SAR EVALUATION REPORT

Report No. : 25EE0208-HO-3B

Applicant	:	**Nikon Corporation**
Type of Equipment	:	**Digital Camera**
Model No.	:	**COOLPIX P2**
FCC ID	:	**CGJCXP1**
Test standard	:	**FCC47CFR2.1093** **FCC OET Bulletin 65, Supplement C**
Test Result	:	**Complied**
Max SAR Measured	:	**0.208W/kg (11b Body 2437MHz)**

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 : May 25,26,30, 2005

Tested by :

Miyo Ikuta
EMC Lab.Head Office

Approved by :

Tetsuo Maeno
Site Manager of Head Office EMC Lab.

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SECTION 1 : Client information

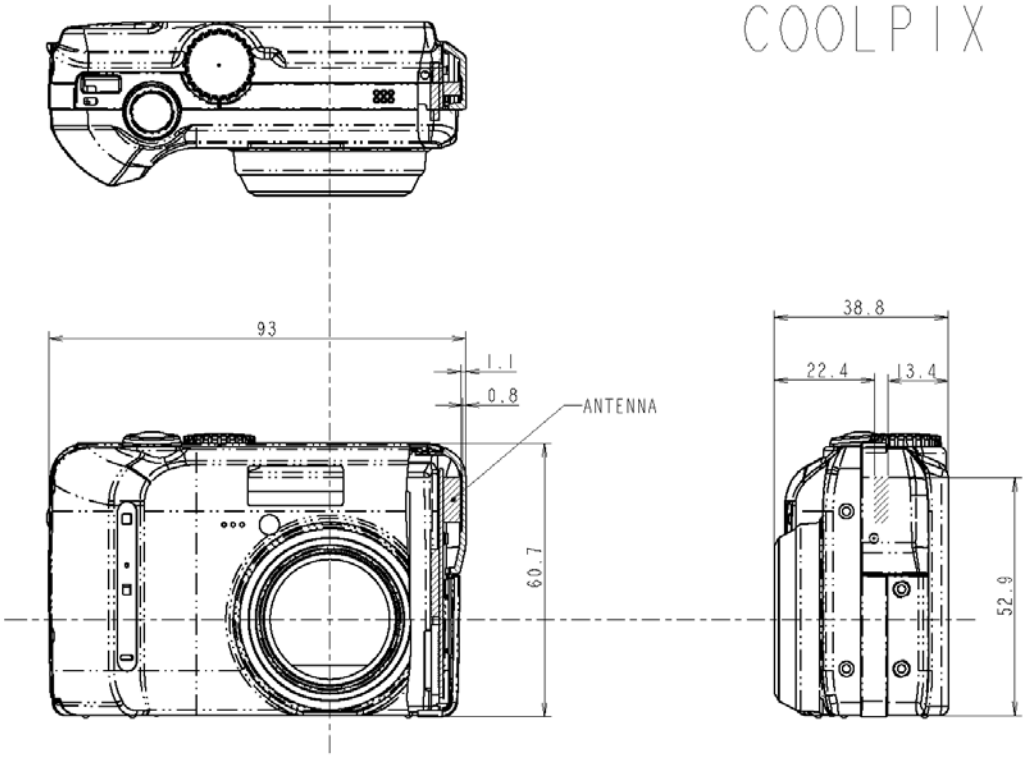
Company Name	:	Nikon Corporation
Brand Name	:	Nikon
Address	:	6-3, Nishi-ohi 1-chome, Shinagawa-ku, Tokyo 140-8601, Japan
Telephone Number	:	+81-3-3773-8395
Facsimile Number	:	+81-3-3773-8112
Contact Person	:	Kenji Ishizuki

SECTION 2 : Equipment under test

2.1 Identification of E.U.T.

Applicant	:	Nikon Corporation
Type of Equipment	:	Digital Camera
Model No.	:	COOLPIX P2
Serial No.	:	8851 1032
Country of Manufacture	:	Japan, China, Indonesia
Receipt Date of Sample	:	May 23,2005
Category Identified	:	Portable device
Condition of EUT	:	Production prototype (Not for Sale: This sample is equivalent to mass-produced items.)
Supply	:	DC3.7V
Battery option	:	Only one model with EUT Type : Li-ion Battery Model name : EN-EL8 V/mAh : 3.7V / 730mAh
Manufacture	:	Nikon Corporation
Size of EUT	:	93mm*60.7mm*38.8mm (W*L*H)

The photograph and the diagram of EUT are shown as the following.



2.2 Product Description of EUT

Model No: COOLPIX P2 (referred to as the EUT in this report) is a digital camera and has the series model COOLPIX P1. The differences between COOLPIX P1 and COOLPIX P2 are only type of CCD, number of pixels, and an appearance color.

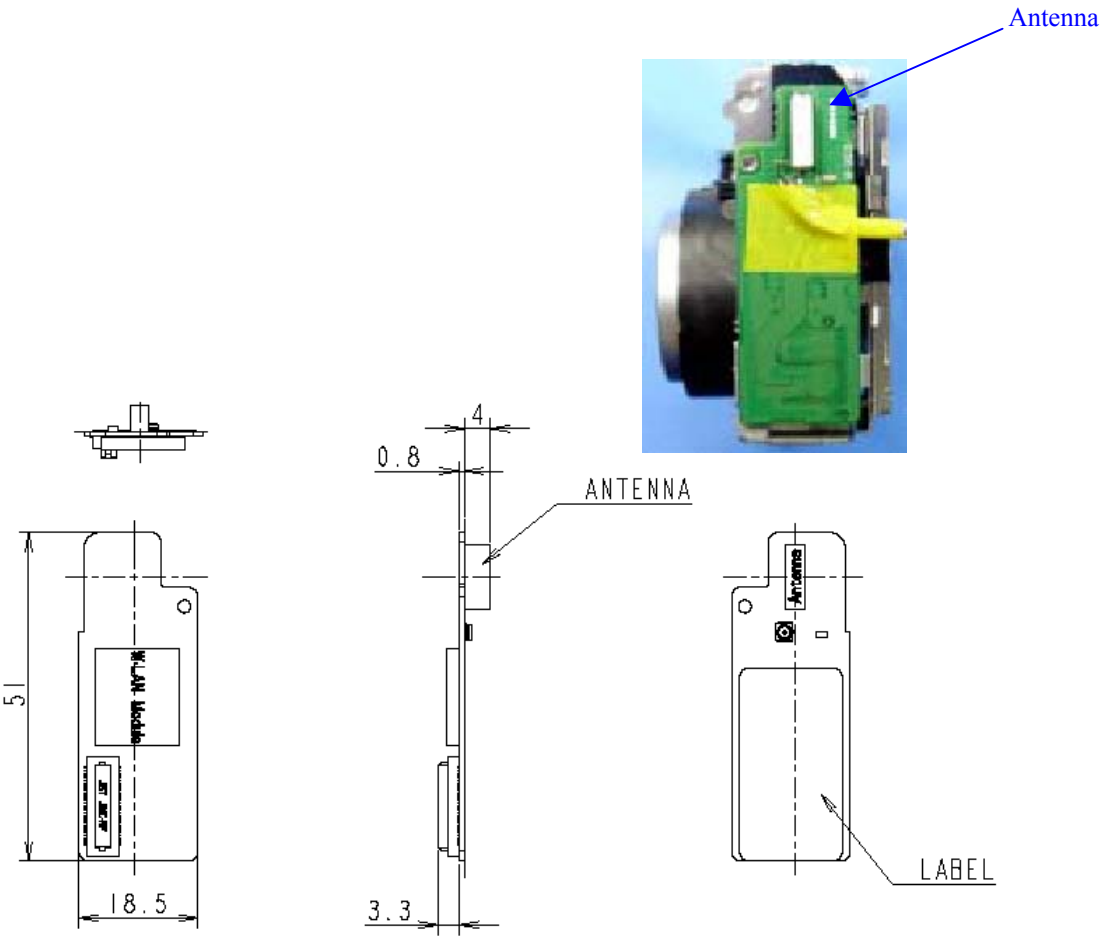
Clock frequency in the system		<COOLPIX P2> ASIC: 90.000MHz, SDRAM: 45.000MHz/90.000MHz, CCD: 27.000MHz, LCD: 9.000MHz, 8 bit CPU: 32.768MHz / 4.000MHz, DC-DC converter: 0.500MHz, Wireless LAN XO: 40.000MHz <COOLPIX P1> ASIC: 90.000MHz, SDRAM: 45.000MHz/90.000MHz, CCD: 33.750MHz, LCD: 9.000MHz, 8 bit CPU: 32.768MHz / 4.000MHz, DC-DC converter: 0.500MHz, Wireless LAN XO: 40.000MHz
Feature of EUT		Transmiting and receiving the image data using a Wireless LAN function.
Equipment Type		Transceiver
Frequency band	**Lower limit**	2400MHz
	Upper limit	2483.5MHz
Frequency of Operation		2412-2462MHz
Bandwidth & Channel spacing		BW:20MHz, CS:5MHz
Type of Modulation		DSSS / OFDM
Antenna Type		Chip Directric Antenna
Antenna Connector Type		-
Antenna Gain		Less than 2.1 dBi
Mode of Operation		Simplex
ITU code		G1D / D1D
Power Supply		DC 3.3V (inner)

2.3 Product Description of Wireless LAN module

This Wireless LAN module has IEEE.802.11b/g.

Tx Frequency	:	2412MHz – 2462MHz
Modulation	:	DSSS, OFDM
Rating	:	DC 3.3V
Max.Output Power Tested	:	17.19dBm peak Conducted
Antenna Type	:	Chip Directric Antenna
Antenna Gain	:	Less than 2.1dBi
Size of Wireless LAN module	:	18.5mm*51mm*8.1mm (W*L*H)

The photograph and the diagram of Wireless LAN module are shown as the following.



SECTION 3 : Requirements for compliance testing defined by the FCC

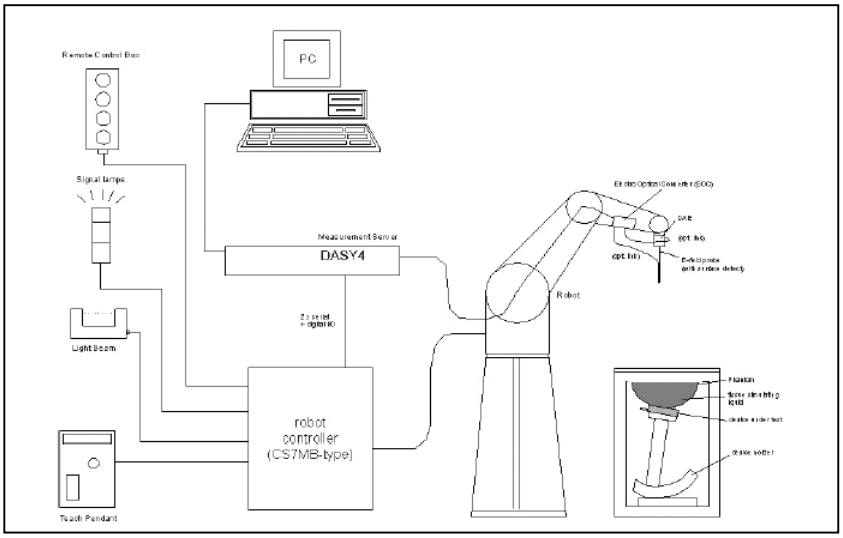
The US Federal Communications Commission has released the report and order “Guidelines for Evaluating the Environmental Effects of RF Radiation", ET Docket No. 93-62 in August 1996. The order requires routine SAR evaluation prior to equipment authorization of portable transmitter devices, including portable 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: 1684(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.

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.

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
(30 MHz to 3 GHz)

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

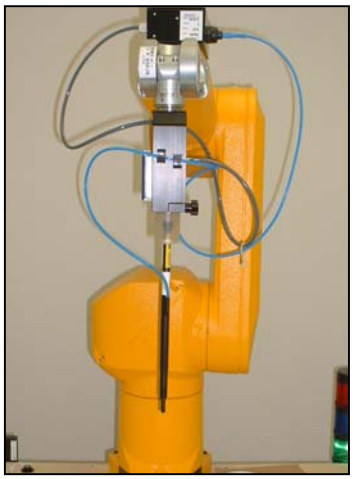
Dynamic Range:
5 mW/g to > 100 mW/g;Linearity: +/-0.2 dB

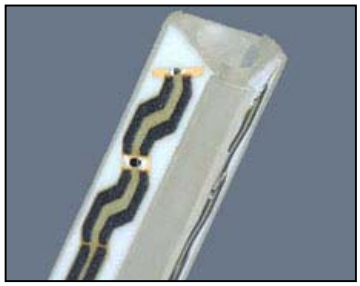
Optical Surface Detection:
+/-0.2 mm repeatability in air and clear liquids over diffuse reflecting surfaces.

