intertek
Total Quality. Assured.

Dental Imaging Technologies Corporation

SAR TEST REPORT

SCOPE OF WORK:
SAR report for FCC and ISED

Model:
IS 3800W

REPORT NUMBER
230700135SHA-003

ISSUE DATE
November 23, 2023

DOCUMENT CONTROL NUMBER
TTRFFCCSAR_V1

Intertek Testing Services Shanghai,
Building No.86, 1198 Qinzhou Road (North),
Caohejing Development Zone,
Shanghai 200233, China

Telephone: 86 21 6127 8200
www.intertek.com

Total Quality. Assured.

TEST REPORT

Report no.: 230700135SHA-003

Applicant	:	Dental Imaging Technologies Corporation 450 Commerce Drive Quakertown, PA 18951 USA
Manufacturer	:	Dental Imaging Technologies Corporation 450 Commerce Drive Quakertown, PA 18951 USA
FCC ID	:	2A7FYIS3800W
IC	:	28659-IS3800W

Summary

The equipment complies with the requirements according to the following standard(s) or Specification:

47CFR § 2.1093: Radio frequency Radiation Exposure Evaluation: Portable Device

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 – Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)

IEEE Std 1528:2013: Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques

KDB447498 D04 Interim General RF Exposure Guidance v01

KDB248227 D01 802.11 Wi-Fi SAR v02r02

KDB865664 D01 SAR measurement 100 MHz to 6 GHz v01r04

KDB865664 D02 RF Exposure Reporting v01r02

KDB690783 D01 SAR Listings on Grants v01r03

RSS-102 issue 5 Amendment 1: Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands), sets out the requirements and measurement techniques used to evaluate radio frequency (RF) exposure compliance of radiocommunication apparatus designed to be used within the vicinity of the human body

PREPARED BY:	**REVIEWED BY:**
Project Engineer Erick Liu	Reviewer Wakeyou Wang

Contents

Revision History

Report No.	Version	Description	Issued Date
230700135SHA-003	Rev. 01	Initial issue of report	November 23, 2023

SAR Summary

Highest Standalone SAR Summary

Exposure Position	Frequency Band	Highest Reported 1g-SAR(W/kg)
Body-supported (0mm Gap)	5150-5250	0.803
Body-supported (0mm Gap)	5250-5350	0.147
Body-supported (0mm Gap)	5470-5725	0.329
Body-supported (0mm Gap)	5725-5850	0.629

1 General Information

1.1 Description of Equipment Under Test (EUT)

Product name:	I/O 3D Scanner
Type/Model:	IS 3800W
Description of EUT:	The EUT is a digital optical scanning device used to record the topographic characteristics of teeth or dental impressions in three dimensions.it support 5G WIFI function.
Exposure Category:	Population/Uncontrolled
Rating:	For handpiece: 5V dc, 5A or powered by a 3.6-4.2Vdc Lithium-ion battery. For charge station: Input: 12Vdc, 2.5A; Output: 12Vdc, 2.5A For AC/DC adaptor: Input: 100-240V~, 50/60Hz, 0.8A; Output: 12Vdc, 2.5A
Hardware version:	/
Software version:	/
Sample ID:	0230628-14-001
Sample received date:	June 28, 2023
Date of test:	June 30, 2023 ~ November 23, 2023

1.2 RF Technical Information

Frequency Band:	5150 ~ 5250MHz 5250 ~ 5350MHz 5470 ~ 5725MHz 5725 ~ 5850MHz
Support Standards:	802.11ac (VHT20), 802.11ac (VHT40), 802.11ac (VHT80)
Type of Modulation:	OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Channel Number:	For 5150 ~ 5250MHz band: Channel 36 - 48 For 5250 ~ 5350MHz Band: Channel 52 - 64 For 5470 ~ 5725MHz Band: Channel 100 - 140 For 5725 ~ 5850MHz band: Channel 149 - 165

Antenna information:			
No.	Antenna Type	Gain	Note
1	PIFA Antenna	3dBi	-

Mode	Tx/Rx Function	Beamforming function	CDD function	Directional gain (dBi)
802.11ac (VHT20)	1Tx/1Rx	NO	NO	-
802.11ac (VHT40)	1Tx/1Rx	NO	NO	-
802.11ac (VHT80)	1Tx/1Rx	NO	NO	-

1.3 Description of Test Facility

Name:	Intertek Testing Services Shanghai
Address:	Building D2, No 999, Gaolang Road (East), Wuxi, Jiangsu P.R.C

The test facility is recognized, certified, or accredited by these organizations:	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier.: CN0014
	A2LA Accreditation Lab Certificate Number: 3309.02

1.4 Instrument list

SAR Test Site					
Used	Equipment	Manufacturer	Type	Internal no.	Due date
☐	Dipole antenna	Speag	D245v2	897	2024-4-12
☐	Dipole antenna	Speag	D2600v2	1053	2024-4-13
☒	Dipole antenna	Speag	D5ghzv2	1135	2024-4-13
☐	Dipole antenna	Speag	D835v2	4d140	2024-4-6
☐	Dipole antenna	Speag	D1750v2	1074	2024-4-6
☐	Dipole antenna	Speag	D1950v3	1142	2024-4-12
☐	Dipole antenna	Speag	D2300V2	1027	2024-4-13
☐	Dipole antenna	Speag	D2100v2	1021	2024-4-6
☒	Power amplifier	Mini circuits	Zhl-42w	Qa1233002	2025-02-24
☐	Universal Radio Communication Tester	R&S	CMW500	168135	2024-6-7
☐	Universal Radio Communication Tester	Beijing Xinghe	SP9500	SP9500-20457	2025-10-19
☒	Power meter	Agilent	E4416	My52300018	2024-2-25
☒	Date collector	Speag	Dae4	1346	2024-4-12
☒	Signal generator	Agilent	N5183a	My501411489	2024-1-3
☒	Network analyzer	Agilent	E5071c	My46215172	2024-1-9
☒	E-Field Probe	Speag	EX3DV4	3880	2024-5-6

