RFID

Communication System: UID 0, RFID (0); Communication System Band: 800; Frequency: 902.75 MHz;

Communication System PAR: 0 dB;

Medium parameters used: $f = 903$ MHz; $\sigma = 0.956$ S/m; $\epsilon_r = 40.981$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC)

DASY Configuration:

- Probe: EX3DV4 - SN7447; ConvF(8.84, 8.51, 8.94) @ 902.75 MHz; Calibrated: 7.2.25
 - Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 31.0, -4.0$
 - Electronics: DAE4 Sn1332; Calibrated: 5.2.25
 - Phantom: SAR1_Phantom1_ELI_right; Type: QD OVA 002 AA;
 - DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Configuration/FCC_RFID, CH0, Right, 0mm/Zoom Scan (9x8x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 7.980 V/m; Power Drift = -0.48 dB

Peak SAR (extrapolated) = 3.81 W/kg

SAR(1 g) = 2.45 W/kg; SAR(10 g) = 1.49 W/kg (SAR corrected for target medium)

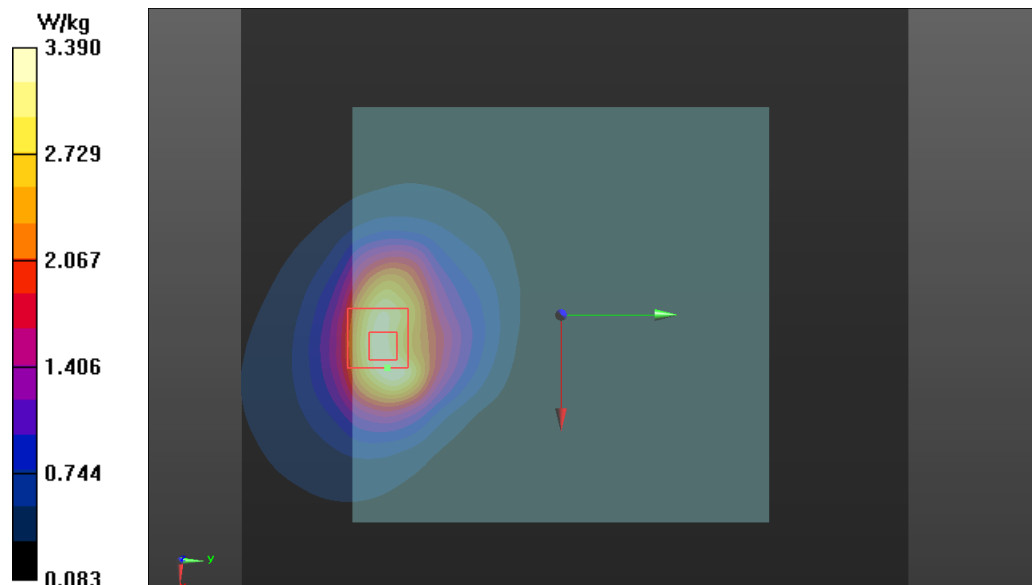
Smallest distance from peaks to all points 3 dB below = 11 mm

Ratio of SAR at M2 to SAR at M1 = 63.9%

Maximum value of SAR (measured) = 3.39 W/kg

Configuration/FCC_RFID, CH0, Right, 0mm/Area Scan (161x161x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 3.00 W/kg



APPENDIX D: RELEVANT PAGES FROM PROBE & DAE CALIBRATION REPORTS

**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **Verkotan**
Oulu, Finland

Certificate No. **EX-7447_Feb25**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:7447**

Calibration procedure(s) **QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6,
QA CAL-25.v8
Calibration procedure for dosimetric E-field probes**