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

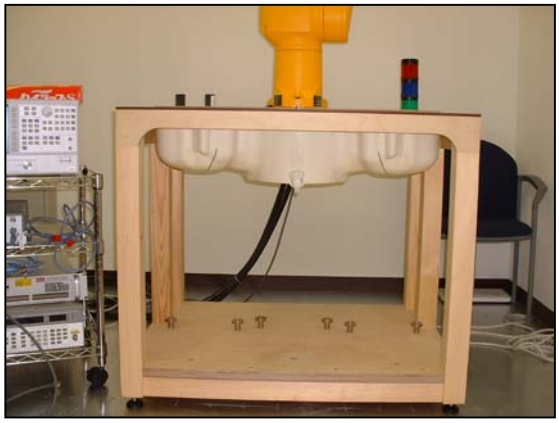




ET3DV6 E-field Probe

4.2.2 SAM Twin 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 Twin 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 couldn't be used at this SAR measurement.

Device Holder

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 µV to > 200 mV (16 bit resolution and two range settings: 4mV, 400mV)
Input Offset voltage	:	< 1 µV (with auto zero)
Input Resistance	:	200 MΩ
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.	:	4.5
Manufacture / Origin	:	Schimid & Partner Engineering AG

E-Field Probe

Model	:	ET3DV6
Serial No.	:	1684
Construction	:	Triangular core fiber optic detection system
Frequency	:	10 MHz to 6 GHz
Linearity	:	+/-0.2 dB (30 MHz to 3 GHz)
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

SECTION 6 : Measurement outline

6.1 Photographs of test setup

We tested the EUT with the Wireless LAN module inside.
When users operate or carry the EUT, it could be considered to touch or get close to their bodies. In order to assume this situation, we performed the test at the following positions. Please refer to "APPENDIX 1" for more details.

1. Right side : The test was performed in touch with Right side of EUT to the flat section of SAM Twin Phantom.

2. Left side : The test was performed in touch with Left side of EUT to the flat section of SAM Twin Phantom.

3. Top : The test was performed in touch and distanced 5mm, 10mm and 15mm with Top of EUT to the flat section of SAM Twin Phantom.

4. Bottom : The test was performed in touch with Bottom of EUT to the flat section of SAM Twin Phantom.

5. Back : The test was performed in touch with Back surface of EUT to the flat section of SAM Twin Phantom.

6. Front : The test was performed in touch with Front surface of EUT to the flat section of SAM Twin Phantom.

1. Right side

2. Left side

3. Top

4. Bottom

5. Back

6. Front

6.2 EUT Printer Tune-up procedure

EUT has Wireless LAN. This Wireless LAN Module has IEEE.802.11b/g.
The frequency range and the modulation were used in the testing of each mode are shown as the following.

Wireless LAN Module
1. IEEE802.11b
Tx Frequency : 2412 – 2462MHz
Channel : 1ch(2412MHz, Low ch),6ch(2437MHz, Mid ch),11ch(2462MHz, High ch)
Modulation : DSSS [CCK]
Crest factor : 1

2. IEEE802.11g
Tx Frequency : 2412 – 2462MHz
Channel : 1ch(2412MHz, Low ch),6ch(2437MHz, Mid ch),11ch(2462MHz, High ch)
Modulation : OFDM [BPSK , QPSK, 16QAM, 64QAM]
Crest factor : 1

6.3 Methode of measurement

1. IEEE 802.11b

The 11b (DSSS) mode test was performed on the CCK[11Mbps] modulation, because it was the highest peak power and data rate.

Step1. The searching of the worst position.
Step2. The changing to the Low and High channels.
This test was performed at the worst conditions of Step1.

2. IEEE 802.11g

Step1. The data rate in the higher peak power of each modulation was decided, then the worst modulation was searched in the SAR testing.
Step2. The searching of the worst position.
This test was performed at the worst modulation of Step1.
Step3. The changing to the Low and High channels.
This test was performed at the worst conditions of Step1.and Step2

6.4 Distance between EUT and SAM Twin Phantom

The position for the highest SAR value of this EUT was at “Top”position.
The measurement was performed with the distance,5mm,10mm and 15mm to check if the shortest distance (0mm) may not have the worst value at the conditions of the highest SAR value.As a result, the shortest distance (0mm) had the worst value.

6.5 About Head SAR measurement

Head SAR measurement is only for reference.
Because the user bring EUT close at the face, Head SAR measurement was done.

SECTION 7 : Measurement uncertainty

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

Error Description	Uncertainty value ± %	Probability distribution	divisor	(ci) 1g	Standard Uncertainty (1g)	vi or veff
Measurement System						
Probe calibration	±4.8	Normal	1	1	±4.8	∞
Axial isotropy of the probe	±4.7	Rectangular	√3	$(1-c_p)^{1/2}$	±1.9	∞
Spherical isotropy of the probe	±9.6	Rectangular	√3	$(c_p)^{1/2}$	±3.9	∞
Boundary effects	±1.0	Rectangular	√3	1	±0.6	∞
Probe linearity	±4.7	Rectangular	√3	1	±2.7	∞
Detection limit	±1.0	Rectangular	√3	1	±0.6	∞
Readout electronics	±1.0	Normal	1	1	±1.0	∞
Response time	±0.8	Rectangular	√3	1	±0.5	∞
Integration time	±2.6	Rectangular	√3	1	±1.5	∞
RF ambient conditions	±3.0	Rectangular	√3	1	±1.7	∞
Mech. constraints of robot	±0.4	Rectangular	√3	1	±0.2	∞
Probe positioning	±2.9	Rectangular	√3	1	±1.7	∞
Extrap. and integration	±1.0	Rectangular	√3	1	±0.6	∞
Test Sample Related						
Device positioning	±2.9	Rectangular	√3	1	±2.9	49
Device holder uncertainty	±3.6	Rectangular	√3	1	±3.6	36
Power drift	±10.0	Rectangular	√3	1	±5.8	∞
Phantom and Setup						
Phantom uncertainty	±4.0	Rectangular	√3	1	±2.3	∞
Liquid conductivity (target)	±5.0	Rectangular	√3	0.64	±1.8	∞
Liquid conductivity (meas.)	±5.0	Rectangular	√3	0.64	±1.8	∞
Liquid permittivity (target)	±5.0	Rectangular	√3	0.6	±1.7	∞
Liquid permittivity (meas.)	±5.0	Rectangular	√3	0.6	±1.7	∞
Combined Standard Uncertainty					**±11.514**	
Expanded Uncertainty (k=2)					**±23.0**	

The result of some tests 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%.

SECTION 8 : Simulated tissue liquid parameter

8.1 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.

8.2 Head 2450 MHz

Date : **May 25, 2005**
Type of liquid : **Head 2450 MHz**
Ambient temperature (deg.c.) : **25.0**
Relative Humidity (%) : **41**
Liquid depth (cm) : **15.1**

Measured By : Miyo Ikuta

DIELECTRIC PARAMETERS MEASUREMENT RESULTS								
Date	Frequency	Liquid Temp [deg.c]		Parameters	Target Value	Measured	Deviation [%]	Limit [%]
		Before	After					
25-May	2450	24.5	24.5	Relative Permittivity εr	39.2	37.8	-3.6	+/-5
				Coductivity σ [mho/m]	1.80	1.85	2.8	+/-5

Date : **May 26, 2005**
Type of liquid : **Head 2450 MHz**
Ambient temperature (deg.c.) : **25.0**
Relative Humidity (%) : **43**
Liquid depth (cm) : **15.1**

Measured By : Miyo Ikuta

DIELECTRIC PARAMETERS MEASUREMENT RESULTS								
Date	Frequency	Liquid Temp [deg.c]		Parameters	Target Value	Measured	Deviation [%]	Limit [%]
		Before	After					
26-May	2450	24.6	24.6	Relative Permittivity εr	39.2	37.9	-3.3	+/-5
				Coductivity σ [mho/m]	1.80	1.80	0.0	+/-5

Date : **May 30, 2005**
Type of liquid : **Head 2450 MHz**
Ambient temperature (deg.c.) : **25.0**
Relative Humidity (%) : **56**
Liquid depth (cm) : **15.1**

Measured By : Miyo Ikuta

DIELECTRIC PARAMETERS MEASUREMENT RESULTS								
Date	Frequency	Liquid Temp [deg.c]		Parameters	Target Value	Measured	Deviation [%]	Limit [%]
		Before	After					
30-May	2450	24.2	24.2	Relative Permittivity εr	39.2	37.7	-3.8	+/-5
				Coductivity σ [mho/m]	1.80	1.85	2.8	+/-5

8.3 Muscle 2450 MHz

Date : **May 25, 2005**
Type of liquid : **Muscle 2450 MHz**
Ambient temperature (deg.c.) : **25.0**
Relative Humidity (%) : **41**
Liquid depth (cm) : **15.1**

Measured By : Miyo Ikuta

DIELECTRIC PARAMETERS MEASUREMENT RESULTS								
Date	Frequency	Liquid Temp [deg.c]		Parameters	Target Value	Measured	Deviation [%]	Limit [%]
		Before	After					
25-May	2450	25.0	25.0	Relative Permittivity εr	52.7	51.1	-3.0	+/-5
				Coductivity σ [mho/m]	1.95	1.95	0.0	+/-5

Date : **May 26, 2005**
Type of liquid : **Muscle 2450 MHz**
Ambient temperature (deg.c.) : **25.0**
Relative Humidity (%) : **43**
Liquid depth (cm) : **15.1**

Measured By : Miyo Ikuta

DIELECTRIC PARAMETERS MEASUREMENT RESULTS								
Date	Frequency	Liquid Temp [deg.c]		Parameters	Target Value	Measured	Deviation [%]	Limit [%]
		Before	After					
26-May	2450	25.0	25.0	Relative Permittivity εr	52.7	50.1	-4.9	+/-5
				Coductivity σ [mho/m]	1.95	1.92	-1.5	+/-5

8.4 Simulated Tissues Composition of 2450MHz

Ingredient	MIXTURE(%)	
	Head 2450MHz	Muscle 2450MHz
Water	45.0	69.83
DGMBE	55.0	30.2

Note:DGMBE(Diethylenglycol-monobuthyl ether)

SECTION 9 : 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%.

9.1 System validation of 2450MHz

Date	:	**May 25, 2005**
Type of liquid	:	**HEAD 2450MHz**
Frequency	:	**2450MHz**
Ambient temperature (deg.c.)	:	**25.0**
Relative Humidity (%)	:	**41**
Dipole	:	**D2450V2 SN:713**
Power	:	**250mW**

Measured By : Miyo Ikuta

SYSTEM PERFORMANCE CHECK										
Date	Liquid (HEAD 2450MHz)						System dipole validation target & measured			
	Liquid Temp [deg.c.]		Relative Permittivity εr		Conductivity σ [mho/m]		SAR 1g [W/kg]		Deviation [%]	Limit [%]
	Before	After	Target	Measured	Target	Measured	Target	Measured		
25-May	24.5	24.5	39.2	37.8	1.80	1.85	13.1	14.0	6.9	+/-10

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

Date	:	**May 26, 2005**
Type of liquid	:	**HEAD 2450MHz**
Frequency	:	**2450MHz**
Ambient temperature (deg.c.)	:	**25.0**
Relative Humidity (%)	:	**43**
Dipole	:	**D2450V2 SN:713**
Power	:	**250mW**

Measured By : Miyo Ikuta

SYSTEM PERFORMANCE CHECK										
Date	Liquid (HEAD 2450MHz)						System dipole validation target & measured			
	Liquid Temp [deg.c.]		Relative Permittivity εr		Conductivity σ [mho/m]		SAR 1g [W/kg]		Deviation [%]	Limit [%]
	Before	After	Target	Measured	Target	Measured	Target	Measured		
26-May	25.0	24.9	39.2	37.9	1.80	1.80	13.1	13.9	6.1	+/-10

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

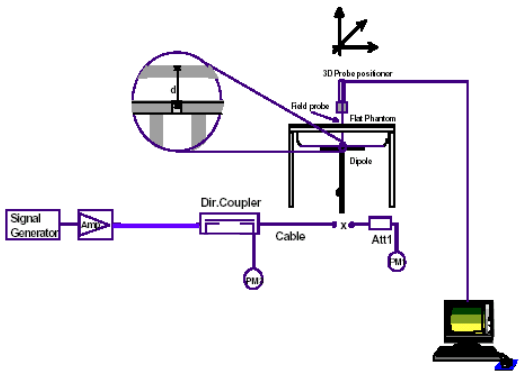
Date	:	**May 30, 2005**
Type of liquid	:	**HEAD 2450MHz**
Frequency	:	**2450MHz**
Ambient temperature (deg.c.)	:	**25.0**
Relative Humidity (%)	:	**56**
Dipole	:	**D2450V2 SN:713**
Power	:	**250mW**

Measured By : Miyo Ikuta

SYSTEM PERFORMANCE CHECK

Date	Liquid (HEAD 2450MHz)						System dipole validation target & measured			
	Liquid Temp [deg.c.]		Relative Permittivity εr		Conductivity σ [mho/m]		SAR 1g [W/kg]		Deviation [%]	Limit [%]
	Before	After	Target	Measured	Target	Measured	Target	Measured		
30-May	24.2	24.2	39.2	37.7	1.80	1.85	13.1	13.6	3.8	+/-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 10 : 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 phantom 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 of the wireless LAN antenna 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-axes.
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.