2 Measurement Uncertainty

Source of Uncertainty	Uncertainty ± %	Probability Distribution	Div.	ci (1 g)	ci (10 g)	Standard uncertainty ± %, (1 g)	Standard uncertainty ± %, (10 g)	vi or veff
Measurement system								
Probe calibration	6.7	N	1	1	1	6.7	6.7	∞
Axial isotropy	4.7	R	1.732	0.71	0.71	1.9	1.9	∞
Hemispherical isotropy	9.6	R	1.732	0.71	0.71	3.9	3.9	∞
Boundary effect	1.9	R	1.732	1	1	1.1	1.1	∞
Linearity	4.7	R	1.732	1	1	2.7	2.7	∞
Detection limits	1.0	R	1.732	1	1	0.6	0.6	∞
Modulation response	2.4	R	1.732	1	1	1.4	1.4	∞
Readout electronics	1.0	N	1	1	1	1.0	1.0	∞
Response time	0.8	R	1.732	1	1	0.5	0.5	∞
Integration time	2.2	R	1.732	1	1	1.3	1.3	∞
RF ambient conditions-noise	3.0	R	1.732	1	1	1.7	1.7	∞
RF ambient conditions-reflections	3.0	R	1.732	1	1	1.7	1.7	∞
Probe positioner mechanical tolerance	0.4	R	1.732	1	1	0.2	0.2	∞
Probe positioning with respect to phantom shell	2.9	R	1.732	1	1	1.7	1.7	∞
Post-processing	2.0	R	1.732	1	1	1.2	1.2	∞
Test sample related								
Test sample positioning	3.0	N	1	1	1	3.0	3.0	*11*
Device holder uncertainty	3.6	N	1	1	1	3.6	3.6	*7*
SAR drift measurement	5.0	R	1.732	1	1	2.9	2.9	∞
SAR scaling	0.0	R	1.732	1	1	0.0	0.0	∞
Phantom and set-up								
Phantom uncertainty	4.0	R	1.732	1	1	2.3	2.3	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	1.9	N	1	1	0.84	1.9	1.6	∞
Liquid conductivity (temperature uncertainty)	2.5	R	1.732	0.78	0.71	1.1	1.0	∞
Liquid conductivity (measured)	5.0	N	1	0.78	0.71	3.9	3.6	*5*
Liquid permittivity (temperature uncertainty)	2.5	R	1.732	0.23	0.26	0.3	0.4	∞
Liquid permittivity (measured)	5.0	N	1	0.23	0.26	1.2	1.3	*5*
Combined standard uncertainty		RSS				12.0	11.9	
Expanded uncertainty (95% *confidence interval*)		*k* = 2				24.0	23.8	

3 Tissue Dielectric Parameter Measurements

3.1 Target for Tissue Dielectric Parameter

The temperature of the tissue-equivalent medium used during measurement must also be within 18℃ to 25℃and within ± 2℃ of the temperature when the tissue parameters are characterized. The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 24 hours of use; or earlier if the dielectric parameters can become out of tolerance.

Target Tissue Dielectric Parameters

Frequency (MHz)	Head Tissue	
	ε_r	σ(S/m)
750	41.9	0.89
835	41.5	0.90
1750	40.1	1.37
1900	40.0	1.40
2000	40.0	1.40
2300	39.5	1.67
2450	39.2	1.80
2600	39.0	1.96
5250	35.9	4.71
5600	35.5	5.07
5750	35.4	5.22

3.2 Verification results

Frequency (MHz)	Temp ℃	Measured Dielectric Parameters		Target Dielectric Parameters		Limit (Within ±5%)	
		εr	σ(s/m)	εr	σ(s/m)	Dev εr(%)	Dev σ(%)
5250	21.5	35.60	4.66	35.9	4.71	-0.84	-1.06
5600	21.5	35.16	5.06	35.5	5.07	-0.96	-0.20
5750	21.5	35.12	5.26	35.4	5.22	-0.79	0.77

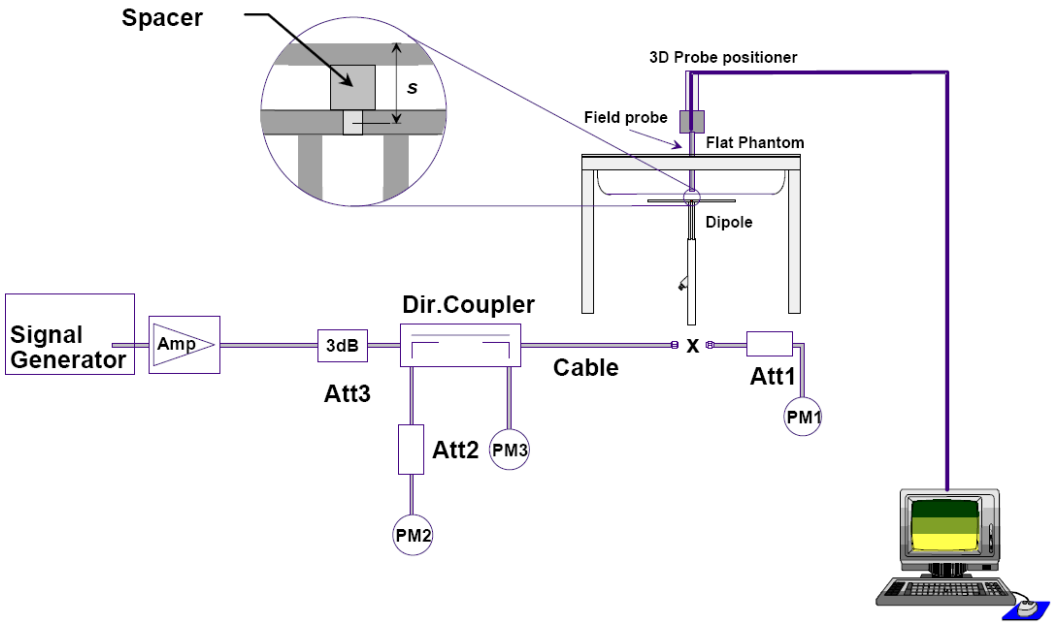
4 System Verification

4.1 System Performance Check

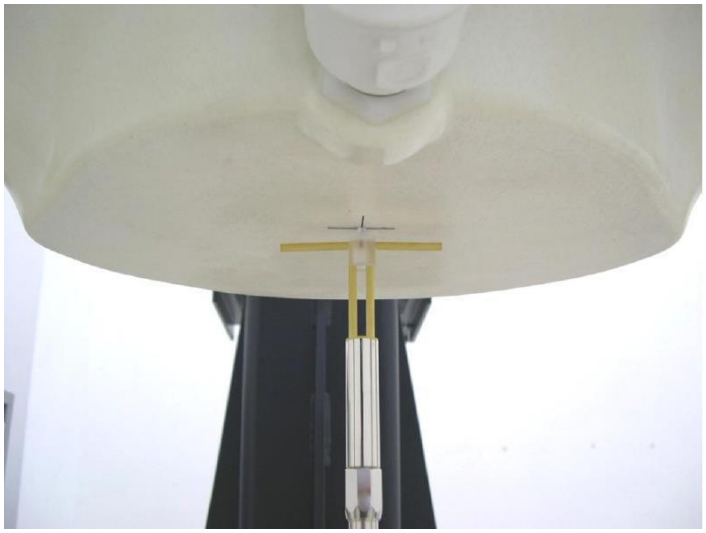
The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulates were measured using the dielectric probe kit and the network analyzer. A system check measurement for every day was made following the determination of the dielectric parameters of the Tissue simulates, using the dipole validation kit. The dipole antenna was placed under the flat section of the twin SAM phantom.

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

System Performance Check setup



Dipole Setup



Target Tissue Dielectric Parameters

Frequency (MHz)	Head Tissue	
	Target SAR_{1g}	Target SAR_{10g}
835	9.62	6.32
1750	36.0	19.1
1900	41.7	21.3
2100	43.4	21.6
2300	49.3	23.4
2450	52.3	24.2
2600	56.6	25.3
5250	77.8	22.2
5600	80.8	22.8
5750	77.1	21.7

4.2 System Performance Check Result

Frequency (MHz)	Temp ℃	100mW Measured SAR10g	100mW Measured SAR1g	1W Normalized SAR10g (W/kg)	1W Normalized SAR1g (W/kg)	1W Target SAR10g (W/kg)	1W Target SAR1g (W/kg)	Limit SAR10g (±10%)	Limit SAR1g (±10%)
5250	22.4	2.28	7.96	22.80	79.60	22.00	77.90	3.64	2.18
5600	22.4	2.25	8.12	22.50	81.20	23.00	81.90	-2.17	-0.85
5750	22.4	2.27	7.85	22.70	78.50	21.80	78.00	4.13	0.64
Note： Target Values used derive from the calibration certificate Data Storage and Evaluation.									