Calibration date **February 07, 2025**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.
All calibrations have been conducted in the closed laboratory facility: environment temperature $(22 \pm 3)^\circ\text{C}$ and humidity $< 70\%$.
Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Calibration Date (Certificate No.)	Sched. Cal.
Power Sensor R&S NRP-33T	SN: 100967	28-Mar-24 (No. 217-04038)	Mar-25
Short [S6019] + Attenuator [S6020]	SN: L1119	28-Mar-24 (No. 217-04048)	Mar-25
OCP DAK-12	SN: 1016	24-Sept-24 (No. OCP-DAK12-1016_Sep24)	Sep-25
OCP DAK-3.5	SN: 1249	23-Sept-24 (No. OCP-DAK3.5-1249_Sep24)	Sep-25
Reference Probe EX3DV4	SN: 7349	10-Jan-25 (No. EX3-7349_Jan25)	Jan-26
DAE4	SN: 1301	07-Nov-24 (No. DAE4-1301_Nov24)	Nov-25

Secondary Standards	ID	Check Date (in house)	Sched. Check
ACAP 2020 Calibration Box	SN: L1404	30-Sept-24 (No. Report_ACAP2020E-Cave_20240930s)	Sep-25

	Name	Function	Signature
Calibrated by	Paulo Pina	Laboratory Technician	
Approved by	Sven Köhn	Technical Manager	
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			

Issued: February 07, 2025

Certificate No: EX-7447_Feb25

Page 1 of 9

EX3DV4 - SN:7447

February 07, 2025

Parameters of Probe: EX3DV4 - SN:7447

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k = 2)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.42	0.43	0.43	$\pm 10.1\%$
DCP (mV) ^B	95.9	91.9	99.5	$\pm 4.7\%$

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Max Unc ^E k = 2
0	CW	X	0.00	0.00	1.00	0.00	138.6	$\pm 1.7\%$	$\pm 4.7\%$
		Y	0.00	0.00	1.00		141.7		
		Z	0.00	0.00	1.00		135.0		

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X,Y,Z do not affect the E^2 -field uncertainty inside TSL (see Page 5).

^B Linearization parameter uncertainty for maximum specified field strength.

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

EX3DV4 - SN:7447

February 07, 2025

Parameters of Probe: EX3DV4 - SN:7447

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	38.6°
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3–4 mm for an Area Scan job.

EX3DV4 - SN:7447

February 07, 2025

Parameters of Probe: EX3DV4 - SN:7447

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	38.6°
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3–4 mm for an Area Scan job.

**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client **Verkotan**
Oulu - Finland

Certificate No: DAE4-1332_Feb25

CALIBRATION CERTIFICATE

Object DAE4 - SD 000 D04 BM - SN: 1332

Calibration procedure(s) QA CAL-06.v30
Calibration procedure for the data acquisition electronics (DAE)

Calibration date: February 05, 2025

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature ($22 \pm 3^\circ\text{C}$) and humidity $< 70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Keithley Multimeter Type 2001	SN: 0810278	27-Aug-24 (No:40547)	Aug-25
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Auto DAE Calibration Unit	SE UWS 053 AA 1001	23-Jan-25 (in house check)	In house check: Jan-26
Calibrator Box V2.1	SE UMS 006 AA 1002	23-Jan-25 (in house check)	In house check: Jan-26

Calibrated by: Dominique Steffen
Name: Dominique Steffen
Function: Laboratory Technician

Approved by: Sven Kühn
Name: Sven Kühn
Function: Technical Manager

Signature

[Signature]

[Signature]

Issued: February 5, 2025

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: DAE4-1332_Feb25

Page 1 of 5

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1 μ V , full range = -100...+300 mV

Low Range: 1LSB = 61 nV , full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	404.388 $\pm$ 0.02% (k=2)	403.789 $\pm$ 0.02% (k=2)	403.986 $\pm$ 0.02% (k=2)
Low Range	4.00058 $\pm$ 1.50% (k=2)	3.97378 $\pm$ 1.50% (k=2)	3.96150 $\pm$ 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	64.5 $^{\circ}$ $\pm$ 1 $^{\circ}$
---	------------------------------------

Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range	Reading (μV)	Difference (μV)	Error (%)
Channel X + Input	200034.87	1.05	0.00
Channel X + Input	20003.48	-0.15	-0.00
Channel X - Input	-20007.26	1.80	-0.01
Channel Y + Input	200036.46	2.50	0.00
Channel Y + Input	20003.72	-0.02	-0.00
Channel Y - Input	-20012.41	-3.41	0.02
Channel Z + Input	200037.10	3.38	0.00
Channel Z + Input	20003.35	-0.39	-0.00
Channel Z - Input	-20011.39	-2.23	0.01