SECTION 11 : 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

SECTION 12 : SAR Measurement results

12.1 Conducted peak power measurement results

Measured By : Miyo Ikuta

[IEEE802.11b] Peak Power								
Modulation	Ch	Freq. [MHz]	Data rate [bps]	PK Reading [dBm]	Cable Loss [dB]	Atten. [dB]	PK Result [dBm]	Converted [mW]
DBPSK	Mid	2437	1	0.09	1.30	10.00	11.39	13.77
DQPSK	Mid	2437	2	0.25	1.30	10.00	11.55	14.29
CCK	Mid	2437	5.5	2.12	1.30	10.00	13.42	21.98
	Mid	2437	11	4.01	1.30	10.00	15.31	33.96

[IEEE802.11b] Peak Power								
Modulation	Ch	Freq. [MHz]	Data rate [bps]	PK Reading [dBm]	Cable Loss [dB]	Atten. [dB]	PK Result [dBm]	Converted [mW]
CCK	Low	2412	11	3.82	1.30	10.00	15.12	32.51
	High	2462	11	4.20	1.30	10.00	15.50	35.48

[IEEE802.11g] Peak Power								
Modulation	Ch	Freq. [MHz]	Data rate [bps]	PK Reading [dBm]	Cable Loss [dB]	Atten. [dB]	PK Result [dBm]	Converted [mW]
BPSK	Mid	2437	6	4.57	1.30	10.00	15.87	38.64
	Mid	2437	9	5.08	1.30	10.00	16.38	43.45
QPSK	Mid	2437	12	5.11	1.30	10.00	16.41	43.75
	Mid	2437	18	4.60	1.30	10.00	15.90	38.90
16QAM	Mid	2437	24	5.50	1.30	10.00	16.80	47.86
	Mid	2437	36	5.40	1.30	10.00	16.70	46.77
64QAM	Mid	2437	48	5.69	1.30	10.00	16.99	50.00
	Mid	2437	54	5.89	1.30	10.00	17.19	52.36

[IEEE802.11g] Peak Power								
Modulation	Ch	Freq. [MHz]	Data rate [bps]	PK Reading [dBm]	Cable Loss [dB]	Atten. [dB]	PK Result [dBm]	Converted [mW]
64QAM	Low	2412	54	5.74	1.30	10.00	17.04	50.58
	High	2462	54	5.87	1.30	10.00	17.17	52.12

12.2 Body 2450MHz SAR

Date	:	**May 26, 2005**			
Liquid Depth (cm)	:	**15.1**	Model	:	**COOLPIX P2**
Parameters	:	ε_r =**50.1**, σ =**1.92**	Serial No.	:	**8851 1032**
Ambient temperature (deg.c.)	:	**25.0**	Modulation	:	**DSSS**
Relative Humidity (%)	:	**47**	Crest factor	:	**1**

Measured By : Miyo Ikuta

BODY SAR MEASUREMENT RESULTS OF MAIN ANTENNA

Frequency			Modulation	Phantom Section	EUT Set-up Conditions		Liquid Temp.[deg.c]		SAR(1g) [W/kg]
Band	Channel	[MHz]			Position	Separation [mm]	Before	After	value of multi-peak
11b	**Position Search**								
	Mid	2437	CCK(11Mbps)	Flat	Right side	0	23.8	23.8	**0.073**
	Mid	2437	CCK(11Mbps)	Flat	Left side	0	23.7	23.7	**0.00919**
	Mid	2437	CCK(11Mbps)	Flat	Top	0	24.5	24.6	**0.208**
	Mid	2437	CCK(11Mbps)	Flat	Bottom	0	24.3	24.5	**0.019**
	Mid	2437	CCK(11Mbps)	Flat	Back	0	23.7	23.9	**0.162**
	Mid	2437	CCK(11Mbps)	Flat	Front	0	24.0	24.3	**0.028**
	Frequency Change								
	Low	2412	CCK(11Mbps)	Flat	Top	0	24.6	24.6	**0.11**
	High	2462	CCK(11Mbps)	Flat	Top	0	24.5	24.4	**0.146**
	Distance Change								
	Mid	2437	CCK(11Mbps)	Flat	Top	5	24.4	24.3	**0.065**
	Mid	2437	CCK(11Mbps)	Flat	Top	10	24.3	24.3	**0.028**
	Mid	2437	CCK(11Mbps)	Flat	Top	15	24.3	24.3	**0.015**
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population									**Body SAR: 1.6 W/kg (averaged over 1 gram)**

Date	:	**May 25, 2005**			
Liquid Depth (cm)	:	**15.1**	Model	:	**COOLPIX P2**
Parameters	:	ε_r =**51.1**, σ =**1.95**	Serial No.	:	**8851 1032**
Ambient temperature (deg.c.)	:	**25.0**	Modulation	:	**OFDM**
Relative Humidity (%)	:	**40**	Crest factor	:	**1**

Measured By : Miyo Ikuta

BODY SAR MEASUREMENT RESULTS

Frequency			Modulation	Phantom Section	EUT Set-up Conditions		Liquid Temp.[deg.c]		SAR(1g) [W/kg]
Band	Channel	[MHz]			Position	Separation [mm]	Before	After	Maximum value of multi-peak
11g	**Modulation Search**								
	Mid	2437	BPSK(9Mbps)	Flat	Right side	0	24.8	24.6	**0.064**
	Mid	2437	QPSK(12Mbps)	Flat	Right side	0	24.5	24.5	**0.097**
	Mid	2437	16QAM(24Mbps)	Flat	Right side	0	24.5	24.5	**0.103**
	Mid	2437	64QAM(54Mbps)	Flat	Right side	0	24.4	24.4	**0.112**
	Position search								
	Mid	2437	64QAM(54Mbps)	Flat	Left side	0	24.4	24.4	**0.012**
	Mid	2437	64QAM(54Mbps)	Flat	Top	0	24.4	24.6	**0.192**
	Mid	2437	64QAM(54Mbps)	Flat	Bottom	0	24.6	24.4	**0.014**
	Mid	2437	64QAM(54Mbps)	Flat	Back	0	24.4	24.4	**0.132**
	Mid	2437	64QAM(54Mbps)	Flat	Front	0	24.3	24.3	**0.025**
	Frequency Change								
	Low	2412	64QAM(54Mbps)	Flat	Top	0	24.3	24.3	**0.11**
	High	2462	64QAM(54Mbps)	Flat	Top	0	24.4	24.4	**0.1540**
	Distance Change								
	Mid	2437	64QAM(54Mbps)	Flat	Top	5	24.5	24.5	**0.056**
	Mid	2437	64QAM(54Mbps)	Flat	Top	10	24.5	24.5	**0.026**
	Mid	2437	64QAM(54Mbps)	Flat	Top	15	24.5	24.6	**0.014**
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population									**Body SAR: 1.6 W/kg (averaged over 1 gram)**

12.3 Head 2450MHz SAR (Reference data)

Date	:	**May 26, 2005**			
Liquid Depth (cm)	:	**15.1**	Model	:	**COOLPIX P2**
Parameters	:	ε_r =**37.9**, σ =**1.80**	Serial No.	:	**8851 1032**
Ambient temperature (deg.c.)	:	**25.0**	Modulation	:	**DSSS**
Relative Humidity (%)	:	**41**	Crest factor	:	**1**

Measured By : Miyo Ikuta

HEAD SAR MEASUREMENT RESULTS									
Frequency			Modulation	Phantom Section	EUT Set-up Conditions		Liquid Temp.[deg.c]		SAR(1g) [W/kg]
Band	Channel	[MHz]			Position	Separation [mm]	Before	After	Maximum value of multi-peak
11b	**Position Search**								
	Mid	2437	CCK(11Mbps)	Flat	Right side	0	24.6	24.6	**0.0790**
	Mid	2437	CCK(11Mbps)	Flat	Left side	0	24.6	24.6	**0.012**
	Mid	2437	CCK(11Mbps)	Flat	Top	0	24.6	24.6	**0.213**
	Mid	2437	CCK(11Mbps)	Flat	Bottom	0	24.7	24.8	**0.016**
	Mid	2437	CCK(11Mbps)	Flat	Back	0	24.6	24.7	**0.131**
	Mid	2437	CCK(11Mbps)	Flat	Front	0	24.6	24.6	**0.034**
	Frequency Change								
	Low	2412	CCK(11Mbps)	Flat	Top	0	24.8	24.8	**0.129**
	High	2462	CCK(11Mbps)	Flat	Top	0	24.8	24.8	**0.171**
	Distance Change.								
	Mid	2437	CCK(11Mbps)	Flat	Top	5	24.8	24.8	**0.073**
	Mid	2437	CCK(11Mbps)	Flat	Top	10	24.8	24.9	**0.031**
	Mid	2437	CCK(11Mbps)	Flat	Top	15	24.9	24.9	**0.017**
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population									**Head SAR: 1.6 W/kg (averaged over 1 gram)**

Date	:	**May 30, 2005**			
Liquid Depth (cm)	:	**15.1**	Model	:	**COOLPIX P2**
Parameters	:	ε_r =**37.7**, σ =**1.85**	Serial No.	:	**8851 1032**
Ambient temperature (deg.c.)	:	**25.0**	Modulation	:	**OFDM**
Relative Humidity (%)	:	**56**	Crest factor	:	**1**

Measured By : Miyo Ikuta

HEAD SAR MEASUREMENT RESULTS

Frequency			Modulation	Phantom Section	EUT Set-up Conditions		Liquid Temp.[deg.c]		SAR(1g) [W/kg]
Band	Channel	[MHz]			Position	Separation [mm]	Before	After	Maximum value of multi-peak
11g	**Modulation Search**								
	Mid	2437	BPSK(9Mbps)	Flat	Right side	0	24.0	24.0	**0.091**
	Mid	2437	QPSK(12Mbps)	Flat	Right side	0	24.0	24.0	**0.130**
	Mid	2437	16QAM(24Mbps)	Flat	Right side	0	24.0	24.0	**0.115**
	Mid	2437	64QAM(54Mbps)	Flat	Right side	0	23.9	23.9	**0.134**
	Position Search								
	Mid	2437	64QAM(54Mbps)	Flat	Left side	0	24.0	24.0	**0.010**
	Mid	2437	64QAM(54Mbps)	Flat	Top	0	24.2	24.5	**0.205**
	Mid	2437	64QAM(54Mbps)	Flat	Bottom	0	24.1	24.2	**0.018**
	Mid	2437	64QAM(54Mbps)	Flat	Back	0	24.1	24.1	**0.141**
	Mid	2437	64QAM(54Mbps)	Flat	Front	0	24.1	24.1	**0.030**
	Frequency Change								
	Low	2412	64QAM(54Mbps)	Flat	Top	0	24.5	24.5	**0.115**
	High	2462	64QAM(54Mbps)	Flat	Top	0	24.5	24.5	**0.143**
	Distance Change.								
	Mid	2437	64QAM(54Mbps)	Flat	Top	5	24.5	24.5	**0.067**
	Mid	2437	64QAM(54Mbps)	Flat	Top	10	24.5	24.5	**0.026**
	Mid	2437	64QAM(54Mbps)	Flat	Top	15	24.6	24.4	**0.016**
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak Uncontrolled Exposure / General Population**									**Head SAR: 1.6 W/kg** **(averaged over 1 gram)**