4.3 Wi-Fi Measurement Procedures for SAR

Normal network operating configurations are not suitable for measuring the SAR of 802.11 transmitters in general. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure that the results are consistent and reliable. Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in a test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters. The test frequencies should correspond to actual channel frequencies defined for domestic use. SAR for devices with switched diversity should be measured with only one antenna transmitting at a time during each SAR measurement, according to a fixed modulation and data rate. The same data pattern should be used for all measurements.

4.4 Power Drift

To control the output power stability during the SAR test, DASY5 system calculates the power drift by measuring the E-field at the same location at the beginning and at the end of the measurement for each test position. This ensures that the power drift during one measurement is within 5%.

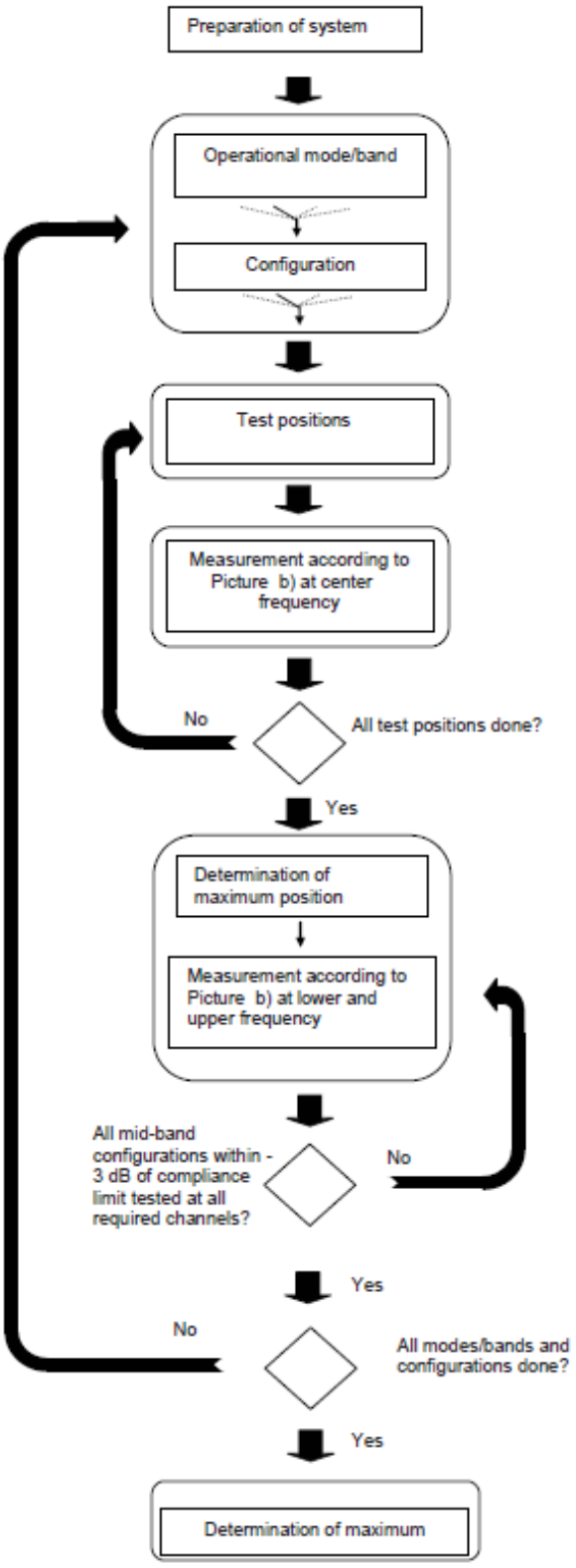
5 Measurement Procedures

5.1 RF exposure Limit

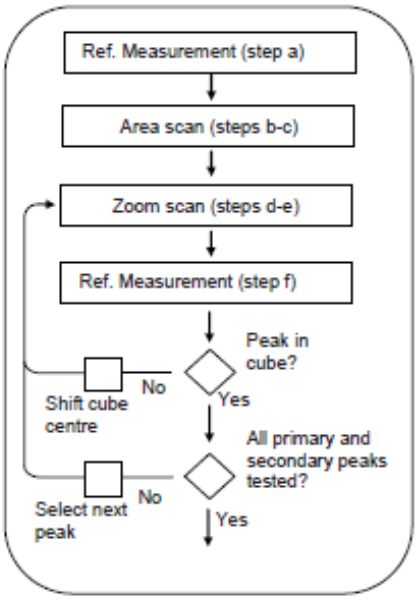
Human Exposure	Uncontrolled Environment General Population
Spatial Peak SAR* (Brain/Body)	**1.60 mW/g**
Spatial Average SAR** (Whole Body)	0.08 mW/g
Spatial Peak SAR*** (Limbs)	4.00 mW/g

Note: 1. The limit applied in this test report is shown in bold letter;
2. * The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time;
3. ** The Spatial Average value of the SAR averaged over the whole body;
4. *** The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time;

5.2 Block Diagram of Test Setup



Picture a – Tests to be performed



Picture b – General procedure

5.3 Test Conditions and Test Method

The area and zoom scan resolutions specified in the table below must be applied to the SAR measurements and fully documented in SAR reports to qualify for TCB approval. Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1-g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2003. The results should be documented as part of the system validation records and may be requested to support test results when all the measurement parameters in the following table are not satisfied.

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

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the *reported* SAR from the area scan based *1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

6 Conducted RF Output Power

Test Mode	Frequency [MHz]	Channel Power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]
11AC20SISO	5180	11.32	98.97	0.04	11.36
11AC20SISO	5200	12.35	98.98	0.04	12.39
11AC20SISO	5240	12.00	98.97	0.04	12.04
11AC20SISO	5260	10.99	98.97	0.04	11.03
11AC20SISO	5280	11.13	98.97	0.04	11.17
11AC20SISO	5320	10.83	98.97	0.04	10.87
11AC20SISO	5500	10.25	98.97	0.04	10.29
11AC20SISO	5580	10.31	98.97	0.04	10.35
11AC20SISO	5700	10.22	98.97	0.04	10.26
11AC20SISO	5745	11.26	98.97	0.04	11.30
11AC20SISO	5785	11.65	98.47	0.07	11.72
11AC20SISO	5825	11.27	98.97	0.04	11.31
11AC40SISO	**5190**	**12.45**	**97.94**	**0.09**	**12.54**
11AC40SISO	5230	12.05	97.94	0.09	12.14
11AC40SISO	**5270**	**11.32**	**97.94**	**0.09**	**11.41**
11AC40SISO	5310	11.04	97.94	0.09	11.13
11AC40SISO	5510	10.48	97.94	0.09	10.57
11AC40SISO	5550	10.10	97.94	0.09	10.19
11AC40SISO	**5670**	**11.22**	**97.94**	**0.09**	**11.31**
11AC40SISO	5755	11.99	97.94	0.09	12.08
11AC40SISO	**5795**	**12.12**	**97.96**	**0.09**	**12.21**
11AC80SISO	5210	11.04	95.83	0.18	11.22
11AC80SISO	5290	7.67	95.83	0.18	7.85
11AC80SISO	5530	7.60	95.83	0.18	7.78
11AC80SISO	5610	8.55	95.83	0.18	8.73
11AC80SISO	5775	10.91	95.83	0.18	11.09