Low Range	Reading (μV)	Difference (μV)	Error (%)
Channel X + Input	1999.21	0.33	0.02
Channel X + Input	198.42	-0.23	-0.12
Channel X - Input	-201.16	-0.21	0.11
Channel Y + Input	1998.86	0.11	0.01
Channel Y + Input	197.94	-0.63	-0.32
Channel Y - Input	-202.39	-1.25	0.62
Channel Z + Input	1998.61	-0.05	-0.00
Channel Z + Input	197.95	-0.70	-0.35
Channel Z - Input	-202.11	-0.89	0.44

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	-16.43	-18.36
	- 200	19.28	17.84
Channel Y	200	-22.58	-22.93
	- 200	21.27	21.07
Channel Z	200	-9.80	-9.99
	- 200	9.39	9.03

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	-0.80	-3.50
Channel Y	200	6.54	-	1.86
Channel Z	200	9.07	3.62	-

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	15927	15639
Channel Y	16077	15695
Channel Z	16001	15779

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Input 10M Ω

	Average (μ V)	min. Offset (μ V)	max. Offset (μ V)	Std. Deviation (μ V)
Channel X	0.70	-0.33	1.44	0.32
Channel Y	-0.39	-1.47	0.48	0.37
Channel Z	-0.10	-1.21	1.34	0.44

6. Input Offset Current

Nominal input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

APPENDIX E: RELEVANT PAGES FROM DIPOLE CALIBRATION REPORTS



SAR Reference Dipole Calibration Report

Ref : ACR.68.6.23.BES.A

VERKOTAN OY
ELEKTRONIIKKATIE 17
90590, OULU, FINLAND
SAR REFERENCE DIPOLE
FREQUENCY: 835 MHZ
SERIAL NO.: 448

Calibrated at MVG
Z.I. de la pointe du diable
Technopôle Brest Iroise – 295 avenue Alexis de Rochon
29280 PLOUZANE - FRANCE

Calibration date: 03/09/2023




Accreditations #2-6789 and #2-6814
Scope available on www.cofrac.fr

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Summary:

This document presents the method and results from an accredited SAR reference dipole calibration performed in MVG using the COMOSAR test bench. All calibration results are traceable to national metrology institutions.

Page: 1/8



SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref: ACR.006.23.005.A

	Name	Function	Date	Signature
Prepared by :	Cyrille ONNEE	Measurement Responsible	3/9/2023	
Checked & approved by:	Jérôme Luc	Technical Manager	3/9/2023	
Authorized by:	Yann Toutain	Laboratory Director	3/9/2023	

Yann
Toutain ID

Signature numérique
de Yann Toutain ID
Date : 2023.03.09
15:03:27 +01'00'

	Customer Name
Distribution :	Verkotan Oy

Issue	Name	Date	Modifications
A	Cyrille ONNEE	3/9/2023	Initial release

Page: 2/8

Template: ACR.006.23.005.A, MTVG.005.01, SAR Reference Dipole v1.
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SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref: ACR.68.623.BES.A

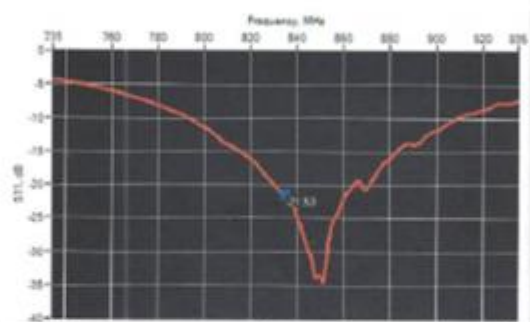
6 CALIBRATION RESULTS

6.1 MECHANICAL DIMENSIONS

L mm		h mm		d mm	
Measured	Required	Measured	Required	Measured	Required
-	161.00 +/- 2%	-	89.80 +/- 2%	-	3.60 +/- 2%