SECTION 13 : Equipment & calibration information

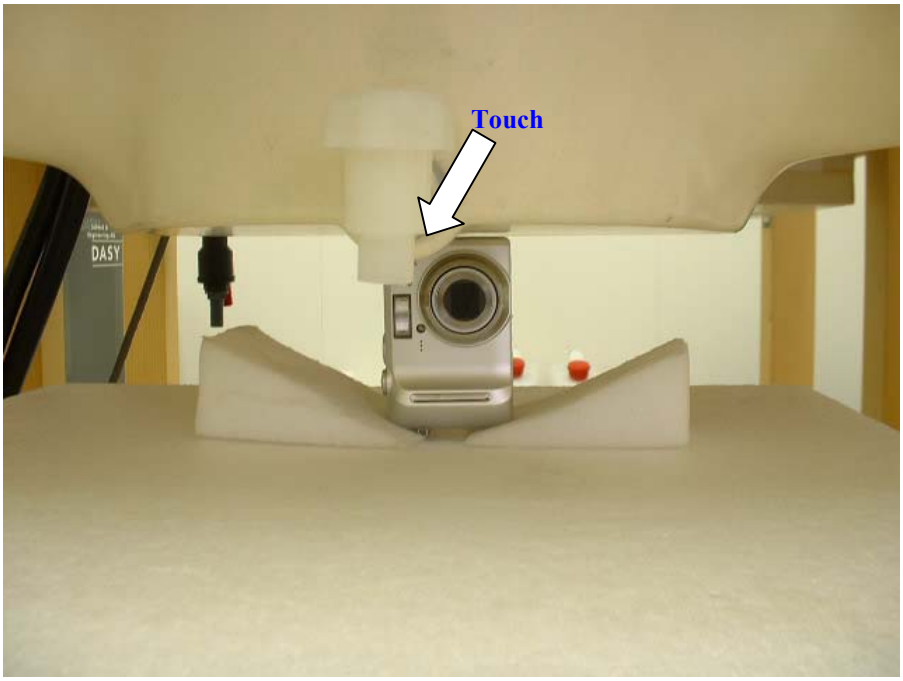
Name of Equipment	Manufacture	Model number	Serial number	Calibration	
				Last Cal	due date
Power Meter	Agilent	E4417A	GB41290639	2004/11/9	2005/11/8
Power Sensor	Agilent	E9300B	US40010300	2004/11/15	2005/11/14
Power Sensor	Agilent	E9327A	US40440545	2004/11/23	2005/11/22
Spectrum Analyzer	Agilent	E4448A	MY44020357	2004/6/12	2005/6/11
S-Parameter Network Analyzer	Agilent	8753ES	US39174808	2003/10/23	2006/10/22
Signal Generator	Rohde&Schwarz	SML40	100023	2005/1/5	2006/1/4
RF Amplifier	TSJ	CBP02063033	-	2005/2/24	2006/2/23
Dosimetric E-Field Probe	Schmid&Partner Engineering AG	ET3DV6	1684	2004/9/2	2005/9/1
Data Acquisition Electronics	Schmid&Partner Engineering AG	DAE3	516	2005/3/10	2006/3/9
Robot, SAM Twin Phantom	Schmid&Partner Engineering AG	DASY4	I021834	N/A	N/A
Attenuator	Agilent	US40010300	08498-60012	2004/12/16	2005/12/15
Attenuator	HIROSE ELECTRIC	AT-110	-	2005/1/11	2006/1/10
2450MHz System Validation Dipole	Schmid&Partner Engineering AG	D2450V2	713	2004/12/13	2006/12/12
Dual Directional Coupler	N/A	Narda	3702	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
Ambient Noise <0.012W/kg	SAR room	-	-	2005/5/25, 26, 30	-

SECTION 14 : References

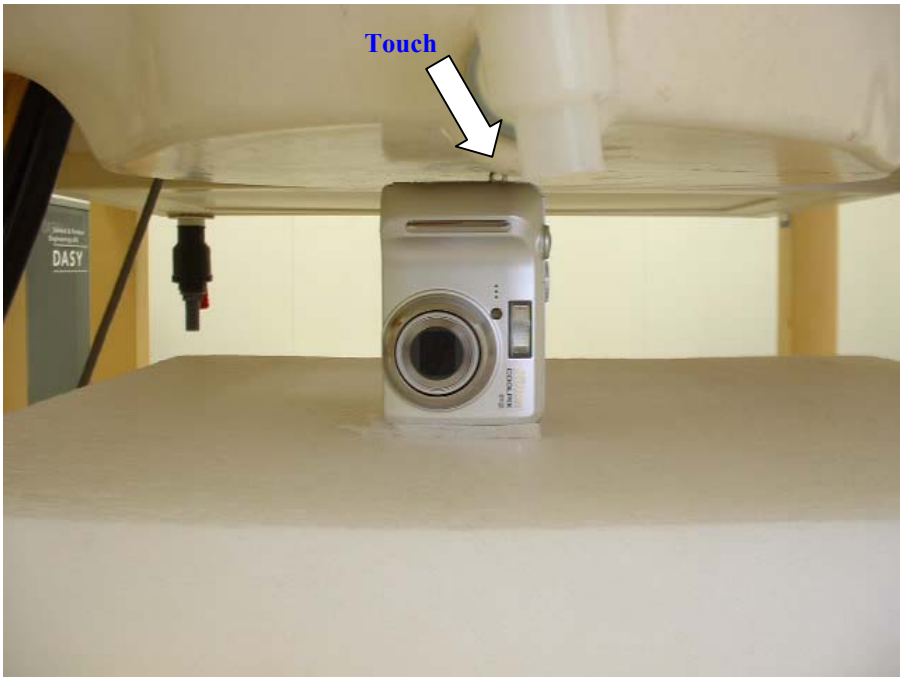
[1]ANSI, ANSI/IEEE C95.1-1992: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz, The Institute of Electrical and Electronics Engineers, Inc., New York, NY 10017, 1992.
[2] Katja Pokovic, Thomas Schmid, and Niels Kuster, "Robust 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 Recepies in C, The Art of Scientific Computing, Second Edition, Cambridge University Press, 1992.
[6] SPEAG documents Unsertainty document for DAZY 4 System from SPEAG (Shimid & Partner Engineering AG).