7 SAR Test Results

Test Position	Dist. (mm)	Mode	Duty Cycle	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR10g (W/Kg)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/Kg)
Back Side	0	11ac-VHT40	97.94	38/5190	13.00	12.54	0.176	0.723	-0.02	1.11	**0.803**
Front Side	0	11ac-VHT40	97.94	38/5190	13.00	12.54	0.023	0.054	0.15	1.11	0.060
Left Edge	0	11ac-VHT40	97.94	38/5190	13.00	12.54	0.033	0.036	0.023	1.11	0.040
Right Edge	0	11ac-VHT40	97.94	38/5190	13.00	12.54	0.03	0.047	-0.1	1.11	0.052
Top Edge	0	11ac-VHT40	97.94	38/5190	13.00	12.54	0.017	0.052	-0.14	1.11	0.058
Bottom Edge	0	11ac-VHT40	97.94	38/5190	13.00	12.54	0.022	0.024	-0.04	1.11	0.027
Back Side	0	11ac-VHT40	97.94	54/5270	12.00	11.41	0.187	0.573	-0.19	1.15	0.659
Front Side	0	11ac-VHT40	97.94	54/5270	12.00	11.41	0.021	0.048	0.11	1.15	0.055
Left Edge	0	11ac-VHT40	97.94	54/5270	12.00	11.41	0.05	0.128	-0.054	1.15	0.147
Right Edge	0	11ac-VHT40	97.94	54/5270	12.00	11.41	0.028	0.034	0.086	1.15	0.039
Top Edge	0	11ac-VHT40	97.94	54/5270	12.00	11.41	0.02	0.064	0.057	1.15	0.074
Bottom Edge	0	11ac-VHT40	97.94	54/5270	12.00	11.41	0.02	0.025	0.04	1.15	0.029
Back Side	0	11ac-VHT40	97.94	134/5670	12.00	11.31	0.126	0.281	0.01	1.17	0.329
Front Side	0	11ac-VHT40	97.94	134/5670	12.00	11.31	0.044	0.053	-0.01	1.17	0.062
Left Edge	0	11ac-VHT40	97.94	134/5670	12.00	11.31	0.045	0.084	0.15	1.17	0.098
Right Edge	0	11ac-VHT40	97.94	134/5670	12.00	11.31	0.031	0.037	-0.01	1.17	0.043
Top Edge	0	11ac-VHT40	97.94	134/5670	12.00	11.31	0.017	0.048	0.052	1.17	0.056
Bottom Edge	0	11ac-VHT40	97.94	134/5670	12.00	11.31	0.033	0.037	-0.05	1.17	0.043
Back Side	0	11ac-VHT40	97.96	159/5795	13.00	12.21	0.172	0.524	0.065	1.20	0.629
Front Side	0	11ac-VHT40	97.96	159/5795	13.00	12.21	0.028	0.033	0.09	1.20	0.040
Left Edge	0	11ac-VHT40	97.96	159/5795	13.00	12.21	0.055	0.115	0.09	1.20	0.138
Right Edge	0	11ac-VHT40	97.96	159/5795	13.00	12.21	0.052	0.077	-0.09	1.20	0.092
Top Edge	0	11ac-VHT40	97.96	159/5795	13.00	12.21	0.016	0.019	-0.1	1.20	0.023
Bottom Edge	0	11ac-VHT40	97.96	159/5795	13.00	12.21	0.029	0.035	-0.09	1.20	0.042

Appendix I: Test Setup

Appendix II: System check Results Plots

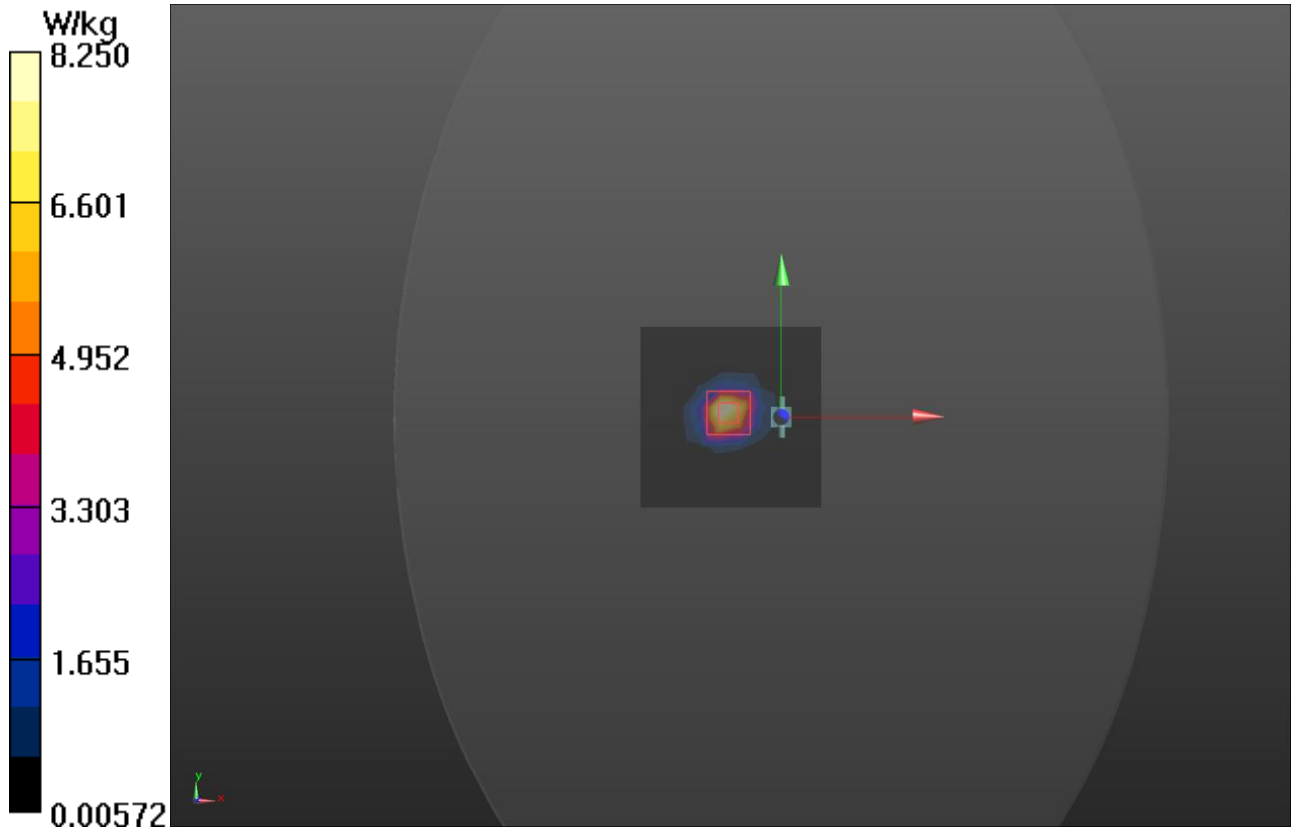
System Performance Check at 5250MHz

Date/Time: 2023/10/30 14:12:15
Communication System: UID 0, CW; Frequency: 5250 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5250 MHz; σ = 4.664 S/m; ε_r = 35.602; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(5.65, 5.99, 5.81) @ 5250 MHz; Calibrated: 2023/7/20
Electronics: DAE4 Sn1291; Calibrated: 2023/3/17
Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1058

