



SAR EVALUATION REPORT

Report No. : 24JE0169-HO

Applicant : CANON INC.
Type of Equipment : Wireless File Transmitter
Model No. : DS508152
FCC ID : AZD-DS508152
Test standard : FCC47CFR 2.1093
FCC OET Bulletin 65, Supplement C
Test Result : Complied
Max SAR Measured : 0.199 W/kg (Body, 2462MHz)

1. This test report shall not be reproduced except full or partial, without the written approval of UL Apex Co., Ltd.
2. The results in this report apply only to the sample tested.
3. This equipment is in compliance with above regulation. We hereby certify that the data contain a true representation of the SAR profile.
4. The test results in this test report are traceable to the national or international standards.

Date of test : August 12 and 18, 2004

Tested by : 
Miyo Ikuta
Head Office EMC Lab.

Approved by : 
Tetsuo Maeno
Site Manager of Head Office EMC Lab.

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SECTION 1 : Client information

Company Name : CANON INC.
Brand Name : CANON
Address : 30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo 146-8501, Japan
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Facsimile Number : +81-3-3757-8838
Contact Person : Tanaka Kuniaki

SECTION 2 : Equipment under test (E.U.T.)

2.1 Identification of E.U.T.

Applicant : CANON INC.

Type of Equipment : Wireless File Transmitter

Model No. : DS508152

Serial No. : 11001

Country of Manufacture : JAPAN

Receipt Date of Sample : August 12, 2004

Condition of EUT : Production prototype
(Not for sale: This sample is equivalent to mass-produced items.)

Battery option : Only one model with EUT
Model No. : BP-511A
V / Ah : 7.4V 1390 mAh

Rating : DC 8.1 V / 0.5 A

Category Identified : Portable device

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2.2 Product Description of Wireless LAN

Tx Frequency : 2412MHz~2462MHz
Modulation : DSSS, OFDM
Max.Output Power Tested : 15.0 dBm Peak Conducted
Rating : DC 3.3V
Antenna Type : $1/2\lambda$ Dipole Antenna
Position of Antenna : See photograph of following



SECTION 3 : Requirements for compliance testing defined by the FCC

The US Federal Communications Commission has released the report and order "Guidelines for Evaluating the Environmental Effects of RF Radiation", ET Docket No. 93-62 in August 1996. The order requires routine SAR evaluation prior to equipment authorization of portable transmitter devices, including portable telephones. For consumer products, the applicable limit is 1.6 mW/g for an uncontrolled environment and 8.0 mW/g for an occupational/controlled environment as recommended by the ANSI/IEEE standard C95.1-1992. According to the Supplement C of OET Bulletin 65 "Evaluating Compliance with FCC Guide-lines for Human Exposure to Radio frequency Electromagnetic Fields", released on Jun 29, 2001 by the FCC, the device should be evaluated at maximum output power (radiated from the antenna) under "worst-case" conditions for normal or intended use, incorporating normal antenna operating positions, device peak performance frequencies and positions for maximum RF energy coupling.

- 1 Specific Absorption Rate (SAR) is a measure of the rate of energy absorption due to exposure to an RF transmitting source (wireless portable device).
- 2 IEEE/ANSI Std. C95.1-1992 limits are used to determine compliance with FCC ET Docket 93-62.

SECTION 4 : Dosimetry assessment setup

These measurements were performed with the automated near-field scanning system DASY4 from Schmid & Partner Engineering AG (SPEAG). The system is based on a high precision robot (working range greater than 0.9 m), which positions the probes with a positional repeatability of better than +/- 0.02 mm. Special E- and H-field probes have been developed for measurements close to material discontinuity, the sensors of which are directly loaded with a Schottky diode and connected via highly resistive lines to the data acquisition unit. The SAR measurements were conducted with the dosimetry probe ET3DV6, SN: 1685 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation. The probe has been calibrated according to the procedure described in [2] with accuracy of better than +/-10%. The spherical isotropy was evaluated with the procedure described in [3] and found to be better than +/-0.25 dB. The phantom used was the SAM Twin Phantom as described in FCC supplement C, IEEE P1528 and CENELEC EN50361.

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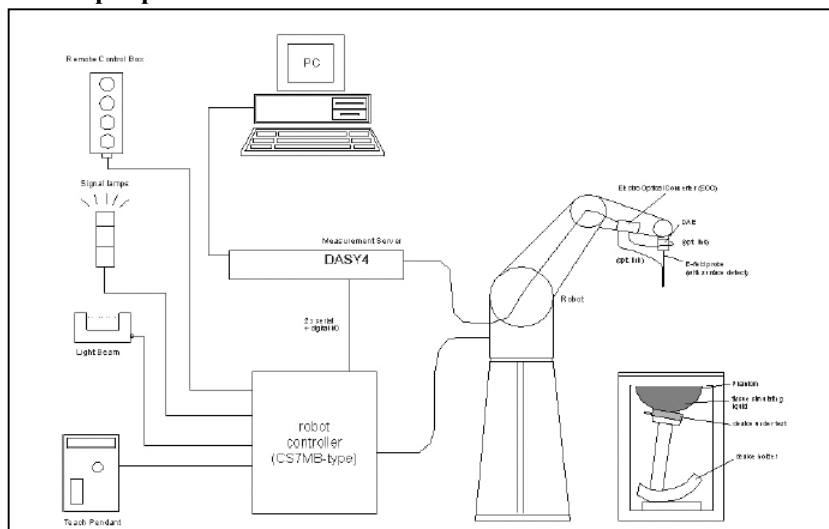
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4.1 Configuration and peripherals



The DASY4 system for performing compliance tests consist of the following items:

1. A standard high precision 6-axis robot (Stäubli RX family) with controller and software.
An arm extension for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e., an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid.
The probe is equipped with an optical surface detector system.
3. A data acquisition electronic (DAE), which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
4. The Electro-optical converter (EOC) performs the conversion between optical and electrical of the signals for the digital communication to the DAE and for the analog signal from the optical surface detection.
The EOC is connected to the measurement server.
5. The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
6. A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
7. A computer operating Windows 2000.
8. DASY4 software.
9. Remote control with teaches pendant and additional circuitry for robot safety such as warning lamps, etc.
10. The SAM twin phantom enabling testing left-hand and right-hand usage.
11. The device holder for handheld mobile phones.
12. Tissue simulating liquid mixed according to the given recipes.
13. Validation dipole kits allowing to validate the proper functioning of the system.

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4.2 System components

4.2.1 ET3DV6 Probe Specification

Construction:

Symmetrical design with triangular core
Built-in optical fiber for surface detection System
Built-in shielding against static charges
PEEK enclosure material (resistant to organic solvents, e.g., glycol ether)

Calibration:

Basic Broad Band calibration in air from 10 MHz to 2.5 GHz
In brain and muscle simulating tissue at
Frequencies of 450 MHz, 900 MHz, 1.8 GHz and 2.45GHz (accuracy +/-8%)

Frequency:

10 MHz to 3GHz; Linearity: +/-0.2 dB

Directivity:

+/-0.2 dB in brain tissue (rotation around probe axis)
+/-0.4 dB in brain tissue (rotation normal probe axis)

Dynamic Range:

5 mW/g to > 100 mW/g; Linearity: +/-0.2 dB

Optical Surface Detection:

+/-0.2 mm repeatability in air and clear liquids over diffuse reflecting surfaces.

Dimensions:

Overall length: 330 mm (Tip: 16 mm)
Tip length: 16 mm
Body diameter: 12 mm (Body: 12 mm)
Tip diameter: 6.8 mm
Distance from probe tip to dipole centers: 2.7 mm

Application:

General dosimetric up to 3 GHz
Compliance tests of mobile phones
Fast automatic scanning in arbitrary phantoms



**Inside view of
ET3DV6 E-field Probe**

4.2.2 SAM Phantom

Construction:

The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528-200X, CENELEC EN 50361 and IEC 62209. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points with the robot.

Shell Thickness:

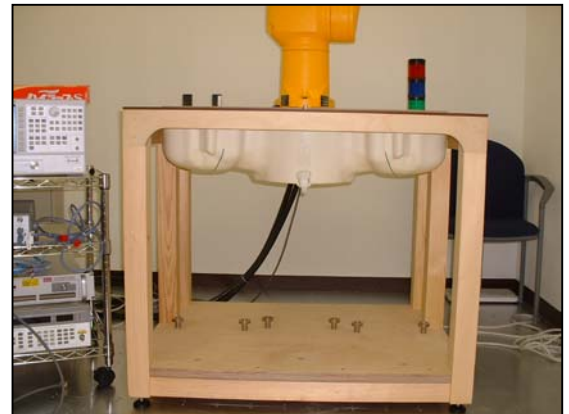
2 +/-0.2 mm

Filling Volume:

Approx. 25 liters

Dimensions:

(H x L x W): 810 x 1000 x 500 mm



SAM Phantom

4.2.3 Device Holder for Transmitters

In combination with the SAM Twin Phantom V4.0, the Mounting Device enables the rotation of the mounted transmitter in spherical coordinates whereby the rotation points is the ear opening. The devices can be easily, accurately, and repeatedly positioned according to the FCC and CENELEC specifications. The device holder can be locked at different phantom locations (left head, right head, flat phantom).

* Note: A simulating human hand is not used due to the complex anatomical and geometrical structure of the hand that may produced infinite number of configurations. To produce the worst-case condition (the hand absorbs antenna output power), the hand is omitted during the tests.



Device Holder

Device holder couldn't be used at this SAR measurement.

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SECTION 5 : Test system specifications

Robot RX60L

Number of Axes	:	6
Payload	:	1.6 kg
Reach	:	800mm
Repeatability	:	+/-0.025mm
Control Unit	:	CS7M
Programming Language	:	V+
Manuafacture	:	Stäubli Unimation Corp. Robot Model: RX60

DASY4 Measurement server

Features	:	166MHz low power Pentium MMX 32MB chipdisk and 64MB RAM Serial link to DAE (with watchdog supervision) 16 Bit A/D converter for surface detection system Two serial links to robot (one for real-time communication which is supervised by watchdog) Ethernet link to PC (with watchdog supervision) Emergency stop relay for robot safety chainTwo expansion slots for future applications
Manufacture	:	Schimid & Partner Engineering AG

Data Acquisition Electronic (DAE)

Features	:	Signal amplifier, multiplexer, A/D converter and control logic Serial optical link for communication with DASY4 embedded system (fully remote controlled) 2 step probe touch detector for mechanical surface detection and emergency robot stop (not in -R version)
Measurement Range	:	1 μ V to > 200 mV (16 bit resolution and two range settings: 4mV, 400mV)
Input Offset voltage	:	< 1 μ V (with auto zero)
Input Resistance	:	200 M Ω
Battery Power	:	> 10 h of operation (with two 9 V battery)
Dimension	:	60 x 60 x 68 mm
Manufacture	:	Schimid & Partner Engineering AG

Software

Item	:	Dosimetric Assesment System DASY4
Type No.	:	SD 000 401A, SD 000 402A
Software version No.	:	4.1
Manufacture / Origin	:	Schimid & Partner Engineering AG

E-Field Probe

Model	:	ET3DV6
Serial No.	:	1685
Construction	:	Triangular core fiber optic detection system
Frequency	:	10 MHz to 6 GHz
Linearity	:	+/-0.2 dB
Manufacture	:	Schimid & Partner Engineering AG

Phantom

Type	:	SAM Twin Phantom V4.0
Shell Material	:	Fiberglass
Thickness	:	2.0 +/-0.2 mm
Volume	:	Approx. 25 liters
Manufacture	:	Schimid & Partner Engineering AG

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SECTION 6 : Camera and Transmitter

When users operate or carry this EUT, it could be considered to touch or get close to their heads and bodies. There are two ways for use way of the camera and the transmitter. Please refer to Photo1 and Photo2.

1.Camera and Transmitter : The transmitter is set on the bottom of camera.

2. Transmitter (free-standing) : The transmitter was a free-standing device.

Photo1 : Camera and Transmitter



Photo 2 : Transmitter



SECTION 7 : Test setup of EUT

7.1 Photographs of test setup

7.1.1 Camera and Transmitter

1. Side : The test was performed in touch with side of the camera to the flat section of SAM Phantom.
2. Back : The test was performed in touch with back of the camera to the flat section of SAM Phantom.

1. Side (Camera and Transmitter)



2. Back (Camera and Transmitter)



7.1.2 Transmitter

- 3. Face : The test was performed in touch with face of the EUT to the flat section of SAM Phantom.
- 4. Bottom : The test was performed in touch with bottom of the EUT to the flat section of SAM Phantom.
- 5. Side : The test was performed in touch with side of the EUT to the flat section of SAM Phantom.
- 6. Top : The test was performed in touch with top of the EUT to the flat section of SAM Phantom.

3. Face



4. Bottom



5. Side



6. Top



7.2 EUT Tune-up procedure

This EUT has IEEE.802.11b/11g modes.

The frequency range and the modulation were used in the testing of each mode are shown as the following.

1. IEEE 802.11b mode

Frequency band : 2412-2462MHz
Channel : 1ch(2412MHz),6ch(2437MHz),11ch(2462MHz)
Modulation : DSSS(CCK)
Crest factor : 1

2. IEEE 802.11g mode

Frequency band : 2412-2462MHz
Channel : 1ch(2412MHz),6ch(2437MHz),11ch(2462MHz)
Modulation : OFDM(64QAM & QPSK)
Crest factor : 1

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SECTION 8 : Measurement uncertainty

The uncertainty budget has been determined for the DASY4 measurement system according to the NIS81 [13] and the NIST1297 [6] documents and is given in the following Table.

Error Description	Uncertainty value $\pm$ %	Probability distribution	divisor	(ci)1 lg	Standard Uncertainty (1g)	vi or v _{eff}
Measurement System						
Probe calibration	± 4.8	Normal	1	1	± 4.8	∞
Axial isotropy of the probe	± 4.7	Rectangular	$\sqrt{3}$	$(1-c_p)^{1/2}$	± 1.9	∞
Spherical isotropy of the probe	± 9.6	Rectangular	$\sqrt{3}$	$(c_p)^{1/2}$	± 3.9	∞
Boundary effects	± 1.0	Rectangular	$\sqrt{3}$	1	± 0.6	∞
Probe linearity	± 4.7	Rectangular	$\sqrt{3}$	1	± 2.7	∞
Detection limit	± 1.0	Rectangular	$\sqrt{3}$	1	± 0.6	∞
Readout electronics	± 1.0	Normal	1	1	± 1.0	∞
Response time	± 0.8	Rectangular	$\sqrt{3}$	1	± 0.5	∞
Integration time	± 2.6	Rectangular	$\sqrt{3}$	1	± 1.5	∞
RF ambient conditions	± 3.0	Rectangular	$\sqrt{3}$	1	± 1.7	∞
Mech. constraints of robot	± 0.4	Rectangular	$\sqrt{3}$	1	± 0.2	∞
Probe positioning	± 2.9	Rectangular	$\sqrt{3}$	1	± 1.7	∞
Extrap. and integration	± 1.0	Rectangular	$\sqrt{3}$	1	± 0.6	∞
Test Sample Related						
Device positioning	± 2.9	Rectangular	$\sqrt{3}$	1	± 2.9	23
Device holder uncertainty	± 3.6	Rectangular	$\sqrt{3}$	1	± 3.6	5
Power drift	± 10.0	Rectangular	$\sqrt{3}$	1	± 2.9	∞
Phantom and Setup						
Phantom uncertainty	± 4.0	Rectangular	$\sqrt{3}$	1	± 2.3	∞
Liquid conductivity (target)	± 5.0	Rectangular	$\sqrt{3}$	0.64	± 1.8	∞
Liquid conductivity (meas.)	± 5.0	Rectangular	$\sqrt{3}$	0.64	± 3.7	∞
Liquid permittivity (target)	± 5.0	Rectangular	$\sqrt{3}$	0.6	± 3.5	∞
Liquid permittivity (meas.)	± 5.0	Rectangular	$\sqrt{3}$	0.6	± 1.7	∞
Combined Standard Uncertainty					± 11.51	
Expanded Uncertainty (k=2)					± 23.0	

The result of some test showed that the power drift has exceeded 5%. Therefore, the uncertainty of power drift expanded to 10%. However, the extended uncertainty (k= 2) of a test is less than 30%.

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SECTION 9 : Simulated tissue liquid parameter

9.1 Simulated Tissue Liquid Parameter confirmation

The dielectric parameters were checked prior to assessment using the HP85070D dielectric probe kit.
The dielectric parameters measurement are reported in each correspondent section.

9.1.1 Head 2450MHz

Type of liquid : **Head 2450 MHz**
Ambient temperature (deg.c.) : **24.5(August 12) / 24.8(August 18)**
Relative Humidity (%) : **65(August 12) / 68(August 18)**
Liquid depth (cm) : **15.1**

Measured By : Miyo Ikuta

DIELECTRIC PARAMETERS MEASUREMENT RESULTS							
Date	Liquid Temp [deg.c]		Parameters	Target Value	Measured	Deviation [%]	Limit [%]
	Before	After					
August 12	24.3	24.3	Relative Permittivity ϵ_r	39.2	37.8	-3.6	+/-5
			Coductivity σ [mho/m]	1.80	1.86	3.3	+/-5
August 18	24.1	24.1	Relative Permittivity ϵ_r	39.2	38.2	-2.6	+/-5
			Coductivity σ [mho/m]	1.80	1.84	2.2	+/-5

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9.1.2 Muscle 2450MHz

Type of liquid : Muscle 2450 MHz
Ambient temperature (deg.c.) : 24.8(August 18)
Relative Humidity (%) : 68(August 18)
Liquid depth (cm) : 15.1

Measured By : Miyo Ikuta

DIELECTRIC PARAMETERS MEASUREMENT RESULTS							
Date	Liquid Temp [deg.c]		Parameters	Target Value	Measured	Deviation [%]	Limit [%]
	Before	After					
August 18	24.5	24.5	Relative Permittivity ϵ_r	52.7	50.7	-3.8	+/-5
			Conductivity σ [mho/m]	1.95	1.98	1.5	+/-5

9.2 Simulated Tissues

Ingredient	MiXTURE(%)	
	Head 2450MHz	Muscle 2450MHz
Water	45.0	69.83
DGMBE	55.0	30.17

Note:DGMBE(Diethylenglycol-monobuthyl ether)

SECTION 10 : System validation data

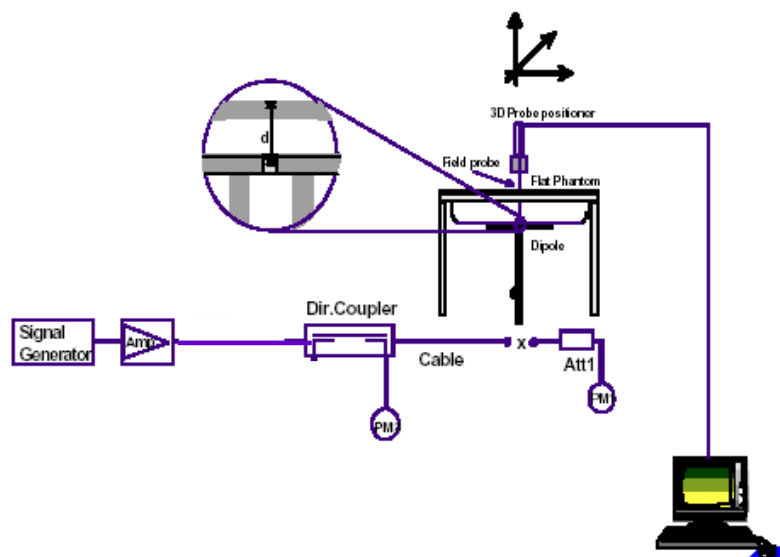
Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of +/-10%. The validation results are tabulated below. Please refer to APPENDIX 3.

Type of liquid : HEAD 2450MHz
Frequency : 2450MHz
Dipole : D2450V2 SN:713
Liquid depth (cm) : 15.1
Ambient temperature (deg.c.) : 24.5 (August 12) / 24.8(August 18)
Relative Humidity (%) : 65(August 12) / 68(August 18)
Power : 250mW

Measured By : Miyo Ikuta

SYSTEM PERFORMANCE CHECK										
Date	Liquid (HEAD 2450MHz)						System dipole validation target & measured			
	Liquid Temp [deg.c.]		Relative Permittivity ϵ_r		Conductivity σ [mho/m]		SAR 1g [W/kg]		Deviation [%]	Limit [%]
	Before	After	Target	Measured	Target	Measured	Target	Measured		
August 12	24.3	24.3	39.2	37.8	1.80	1.86	13.1	13.8	5.3	+/-10
August 18	24.1	24.1	39.2	38.2	1.80	1.84	13.1	13.9	6.1	+/-10

Note: Please refer to Attachment for the result representation in plot format



2450MHz System performance check setup

Test system for the system performance check setup diagram

SECTION 11 : Evaluation procedure

The evaluation was performed with the following procedure:

Step 1: Measurement of the E-field at a fixed location above the ear point or central position of flat section was used as a reference value for assessing the power drop.

Step 2: The SAR distribution at the exposed side of head or body position was measured at a distance of each device from the inner surface of the shell. The area covered the entire dimension the antenna of the EUT and the horizontal grid spacing was 20 mm x 20 mm. Based on these data, the area of the maximum absorption was determined by spline interpolation.

Step 3: Around this point found in the Step 2 (area scan) , a volume of 32 mm x 32 mm x 30 mm was assessed by measuring 5 x 5 x 7 points. And for any secondary peaks found in the Step2 which are within 2dB of maximum peak and not with this Step3 (Zoom scan) is repeated. On the basis of this data set, the spatial peak SAR value was evaluated under the following procedure:

1. The data at the surface were extrapolated, since the center of the dipoles is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.3 mm. The extrapolation was based on a least square algorithm [4]. A polynomial of the fourth order was calculated through the points in z-axis. This polynomial was then used to evaluate the points between the surface and the probe tip.
2. The maximum interpolated value was searched with a straightforward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed by the 3D-Spline interpolation algorithm. The 3D-Spline is composed of three one-dimensional splines with the "Not a knot"-condition (in x, y and z-directions) [4], [5]. The volume was integrated with the trapezoidal-algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.
3. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

Step 4: Re-measurement of the E-field at the same location as in Step 1.