APPENDIX 1 : Photographs of test setup

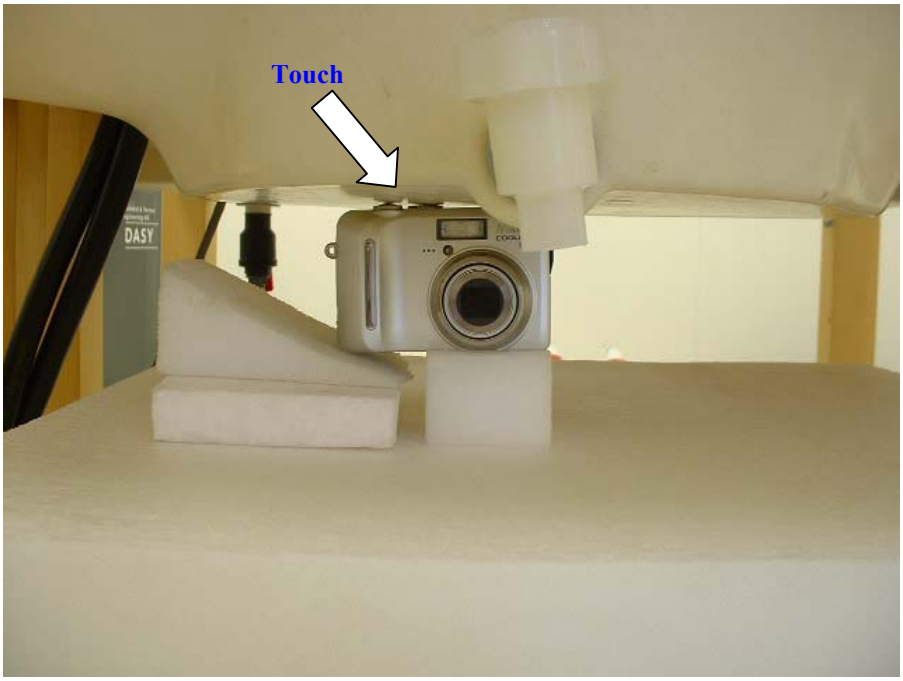
Right side

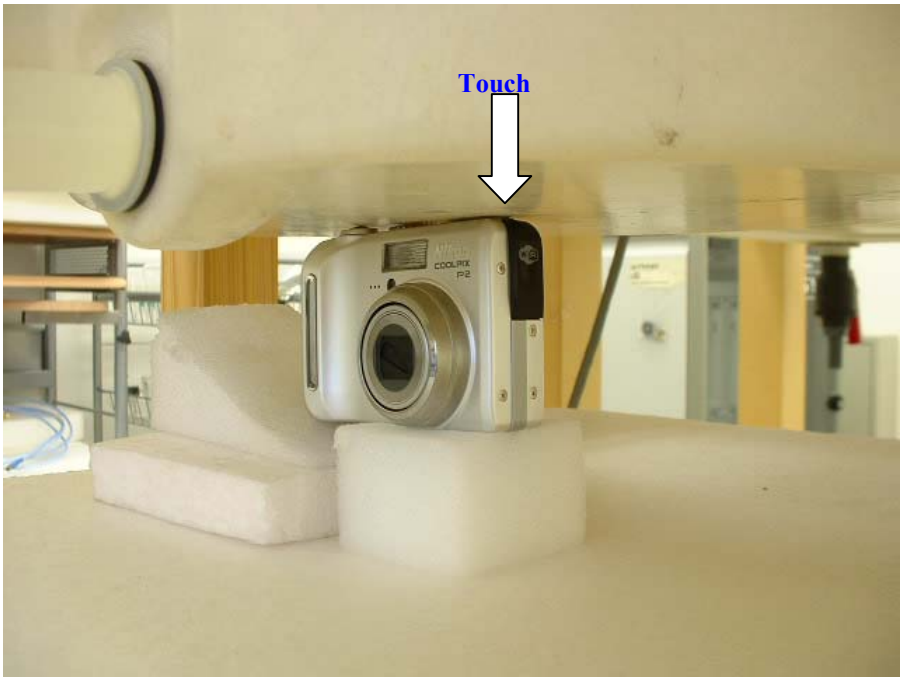


Left side

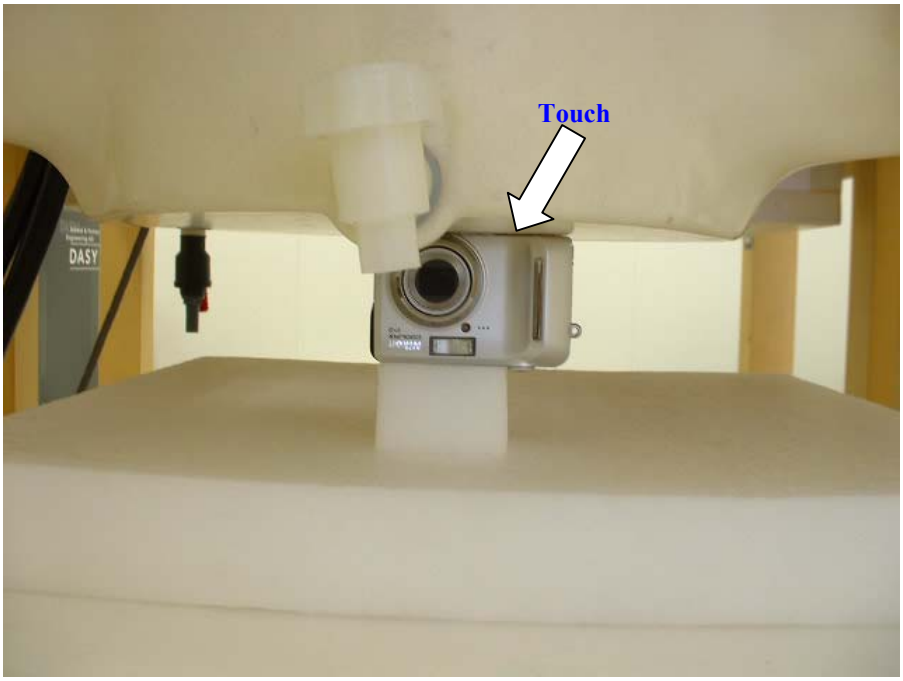


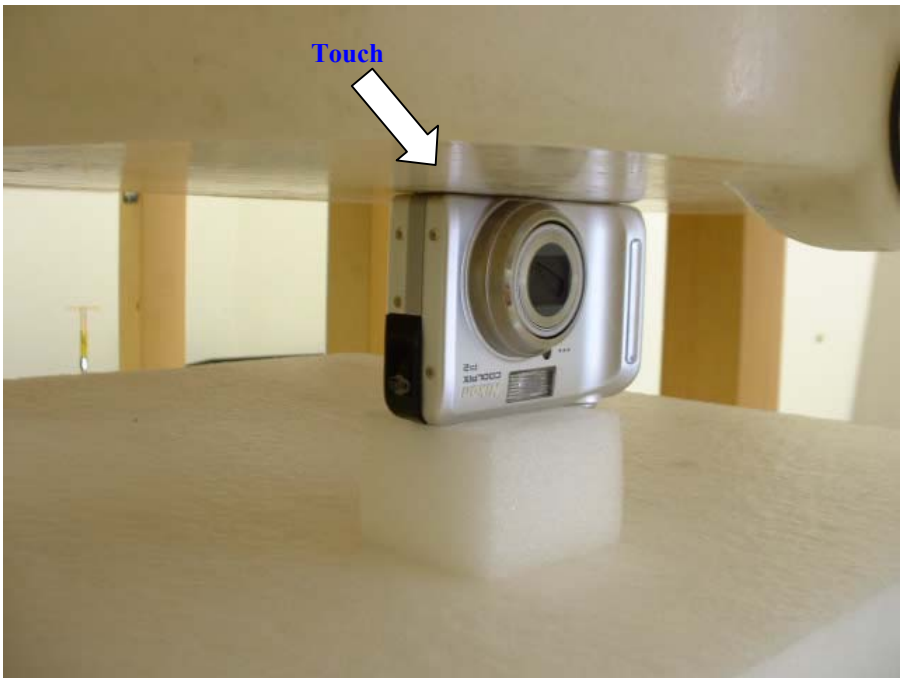
Top



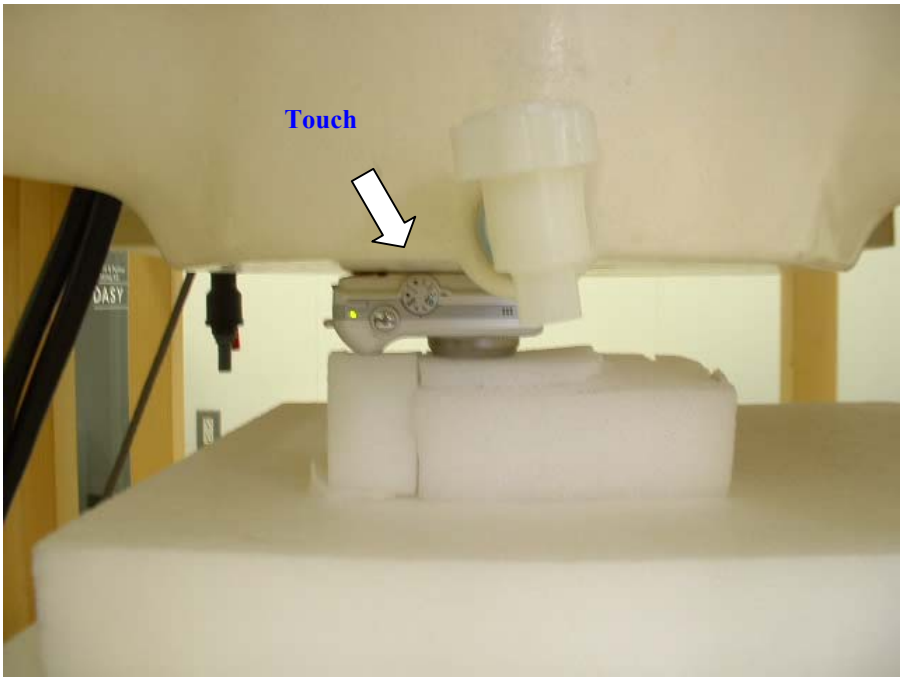


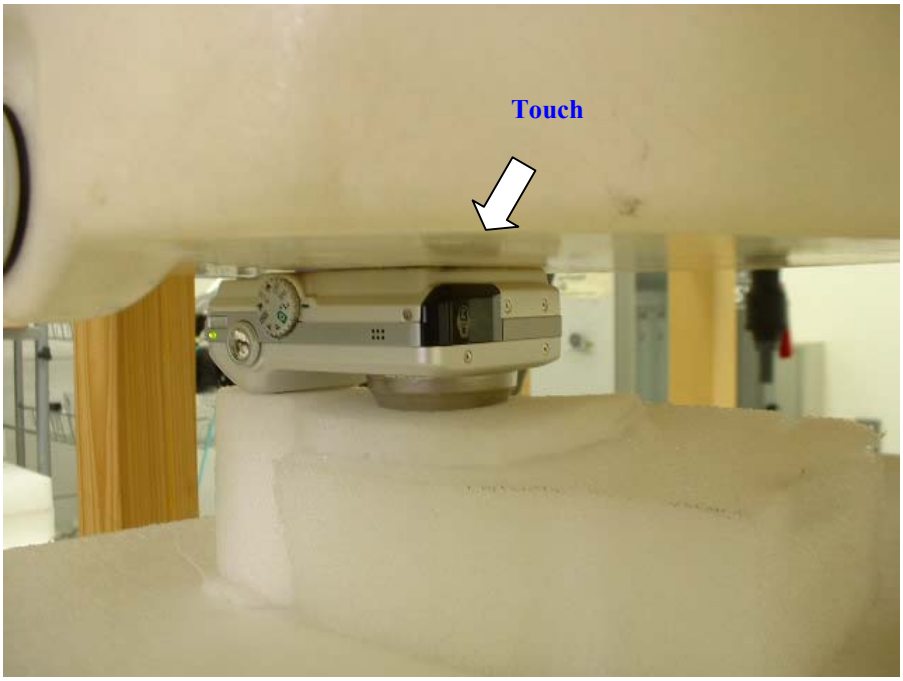
Bottom



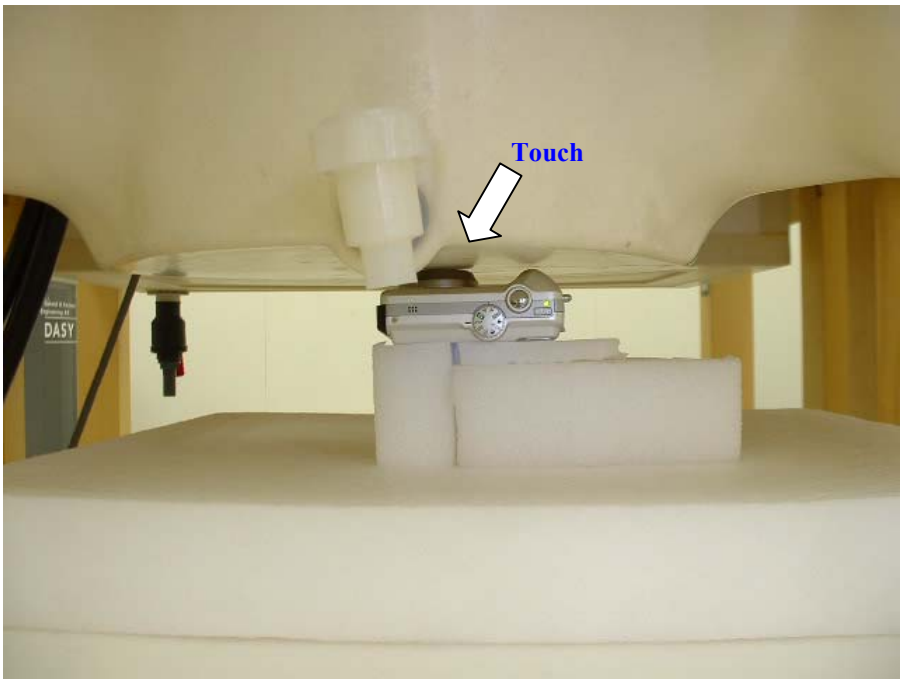


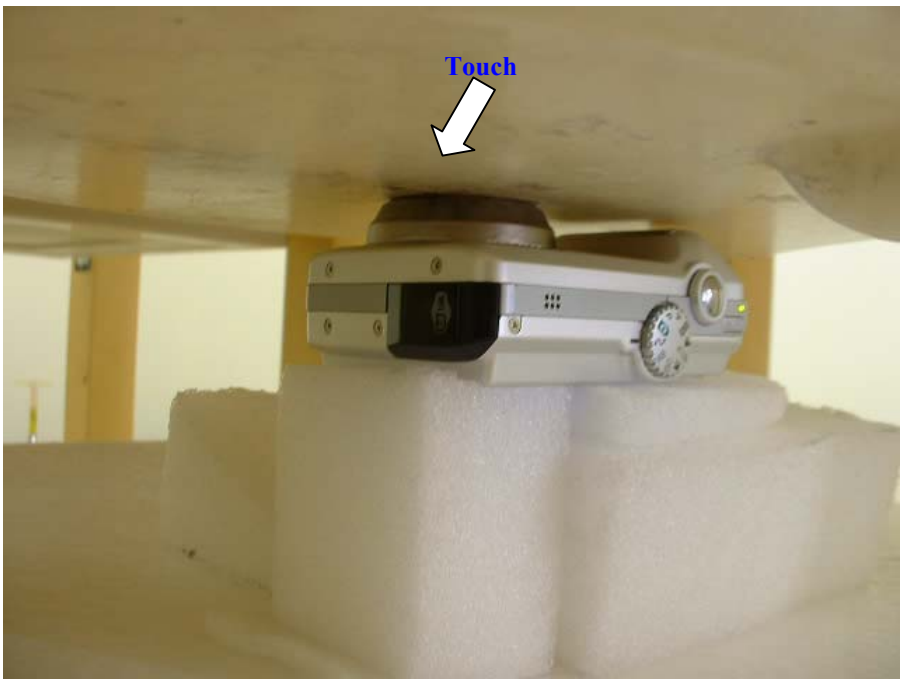
Back



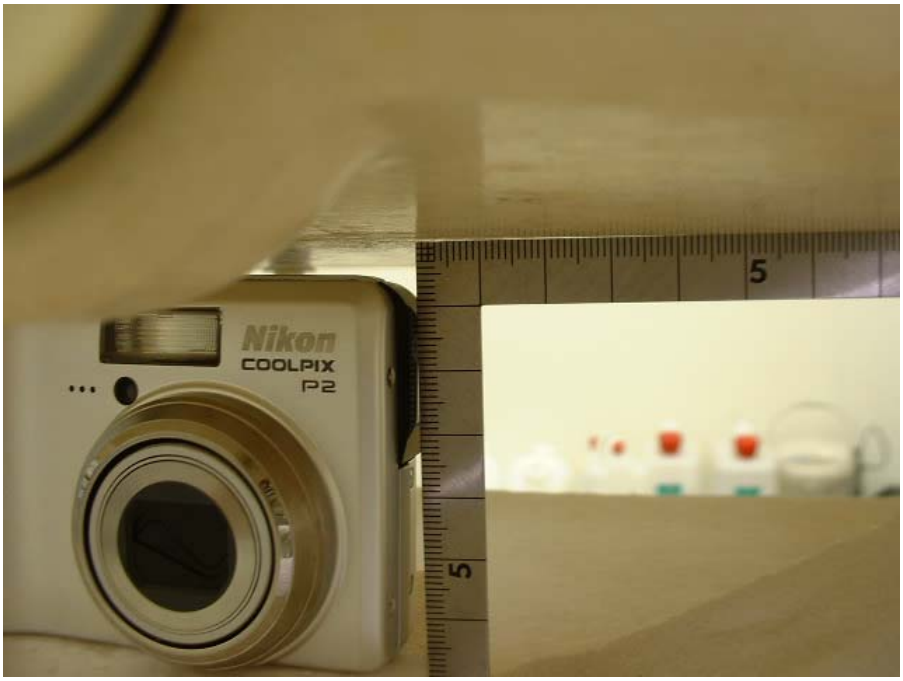


Front





Front (separated 5mm)



Front (separated 10mm)

Front (separated 15mm)

APPENDIX 2 : SAR Measurement data (Body)

COOLPIX P2-11b-Body-11Mbps-Mid ch (2437MHz)-Right side

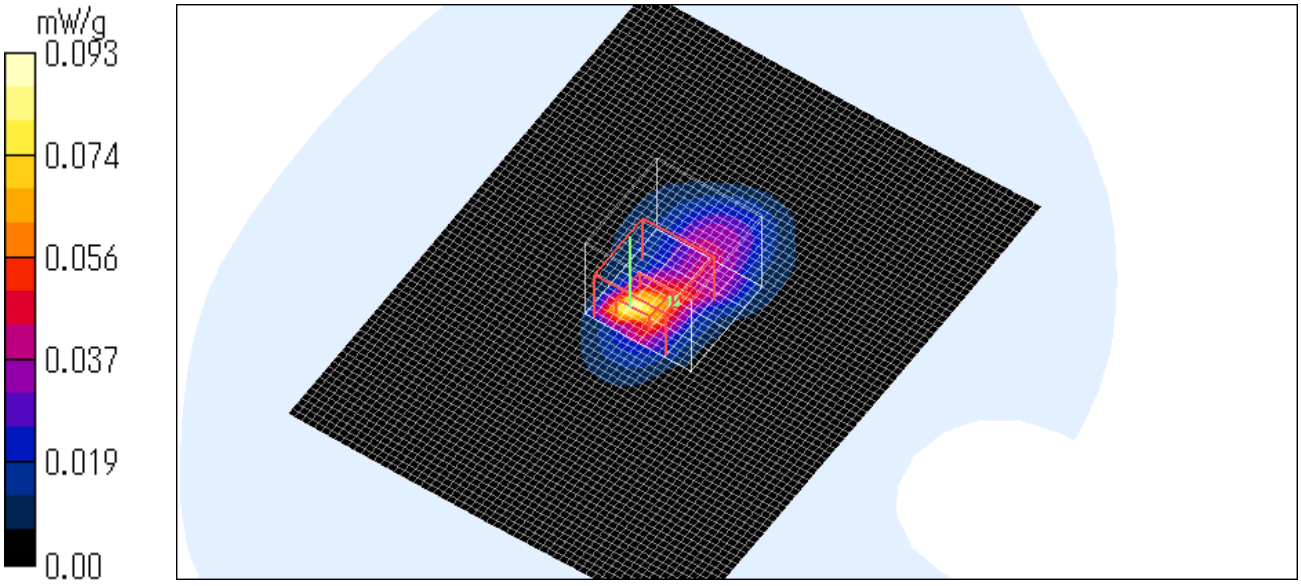
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.92 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.076 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.57 V/m; Power Drift = -0.283 dB
Peak SAR (extrapolated) = 0.247 W/kg

SAR(1 g) = 0.073 mW/g; SAR(10 g) = 0.025 mW/g
Maximum value of SAR (measured) = 0.093 mW/g

Test Date = 05/26/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 23.8 degree.C. , After 23.8 degree.C.