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW/Area Scan (10x10x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 8.120 W/kg

d=10mm, Pin=100mW/Zoom Scan (4x4x2mm)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 75.78 V/m; Power Drift = 0.041 dB
Peak SAR (extrapolated) = 14.100 W/kg
SAR(1 g) = 7.960 W/kg; SAR(10 g) = 2.280 W/kg
Smallest distance from peaks to all points 3 dB below = 12.5 mm
Ratio of SAR at M2 to SAR at M1 = 53.4%
Maximum value of SAR (measured) = 8.250 W/kg

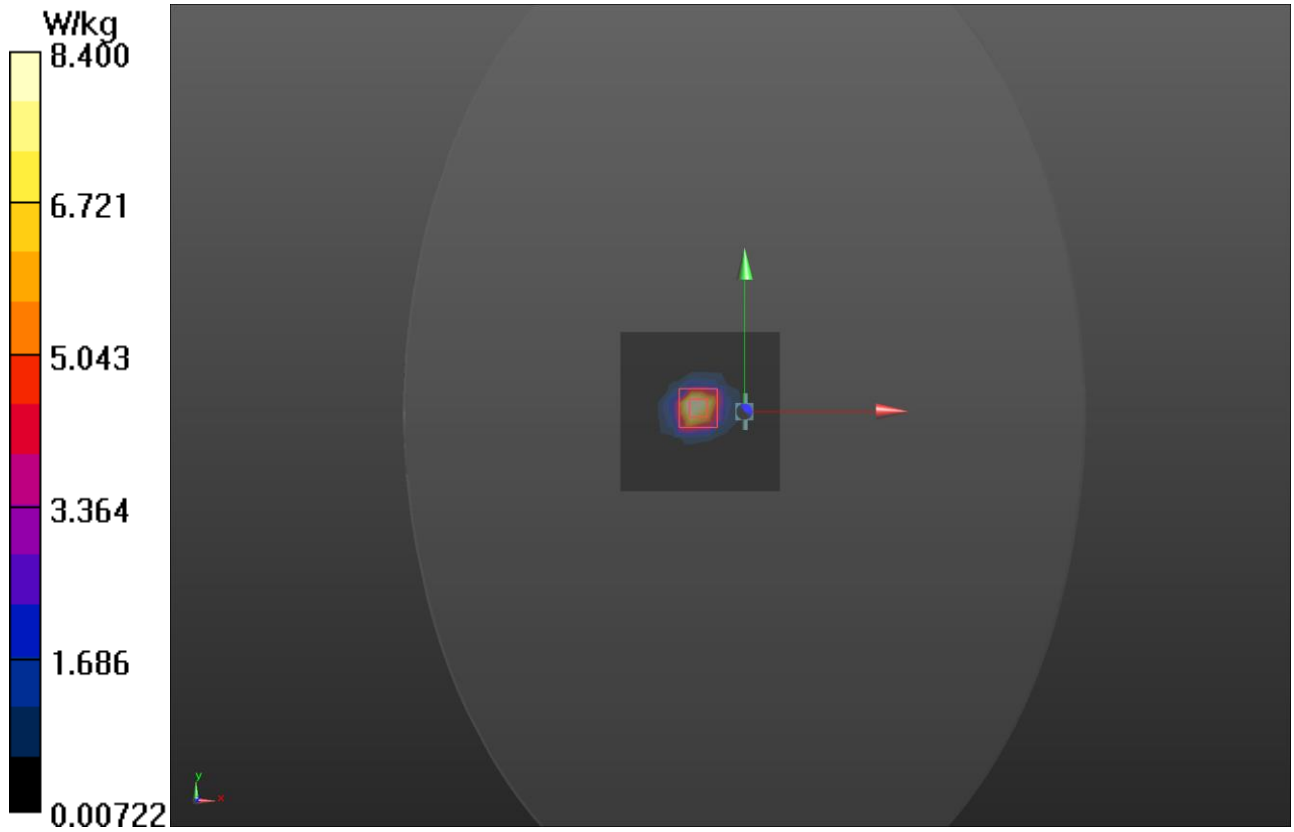

W/kg
8.250
6.601
4.952
3.303
1.655
0.00572

System Performance Check at 5600MHz

Date/Time: 2023/10/30 16:42:47
Communication System: UID 0, CW; Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 5.06 S/m; ε_r = 35.16; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(4.92, 5.23, 5.04) @ 5600 MHz; Calibrated: 2023/7/20
Electronics: DAE4 Sn1291; Calibrated: 2023/3/17
Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1058
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW/Area Scan (10x10x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 8.22 W/kg

d=10mm, Pin=100mW/Zoom Scan (4x4x2mm)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 81.15 V/m; Power Drift = 0.023 dB
Peak SAR (extrapolated) = 14.10 W/kg
SAR(1 g) = 8.120 W/kg; SAR(10 g) = 2.250 W/kg
Smallest distance from peaks to all points 3 dB below = 7.5 mm
Ratio of SAR at M2 to SAR at M1 = 50.2%
Maximum value of SAR (measured) = 8.400 W/kg