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SECTION 12 : Exposure limit

(A) Limits for Occupational/Controlled Exposure (W/kg)

Spatial Average (averaged over the whole body)	Spatial Peak (averaged over any 1g of tissue)	Spatial Peak (hands/wrists/feet/ankles averaged over 10g)
0.4	8.0	20.0

(B) Limits for General population/Uncontrolled Exposure (W/kg)

Spatial Average (averaged over the whole body)	Spatial Peak (averaged over any 1g of tissue)	Spatial Peak (hands/wrists/feet/ankles averaged over 10g)
0.08	1.6	4.0

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

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

**NOTE:GENERAL POPULATION/UNCONTROLLED EXPOSURE
SPATIAL PEAK(averaged over any 1g of tissue) LIMIT
1.6 W/kg**

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SECTION 13 : SAR Measurement results

13.1 Measurement results of Head 2450 SAR

13.1.1 Conducted power measurement results

CONDUCTED POWER MEASUREMENT RESULTS											
Modulation	Frequency [MHz]	Before				After				Deviation [%]	Limit [%]
		Reading [dBm]	Cable loss [dB]	Result [dBm]	Convert [mW]	Reading [dBm]	Cable loss [dB]	Result [dBm]	Convert [mW]		
DSSS	2412	9.56	0.3	9.86	9.68	9.56	0.3	9.86	9.68	0.0	+/-5
	2437	9.40	0.3	9.70	9.33	9.41	0.3	9.71	9.35	0.2	+/-5
	2462	9.00	0.3	9.30	8.51	8.98	0.3	9.28	8.47	-0.5	+/-5
OFDM (64QAM)	2412	14.42	0.3	14.72	29.65	14.45	0.3	14.75	29.85	0.7	+/-5
	2437	14.56	0.3	14.86	30.62	14.65	0.3	14.95	31.26	2.1	+/-5
	2462	14.26	0.3	14.56	28.58	14.34	0.3	14.64	29.11	1.9	+/-5
OFDM (QPSK)	2412	13.09	0.3	13.39	21.83	12.91	0.3	13.21	20.94	-4.1	+/-5
	2437	13.12	0.3	13.42	21.98	13.19	0.3	13.49	22.34	1.6	+/-5
	2462	12.98	0.3	13.28	21.28	12.95	0.3	13.25	21.13	-0.7	+/-5

13.1.2 Head 2450MHz SAR

Liquid Depth (cm) : 15.1
Parameters : $\epsilon_r = 37.8$, $\sigma = 1.86$
Ambient Temperature[deg.c.] : 24.5
Relative Humidity (%) : 65

Model : DS508152
Serial No. : 11001
Modulation : DSSS, OFDM
Crest factor : 1

Date : August 12 , 2004
Measured By : Miyo Ikuta

HEAD SAR MEASUREMENT RESULTS									
Frequency		Modulation	Phantom Section	EUT Set-up Conditions			Liquid Temp.[deg.c]		SAR(1g) [W/kg]
Channel	[MHz]			Antenna	Position	Separation [mm]	Before	After	Maximum value of multi-peak
Mid	2437	DSSS	Flat	Fixed	Side (Camera & Transmitter)	0	24.5	24.5	0.196
Mid	2437	DSSS	Flat	Fixed	Back (Camera & Transmitter)	0	24.3	24.3	0.0497
Mid	2437	DSSS	Flat	Fixed	Face (Transmitter)	0	24.3	24.3	0.0176
Mid	2437	DSSS	Flat	Fixed	Bottom (Transmitter)	0	24.3	24.3	0.0735
Mid	2437	DSSS	Flat	Fixed	Side (Transmitter)	0	24.3	24.4	0.128
Mid	2437	DSSS	Flat	Fixed	Top (Transmitter)	0	24.4	24.4	0.00236
Low	2412	DSSS	Flat	Fixed	Side (Transmitter)	0	24.3	24.3	0.181
High	2462	DSSS	Flat	Fixed	Side (Transmitter)	0	24.3	24.3	0.194
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population							Body SAR: 1.6 W/kg (averaged over 1 gram)		

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HEAD SAR MEASUREMENT RESULTS									
Frequency		Modulation	Phantom Section	EUT Set-up Conditions			Liquid Temp.[deg.c]		SAR(1g) [W/kg]
Channel	[MHz]			Antenna	Position	Separation [mm]	Before	After	Maximum value of multi-peak
Mid	2437	OFDM(64QAM)	Flat	Fixed	Side (Camera & Transmitter)	0	24.4	24.5	0.17
Mid	2437	OFDM(64QAM)	Flat	Fixed	Back (Camera & Transmitter)	0	24.5	24.5	0.0366
Mid	2437	OFDM(64QAM)	Flat	Fixed	Face (Transmitter)	0	24.3	24.3	0.0146
Mid	2437	OFDM(64QAM)	Flat	Fixed	Bottom (Transmitter)	0	24.3	24.3	0.0695
Mid	2437	OFDM(64QAM)	Flat	Fixed	Side (Transmitter)	0	24.3	24.3	0.116
Mid	2437	OFDM(64QAM)	Flat	Fixed	Top (Transmitter)	0	24.1	24.1	0.002
Low	2412	OFDM(64QAM)	Flat	Fixed	Side (Transmitter)	0	24.2	24.2	0.154
High	2462	OFDM(64QAM)	Flat	Fixed	Side (Transmitter)	0	24.2	24.2	0.16
Mid	2437	OFDM(QPSK)	Flat	Fixed	Side (Camera & Transmitter)	0	24.3	24.3	0.176
Mid	2437	OFDM(QPSK)	Flat	Fixed	Back (Camera & Transmitter)	0	24.3	24.3	0.0358
Mid	2437	OFDM(QPSK)	Flat	Fixed	Face (Transmitter)	0	24.3	24.3	0.0149
Mid	2437	OFDM(QPSK)	Flat	Fixed	Bottom (Transmitter)	0	24.3	24.3	0.069
Mid	2437	OFDM(QPSK)	Flat	Fixed	Side (Transmitter)	0	24.3	24.3	0.11
Mid	2437	OFDM(QPSK)	Flat	Fixed	Top (Transmitter)	0	24.1	24.2	0.00187
Low	2412	OFDM(QPSK)	Flat	Fixed	Side (Transmitter)	0	24.3	24.3	0.149
High	2462	OFDM(QPSK)	Flat	Fixed	Side (Transmitter)	0	24.3	24.3	0.179
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population							Body SAR: 1.6 W/kg (averaged over 1 gram)		

13.2 Measurement results of Body 2450 SAR

13.2.1 Conducted power measurement results

CONDUCTED POWER MEASUREMENT RESULTS											
Modulation	Frequency [MHz]	Before				After				Deviation [%]	Limit [%]
		Reading [dBm]	Cable loss [dB]	Result [dBm]	Convert [mW]	Reading [dBm]	Cable loss [dB]	Result [dBm]	Convert [mW]		
DSSS	2412	9.51	0.3	9.81	9.57	9.67	0.3	9.97	9.93	3.8	+/-5
	2437	9.45	0.3	9.75	9.44	9.41	0.3	9.71	9.35	-0.9	+/-5
	2462	9.06	0.3	9.36	8.63	8.97	0.3	9.27	8.45	-2.1	+/-5
OFDM (64QAM)	2412	14.41	0.3	14.71	29.58	14.45	0.3	14.75	29.85	0.9	+/-5
	2437	14.47	0.3	14.77	29.99	14.65	0.3	14.95	31.26	4.2	+/-5
	2462	14.32	0.3	14.62	28.97	14.34	0.3	14.64	29.11	0.5	+/-5
OFDM (QPSK)	2412	13.12	0.3	13.42	21.98	13.04	0.3	13.34	21.58	-1.8	+/-5
	2437	13.08	0.3	13.38	21.78	12.98	0.3	13.28	21.28	-2.3	+/-5
	2462	12.94	0.3	13.24	21.09	12.89	0.3	13.19	20.84	-1.1	+/-5

13.2.2 Body 2450MHz SAR of sub antenna

Liquid Depth (cm)	: 15.1	Model	: DS508152
Parameters	: $\epsilon_r=50.7$, $\sigma=1.98$	Serial No.	: 11001
Ambient Temperature[deg.c.]	: 24.8	Modulation	: DSSS,OFDM
Relative Humidity (%)	: 68	Crest factor	: 1

Date : August 18, 2004
Measured By : Miyo Ikuta

BODY SAR MEASUREMENT RESULTS									
Frequency		Modulation	Phantom Section	EUT Set-up Conditions			Liquid Temp.[deg.c]		SAR(1g) [W/kg]
Channel	[MHz]			Antenna	Position	Separation [mm]	Before	After	Maximum value of multi-peak
Mid	2437	DSSS	Flat	Fixed	Side (Camera & Transmitter)	0	24.5	24.5	0.18
Mid	2437	DSSS	Flat	Fixed	Back (Camera & Transmitter)	0	24.5	24.5	0.0783
Mid	2437	DSSS	Flat	Fixed	Face (Transmitter)	0	24.3	24.3	0.023
Mid	2437	DSSS	Flat	Fixed	Bottom (Transmitter)	0	24.4	24.4	0.0943
Mid	2437	DSSS	Flat	Fixed	Side (Transmitter)	0	24.5	24.5	0.102
Mid	2437	DSSS	Flat	Fixed	Top (Transmitter)	0	24.5	24.5	0.00165
Low	2412	DSSS	Flat	Fixed	Side (Transmitter)	0	24.5	24.5	0.182
High	2462	DSSS	Flat	Fixed	Side (Transmitter)	0	24.5	24.5	0.199
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population							Body SAR: 1.6 W/kg (averaged over 1 gram)		

BODY SAR MEASUREMENT RESULTS									
Frequency		Modulation	Phantom Section	EUT Set-up Conditions			Liquid Temp.[deg.c]		SAR(1g) [W/kg]
Channel	[MHz]			Antenna	Position	Separation [mm]	Before	After	Maximum value of multi-peak
Mid	2437	OFDM(64QAM)	Flat	Fixed	Side (Camera & Transmitter)	0	24.5	24.5	0.152
Mid	2437	OFDM(64QAM)	Flat	Fixed	Back (Camera & Transmitter)	0	24.5	24.5	0.0345
Mid	2437	OFDM(64QAM)	Flat	Fixed	Face (Transmitter)	0	24.4	24.5	0.0245
Mid	2437	OFDM(64QAM)	Flat	Fixed	Bottom (Transmitter)	0	24.4	24.4	0.0768
Mid	2437	OFDM(64QAM)	Flat	Fixed	Side (Transmitter)	0	24.5	24.5	0.0861
Mid	2437	OFDM(64QAM)	Flat	Fixed	Top (Transmitter)	0	24.3	24.4	0.00153
Low	2412	OFDM(64QAM)	Flat	Fixed	Side (Transmitter)	0	24.5	24.5	0.167
High	2462	OFDM(64QAM)	Flat	Fixed	Side (Transmitter)	0	24.5	24.5	0.192
Mid	2437	OFDM(QPSK)	Flat	Fixed	Side (Camera & Transmitter)	0	24.5	24.5	0.165
Mid	2437	OFDM(QPSK)	Flat	Fixed	Back (Camera & Transmitter)	0	24.5	24.5	0.0374
Mid	2437	OFDM(QPSK)	Flat	Fixed	Face (Transmitter)	0	24.3	24.3	0.0235
Mid	2437	OFDM(QPSK)	Flat	Fixed	Bottom (Transmitter)	0	24.3	24.3	0.0803
Mid	2437	OFDM(QPSK)	Flat	Fixed	Side (Transmitter)	0	24.5	24.5	0.103
Mid	2437	OFDM(QPSK)	Flat	Fixed	Top (Transmitter)	0	24.5	24.5	0.00162
Low	2412	OFDM(QPSK)	Flat	Fixed	Side (Transmitter)	0	24.5	24.5	0.164
High	2462	OFDM(QPSK)	Flat	Fixed	Side (Transmitter)	0	24.5	24.5	0.177
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population							Body SAR: 1.6 W/kg (averaged over 1 gram)		

SECTION 14 : Equipment & calibration information

Name of Equipment	Manufacture	Model number	Serial number	Calibration	
				Last Cal	due date
Power Meter	Agilent	E4417A	GB41290639	2003/11/12	2004/11/11
Power Sensor	Agilent	E9300B	US40010300	2003/11/17	2004/11/16
Power Sensor	Agilent	E9327A	US40440576	2003/11/03	2004/11/02
S-Parameter Network Analyzer	Agilent	8753ES	US39174808	2003/10/23	2006/10/22
Signal Generator	Rohde&Schwarz	SML40	100023	2003/11/26	2004/11/25
RF Amplifier	OPHIR	5056F	1005	2004/02/17	2005/02/16
Dosimetric E-Field Probe	Schmid&Partner Engineering AG	ET3DV6	1685	2003/10/10	2004/10/09
Data Acquisition Electronics	Schmid&Partner Engineering AG	DAE3 V1	509	2004/04/22	2005/04/21
Robot,SAM Phantom	Schmid&Partner Engineering AG	DASY4	I021834	N/A	N/A
Attenuator	Agilent	US40010300	08498-60012	2003/12/16	2004/12/15
Test Receiver	Rohde & Schwarz	ESI40	100054/040	2004/07/28	2005/07/27
2450MHz System Validation Dipole	Schmid&Partner Engineering AG	D2450V2	713	2002/11/15	2004/11/14
Dual Directional Coupler	N/A	Narda	03702	N/A	N/A
Head 2450MHz	N/A	N/A	N/A	N/A	N/A
Body 2450MHz	N/A	N/A	N/A	N/A	N/A

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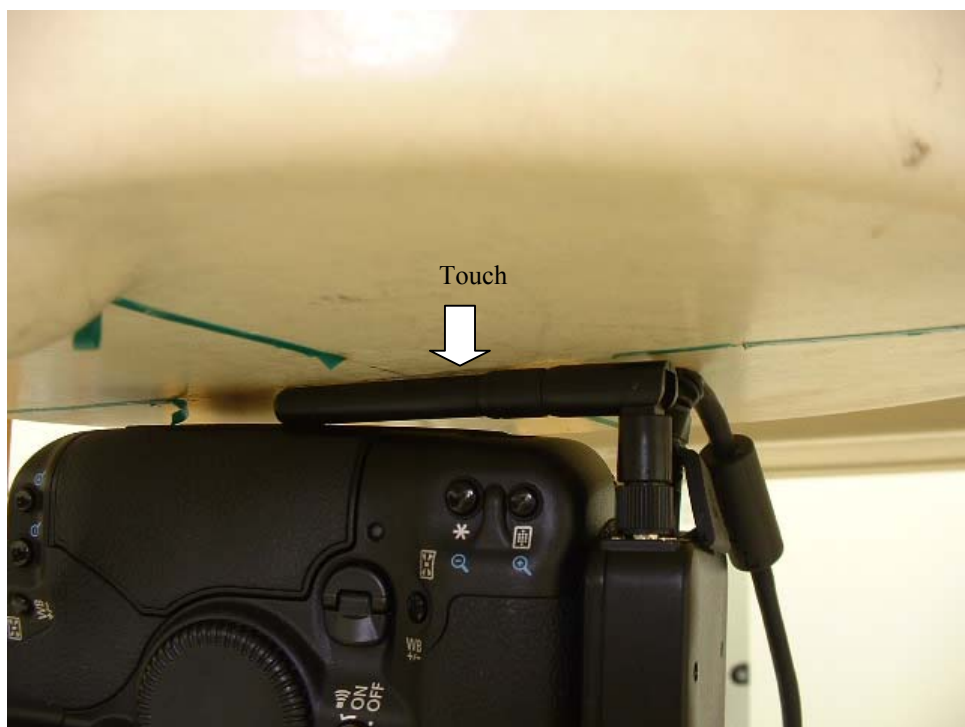
Facsimile: +81 596 24 8124

SECTION 15 : References

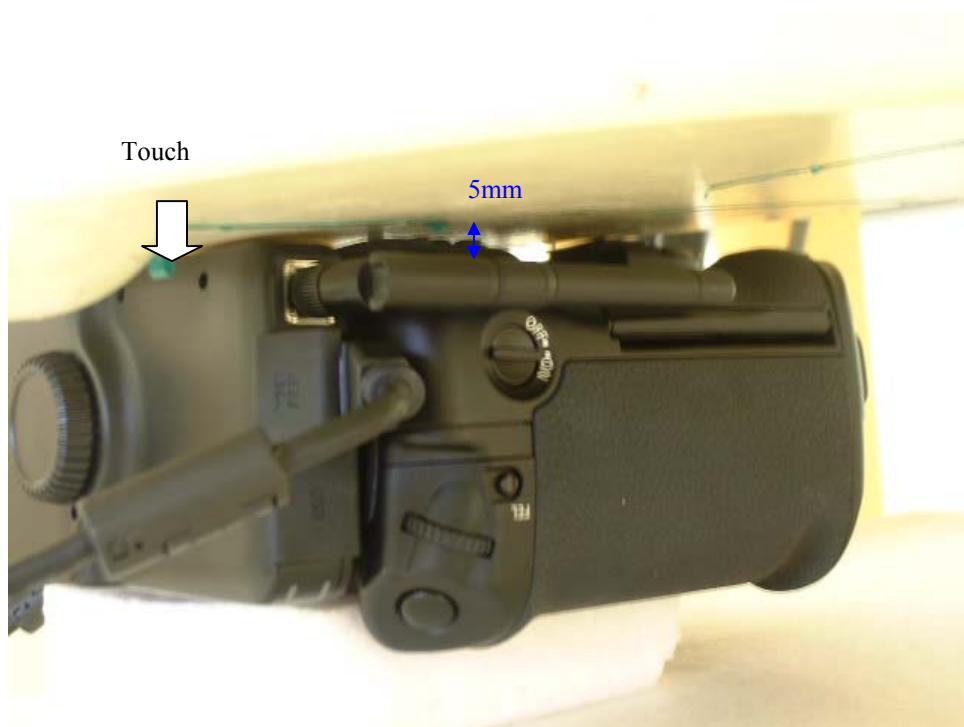
- [1] ANSI, ANSI/IEEE C95.1-1992: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz, The Institute of Electrical and Electronics Engineers, Inc., New York, NY 10017, 1992.
- [2] Katja Pokovic, Thomas Schmid, and Niels Kuster, "Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequencies", in ICECOM '97, Dubrovnik, October 15-17, 1997, pp. 120-124.
- [3] Katja Pokovic, Thomas Schmid, and Niels Kuster, "E-field probe with improved isotropy in brain simulating liquids", in Proceedings of the ELMAR, Zadar, Croatia, 23-25 June, 1996, pp.172-175.
- [4] W. Gander, Computermathematik, Birkhaeuser, Basel, 1992.
- [5] W. H. Press, S. A. Teukolsky, W. T. Vetterling, and B. P. Flannery, Numerical Recipes in C, The Art of Scientific Computing, Second Edition, Cambridge University Press, 1992.
- [6] Barry N. Taylor and Christ E. Kuyatt, "Guidelines for evaluating and expressing the uncertainty of NIST measurement results", Tech. Rep., National Institute of Standards and Technology, 1994.

APPENDIX 1 : Photographs of test setup

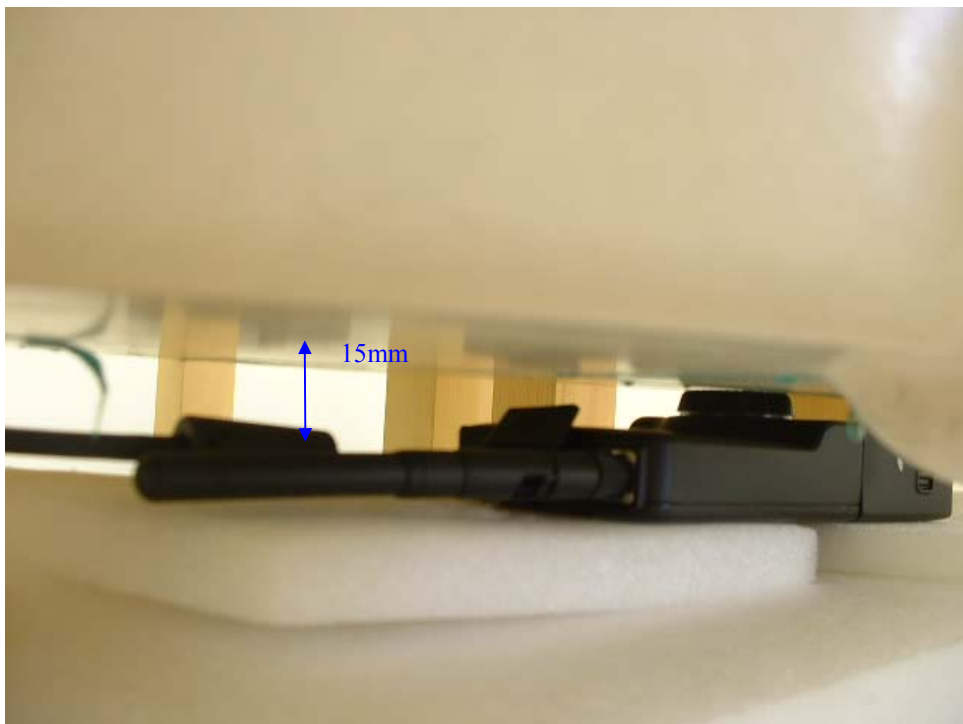
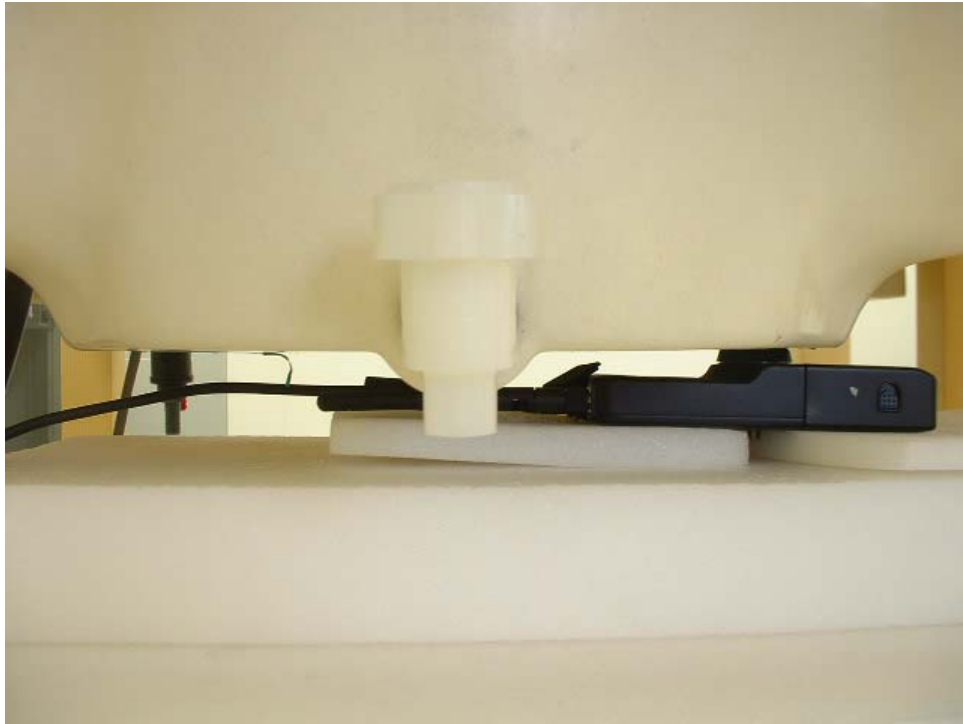
Side (Camera and Transmitter)



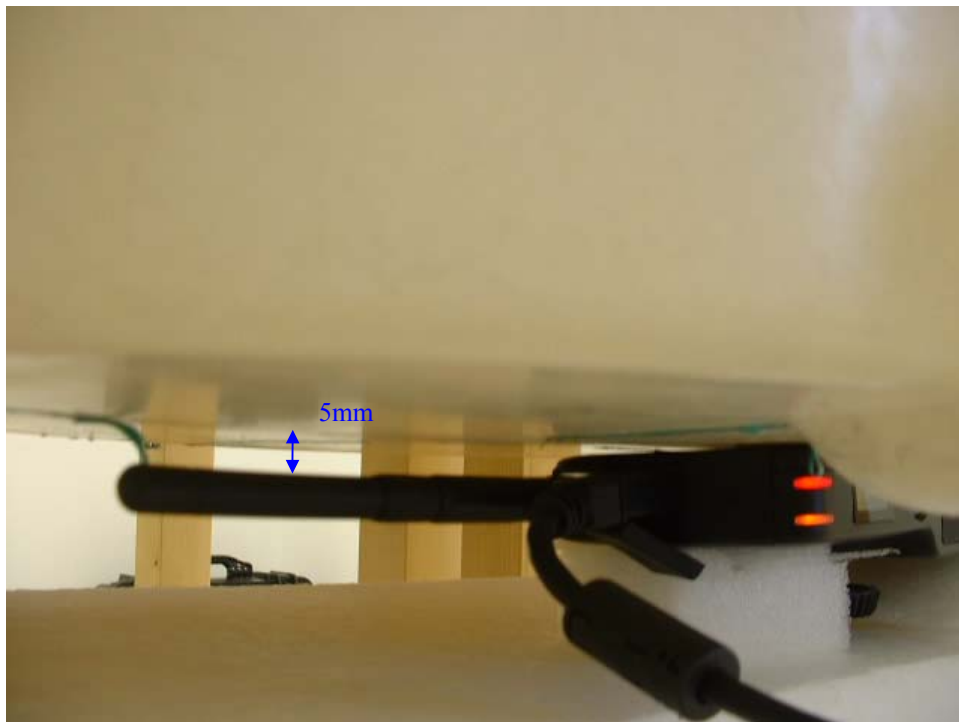
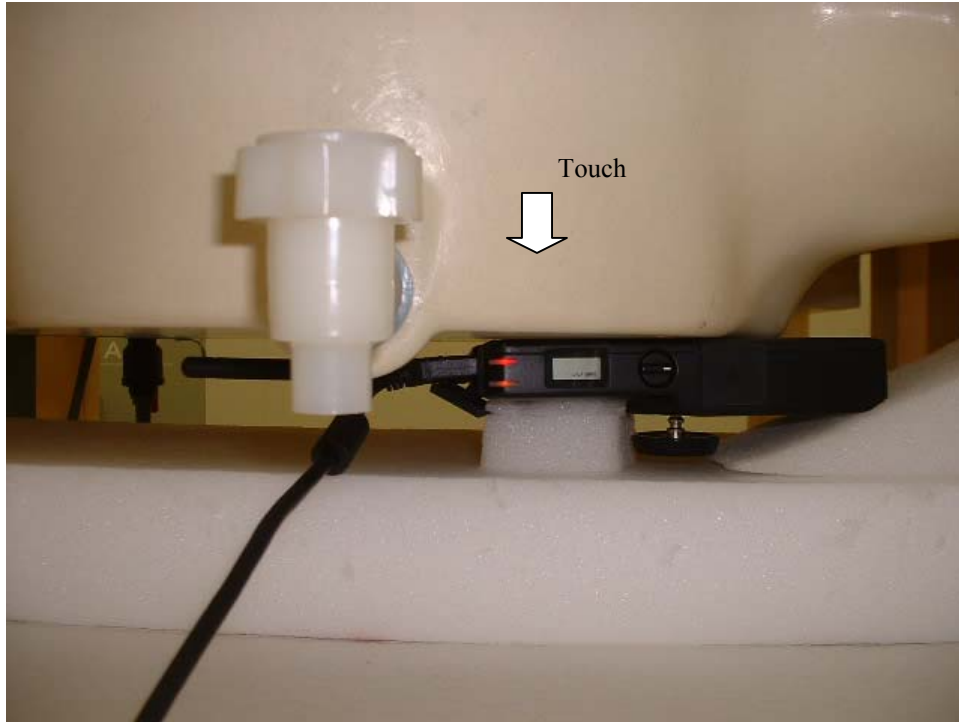
Back (Camera and Transmitter)