COOLPIX P2-11b-Body-11Mbps-Mid ch (2437MHz)-Left side

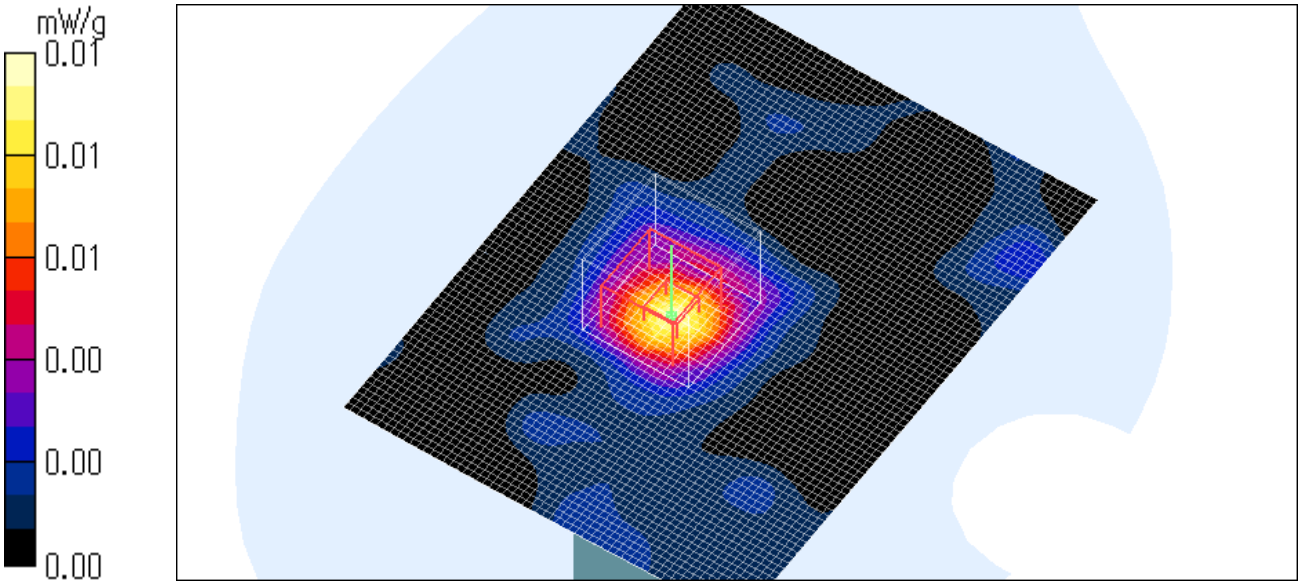
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.92 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.01 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.89 V/m; Power Drift = -0.172 dB
Peak SAR (extrapolated) = 0.022 W/kg

SAR(1 g) = 0.00919 mW/g; SAR(10 g) = 0.0042 mW/g
Maximum value of SAR (measured) = 0.01 mW/g

Test Date = 05/26/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 23.7 degree.C. , After 23.7 degree.C.



COOLPIX P2-11b-Body-11Mbps-Mid ch (2437MHz)-Top

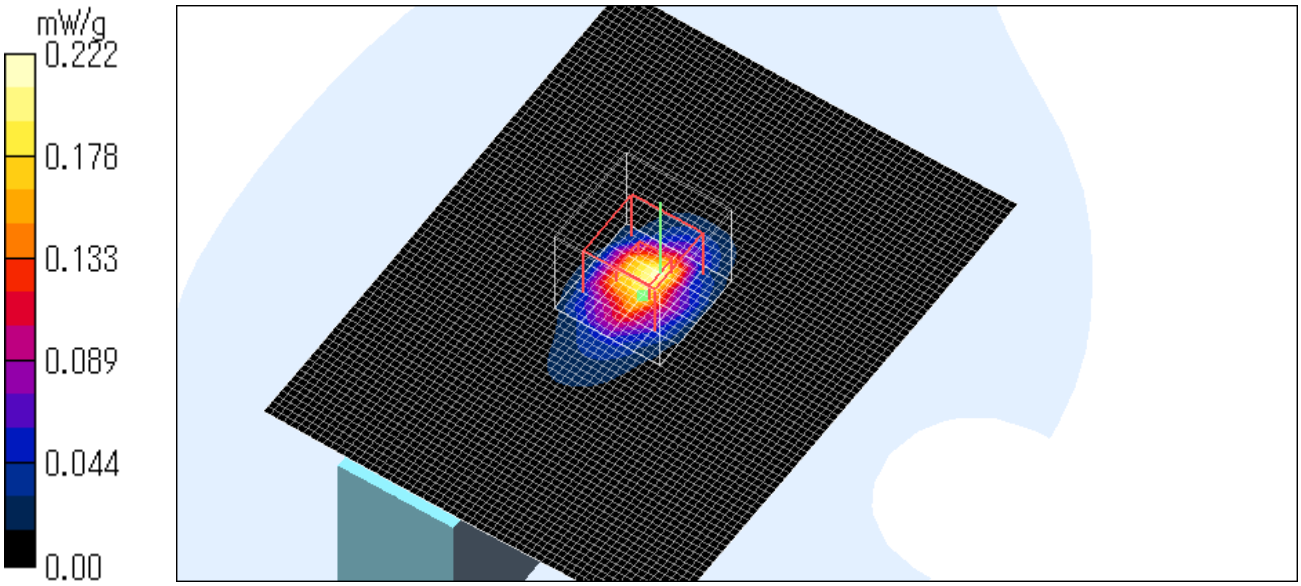
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.92 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.164 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.52 V/m; Power Drift = -0.215 dB
Peak SAR (extrapolated) = 0.622 W/kg

SAR(1 g) = 0.208 mW/g; SAR(10 g) = 0.077 mW/g
Maximum value of SAR (measured) = 0.222 mW/g

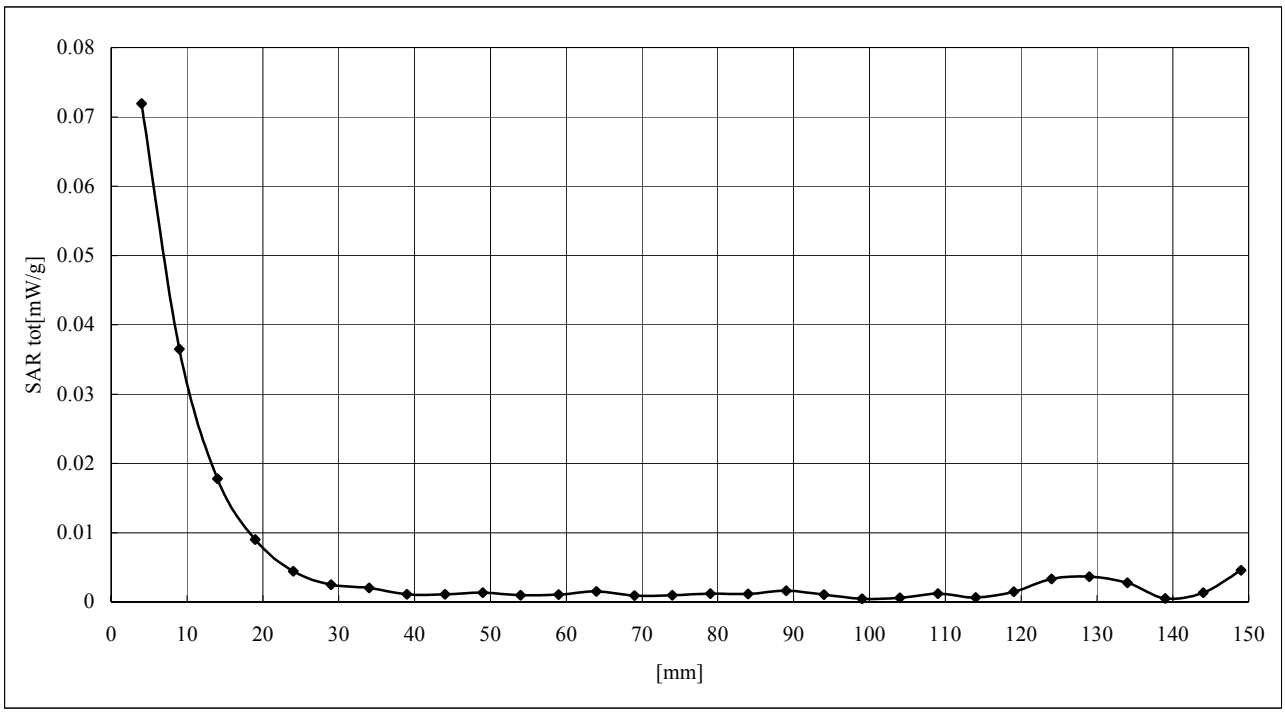
Test Date = 05/26/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 24.5 degree.C. , After 24.6 degree.C.



Z-axis at maximaum SAR location

COOLPIX P2-11b-Body-11Mbps-Mid ch (2437MHz)-Top

Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.92 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145



COOLPIX P2-11b-Body-11Mbps-Mid ch (2437MHz)-Bottom

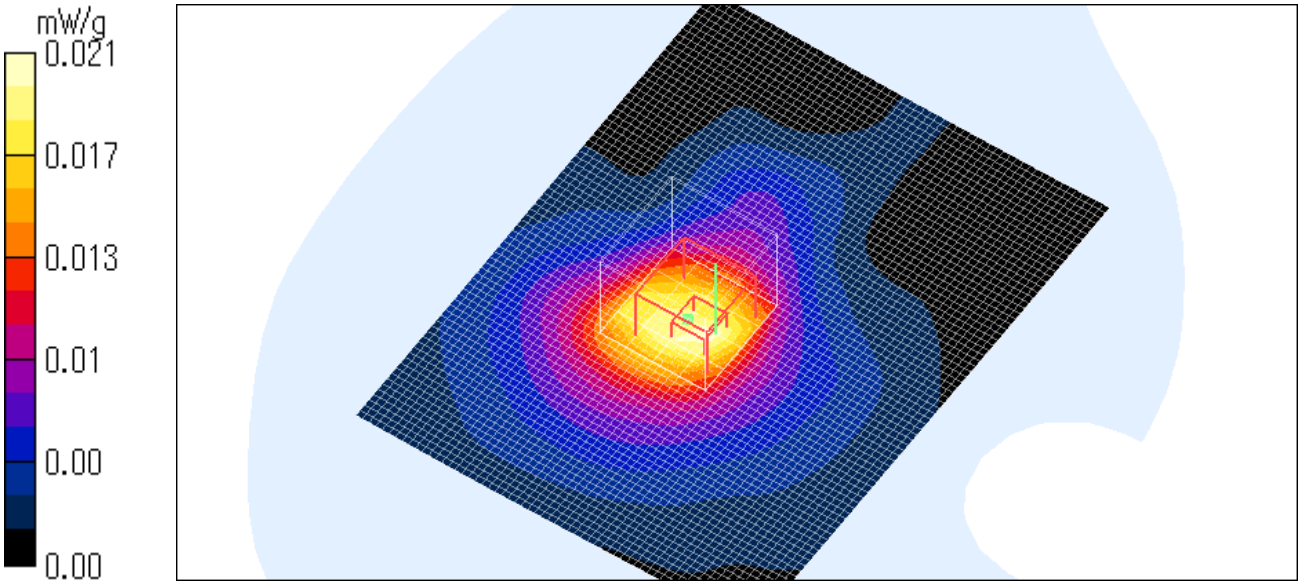
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.92 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.021 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.18 V/m; Power Drift = -0.103 dB
Peak SAR (extrapolated) = 0.039 W/kg

SAR(1 g) = 0.019 mW/g; SAR(10 g) = 0.011 mW/g
Maximum value of SAR (measured) = 0.021 mW/g

Test Date = 05/26/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 24.3 degree.C. , After 24.5 degree.C.