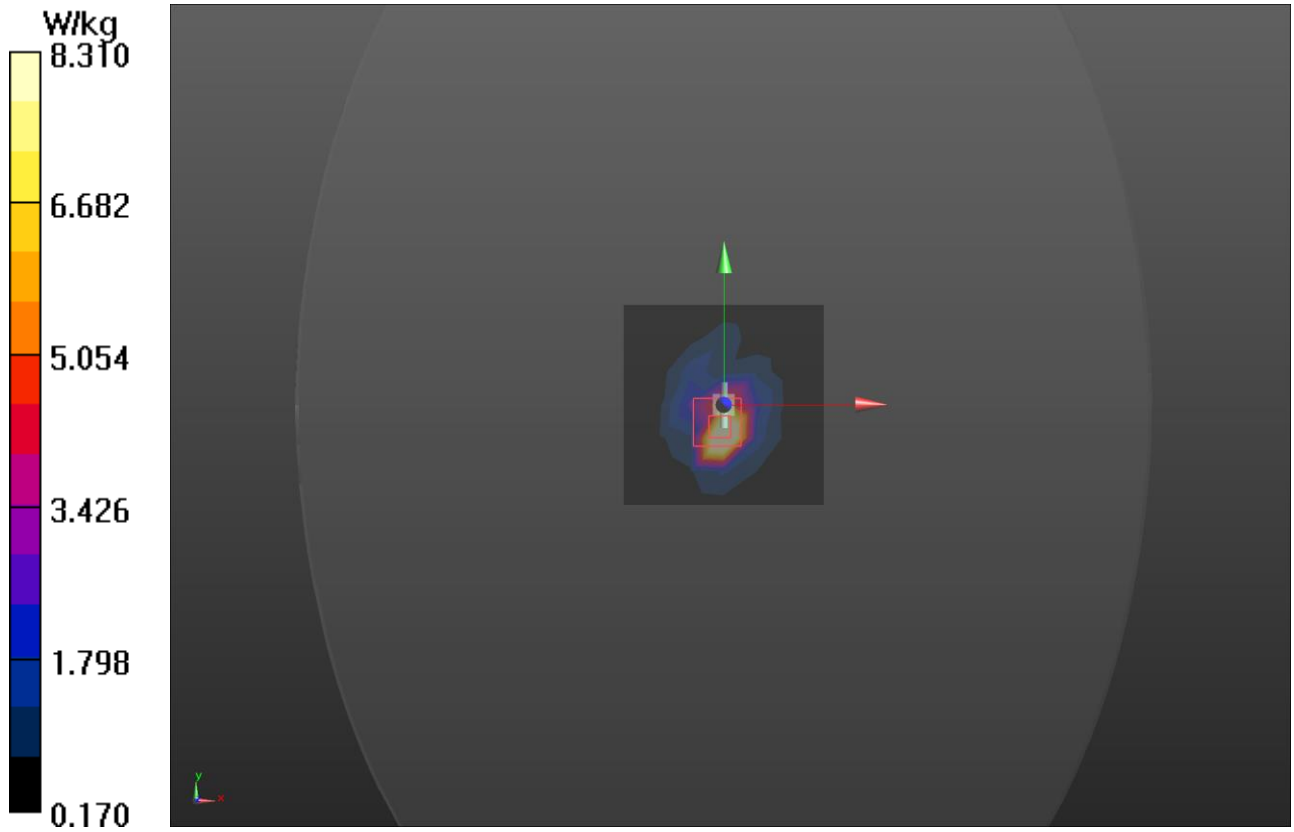

W/kg
8.400
6.721
5.043
3.364
1.686
0.00722

System Performance Check at 5750MHz

Date/Time: 2023/10/30 9:32:08
Communication System: UID 0, CW; Frequency: 5750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5750 MHz; σ = 5.261 S/m; ε_r = 35.262; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(5.14, 5.41, 5.2) @ 5750 MHz; Calibrated: 2023/7/20
Electronics: DAE4 Sn1291; Calibrated: 2023/3/17
Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1058
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 7.980 W/kg

d=10mm, Pin=100mW/Zoom Scan (4x4x2mm)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 70.42 V/m; Power Drift = 0.021 dB
Peak SAR (extrapolated) = 16.32 W/kg
SAR(1 g) = 7.850 W/kg; SAR(10 g) = 2.270 W/kg
Smallest distance from peaks to all points 3 dB below = 12.6 mm
Ratio of SAR at M2 to SAR at M1 = 44.9%
Maximum value of SAR (measured) = 8.310 W/kg

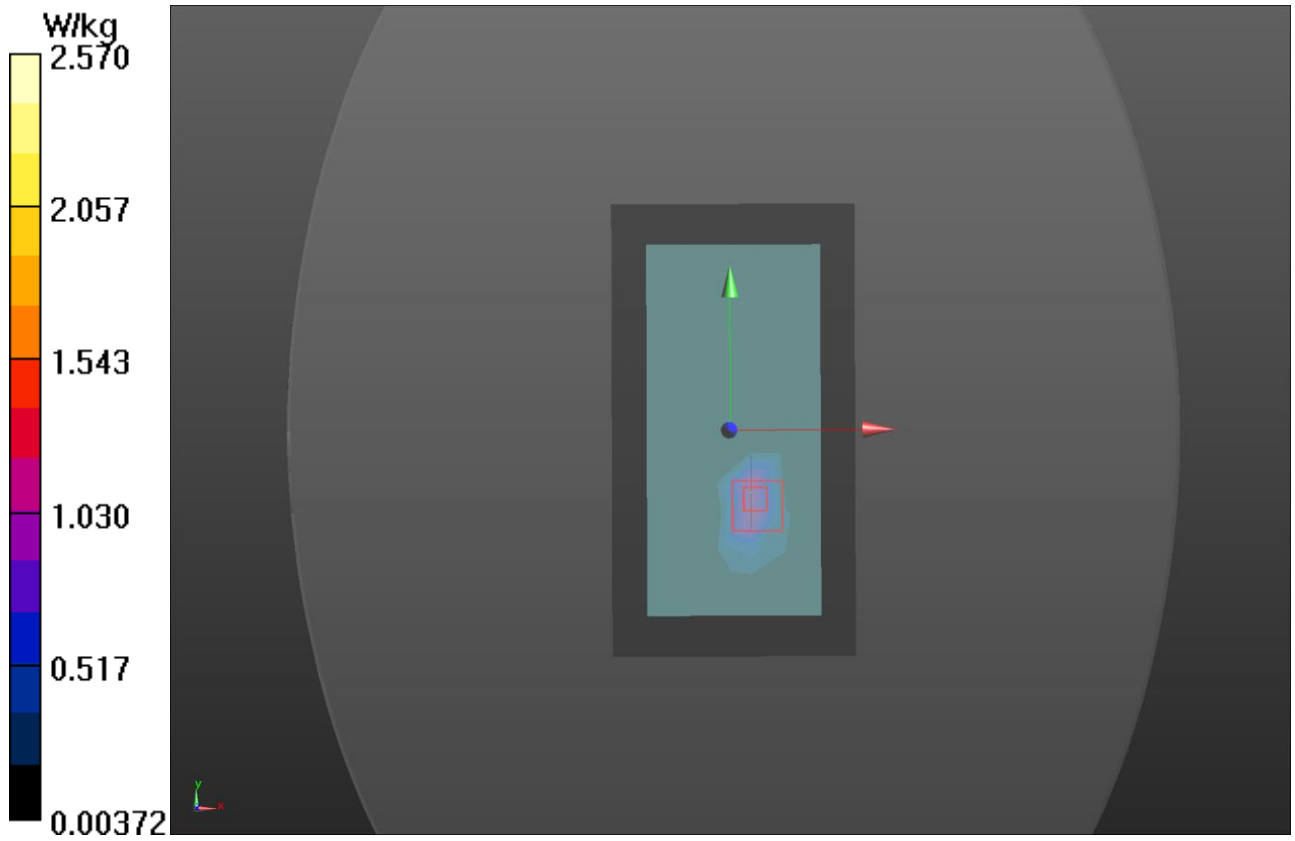

W/kg
8.310
6.682
5.054
3.426
1.798
0.170

802.11ac VHT40 Back Side 0mm Low

Date/Time: 2023/10/30 9:29:43
Communication System: UID 0, 802.11ac VHT40 (0); Frequency: 5190 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5190 MHz; σ = 4.589 S/m; ε_r = 36.31; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(5.65, 5.99, 5.81) @ 5190 MHz; Calibrated: 2023/7/20
Electronics: DAE4 Sn1692; Calibrated: 2022/11/18
Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1058
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

802.11ac VHT40 Back Side 0mm/Low/Area Scan (12x21x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.17 W/kg