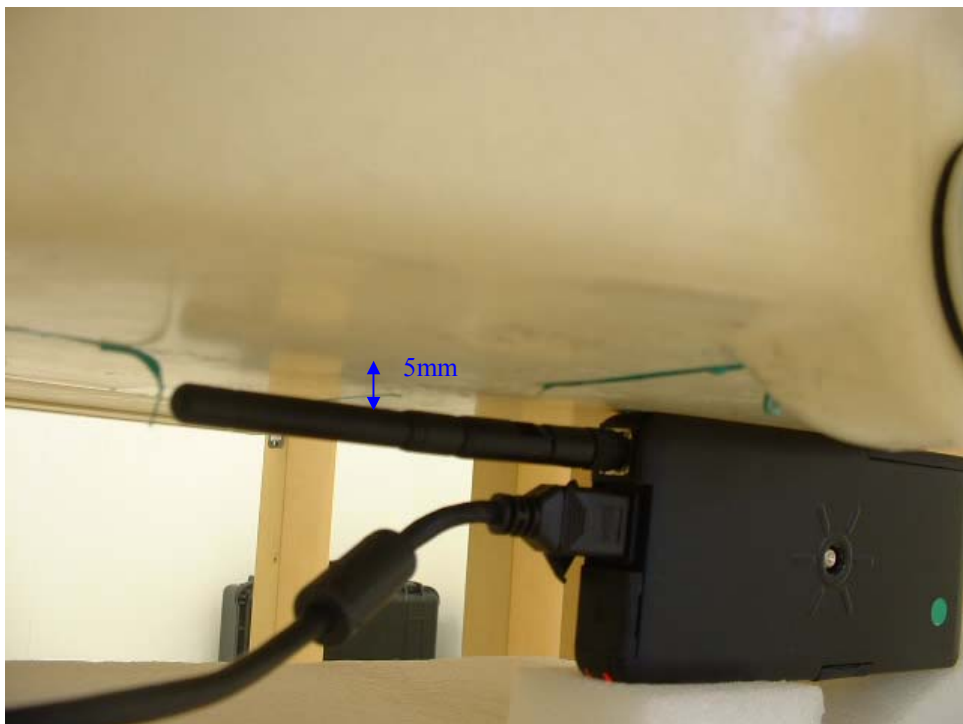
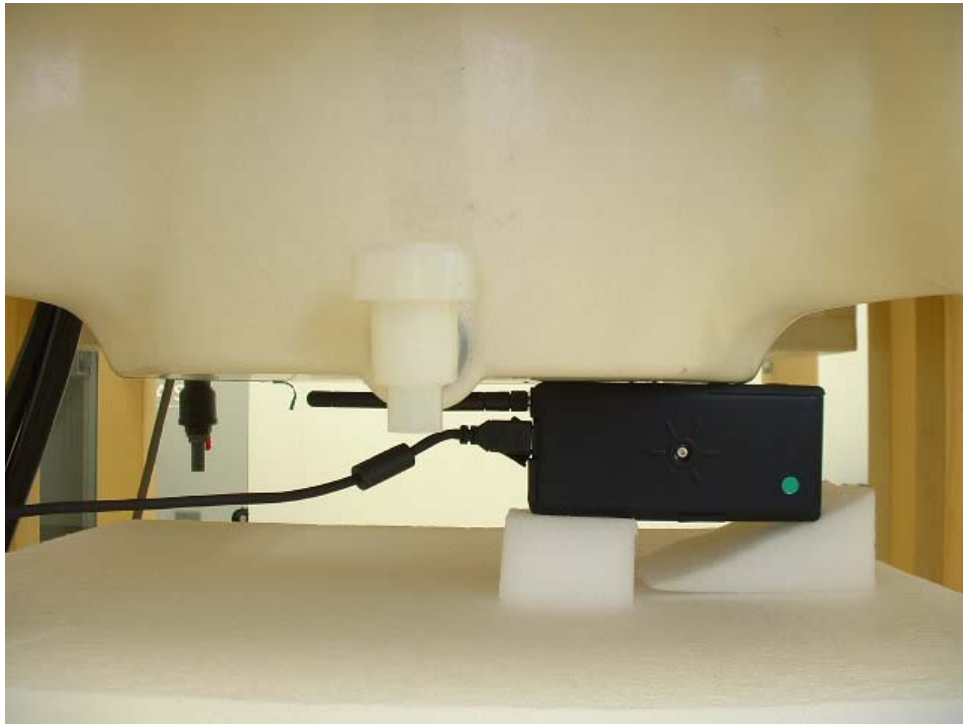
Face (Transmitter)



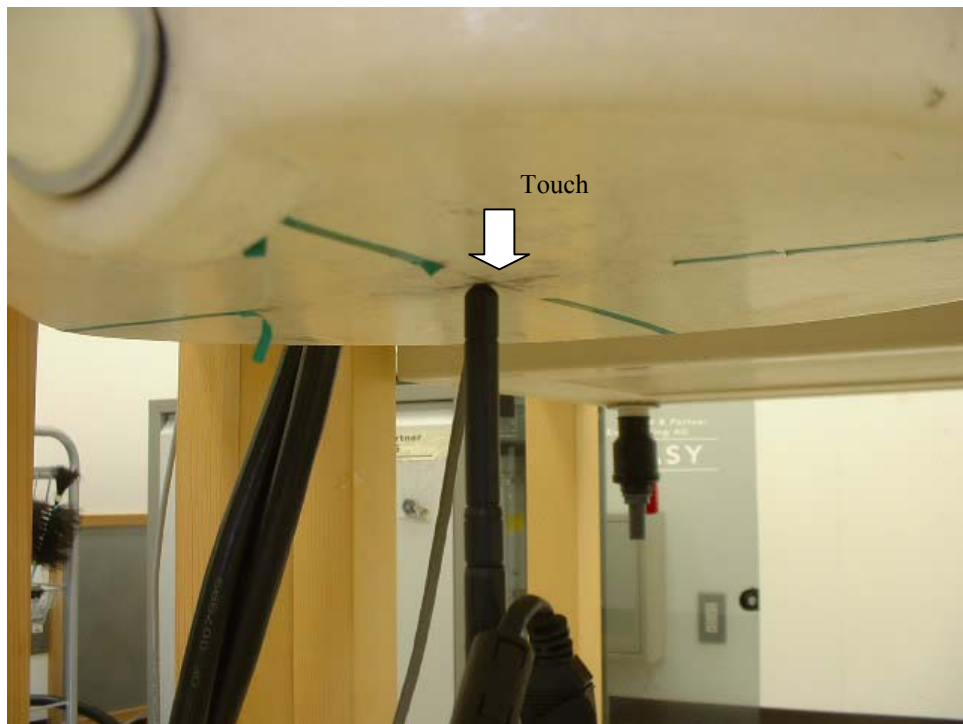
Bottom (Transmitter)



Side (Transmitter)



Top (Transmitter)



APPENDIX 2 : SAR Measurement data

DS508152 / Head / Side (Camera and Transmitter)/ DSSS / 2437MHz

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.221 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.487 W/kg

SAR(1 g) = 0.196 mW/g; SAR(10 g) = 0.0708 mW/g

Maximum value of SAR = 0.212 mW/g

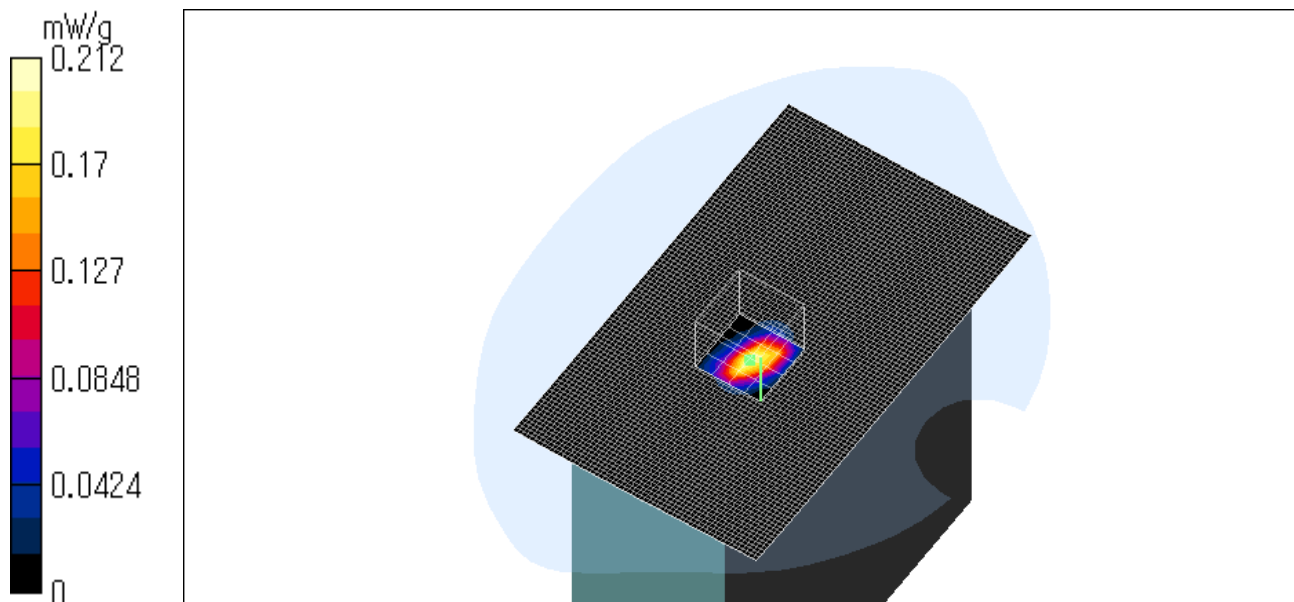
Reference Value = 5.32 V/m

Power Drift = 0.01 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



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DS508152 / Head / Back (Camera and Transmitter) / DSSS / 2437MHz

Crest factor: 1
Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

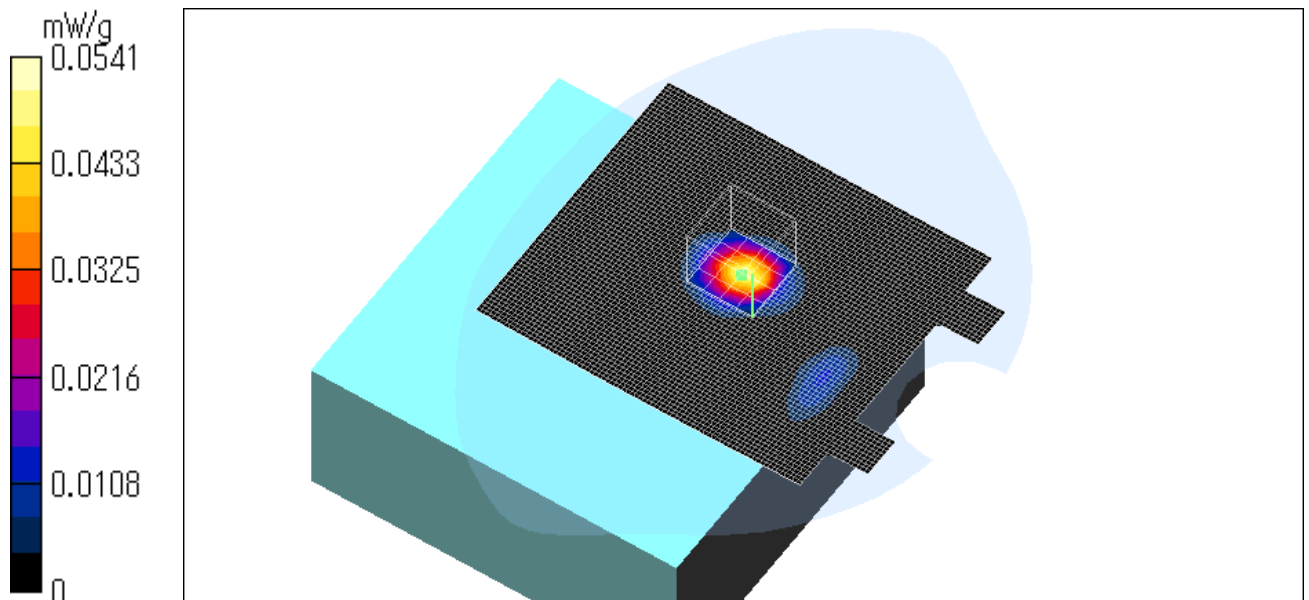
- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (91x71x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.0653 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.125 W/kg
SAR(1 g) = 0.0497 mW/g; SAR(10 g) = 0.0197 mW/g
Maximum value of SAR = 0.0541 mW/g

Reference Value = 5.29 V/m
Power Drift = -0.2 dB

Test Date = 08/12/04
Ambient Temperature = 24.5 degree.c
Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



DS508152 / Head / Face (Transmitter) / DSSS / 2437MHz

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.0228 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.0312 W/kg

SAR(1 g) = 0.0176 mW/g; SAR(10 g) = 0.00834 mW/g

Maximum value of SAR = 0.0196 mW/g

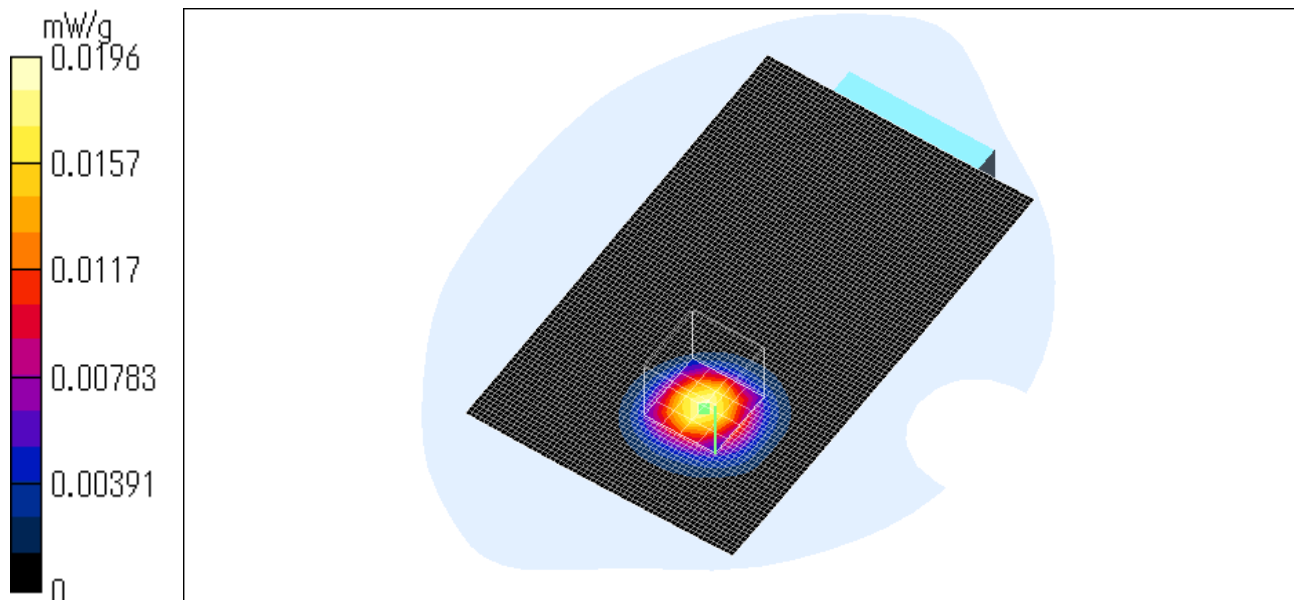
Reference Value = 0 V/m

Power Drift = 0 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



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DS508152 / Head / Bottom (Transmitter) / DSSS / 2437MHz

Crest factor: 1
Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

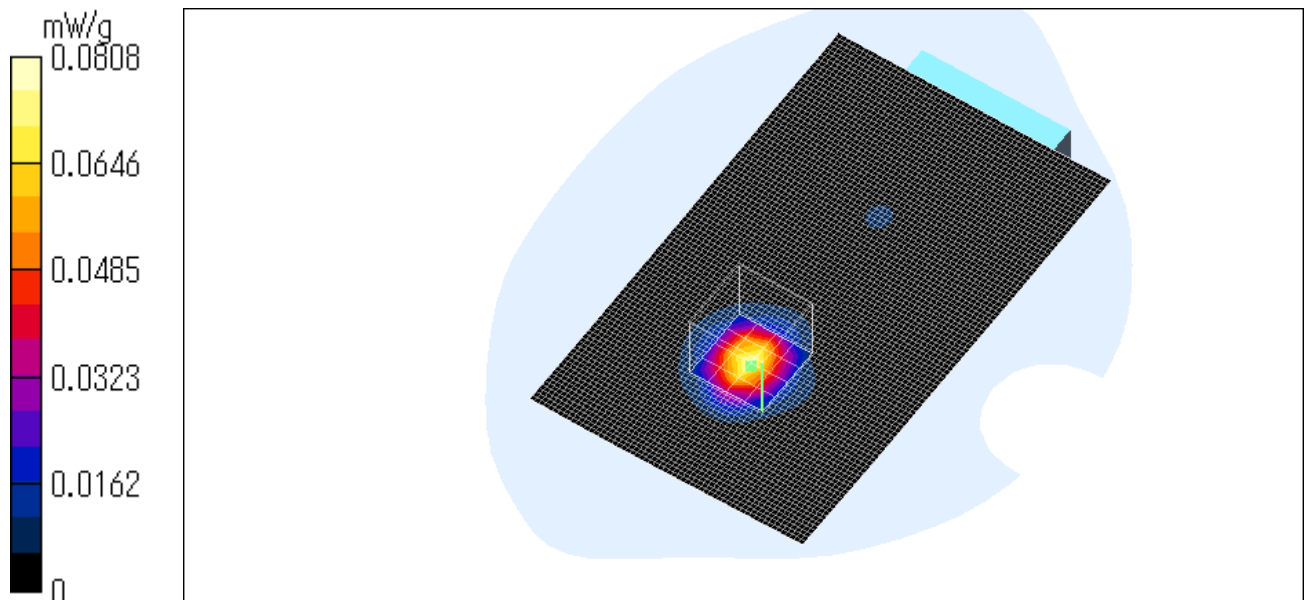
- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.0727 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.162 W/kg
SAR(1 g) = 0.0735 mW/g; SAR(10 g) = 0.0333 mW/g
Maximum value of SAR = 0.0808 mW/g

Reference Value = 0.487 V/m
Power Drift = 0.4 dB

Test Date = 08/12/04
Ambient Temperature = 24.5 degree.c
Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



DS508152 / Head / Side (Transmitter) / DSSS / 2437MHz

Crest factor: 1
Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

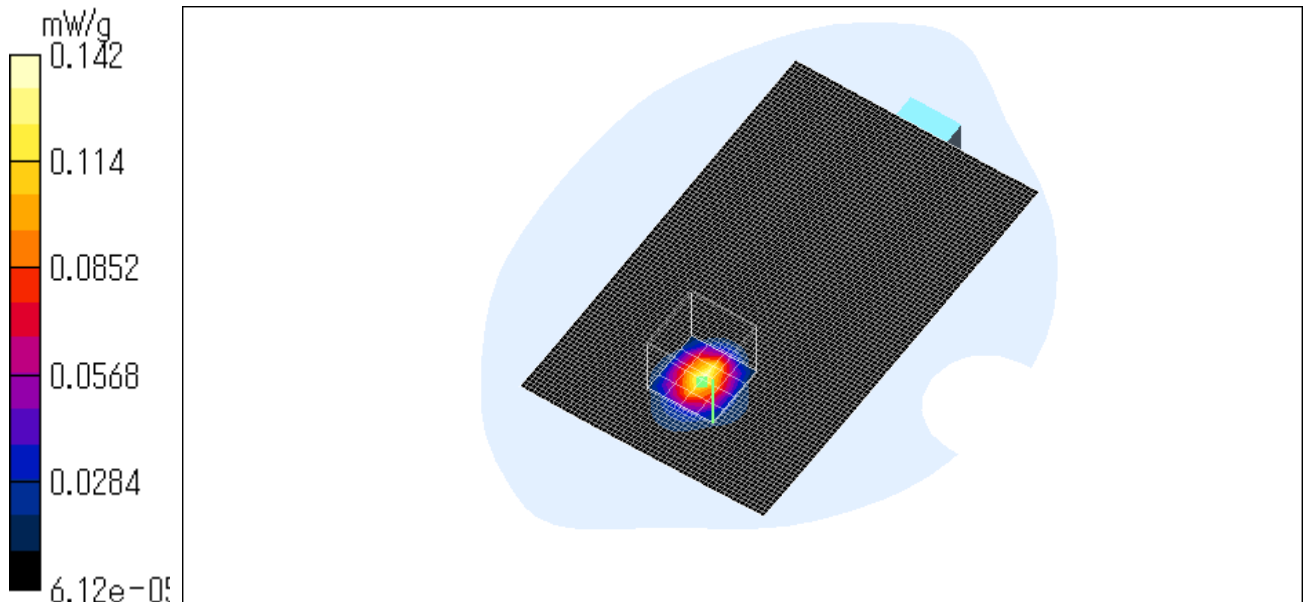
- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.132 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.283 W/kg
SAR(1 g) = 0.128 mW/g; SAR(10 g) = 0.0547 mW/g
Maximum value of SAR = 0.142 mW/g

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

Test Date = 08/12/04
Ambient Temperature = 24.5 degree.c
Liquid Temperature = Before 24.3 degree.C , After 24.4 degree.C



DS508152 / Head / Top (Transmitter) / DSSS / 2437MHz

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.00703 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.00525 W/kg

SAR(1 g) = 0.00236 mW/g; SAR(10 g) = 0.00102 mW/g

Maximum value of SAR = 0.00457 mW/g

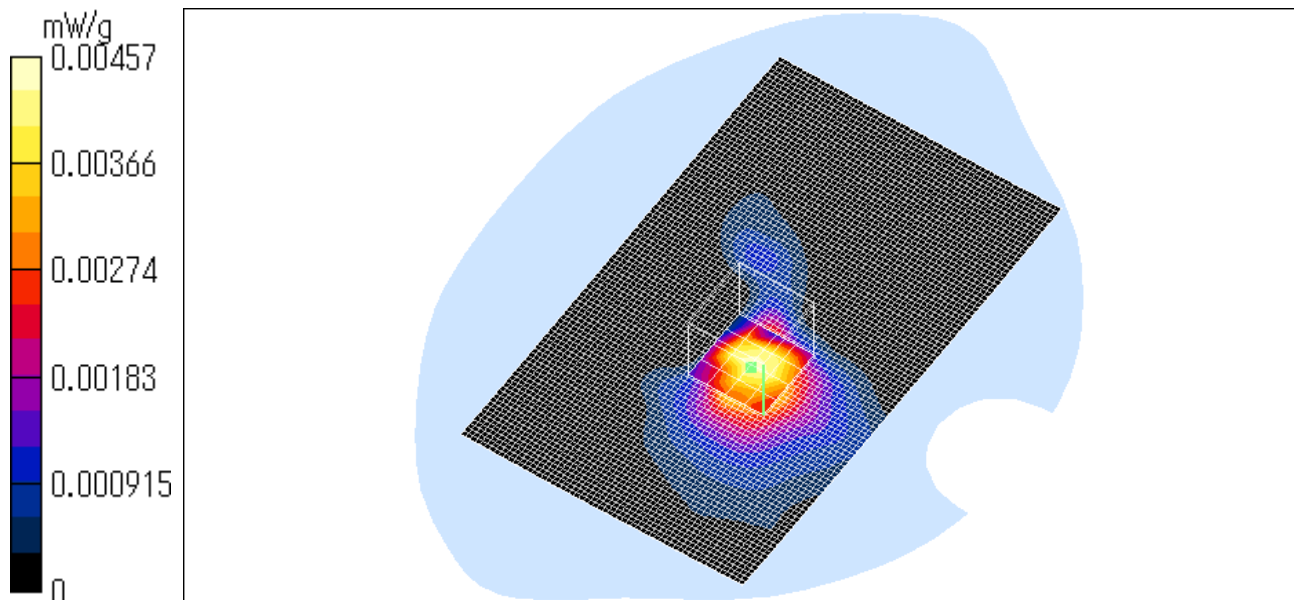
Reference Value = 1.02 V/m

Power Drift = 0.01 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.4 degree.C , After 24.4 degree.C



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DS508152 / Head / Side (Camera and Transmitter) / DSSS / 2412MHz

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.191 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.466 W/kg

SAR(1 g) = 0.181 mW/g; SAR(10 g) = 0.0644 mW/g

Maximum value of SAR = 0.188 mW/g

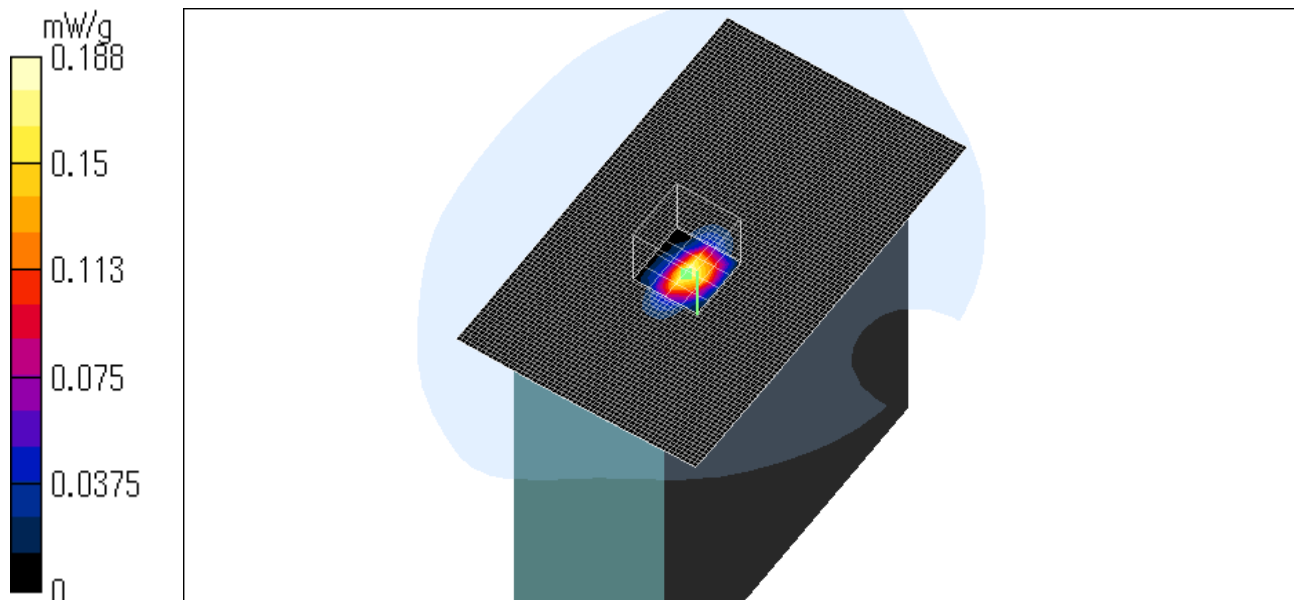
Reference Value = 5.29 V/m

Power Drift = -0.3 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



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DS508152 / Head / Side (Camera and Transmitter) / DSSS / 2462MHz