COOLPIX P2-11b-Body-11Mbps-Mid ch (2437MHz)-Back

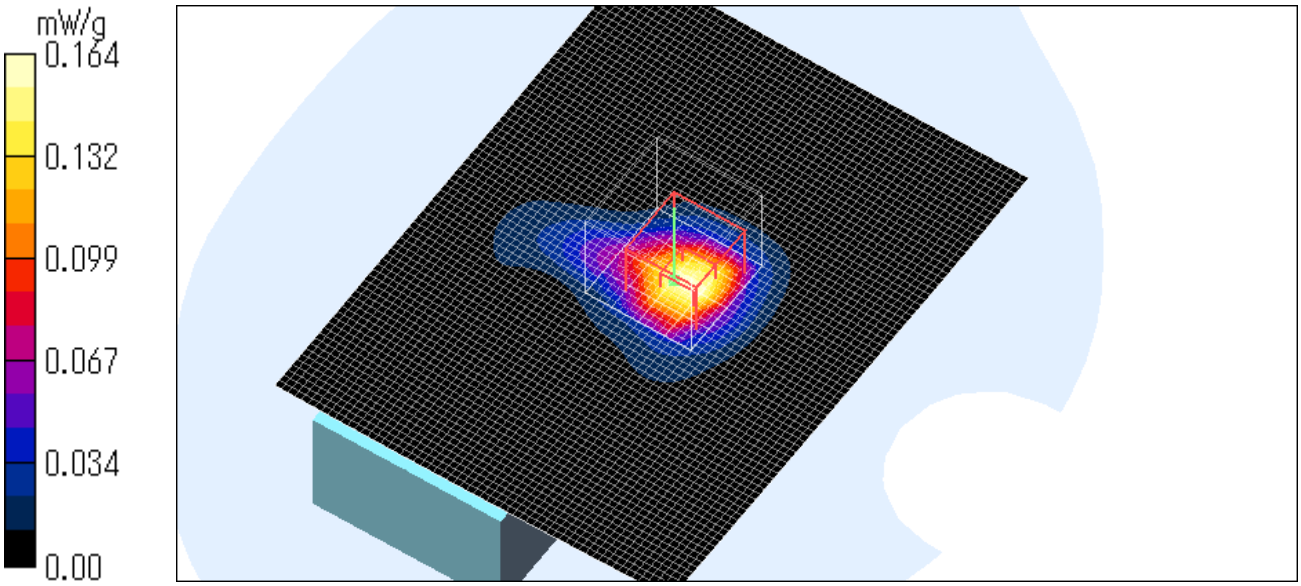
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.92 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.137 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.73 V/m; Power Drift = -0.205 dB
Peak SAR (extrapolated) = 0.424 W/kg

SAR(1 g) = 0.162 mW/g; SAR(10 g) = 0.072 mW/g
Maximum value of SAR (measured) = 0.164 mW/g

Test Date = 05/26/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 23.7 degree.C. , After 23.9 degree.C.



COOLPIX P2-11b-Body-11Mbps-Mid ch (2437MHz)-Front

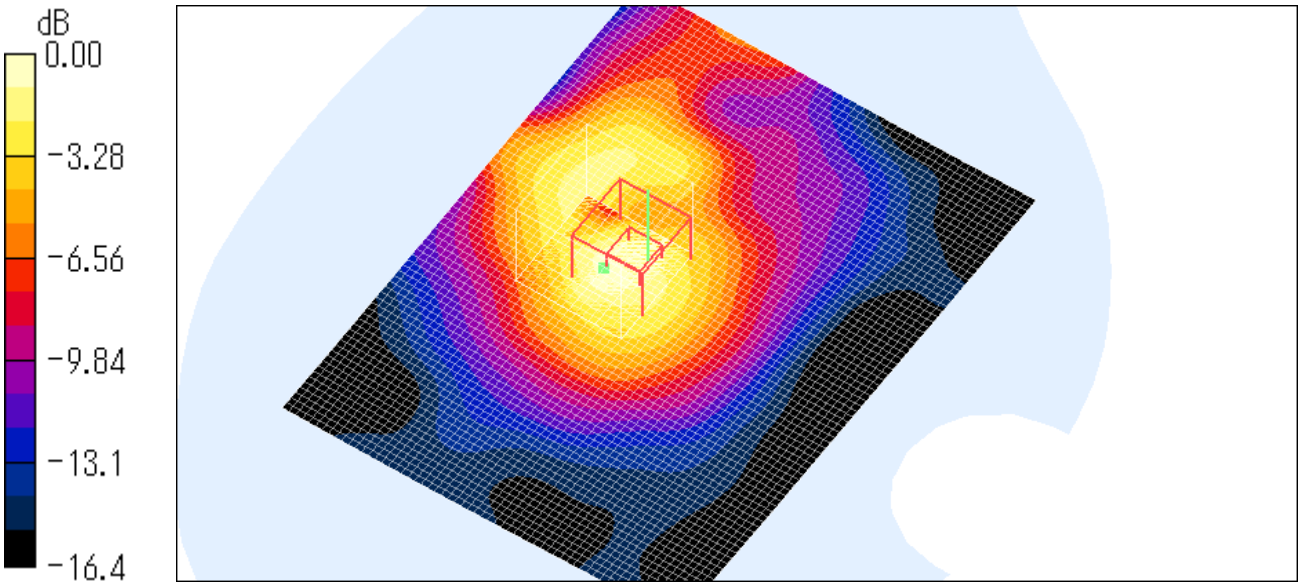
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.92 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.026 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.22 V/m; Power Drift = -0.283 dB
Peak SAR (extrapolated) = 0.061 W/kg

SAR(1 g) = 0.028 mW/g; SAR(10 g) = 0.015 mW/g
Maximum value of SAR (measured) = 0.030 mW/g

Test Date = 05/26/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 24.0 degree.C. , After 24.3 degree.C.



COOLPIX P2-11b-Body-11Mbps-Mid ch (2412MHz)-Top

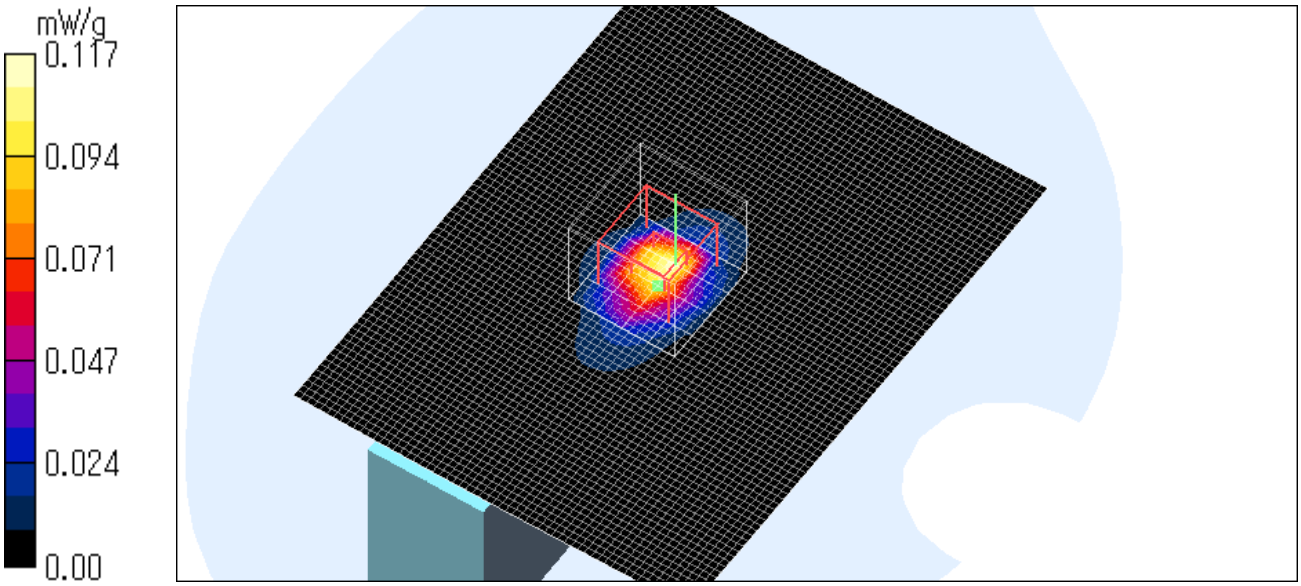
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.92 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.085 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.01 V/m; Power Drift = 0.096 dB
Peak SAR (extrapolated) = 0.320 W/kg

SAR(1 g) = 0.110 mW/g; SAR(10 g) = 0.041 mW/g
Maximum value of SAR (measured) = 0.117 mW/g

Test Date = 05/26/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 24.6 degree.C. , After 24.6 degree.C.



COOLPIX P2-11b-Body-11Mbps-High ch (2462MHz)-Top

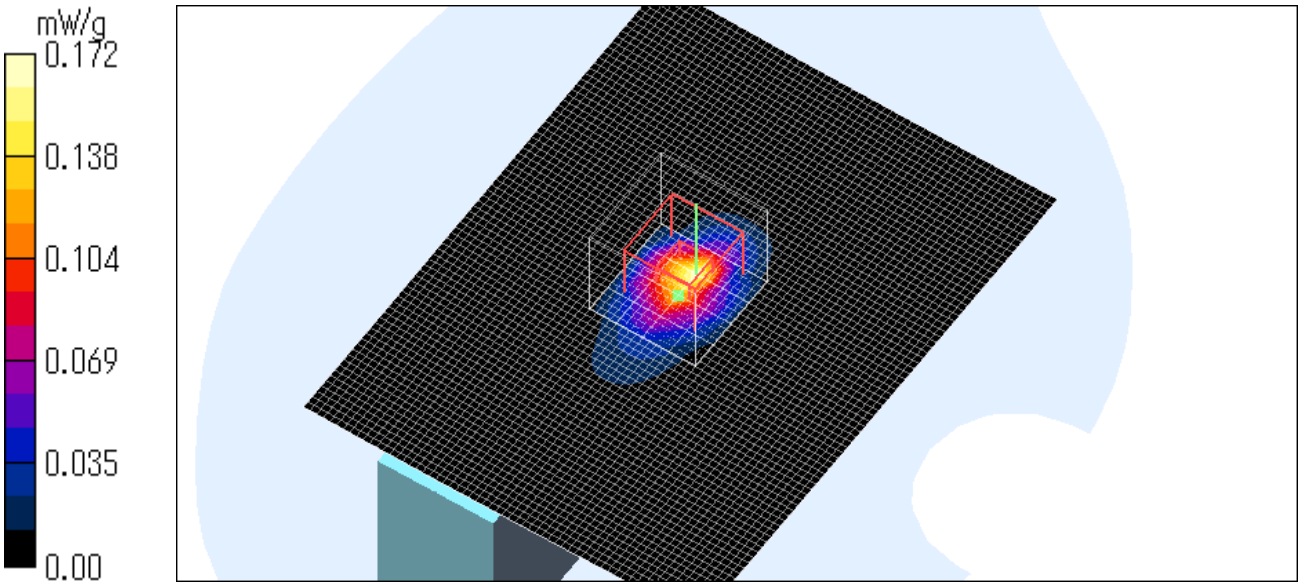
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.92 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.119 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.47 V/m; Power Drift = -0.267 dB
Peak SAR (extrapolated) = 0.435 W/kg

SAR(1 g) = 0.146 mW/g; SAR(10 g) = 0.054 mW/g
Maximum value of SAR (measured) = 0.172 mW/g

Test Date = 05/26/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 24.5 degree.C. , After 24.4 degree.C.



COOLPIX P2-11b-Body-11Mbps-Mid ch (2437MHz)- Top -5mm

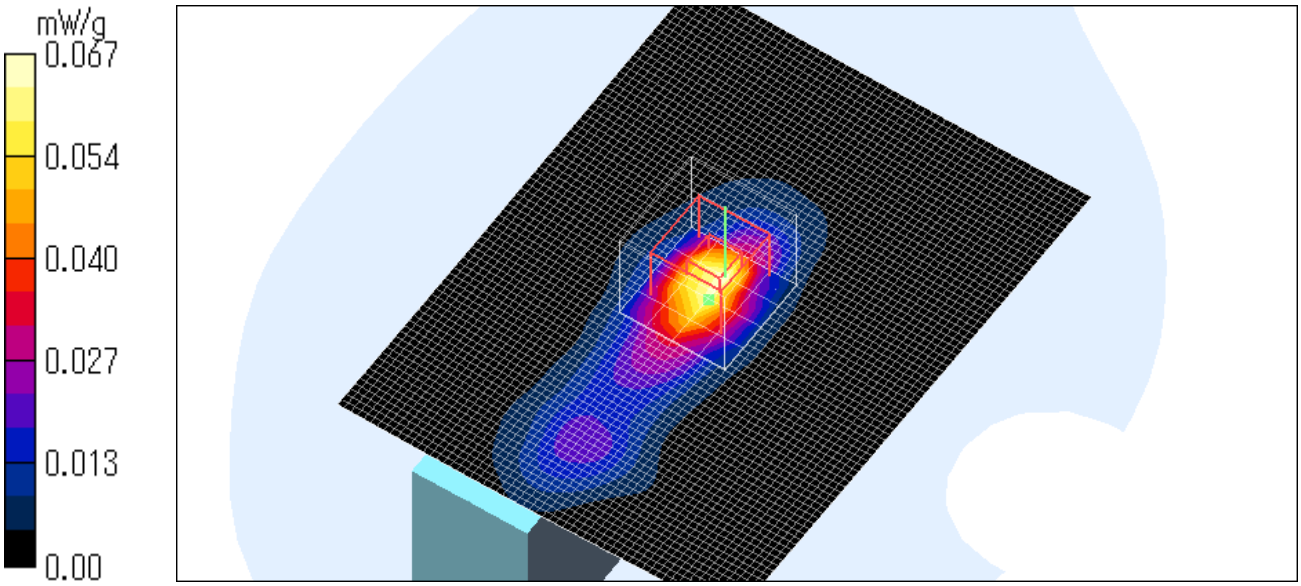
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.92 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.065 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.17 V/m; Power Drift = -0.277 dB
Peak SAR (extrapolated) = 0.347 W/kg

SAR(1 g) = 0.065 mW/g; SAR(10 g) = 0.029 mW/g
Maximum value of SAR (measured) = 0.067 mW/g

Test Date = 05/26/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 24.4 degree.C. , After 24.3 degree.C.