802.11ac VHT40 Back Side 0mm/Low/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.978 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 4.03 W/kg
SAR(1 g) = 0.723 W/kg; SAR(10 g) = 0.176 W/kg
Smallest distance from peaks to all points 3 dB below = 14.5 mm
Ratio of SAR at M2 to SAR at M1 = 49.2%
Maximum value of SAR (measured) = 2.570 W/kg


W/kg
2.570
2.057
1.543
1.030
0.517
0.00372

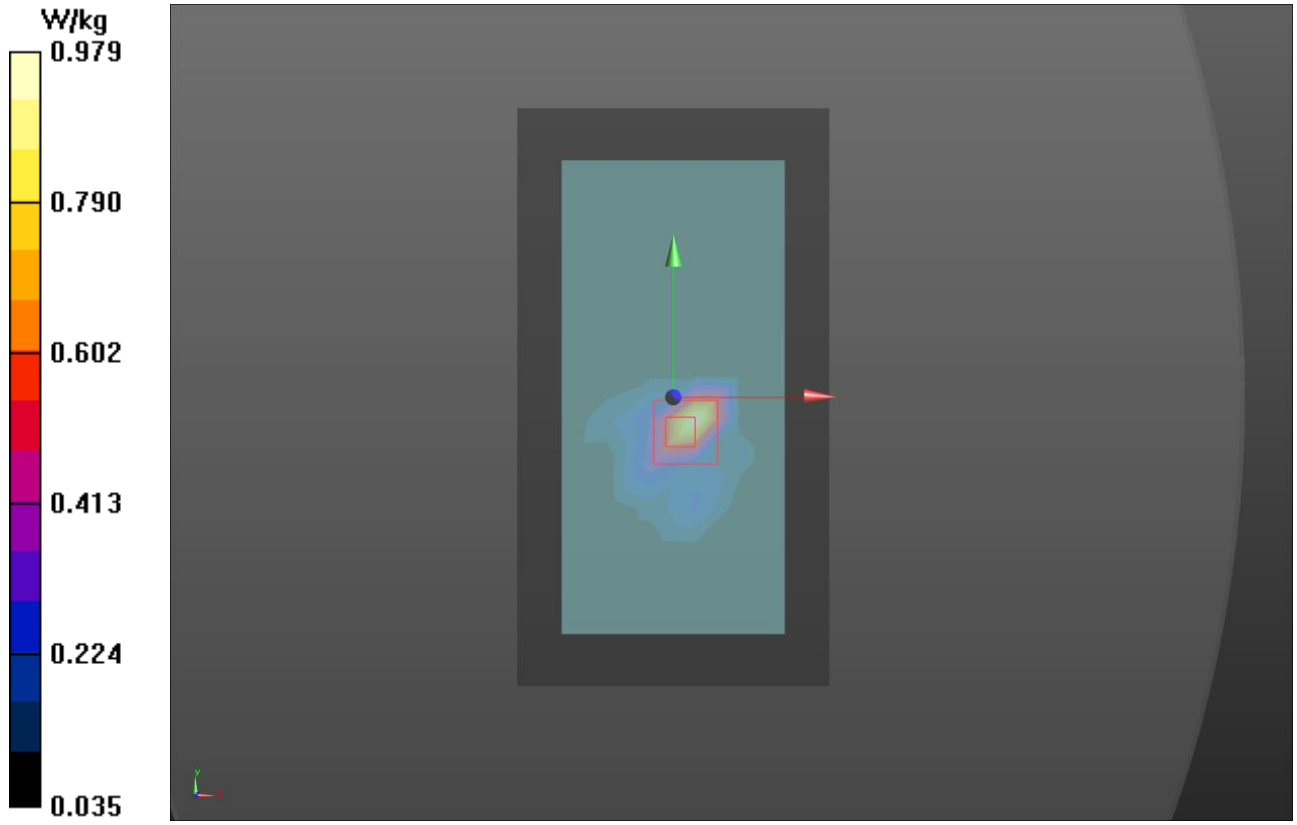
TEST REPORT

802.11ac VHT40 Back Side 0mm Low

Date/Time: 2023/10/31 10:30:14
Communication System: UID 0, 802.11ac VHT40 (0); Frequency: 5270 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5270 MHz; σ = 4.692 S/m; ε_r = 35.57; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(5.65, 5.99, 5.81) @ 5270 MHz; Calibrated: 2023/7/20
Electronics: DAE4 Sn1291; Calibrated: 2023/3/17
Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1058
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

802.11ac VHT40 Back Side 0mm/Low/Area Scan (12x21x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.9 W/kg

802.11ac VHT40 Back Side 0mm/Low/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 7.726 V/m; Power Drift = -0.190 dB
Peak SAR (extrapolated) = 3.22 W/kg
SAR(1 g) = 0.573 W/kg; SAR(10 g) = 0.187 W/kg
Smallest distance from peaks to all points 3 dB below = 9.1 mm
Ratio of SAR at M2 to SAR at M1 = 52.8%
Maximum value of SAR (measured) = 0.979 W/kg