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.268 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.466 W/kg

SAR(1 g) = 0.194 mW/g; SAR(10 g) = 0.0716 mW/g

Maximum value of SAR = 0.222 mW/g

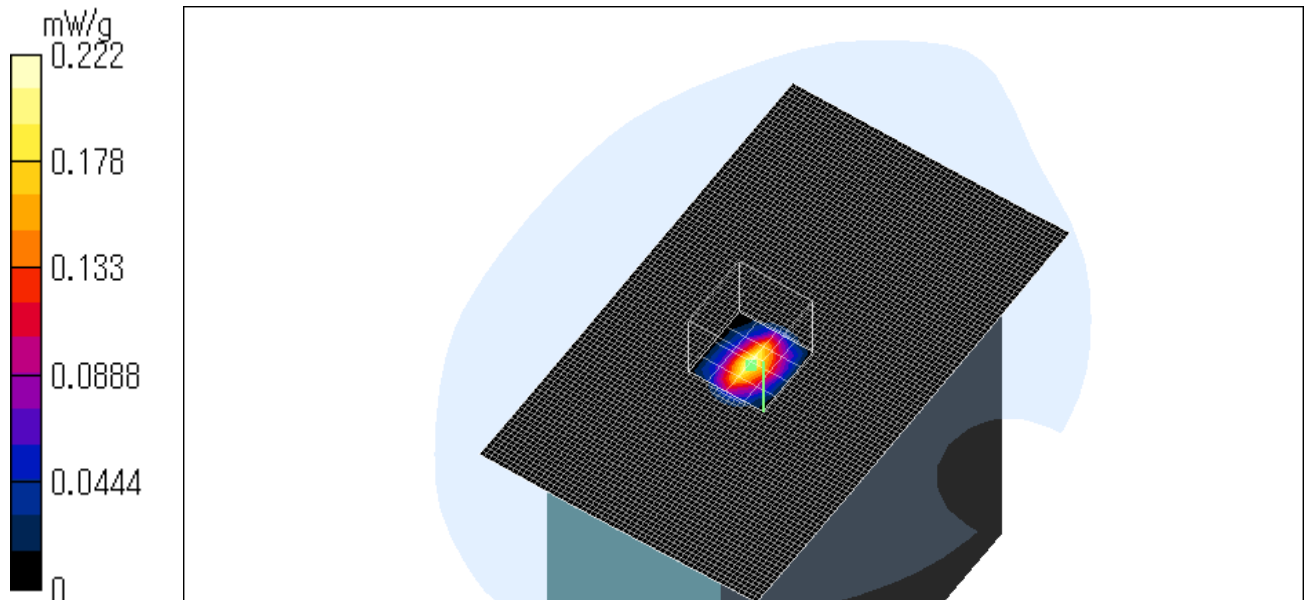
Reference Value = 8.73 V/m

Power Drift = -0.3 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



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DS508152/ Head / Side (Camera and Transmitter) / OFDM 64QAM / 2437MHz

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.161 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.446 W/kg

SAR(1 g) = 0.17 mW/g; SAR(10 g) = 0.0607 mW/g

Maximum value of SAR = 0.173 mW/g

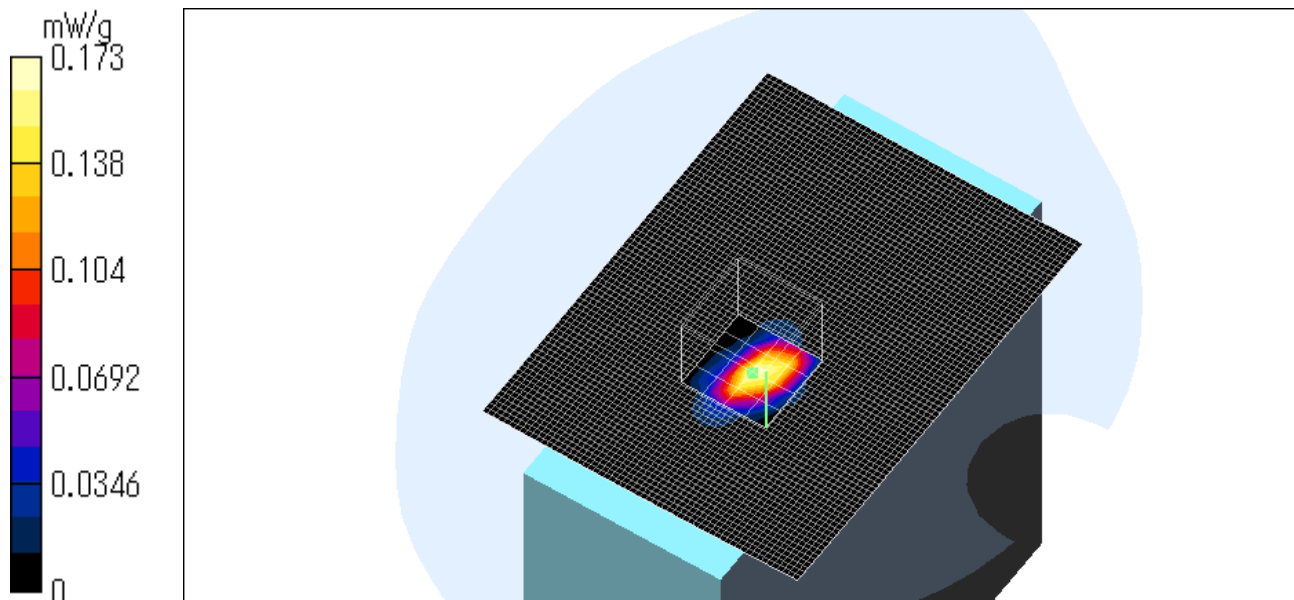
Reference Value = 3.23 V/m

Power Drift = -0.4 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.4 degree.C , After 24.5 degree.C



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DS508152 / Head / Back (Camera and Transmitter) / OFDM 64QAM / 2437MHz

Crest factor: 1
Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

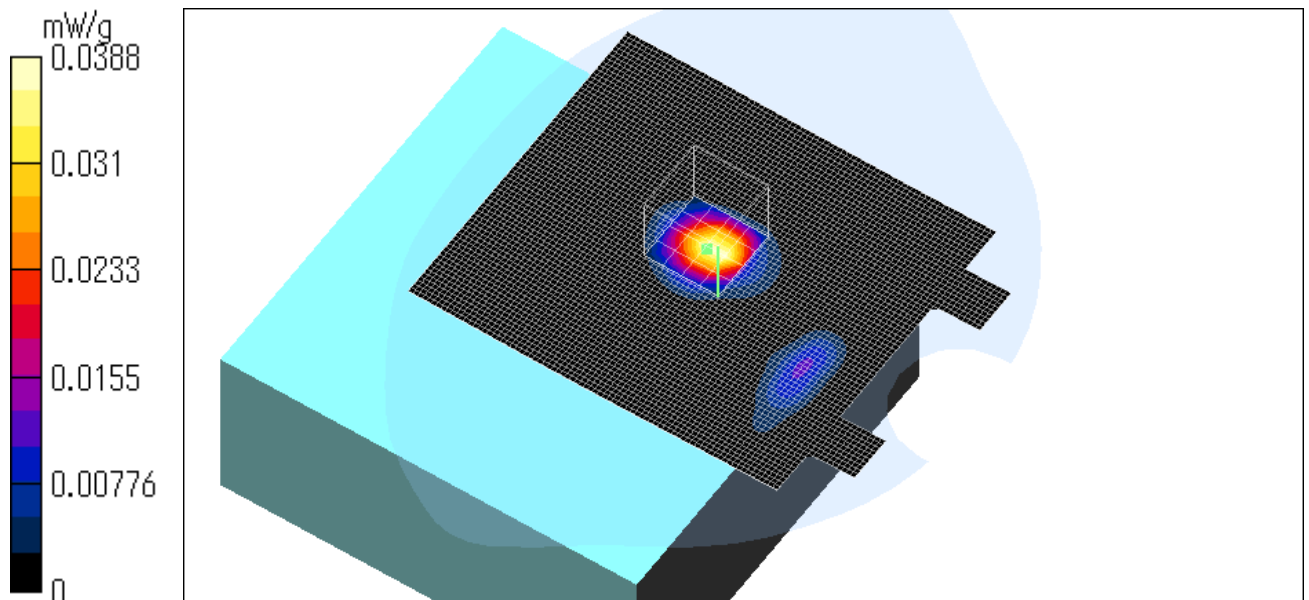
- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (91x71x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.0432 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.125 W/kg
SAR(1 g) = 0.0366 mW/g; SAR(10 g) = 0.015 mW/g
Maximum value of SAR = 0.0388 mW/g

Reference Value = 4.12 V/m
Power Drift = -0.1 dB

Test Date = 08/12/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



DS508152 / Head / Face (Transmitter) / OFDM 64QAM / 2437MHz

Crest factor: 1
Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

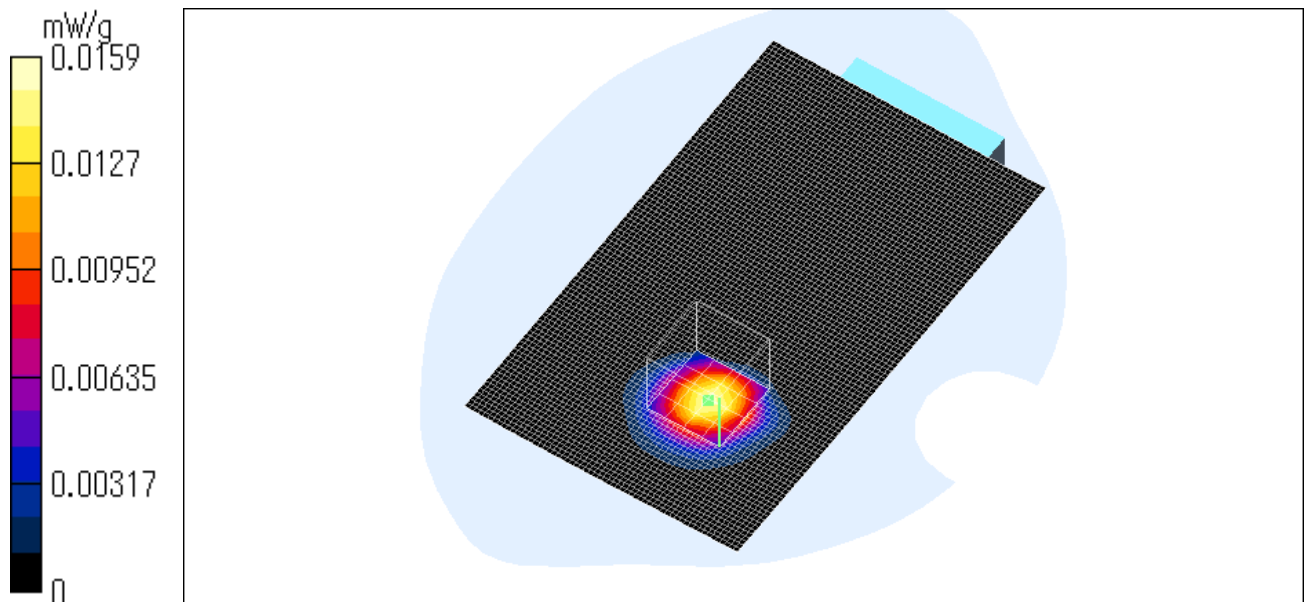
- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.0257 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.0306 W/kg
SAR(1 g) = 0.0146 mW/g; SAR(10 g) = 0.00691 mW/g
Maximum value of SAR = 0.0159 mW/g

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

Test Date = 08/12/04
Ambient Temperature = 24.5 degree.c
Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



DS508152 / Head / Bottom (Transmitter) / OFDM 64QAM / 2437MHz

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.0743 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.146 W/kg

SAR(1 g) = 0.0695 mW/g; SAR(10 g) = 0.0332 mW/g

Maximum value of SAR = 0.0748 mW/g

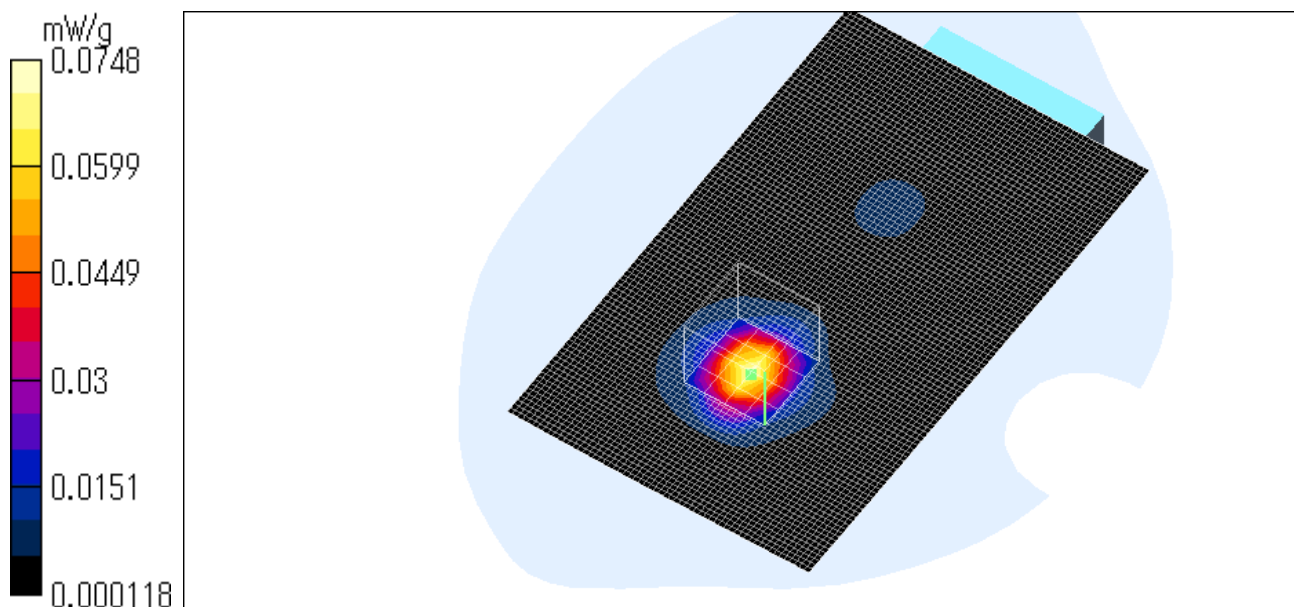
Reference Value = 1.25 V/m

Power Drift = -0.3 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



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DS508152 / Head / Side (Transmitter) / OFDM 64QAM / 2437MHz

Crest factor: 1
Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

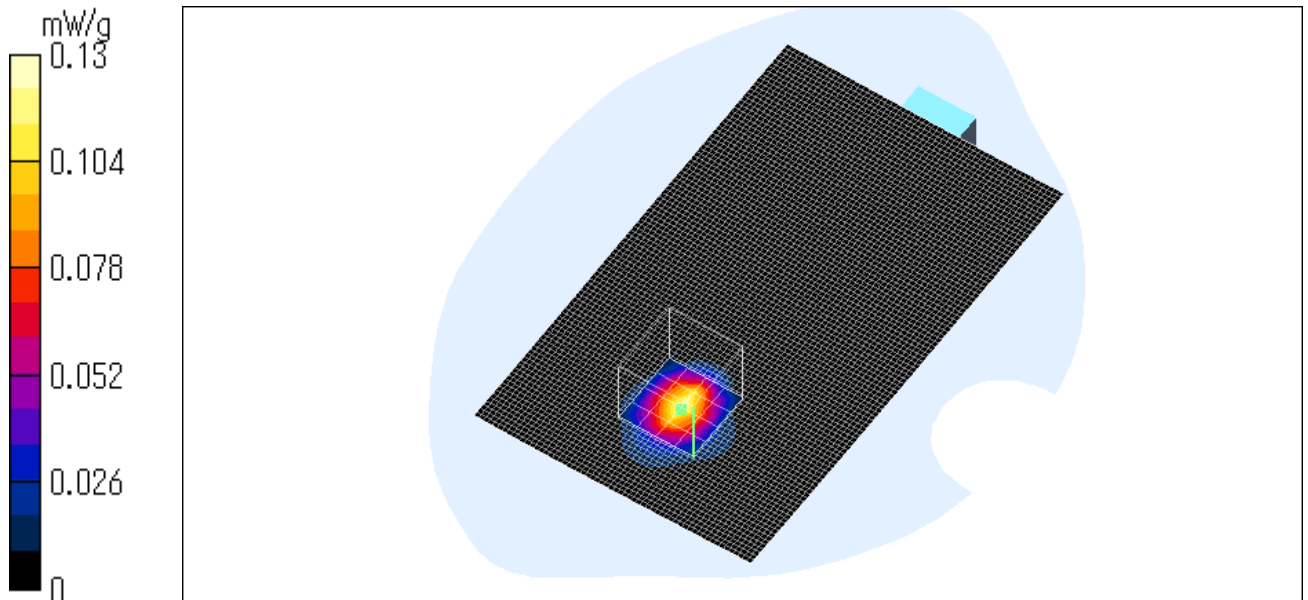
- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.125 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.259 W/kg
SAR(1 g) = 0.116 mW/g; SAR(10 g) = 0.0496 mW/g
Maximum value of SAR = 0.13 mW/g

Reference Value = 0.532 V/m
Power Drift = -0.1 dB

Test Date = 08/12/04
Ambient Temperature = 24.5 degree.c
Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



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DS508152 / Head / Top (Transmitter) / OFDM 64QAM / 2437MHz

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.00564 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.005 W/kg

SAR(1 g) = 0.002 mW/g; SAR(10 g) = 0.000696 mW/g

Maximum value of SAR = 0.00383 mW/g

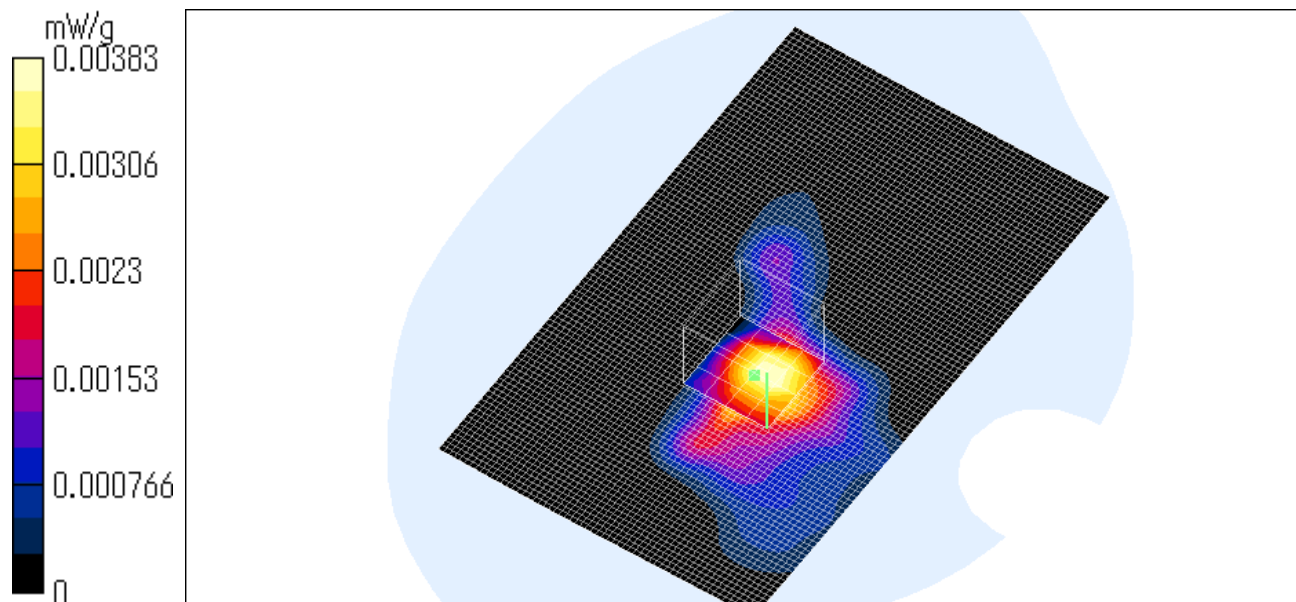
Reference Value = 0.965 V/m

Power Drift = -0.4 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.1 degree.C , After 24.1 degree.C



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DS508152/ Head / Side (Camera and Transmitter) / OFDM 64QAM / 2412MHz

Crest factor: 1
Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

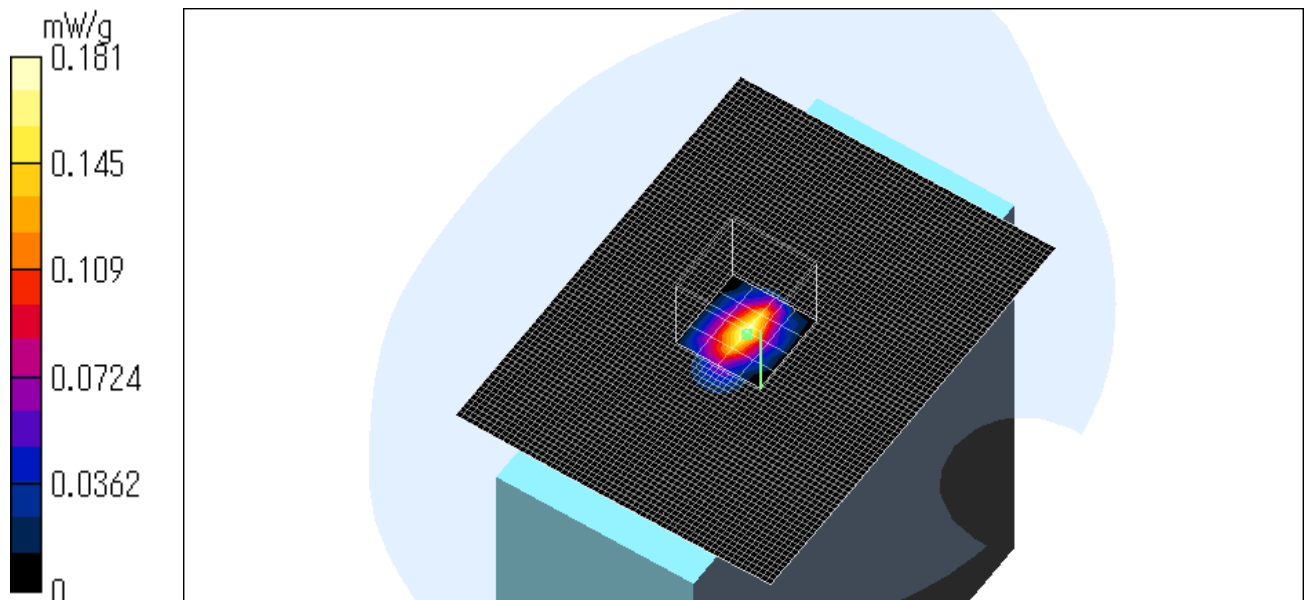
- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.196 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.395 W/kg
SAR(1 g) = 0.154 mW/g; SAR(10 g) = 0.0555 mW/g
Maximum value of SAR = 0.181 mW/g

Reference Value = 10.3 V/m
Power Drift = -0.3 dB

Test Date = 08/12/04
Ambient Temperature = 24.5 degree.c
Liquid Temperature = Before 24.2 degree.C , After 24.2 degree.C



DS508152/ Head / Side (Camera and Transmitter) / OFDM 64QAM / 2462MHz

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.194 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.383 W/kg

SAR(1 g) = 0.16 mW/g; SAR(10 g) = 0.0588 mW/g

Maximum value of SAR = 0.166 mW/g

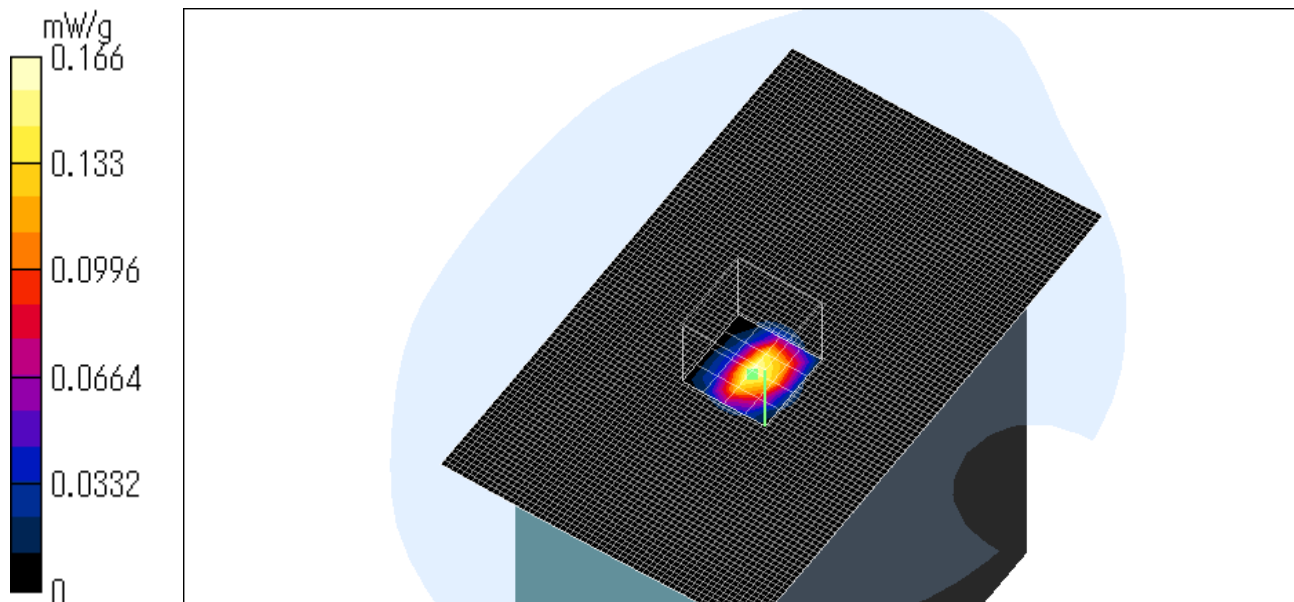
Reference Value = 6.32 V/m

Power Drift = -0.3 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.2 degree.C , After 24.2 degree.C