6.2 S11 PARAMETER

6.2.1 S11 parameter in Head Liquid



Frequency (MHz)	S11 parameter (dB)	Requirement (dB)	Impedance
835	-21.53	-20	42.3Ω - 0.1jΩ

6.3 SAR

The IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards state that the system validation measurements must be performed using a reference dipole meeting the fore mentioned return loss and mechanical dimension requirements. The validation measurement must be performed against a liquid filled flat phantom, with the phantom constructed as outlined in the fore mentioned standards. Per the standards, the dipole shall be positioned below the bottom of the phantom, with the dipole length centered and parallel to the longest dimension of the flat phantom, with the top surface of the dipole at the described distance from the bottom surface of the phantom.

6.3.1 SAR with Head Liquid

The IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards state that the system validation measurements should produce the SAR values shown below (for phantom thickness of 2 mm), within the uncertainty for the system validation. All SAR values are normalized to 1 W forward power. In bracket, the measured SAR is given with the used input power.

Page: 6/8

Template: ACR.DDD.N.YE.MHGR.ISSUE, SAR Reference Dipole v1.

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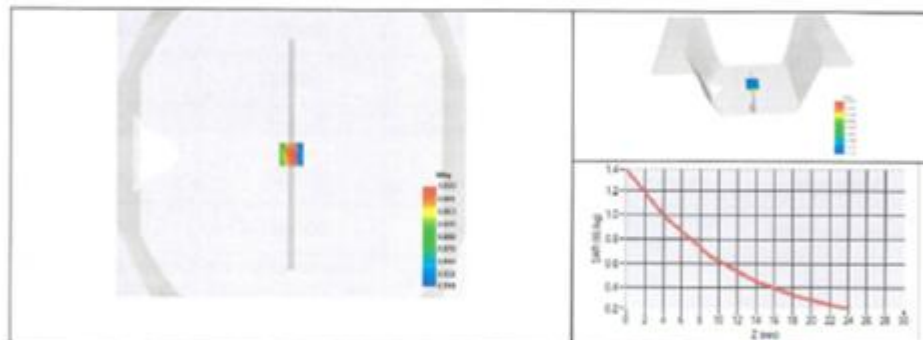


SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref: ACR.68.623.BES.A

Software	OPENSAR V5
Phantom	SN 13/09 SAM68
Probe	SN 41/18 EPG0333
Liquid	Head Liquid Values: ϵ_{ps} : 44.1 sigma : 0.89
Distance between dipole center and liquid	15.0 mm
Area scan resolution	$dx=8mm/dy=8mm$
Zoon Scan Resolution	$dx=8mm/dy=8mm/dz=5mm$
Frequency	835 MHz
Input power	20 dBm
Liquid Temperature	20 +/- 1 °C
Lab Temperature	20 +/- 1 °C
Lab Humidity	30-70 %

Frequency	1g SAR (W/kg)			10g SAR (W/kg)		
	Measured	Measured normalized to 1W	Target normalized to 1W	Measured	Measured normalized to 1W	Target normalized to 1W
835 MHz	0.94	9.36	9.56	0.61	6.05	6.22



Page: 7/8

Template: ACR.DDD.N.YE.MVGB.ESSUE_SAR Reference Dipole v1.

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Docusign Envelope ID: 5C52517C-7FBF-49B6-8CC1-F810A827F83F



SAR Reference Dipole Calibration Report

Ref : ACR.139.5.25.BES.A

VERKOTAN LTD.
ELEKTRONIIKKATIE 17
90590, OULU, FINLAND
SAR REFERENCE DIPOLE
FREQUENCY: 2450 MHZ
SERIAL NO.: D2450V2-729

Calibrated at MVG
Z.I. de la pointe du diable
Technopôle Brest Iroise – 295 avenue Alexis de Rochon
29280 PLOUZANE - FRANCE

Calibration date: 05/16/25



Accreditations #2-6789 and #2-6814
Scope available on www.cofrac.fr

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Summary:

This document presents the method and results from an accredited SAR reference dipole calibration performed in MVG using the COMOSAR test bench. All calibration results are traceable to national metrology institutions.