W/kg
0.979
0.790
0.602
0.413
0.224
0.035

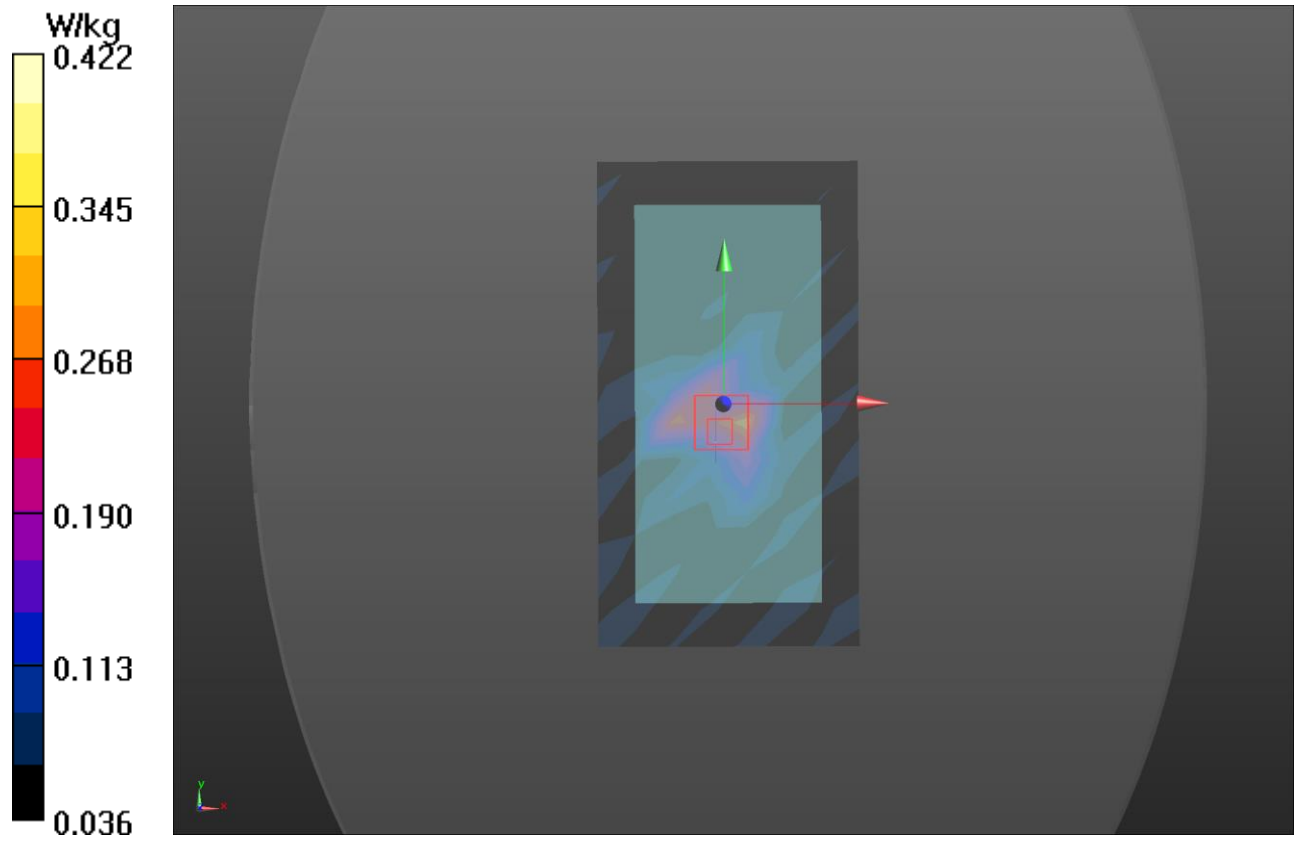
TEST REPORT

802.11ac VHT40 Back Side 0mm High

Date/Time: 2023/10/31 11:01:49
Communication System: UID 0, 802.11ac VHT40 (0); Frequency: 5670 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5670 MHz; σ = 5.17 S/m; ε_r = 35.05; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(4.92, 5.23, 5.04) @ 5670 MHz; Calibrated: 2023/7/20
Electronics: DAE4 Sn1291; Calibrated: 2023/3/17
Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1058
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

802.11ac VHT40 Back Side 0mm/High/Area Scan (12x41x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0290 W/kg

802.11ac VHT40 Back Side 0mm/High/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 9.674 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.81 W/kg
SAR(1 g) = 0.281 W/kg; SAR(10 g) = 0.126 W/kg
Smallest distance from peaks to all points 3 dB below = 14.5 mm
Ratio of SAR at M2 to SAR at M1 = 46.8%
Maximum value of SAR (measured) = 0.422 W/kg


W/kg
0.422
0.345
0.268
0.190
0.113
0.036

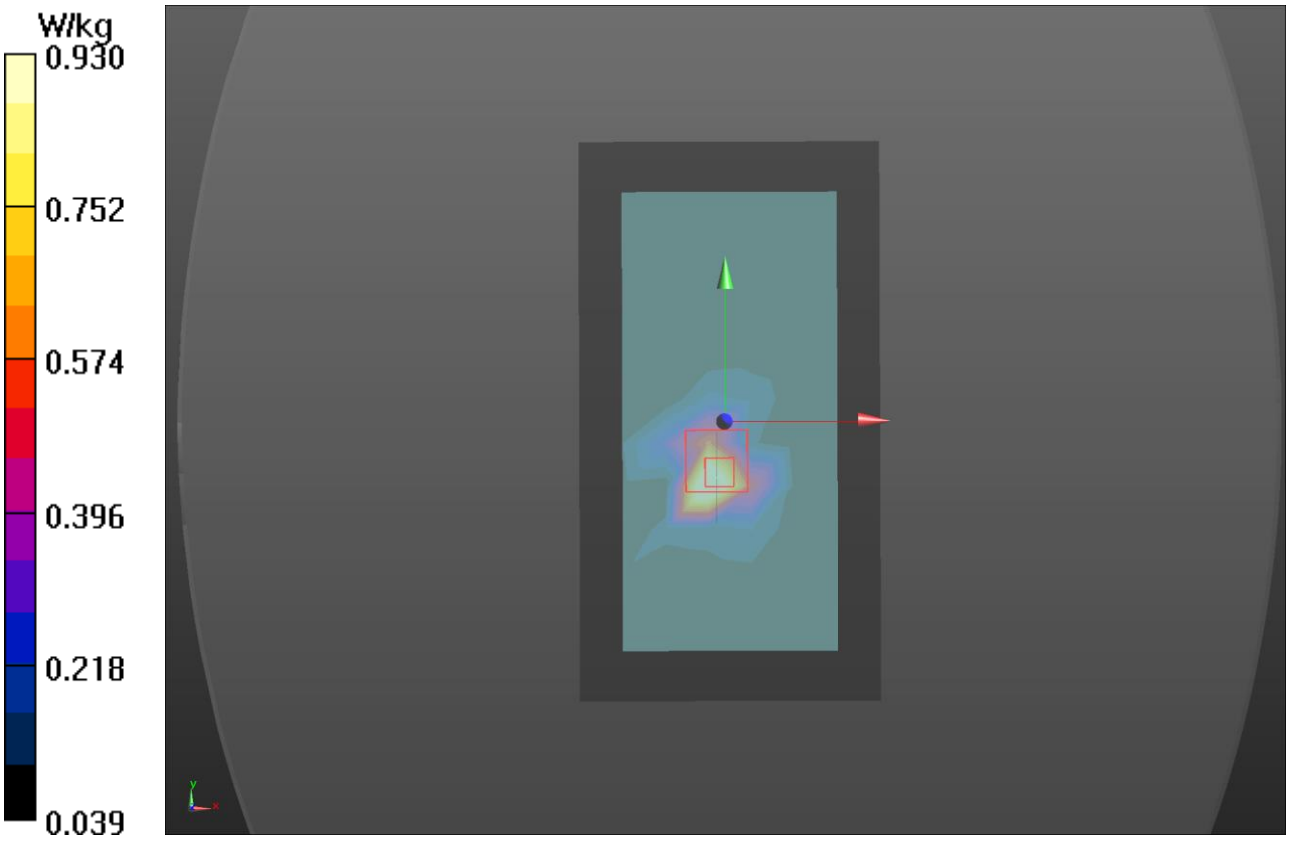
TEST REPORT

802.11ac VHT40 Back Side 0mm High

Date/Time: 2023/10/31 11:24:18
Communication System: UID 0, 802.11ac VHT40 (0); Frequency: 5795 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5795 MHz; σ = 5.324 S/m; ε_r = 34.96; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(5.14, 5.41, 5.2) @ 5795 MHz; Calibrated: 2023/7/20
Electronics: DAE4 Sn1291; Calibrated: 2023/3/17
Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1058
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

802.11ac VHT40 Back Side 0mm/High/Area Scan (12x21x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.821 W/kg

802.11ac VHT40 Back Side 0mm/High/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 6.917 V/m; Power Drift = 0.065 dB
Peak SAR (extrapolated) = 1.65 W/kg
SAR(1 g) = 0.524 W/kg; SAR(10 g) = 0.172 W/kg
Smallest distance from peaks to all points 3 dB below = 14.5 mm
Ratio of SAR at M2 to SAR at M1 = 59.2%
Maximum value of SAR (measured) = 0.930 W/kg



********** END **********