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DS508152 / Head / Side (Camera and Transmitter) / OFDM QPSK / 2437MHz

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.163 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.456 W/kg

SAR(1 g) = 0.176 mW/g; SAR(10 g) = 0.0631 mW/g

Maximum value of SAR = 0.184 mW/g

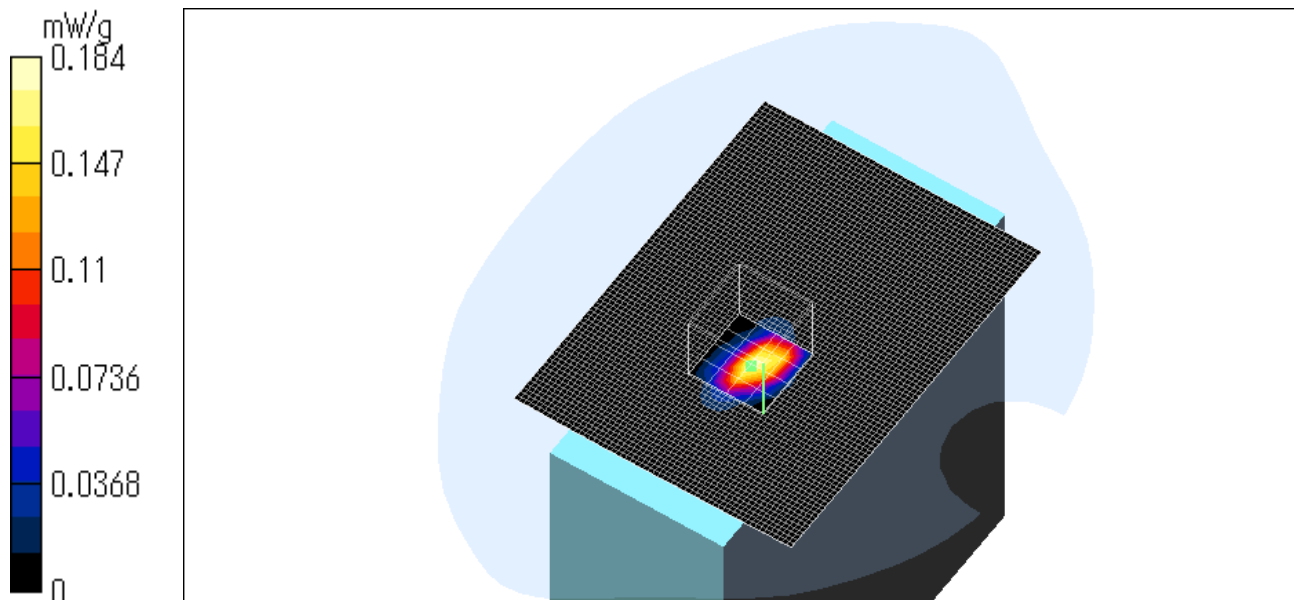
Reference Value = 3.64 V/m

Power Drift = -0.3 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



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DS508152 / Head / Back (Camera and Transmitter) / OFDM QPSK / 2437MHz

Crest factor: 1
Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

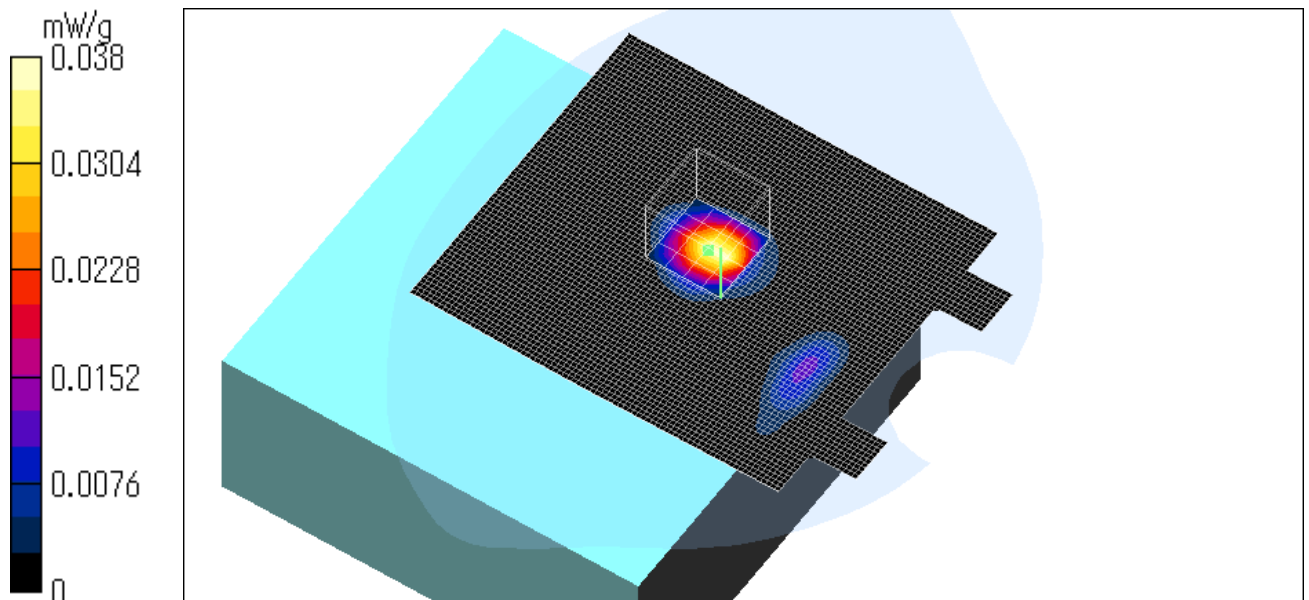
- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (91x71x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.041 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.443 W/kg
SAR(1 g) = 0.0358 mW/g; SAR(10 g) = 0.015 mW/g
Maximum value of SAR = 0.038 mW/g

Reference Value = 4 V/m
Power Drift = -0.3 dB

Test Date = 08/12/04
Ambient Temperature = 24.5 degree.c
Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



DS508152 / Head / Face (Transmitter) / OFDM QPSK / 2437MHz

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.0222 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.0355 W/kg

SAR(1 g) = 0.0149 mW/g; SAR(10 g) = 0.00685 mW/g

Maximum value of SAR = 0.0164 mW/g

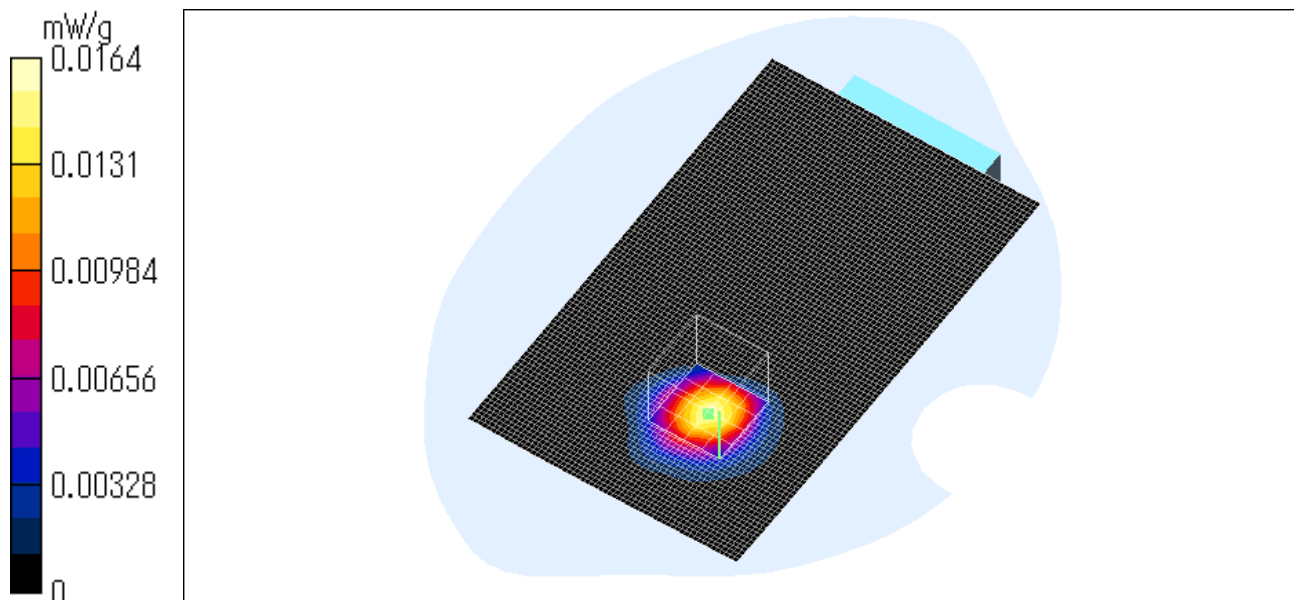
Reference Value = 0 V/m

Power Drift = 0 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



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DS508152/ Head / Bottom (Transmitter) / OFDM QPSK / 2437MHz

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.0668 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.143 W/kg

SAR(1 g) = 0.069 mW/g; SAR(10 g) = 0.033 mW/g

Maximum value of SAR = 0.0747 mW/g

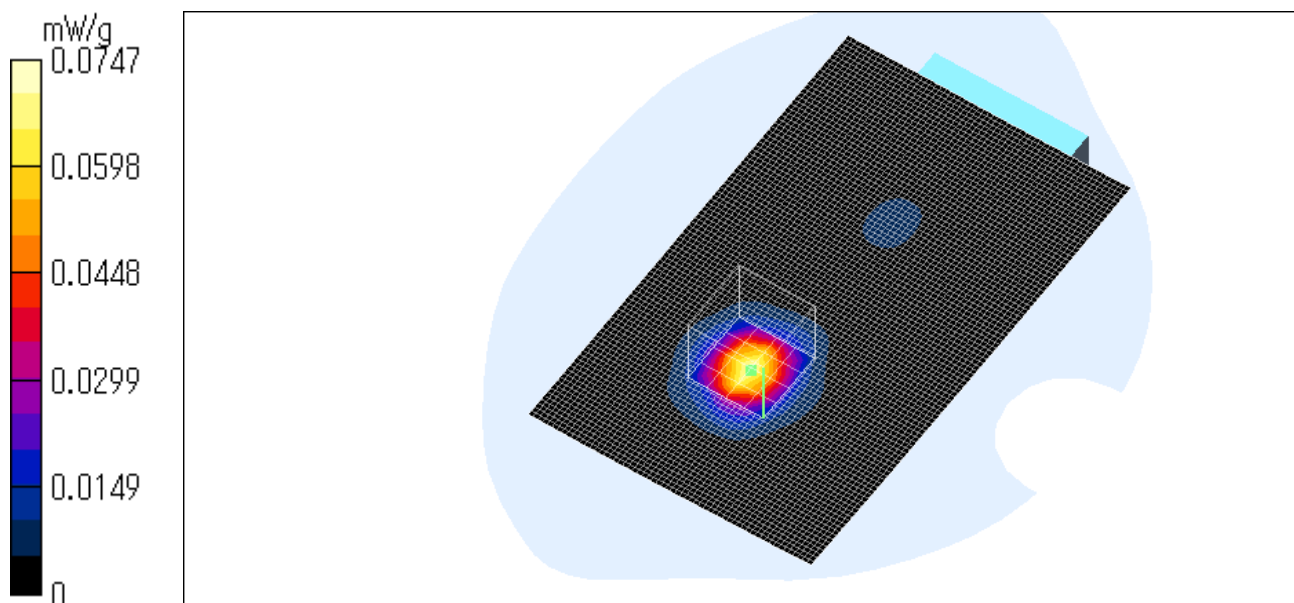
Reference Value = 0.943 V/m

Power Drift = -0.4 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



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DS508152 / Head / Side (Transmitter) / OFDM QPSK / 2437MHz

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.118 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.247 W/kg

SAR(1 g) = 0.11 mW/g; SAR(10 g) = 0.0468 mW/g

Maximum value of SAR = 0.123 mW/g

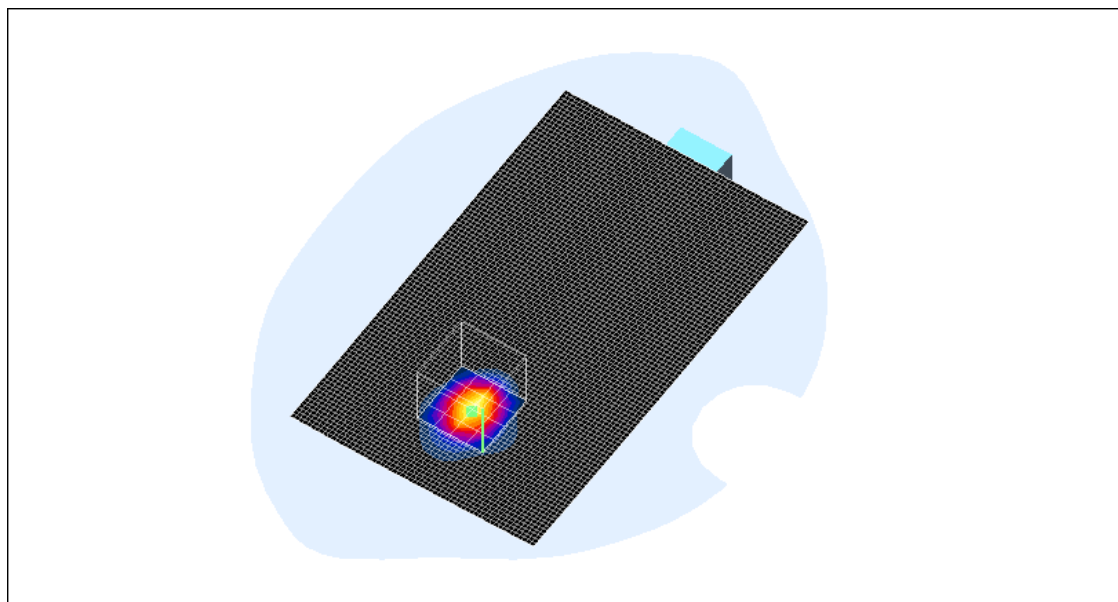
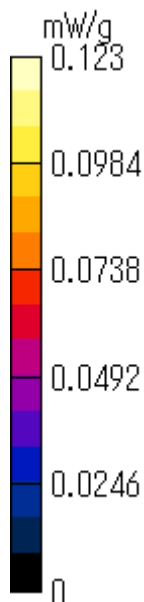
Reference Value = 0 V/m

Power Drift = 0 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



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DS508152 / Head / Top (Transmitter) / OFDM QPSK / 2437MHz

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.00544 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.00495 W/kg

SAR(1 g) = 0.00187 mW/g; SAR(10 g) = 0.000643 mW/g

Maximum value of SAR = 0.00379 mW/g

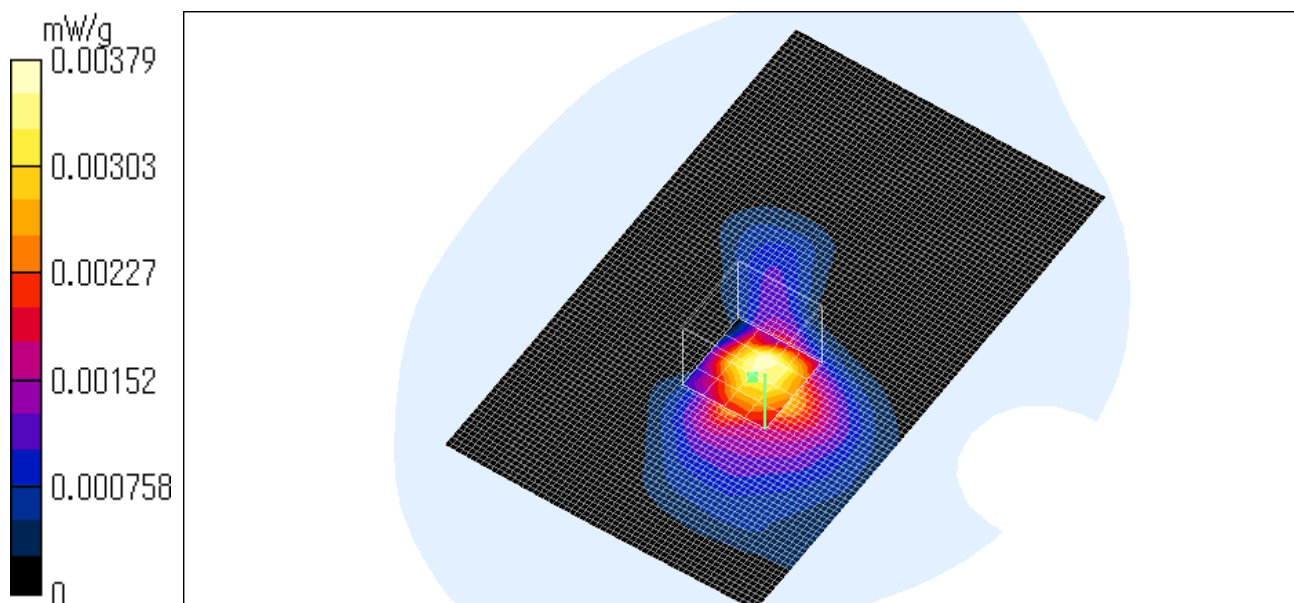
Reference Value = 0.906 V/m

Power Drift = -0.3 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.1 degree.C , After 24.2 degree.C



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DS508152 / Head / Side (Camera and Transmitter) / OFDM QPSK / 2412MHz

Crest factor: 1
Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

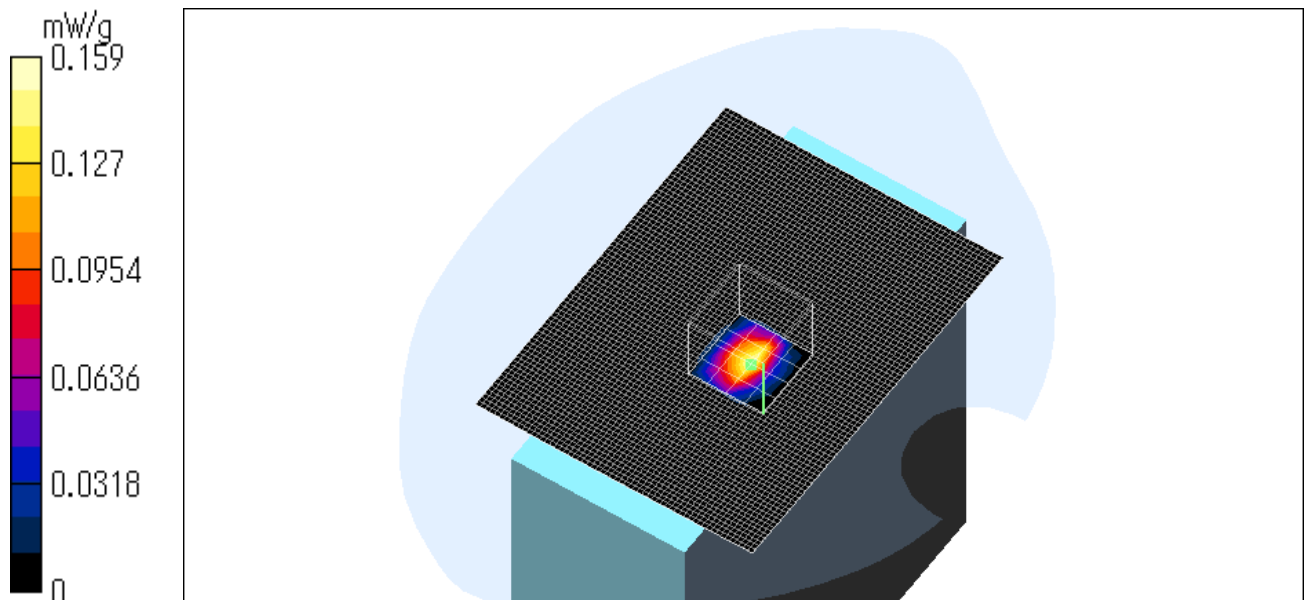
- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.233 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.37 W/kg
SAR(1 g) = 0.149 mW/g; SAR(10 g) = 0.0531 mW/g
Maximum value of SAR = 0.159 mW/g

Reference Value = 3.52 V/m
Power Drift = 0.2 dB

Test Date = 08/12/04
Ambient Temperature = 24.5 degree.c
Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



DS508152 / Head / Side (Camera and Transmitter) / OFDM QPSK / 2462MHz

Crest factor: 1
Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

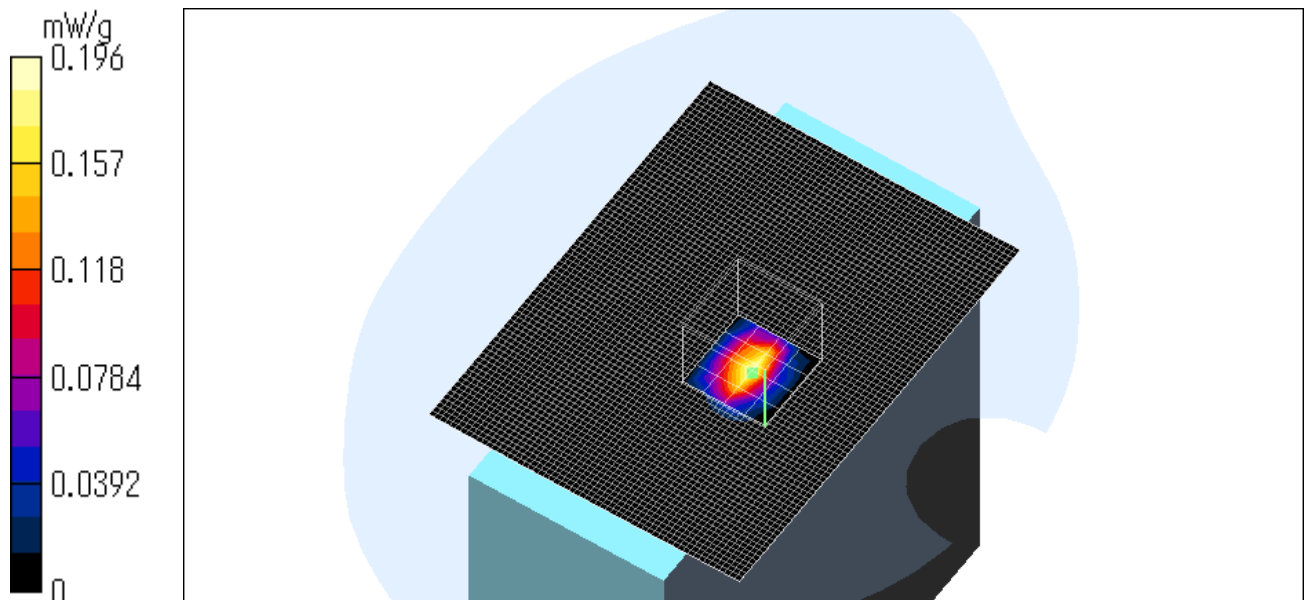
- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.249 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.449 W/kg
SAR(1 g) = 0.179 mW/g; SAR(10 g) = 0.0646 mW/g
Maximum value of SAR = 0.196 mW/g

Reference Value = 2.64 V/m
Power Drift = 0.09 dB

Test Date = 08/12/04
Ambient Temperature = 24.5 degree.c
Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



DS508152 / Body / Side (Camera and Transmitter)/ DSSS / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

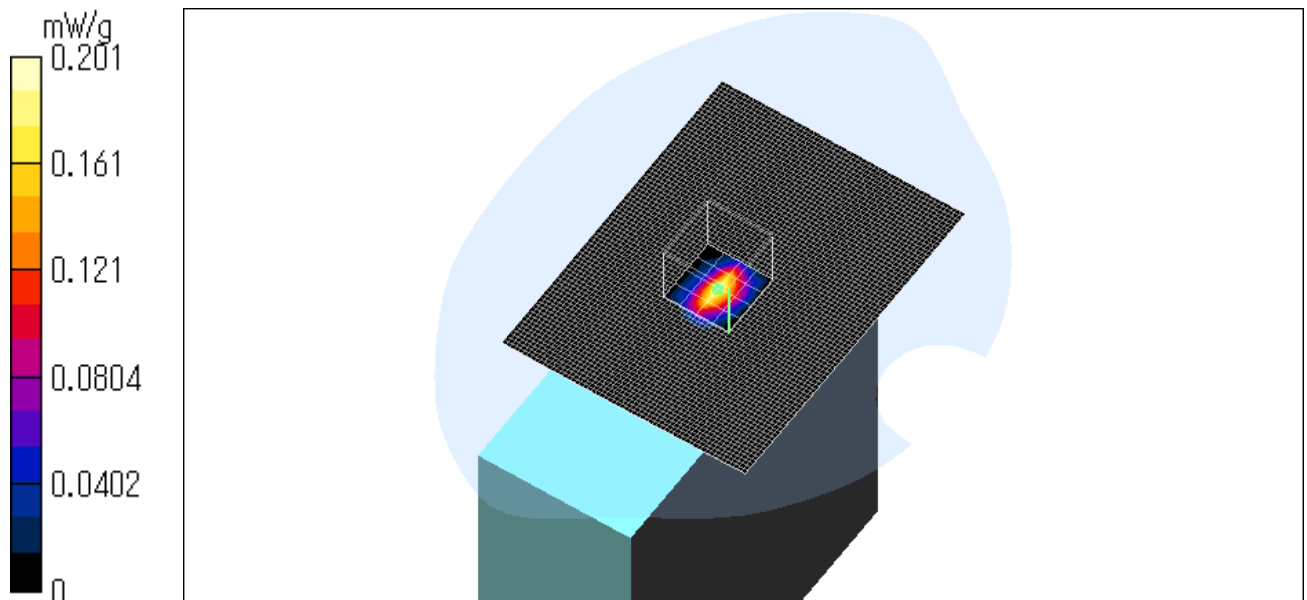
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.253 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.469 W/kg
SAR(1 g) = 0.18 mW/g; SAR(10 g) = 0.0627 mW/g
Maximum value of SAR = 0.201 mW/g