Docusign Envelope ID: 5C52517C-7FBF-49B6-8CC1-F810A827F83F



SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref: ACR.139.5.25.BES.A

	Name	Function	Date	Signature
Prepared by :	Pedro Ruiz	Technical Manager	5/19/2025	
Checked & approved by:	Pedro Ruiz	Technical Manager	5/19/2025	
Authorized by:	Kim Rutkowski	Quality Manager	5/19/2025	Signed by: Kimberley ROTKOWSKI 29589547AD17451...

	Customer Name
Distribution :	Verkotan Ltd.

Issue	Name	Date	Modifications
A	Pedro Ruiz	5/19/2025	Initial release

Page: 2/8

Template_ACR.DDD.N.YY.MVGB.ISSUE_SAR Reference Dipole vM

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DocuSign Envelope ID: 5C52517C-7FBF-49B6-8CC1-F810A827F83F



SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref. ACR.139.5.25.BES.A

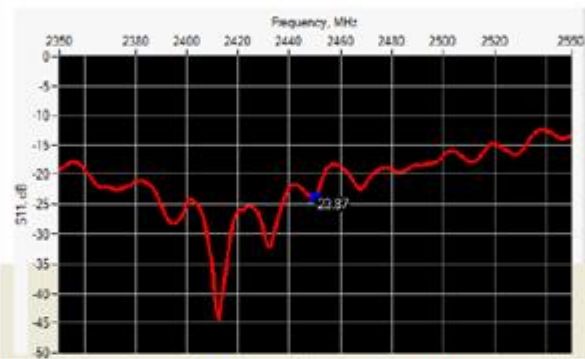
6 CALIBRATION RESULTS

6.1 MECHANICAL DIMENSIONS

L mm		h mm		d mm	
Measured	Required	Measured	Required	Measured	Required
-	51.50 +/- 2%	-	30.40 +/- 2%	-	3.60 +/- 2%

6.2 S11 PARAMETER

6.2.1 S11 parameter in Head Liquid



Frequency (MHz)	S11 parameter (dB)	Requirement (dB)	Impedance
2450	-23.87	-20	44.3Ω - 1.1jΩ

6.3 SAR

The IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards state that the system validation measurements must be performed using a reference dipole meeting the fore mentioned return loss and mechanical dimension requirements. The validation measurement must be performed against a liquid filled flat phantom, with the phantom constructed as outlined in the fore mentioned standards. Per the standards, the dipole shall be positioned below the bottom of the phantom, with the dipole length centered and parallel to the longest dimension of the flat phantom, with the top surface of the dipole at the described distance from the bottom surface of the phantom by using a prescribed spacer.

6.3.1 SAR with Head Liquid

The IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards state that the system validation measurements should produce the SAR values shown below (for phantom thickness of 2 mm), within the uncertainty for the system validation. All SAR values are normalized to 1 W forward power. In bracket, the measured SAR is given with the used input power.

Software	OPENSAR V5
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Template_ACR.DDD.N.YY.MVGB.ISSUE_SAR Reference Dipole vM

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SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref. ACR.139.5.25.BES.A

Phantom	SN 13/09 SAM68
Probe	4424-EPGO-443
Liquid	Head Liquid Values: ϵ_p : 41.6 σ : 1.88
Distance between dipole center and liquid	10.0 mm
Area scan resolution	$dx=8\text{mm}/dy=8\text{mm}$
Zoon Scan Resolution	$dx=5\text{mm}/dy=5\text{mm}/dz=5\text{mm}$
Frequency	2450 MHz
Input power	20 dBm
Liquid Temperature	20 +/- 1 °C
Lab Temperature	20 +/- 1 °C
Lab Humidity	30-70 %

Frequency	1g SAR (W/kg)			10g SAR (W/kg)		
	Measured	Measured normalized to 1W	Target normalized to 1W	Measured	Measured normalized to 1W	Target normalized to 1W
2450 MHz	5.21	52.08	52.40	2.44	24.35	24.00