Reference Value = 9.54 V/m
Power Drift = -0.3 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



DS508152 / Body / Back (Camera and Transmitter) / DSSS / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

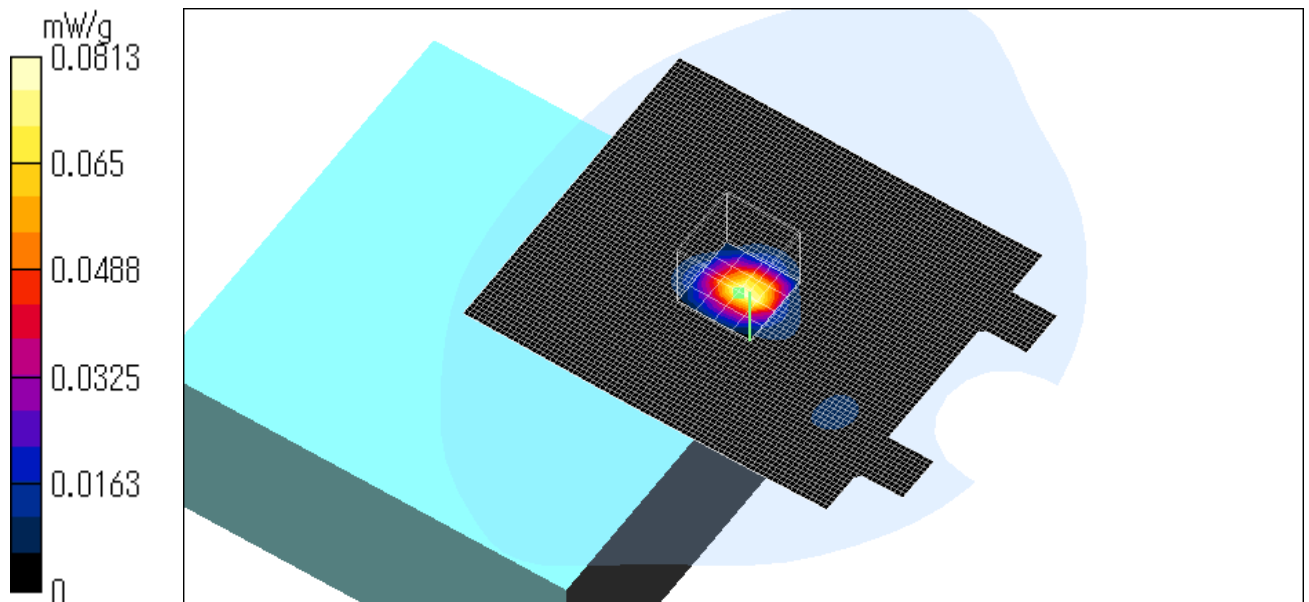
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (91x71x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.0852 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.176 W/kg
SAR(1 g) = 0.0783 mW/g; SAR(10 g) = 0.0315 mW/g
Maximum value of SAR = 0.0813 mW/g

Reference Value = 5.69 V/m
Power Drift = -0.2 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



DS508152 / Body / Face (Transmitter) / DSSS / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

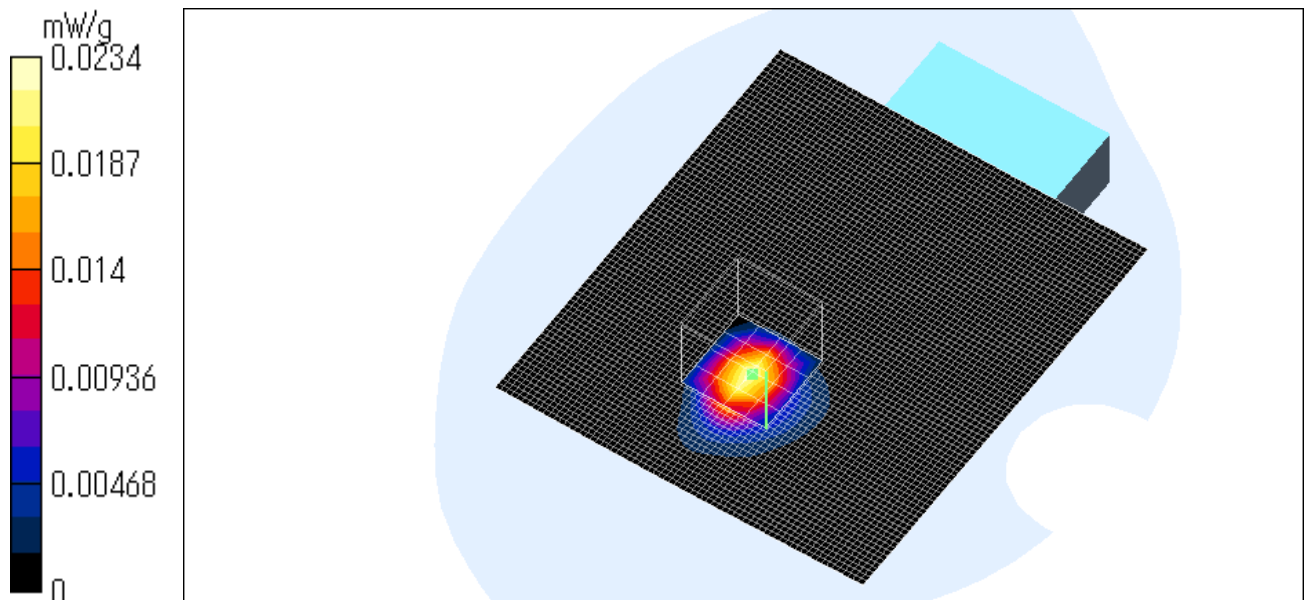
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (71x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.0314 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.0675 W/kg
SAR(1 g) = 0.023 mW/g; SAR(10 g) = 0.00894 mW/g
Maximum value of SAR = 0.0234 mW/g

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

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



DS508152 / Body / Bottom (Transmitter) / DSSS / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

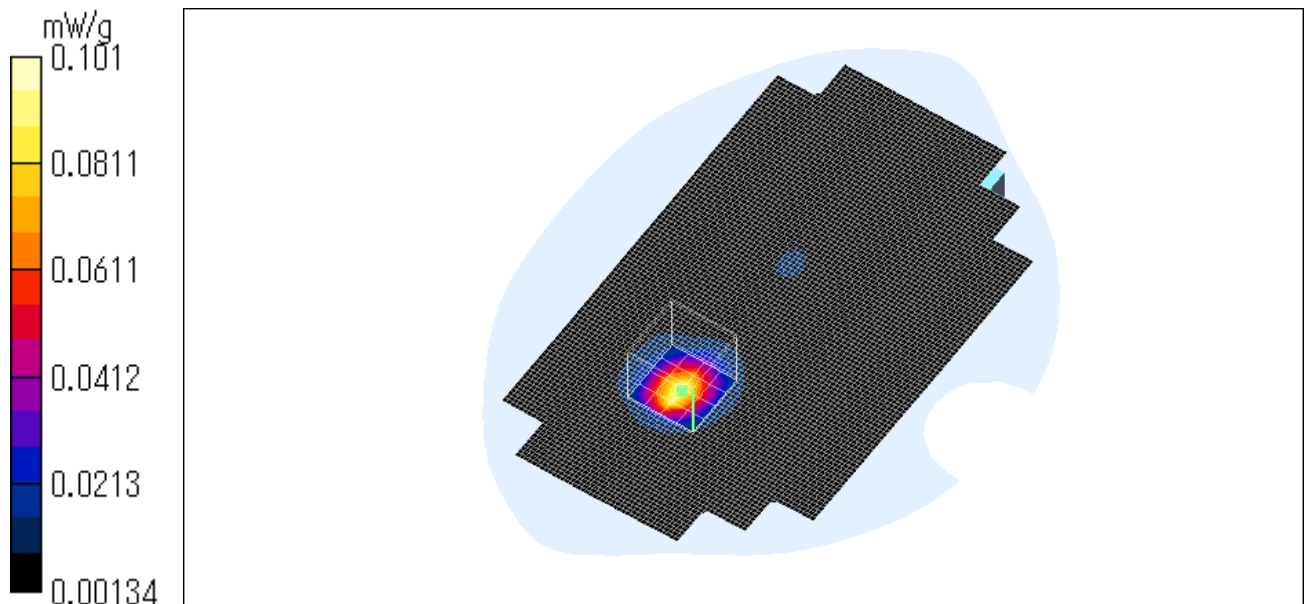
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (71x121x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.113 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.217 W/kg
SAR(1 g) = 0.0943 mW/g; SAR(10 g) = 0.0426 mW/g
Maximum value of SAR = 0.101 mW/g

Reference Value = 1.31 V/m
Power Drift = -0.3 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.4 degree.C , After 24.4 degree.C



DS508152 / Body / Side (Transmitter) / DSSS / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

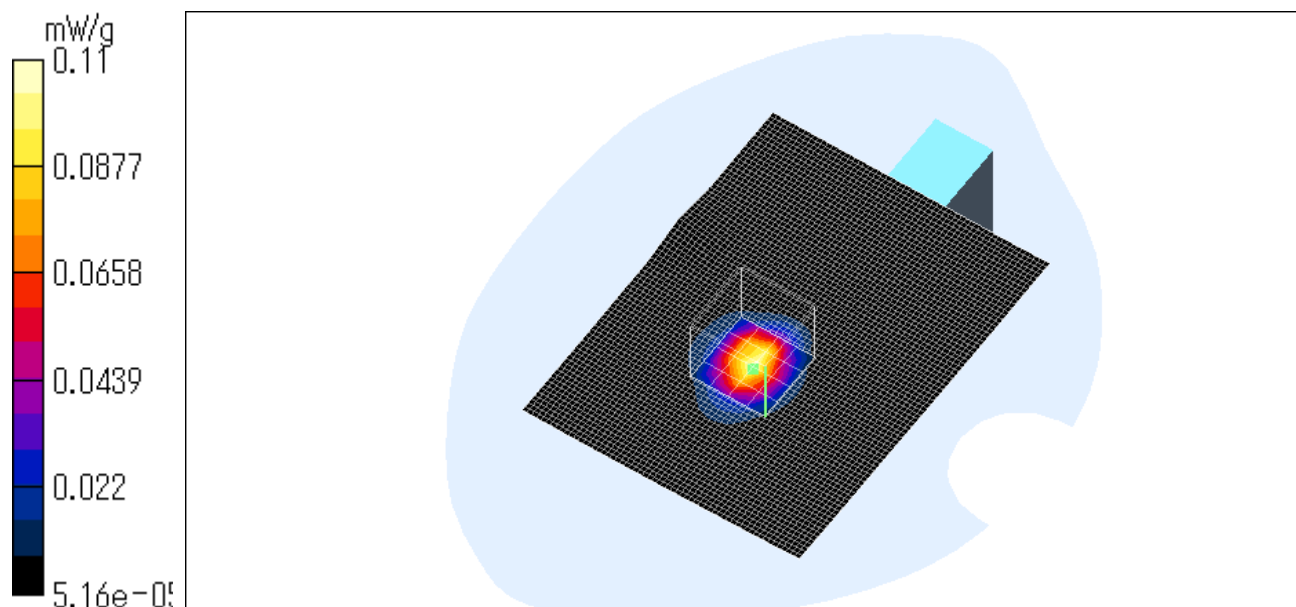
DASY4 Configuration:
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.109 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.228 W/kg
SAR(1 g) = 0.102 mW/g; SAR(10 g) = 0.0453 mW/g
Maximum value of SAR = 0.11 mW/g

Reference Value = 4.24 V/m
Power Drift = 0.01 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



DS508152 / Body / Top (Transmitter) / DSSS / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

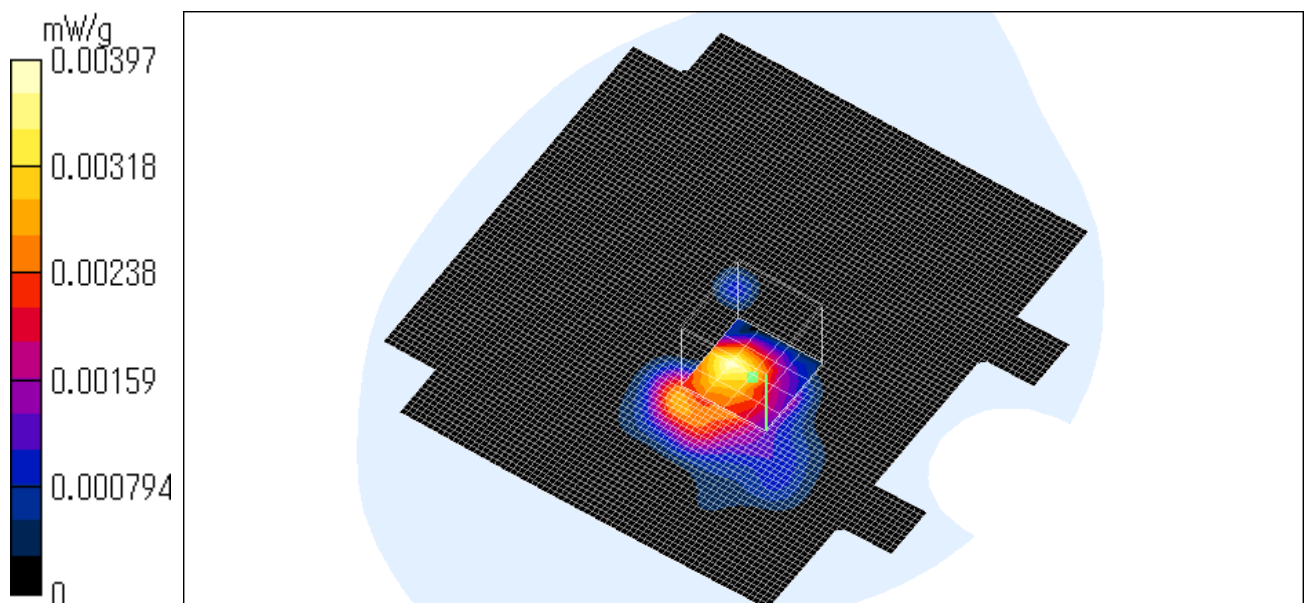
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (91x91x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.00591 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.00461 W/kg
SAR(1 g) = 0.00165 mW/g; SAR(10 g) = 0.00052 mW/g
Maximum value of SAR = 0.00397 mW/g

Reference Value = 0.559 V/m
Power Drift = -0.3 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



DS508152 / Body / Side (Camera and Transmitter) / DSSS / 2412MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

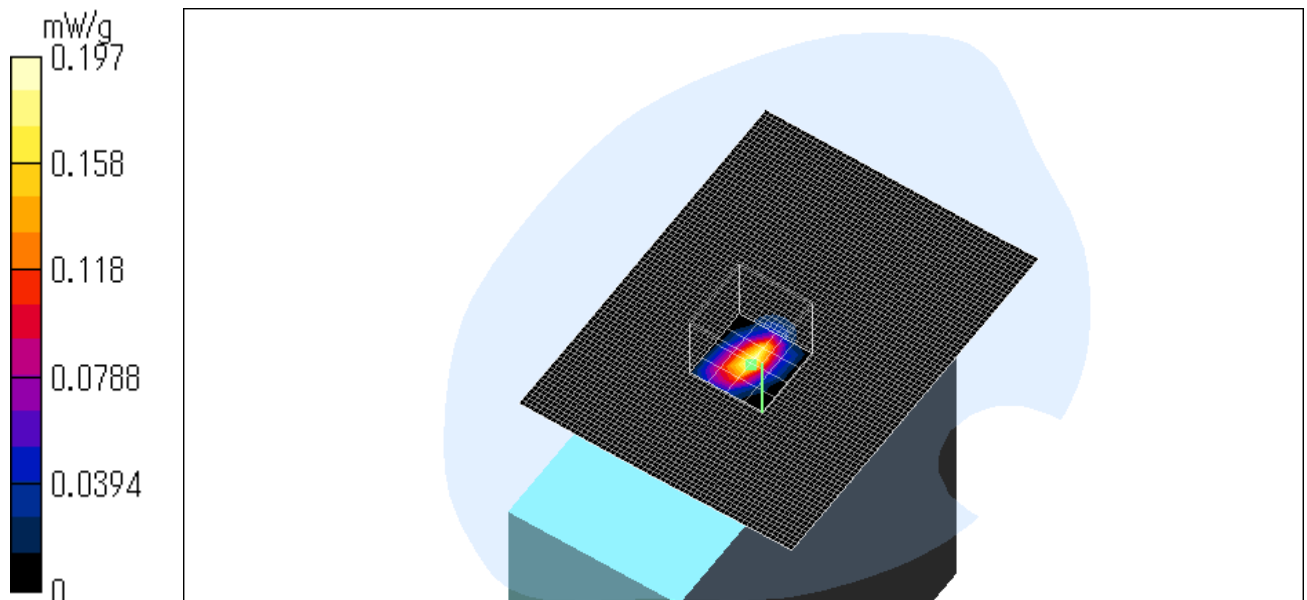
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.195 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.533 W/kg
SAR(1 g) = 0.182 mW/g; SAR(10 g) = 0.0608 mW/g
Maximum value of SAR = 0.197 mW/g

Reference Value = 4.58 V/m
Power Drift = 0.1 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



DS508152 / Body / Side (Camera and Transmitter) / DSSS / 2462MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

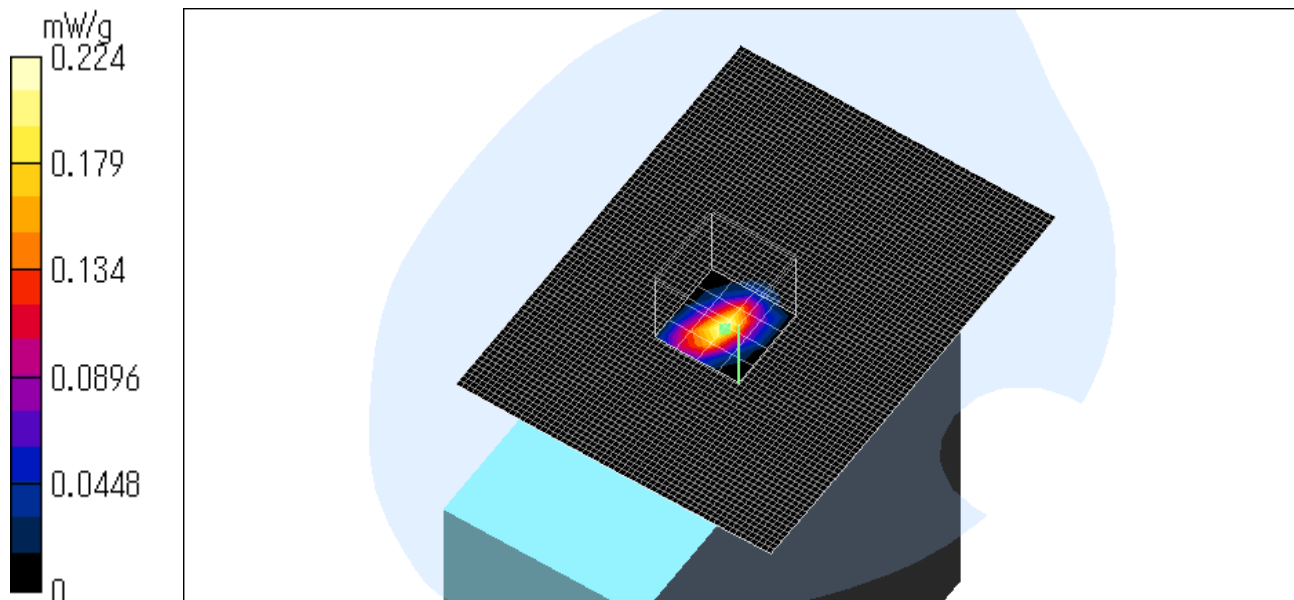
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.232 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.543 W/kg
SAR(1 g) = 0.199 mW/g; SAR(10 g) = 0.0682 mW/g
Maximum value of SAR = 0.224 mW/g

Reference Value = 5.88 V/m
Power Drift = 0.3 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



Z-axis scan at max SAR location

DS508152 / Body / Side (Camera and Transmitter) / DSSS / 2462MHz

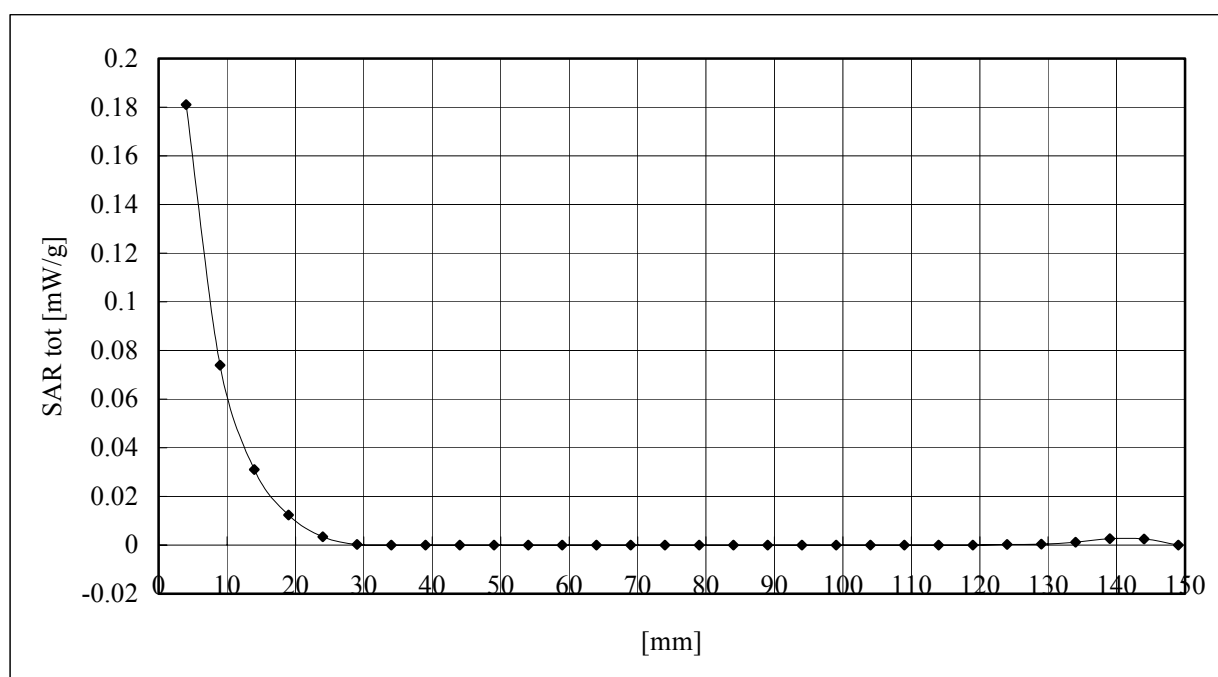
Crest factor: 1

Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115



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DS508152 / Body / Side (Camera and Transmitter) / OFDM 64QAM / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

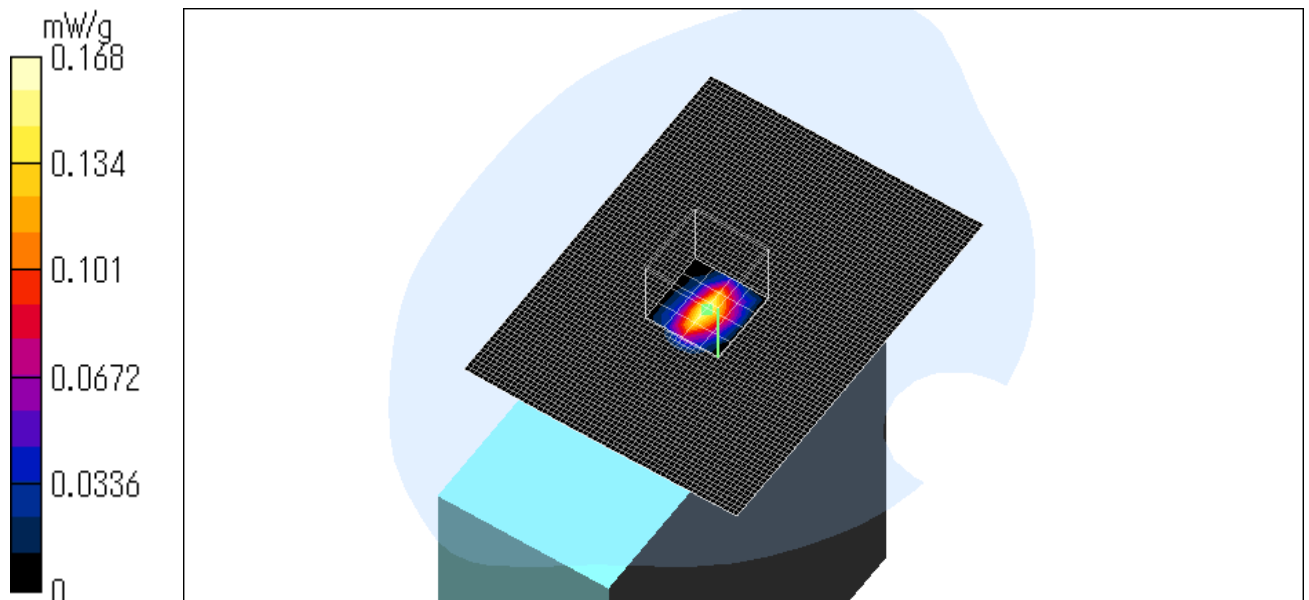
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.215 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.403 W/kg
SAR(1 g) = 0.152 mW/g; SAR(10 g) = 0.0518 mW/g
Maximum value of SAR = 0.168 mW/g

Reference Value = 8.69 V/m
Power Drift = -0.2 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



DS508152 / Body / Back (Camera and Transmitter) / OFDM 64QAM / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

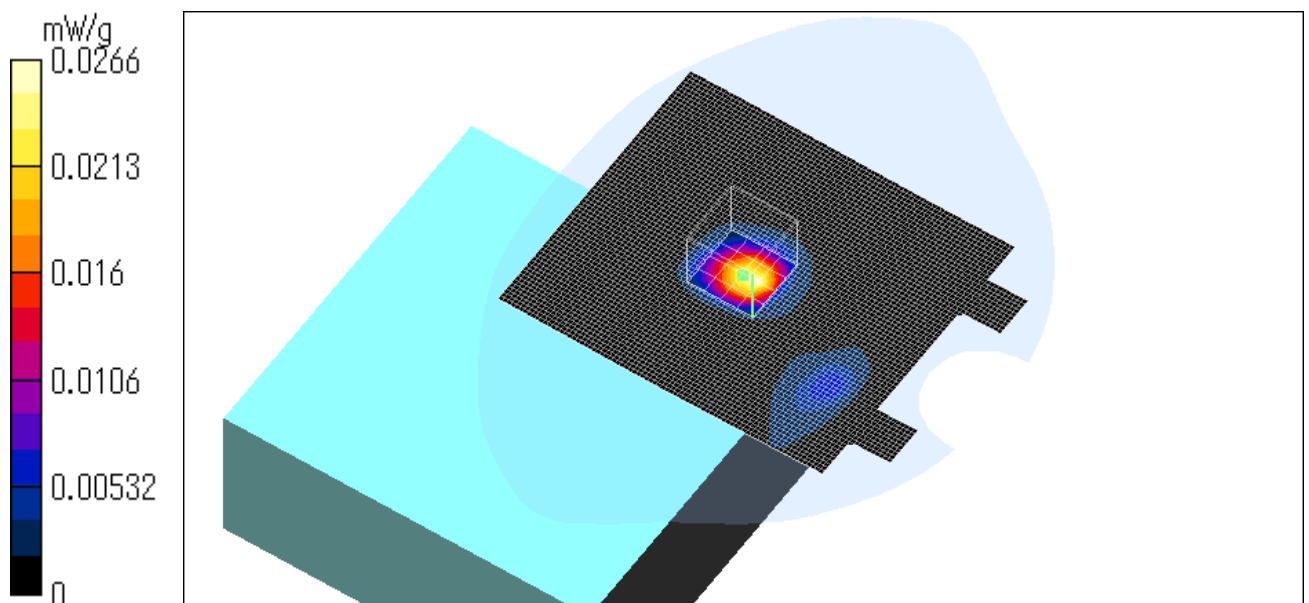
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (91x71x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.0335 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.223 W/kg
SAR(1 g) = 0.0345 mW/g; SAR(10 g) = 0.013 mW/g
Maximum value of SAR = 0.0266 mW/g

Reference Value = 4.37 V/m
Power Drift = -0.3 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



DS508152/ Body / Face (Transmitter) / OFDM 64QAM / 2437MHz

Crest factor: 1

Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (71x81x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.0301 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.0807 W/kg

SAR(1 g) = 0.0245 mW/g; SAR(10 g) = 0.00952 mW/g

Maximum value of SAR = 0.0223 mW/g

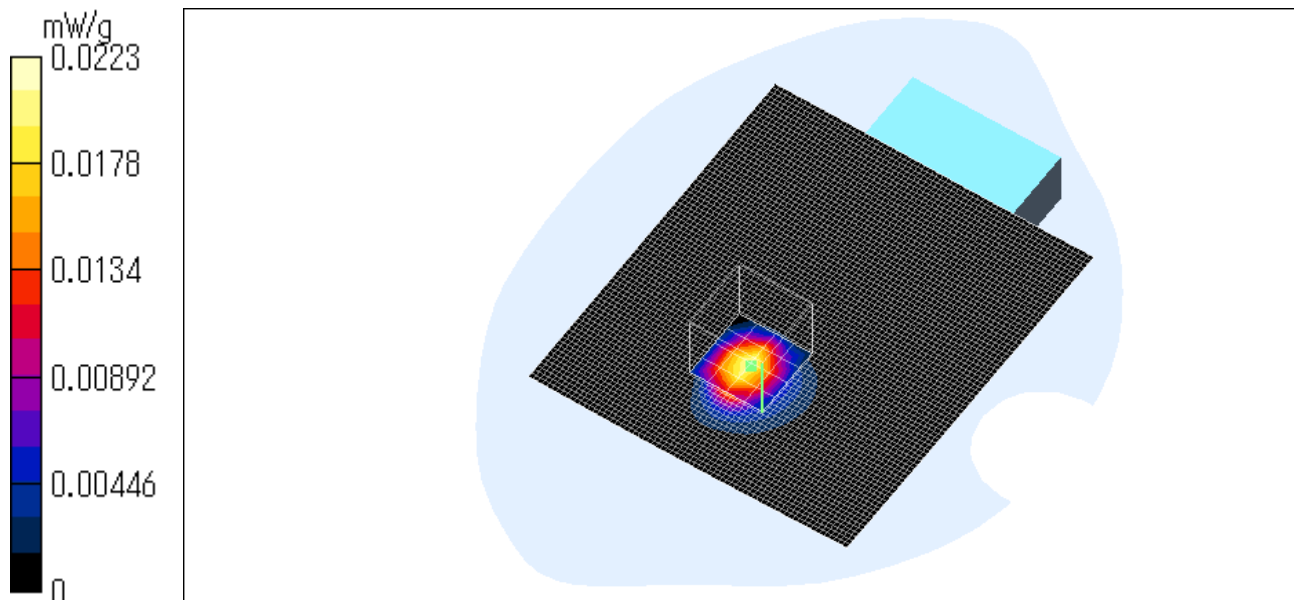
Reference Value = 0 V/m

Power Drift = 0 dB

Test Date = 08/18/04

Ambient Temperature = 24.8 degree.c

Liquid Temperature = Before 24.4 degree.C , After 24.5 degree.C



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DS508152 / Body / Bottom (Transmitter) / OFDM 64QAM / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

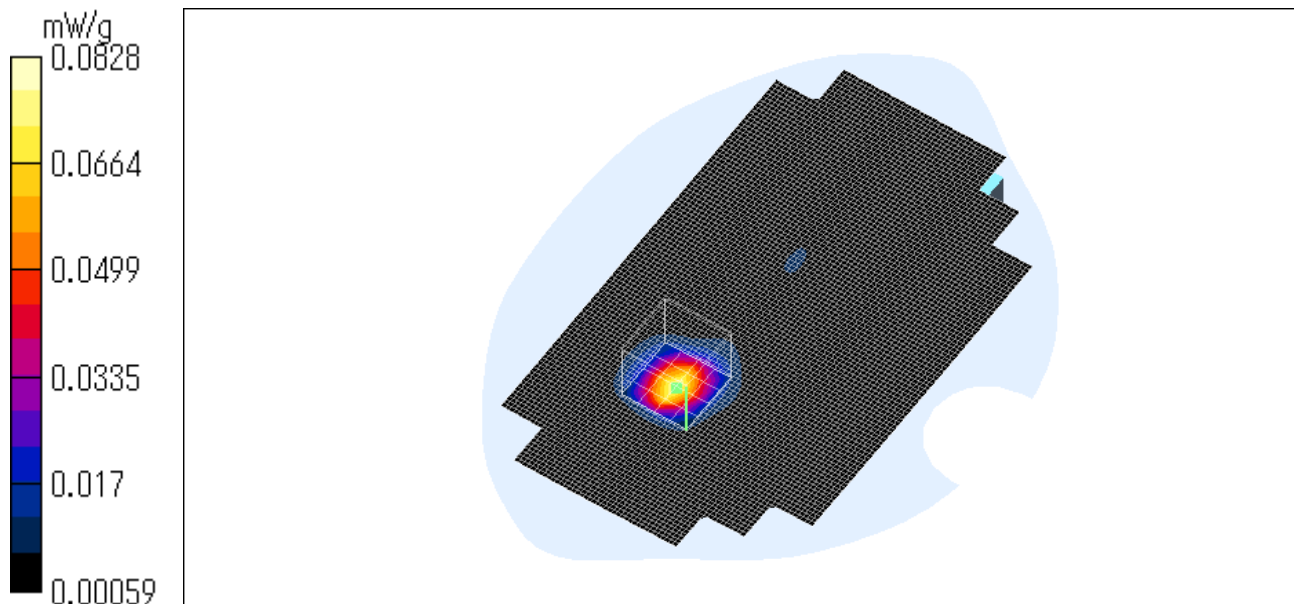
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (71x121x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.0808 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.176 W/kg
SAR(1 g) = 0.0768 mW/g; SAR(10 g) = 0.0345 mW/g
Maximum value of SAR = 0.0828 mW/g

Reference Value = 0.62 V/m
Power Drift = -0.3 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.4 degree.C , After 24.4 degree.C



DS508152 / Body / Side (Transmitter) / OFDM 64QAM / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

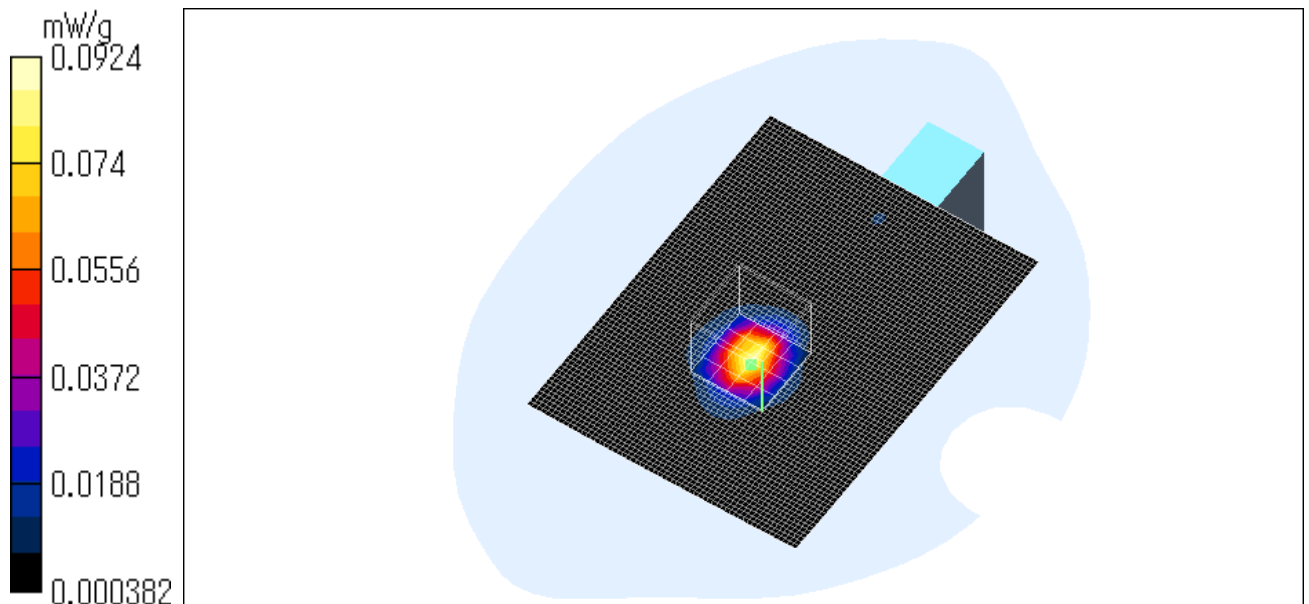
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.0938 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.19 W/kg
SAR(1 g) = 0.0861 mW/g; SAR(10 g) = 0.0385 mW/g
Maximum value of SAR = 0.0924 mW/g

Reference Value = 4.08 V/m
Power Drift = -0.3 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



DS508152 / Body / Top (Transmitter) / OFDM 64QAM / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

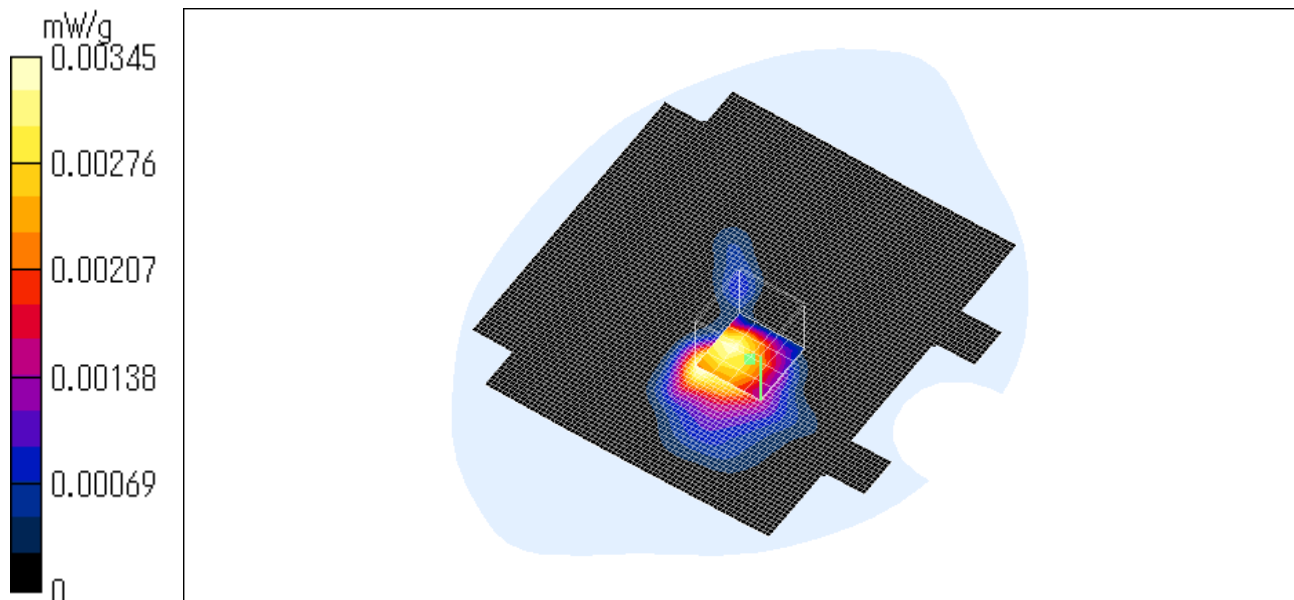
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (91x91x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.00396 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.00419 W/kg
SAR(1 g) = 0.00153 mW/g; SAR(10 g) = 0.000513 mW/g
Maximum value of SAR = 0.00345 mW/g

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

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.3 degree.C , After 24.4 degree.C



DS508152/ Body / Side (Camera and Transmitter) / OFDM 64QAM / 2412MHz

Crest factor: 1

Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.18 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.474 W/kg

SAR(1 g) = 0.167 mW/g; SAR(10 g) = 0.0551 mW/g

Maximum value of SAR = 0.182 mW/g

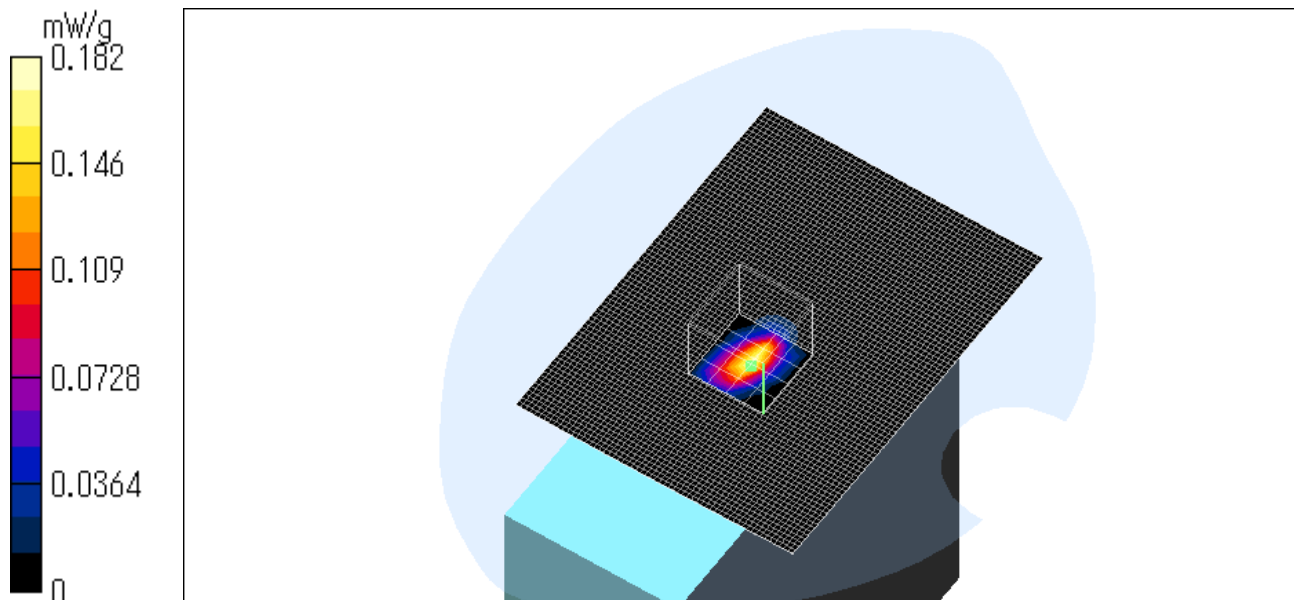
Reference Value = 4.49 V/m

Power Drift = -0.2 dB

Test Date = 08/18/04

Ambient Temperature = 24.8 degree.c

Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



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DS508152/ Body / Side (Camera and Transmitter) / OFDM 64QAM / 2462MHz

Crest factor: 1

Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.206 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.509 W/kg

SAR(1 g) = 0.192 mW/g; SAR(10 g) = 0.0654 mW/g

Maximum value of SAR = 0.213 mW/g

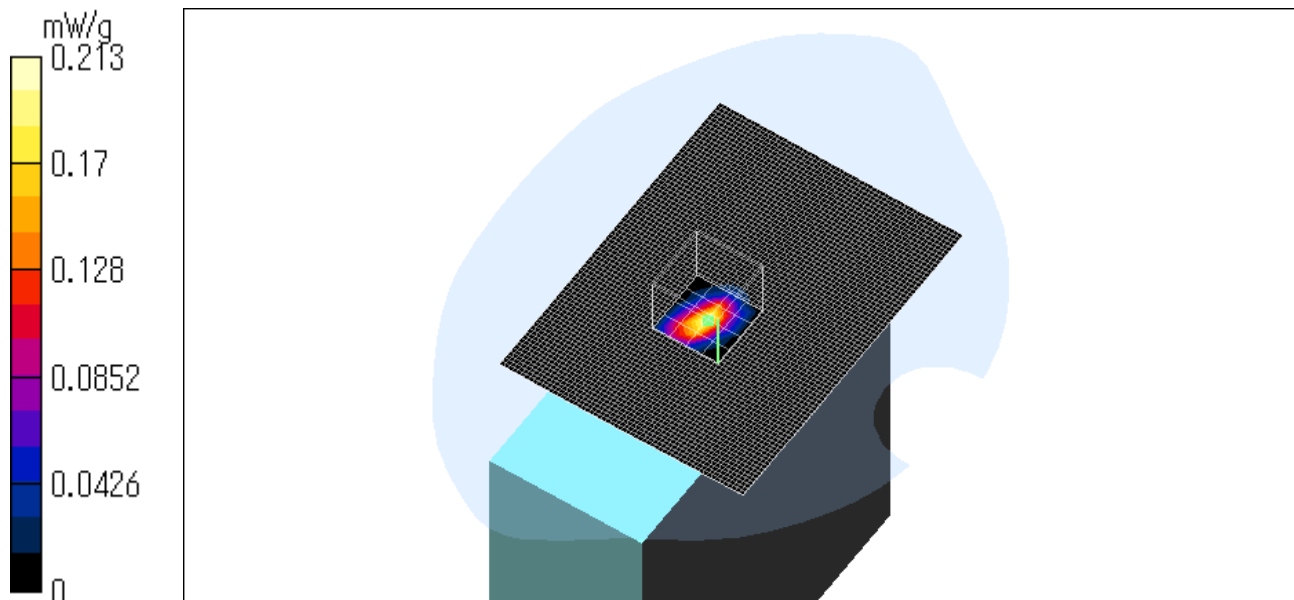
Reference Value = 5.65 V/m

Power Drift = 0.4 dB

Test Date = 08/18/04

Ambient Temperature = 24.8 degree.c

Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



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DS508152/ Body / Side (Camera and Transmitter) / OFDM QPSK / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

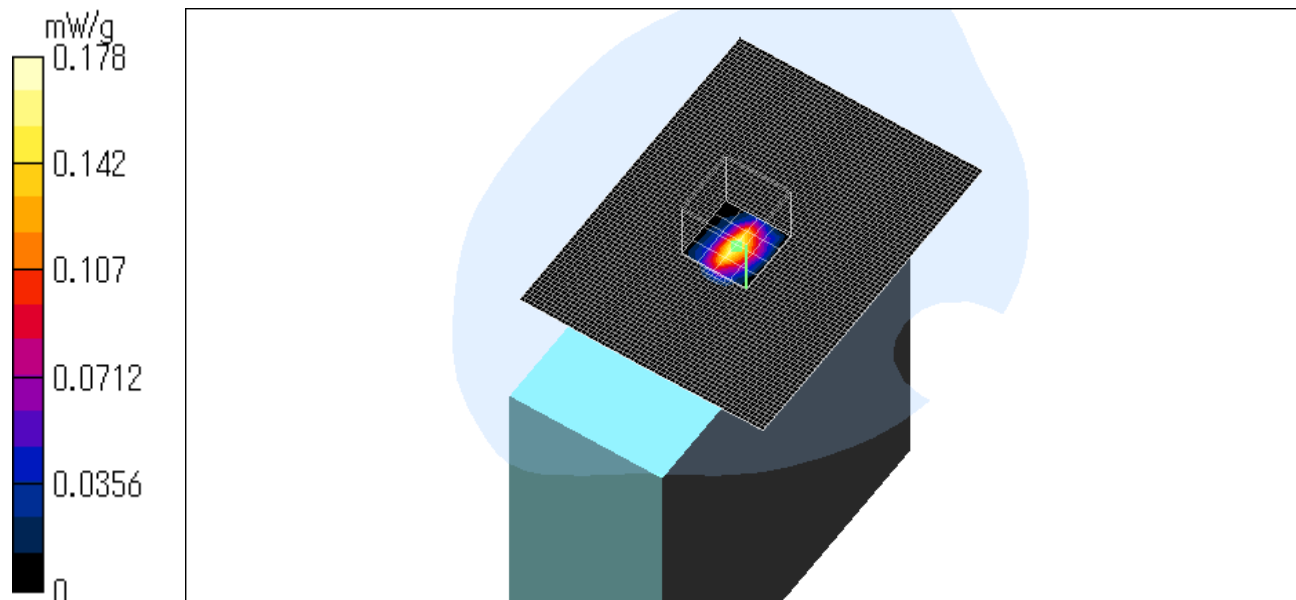
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.219 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.484 W/kg
SAR(1 g) = 0.165 mW/g; SAR(10 g) = 0.0566 mW/g
Maximum value of SAR = 0.178 mW/g

Reference Value = 8.61 V/m
Power Drift = 0.07 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



DS508152/ BODY / Back (Camera and Transmitter) / OFDM QPSK / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

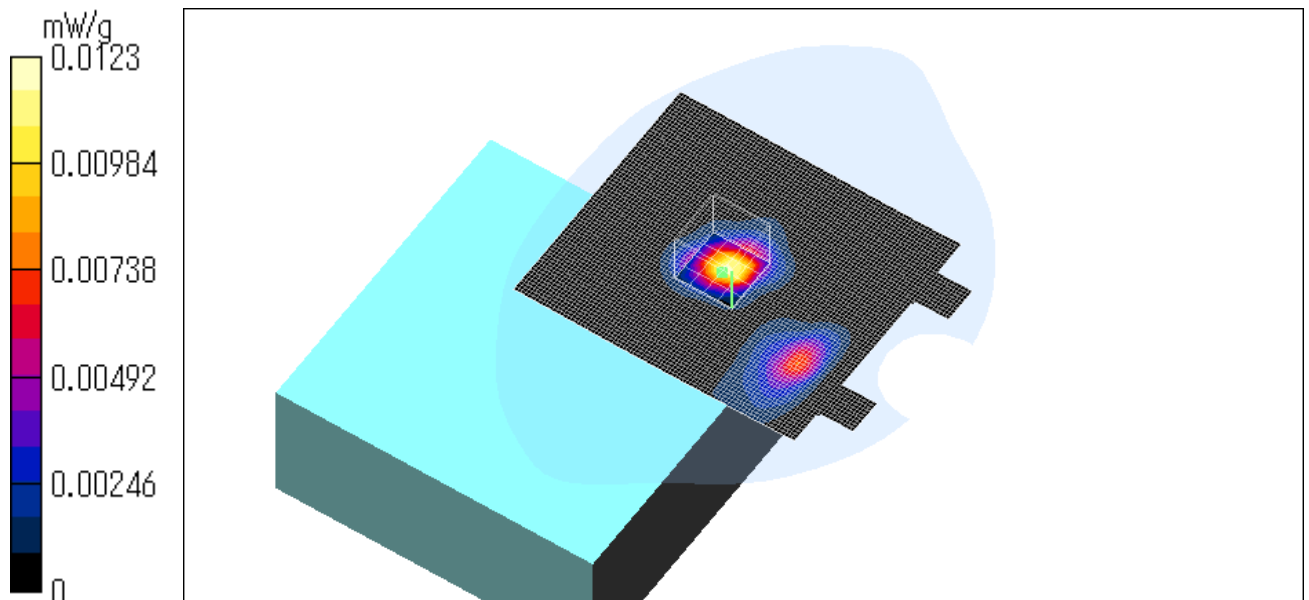
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (91x71x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.0194 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.474 W/kg
SAR(1 g) = 0.0374 mW/g; SAR(10 g) = 0.0106 mW/g
Maximum value of SAR = 0.0123 mW/g

Reference Value = 2.67 V/m
Power Drift = -0.4 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



DS508152/ Body / Face (Transmitter) / OFDM QPSK / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

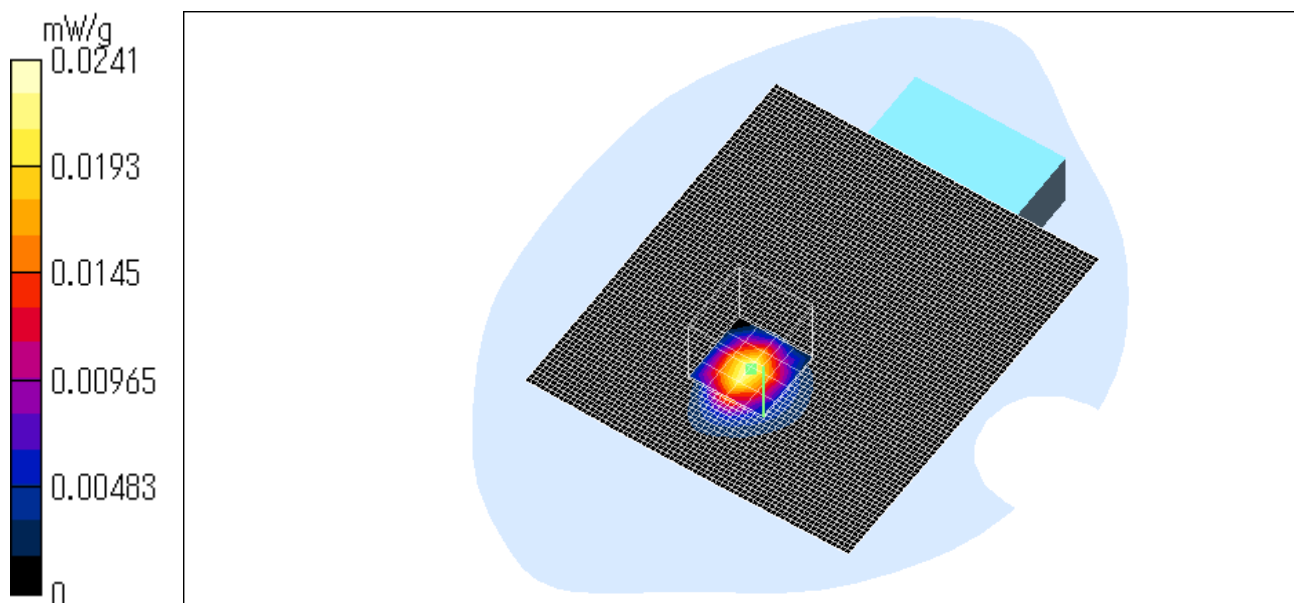
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (71x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.0318 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.0615 W/kg
SAR(1 g) = 0.0235 mW/g; SAR(10 g) = 0.00919 mW/g
Maximum value of SAR = 0.0241 mW/g

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

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



DS508152/ Body / Bottom (Transmitter) / OFDM QPSK / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98 \text{ mho/m}$, $\epsilon_r = 50.7$, $\rho = 1000 \text{ kg/m}^3$)
Phantom section: Flat Section

DASY4 Configuration:

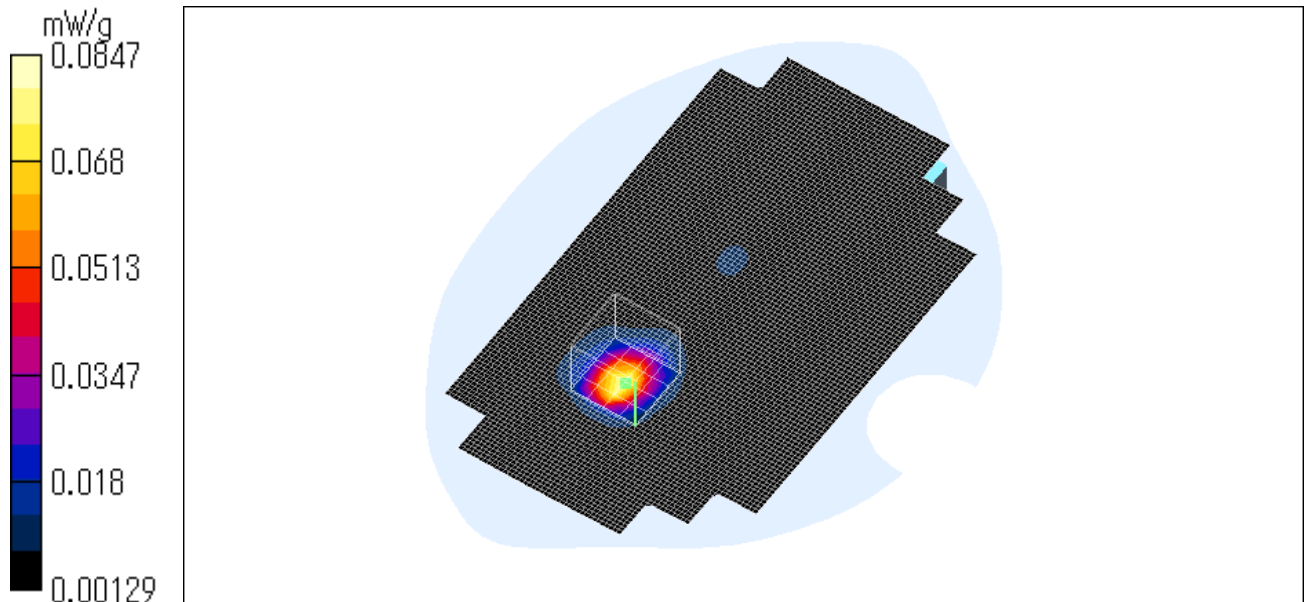
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (71x121x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.0917 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.182 W/kg
SAR(1 g) = 0.0803 mW/g; SAR(10 g) = 0.0365 mW/g
Maximum value of SAR = 0.0847 mW/g

Reference Value = 0.982 V/m
Power Drift = -0.3 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



DS508152/ Body / Side (Transmitter) / OFDM QPSK / 2437MHz

Crest factor: 1

Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 0.106 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 0.231 W/kg

SAR(1 g) = 0.103 mW/g; SAR(10 g) = 0.0452 mW/g

Maximum value of SAR = 0.112 mW/g

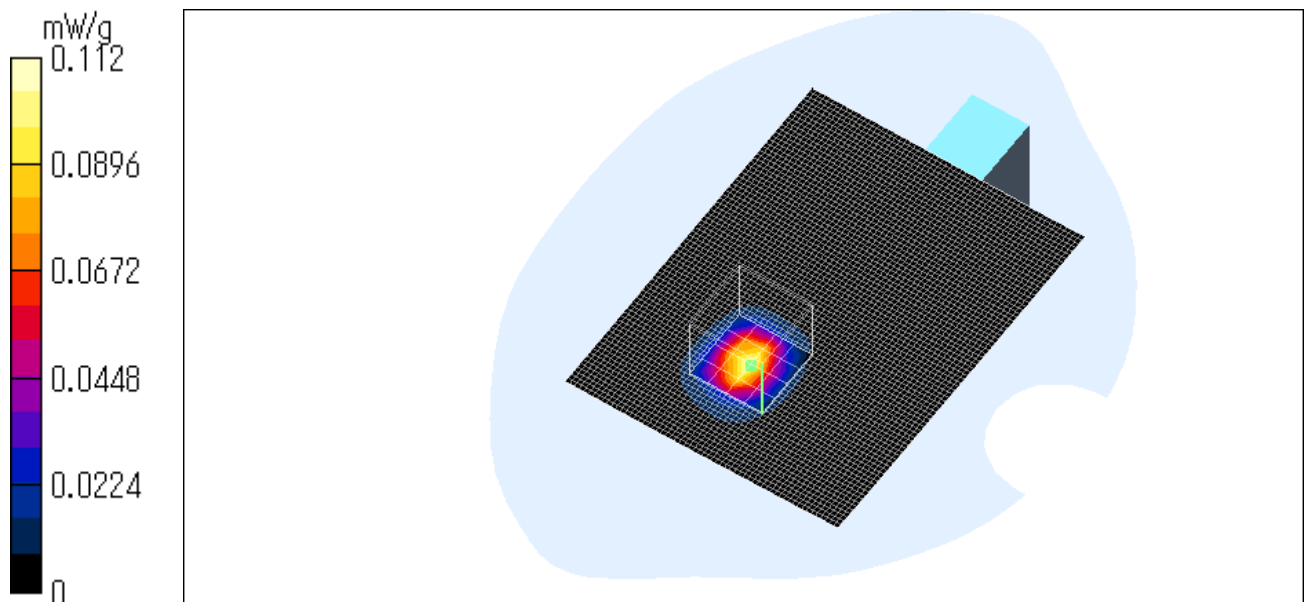
Reference Value = 0.572 V/m

Power Drift = -0.4 dB

Test Date = 08/18/04

Ambient Temperature = 24.8 degree.c

Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



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DS508152 / Body / Top (Transmitter) / OFDM QPSK / 2437MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98 \text{ mho/m}$, $\epsilon_r = 50.7$, $\rho = 1000 \text{ kg/m}^3$)
Phantom section: Flat Section

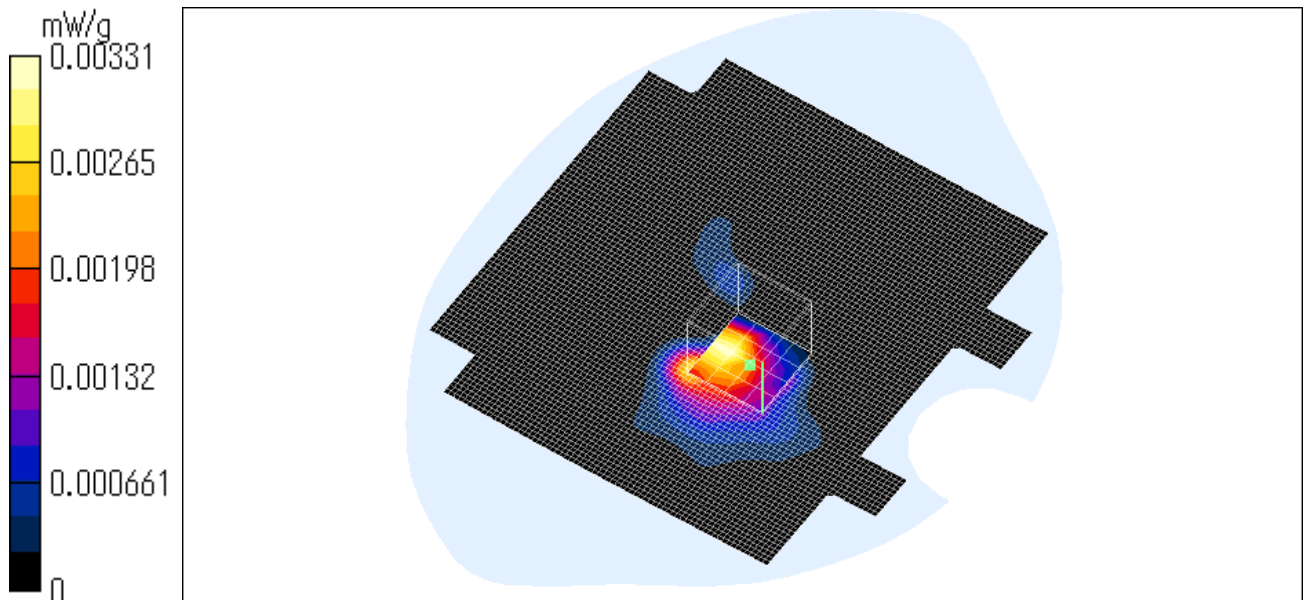
DASY4 Configuration:
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (91x91x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.00367 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.00432 W/kg
SAR(1 g) = 0.00162 mW/g; SAR(10 g) = 0.000531 mW/g
Maximum value of SAR = 0.00331 mW/g

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

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



DS508152 / Body / Side (Camera and Transmitter) / OFDM QPSK / 2412MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

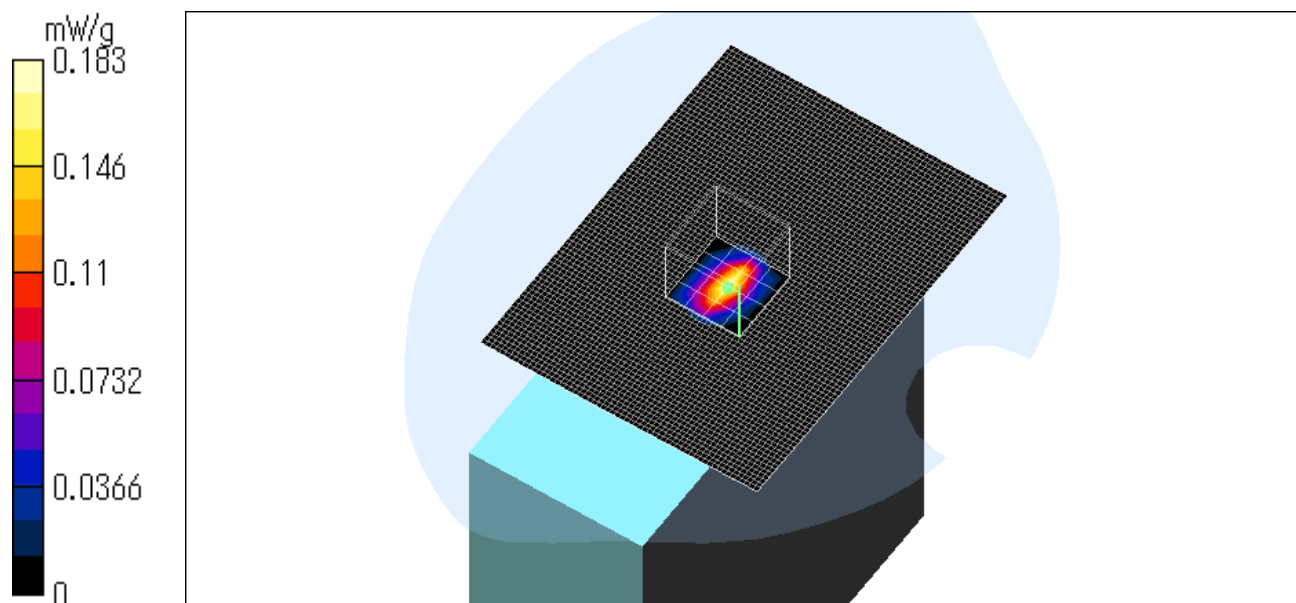
DASY4 Configuration:
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.197 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.428 W/kg
SAR(1 g) = 0.164 mW/g; SAR(10 g) = 0.0562 mW/g
Maximum value of SAR = 0.183 mW/g

Reference Value = 8.68 V/m
Power Drift = -0.3 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



DS508152 / Body / Side (Camera and Transmitter) / OFDM QPSK / 2462MHz

Crest factor: 1
Medium: M2450 ($\sigma = 1.98$ mho/m, $\epsilon_r = 50.7$, $\rho = 1000$ kg/m³)
Phantom section: Flat Section

DASY4 Configuration:

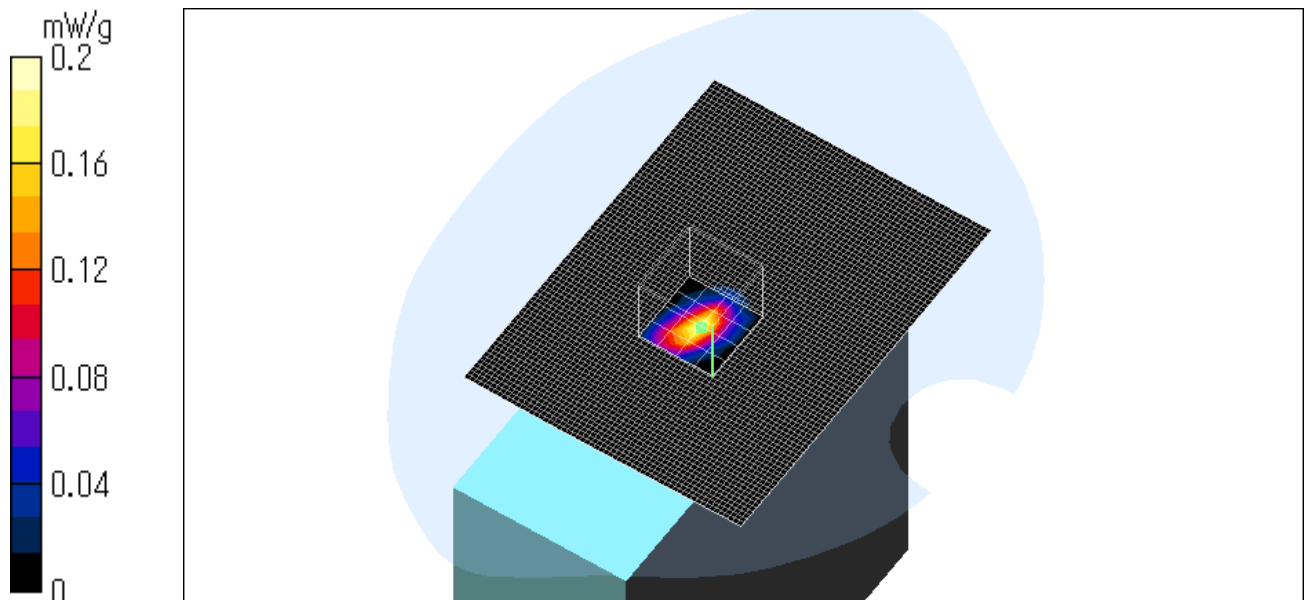
- Probe: ET3DV6 - SN1685; ConvF(4.3, 4.3, 4.3); Calibrated: 2003/10/10
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Phantom: SAM 1196
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR = 0.209 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 0.494 W/kg
SAR(1 g) = 0.177 mW/g; SAR(10 g) = 0.0607 mW/g
Maximum value of SAR = 0.2 mW/g

Reference Value = 6 V/m
Power Drift = -0.2 dB

Test Date = 08/18/04
Ambient Temperature = 24.8 degree.c
Liquid Temperature = Before 24.5 degree.C , After 24.5 degree.C



APPENDIX 3 : Validation Measurement data

System Validation / Dipole 2450 MHz / Forward Conducted Power : 250mW

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.86$ mho/m, $\epsilon_r = 37.8$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

Dipole 2450 MHz;

- Type: D2450V2; Serial: SN:713

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)

- Phantom: SAM 1196

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Area Scan (51x51x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 15.3 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 29 W/kg

SAR(1 g) = 13.8 mW/g; SAR(10 g) = 6.32 mW/g

Maximum value of SAR = 14.9 mW/g

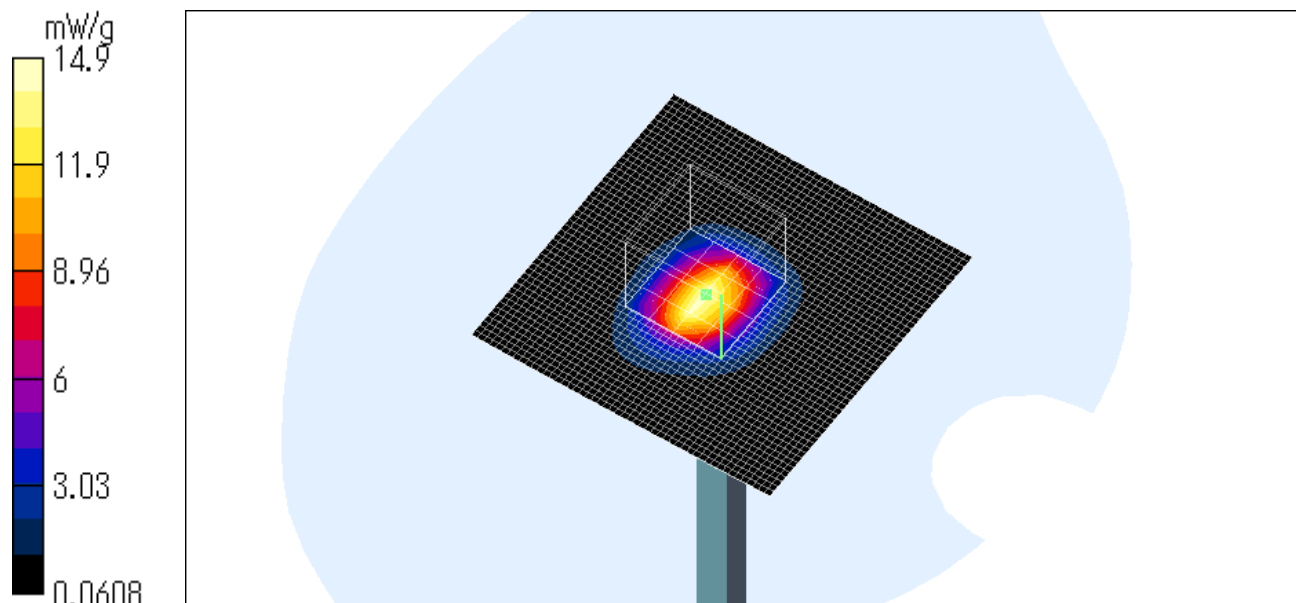
Reference Value = 92.7 V/m

Power Drift = -0.005 dB

Test Date = 08/12/04

Ambient Temperature = 24.5 degree.c

Liquid Temperature = Before 24.3 degree.C , After 24.3 degree.C



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System Validation / Dipole 2450 MHz / Forward Conducted Power : 250mW

Crest factor: 1

Medium: HSL2450 ($\sigma = 1.84$ mho/m, $\epsilon_r = 38.2$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

Dipole 2450 MHz;

- Type: D2450V2; Serial: SN:713

DASY4 Configuration:

- Probe: ET3DV6 - SN1685; ConvF(4.7, 4.7, 4.7); Calibrated: 2003/10/10

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)

- Phantom: SAM 1196

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Unnamed procedure/Area Scan (51x51x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR = 15.3 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 29.2 W/kg

SAR(1 g) = 13.9 mW/g; SAR(10 g) = 6.35 mW/g

Maximum value of SAR = 15 mW/g

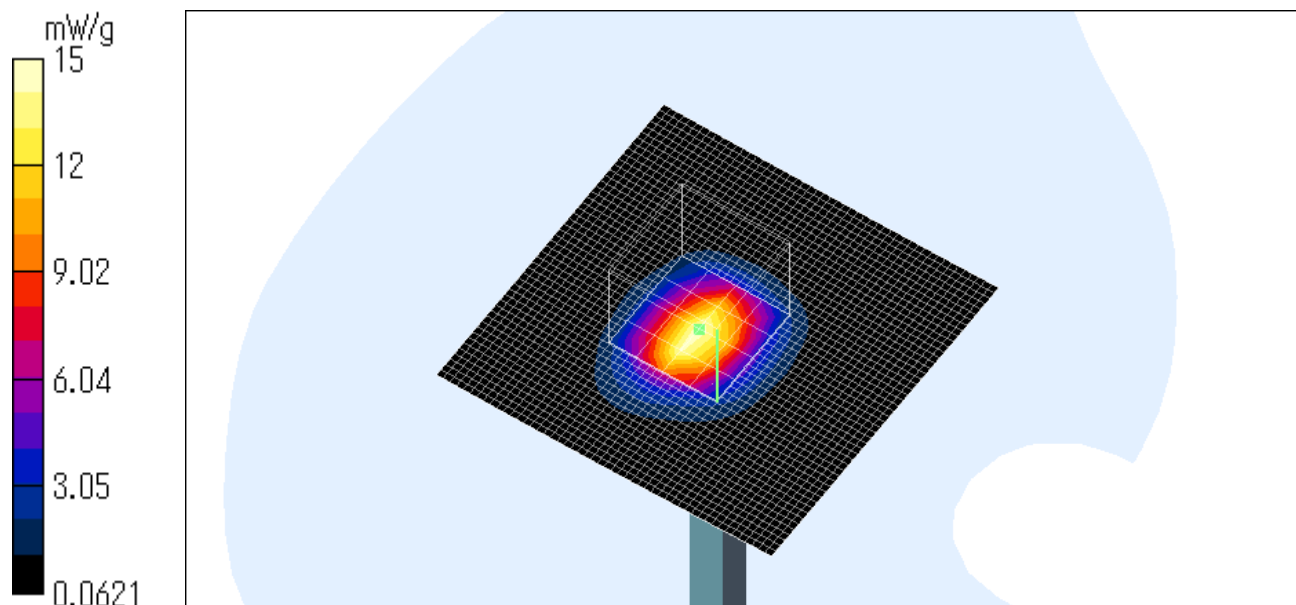
Reference Value = 92.5 V/m

Power Drift = -0.02 dB

Test Date = 08/18/04

Ambient Temperature = 24.8 degree.c

Liquid Temperature = Before 24.1 degree.C , After 24.1 degree.C



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