COOLPIX P2-11b-Body-11Mbps-Mid ch (2437MHz)- Top-10mm

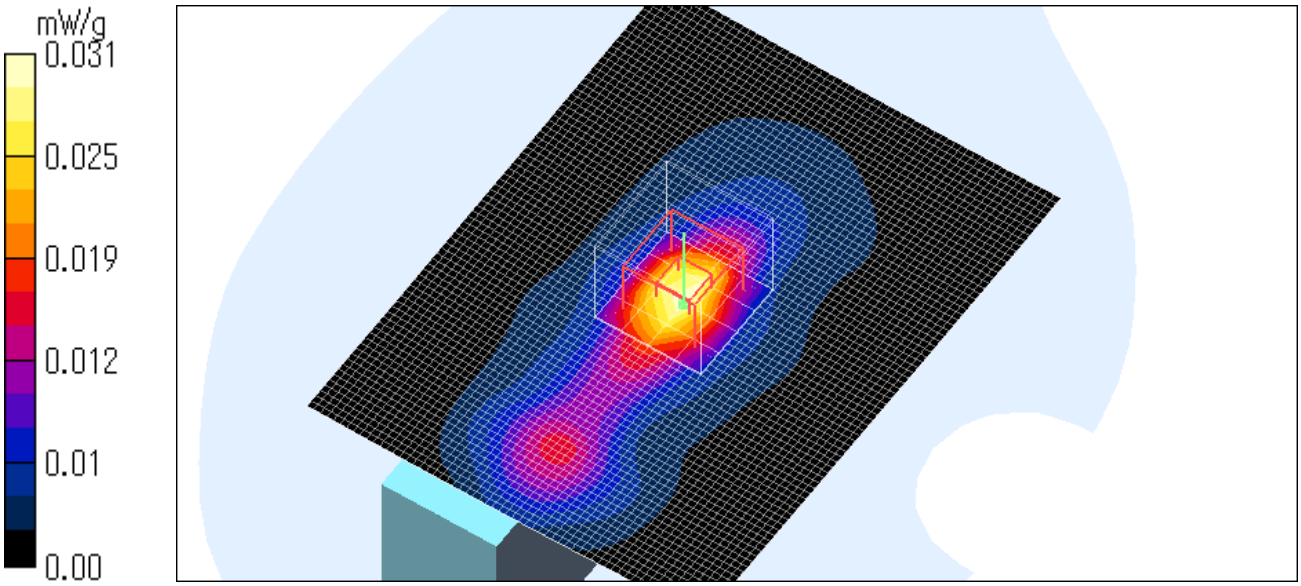
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.92 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.032 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.43 V/m; Power Drift = 0.185 dB
Peak SAR (extrapolated) = 0.059 W/kg

SAR(1 g) = 0.028 mW/g; SAR(10 g) = 0.014 mW/g
Maximum value of SAR (measured) = 0.031 mW/g

Test Date = 05/26/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 24.3 degree.C. , After 24.3 degree.C.



COOLPIX P2-11b-Body-11Mbps-Mid ch (2437MHz)- Top-15mm

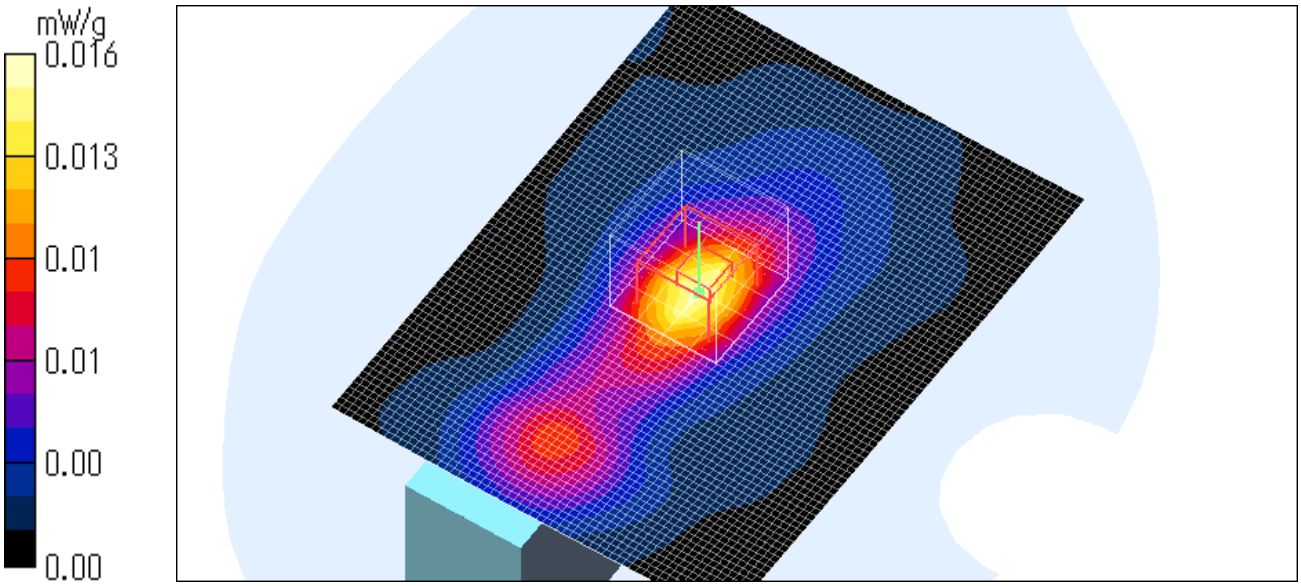
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.92 mho/m; ε_r = 50.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.016 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.04 V/m; Power Drift = -0.265 dB
Peak SAR (extrapolated) = 0.055 W/kg

SAR(1 g) = 0.015 mW/g; SAR(10 g) = 0.00596 mW/g
Maximum value of SAR (measured) = 0.016 mW/g

Test Date = 05/26/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 24.3 degree.C. , After 24.3 degree.C.



COOLPIX P2-11g-Body-9Mbps-Mid ch (2437MHz)-Right side

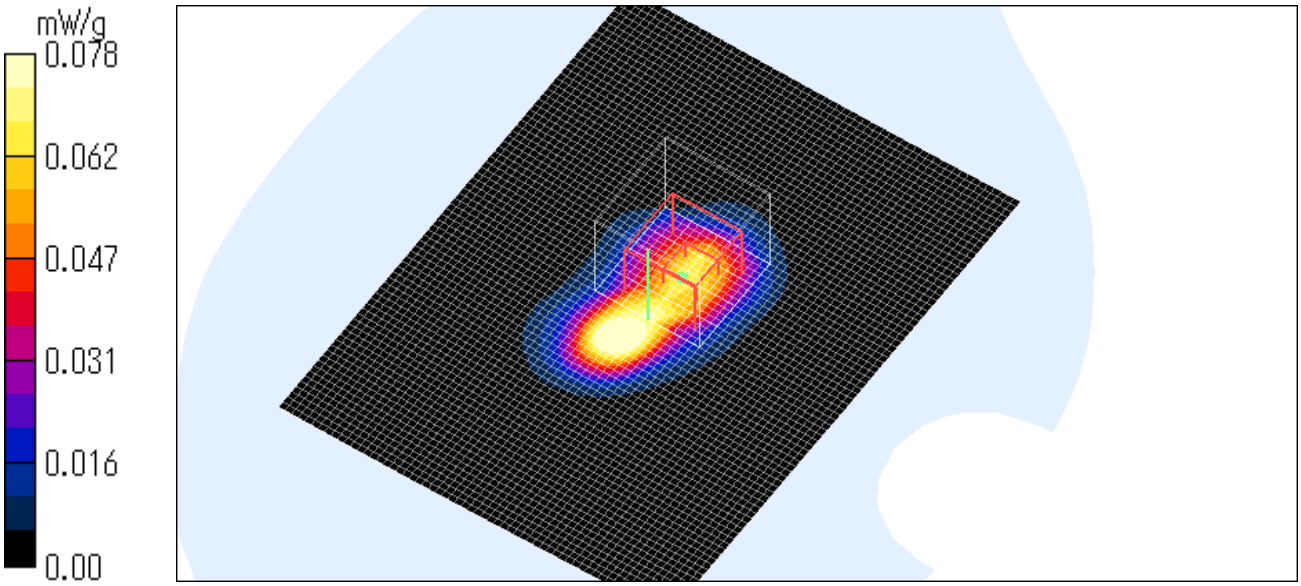
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.95 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.102 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.50 V/m; Power Drift = -0.275 dB
Peak SAR (extrapolated) = 0.179 W/kg

SAR(1 g) = 0.064 mW/g; SAR(10 g) = 0.034 mW/g
Maximum value of SAR (measured) = 0.078 mW/g

Test Date = 05/25/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 24.8 degree.C. , After 24.6 degree.C.



COOLPIX P2-11g-Body-12Mbps-Mid ch (2437MHz)-Right side

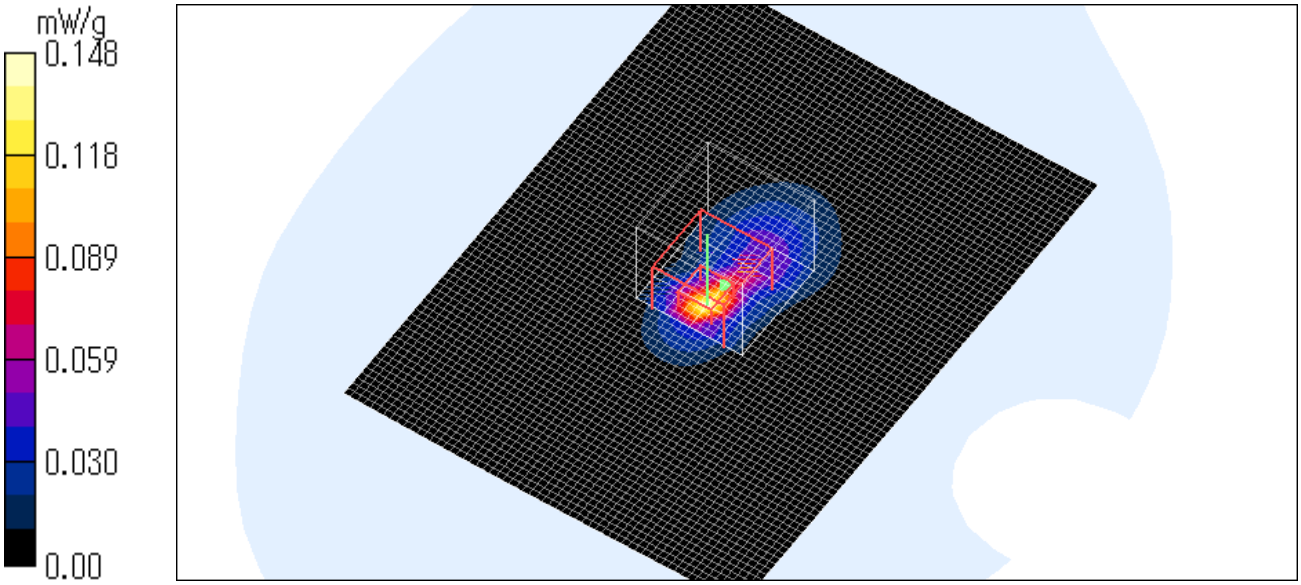
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.95 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.124 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.26 V/m; Power Drift = -0.166 dB
Peak SAR (extrapolated) = 0.345 W/kg

SAR(1 g) = 0.097 mW/g; SAR(10 g) = 0.031 mW/g
Maximum value of SAR (measured) = 0.148 mW/g

Test Date = 05/25/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 24.5 degree.C. , After 24.5 degree.C.



COOLPIX P2-11g-Body-24Mbps-Mid ch (2437MHz)-Right side

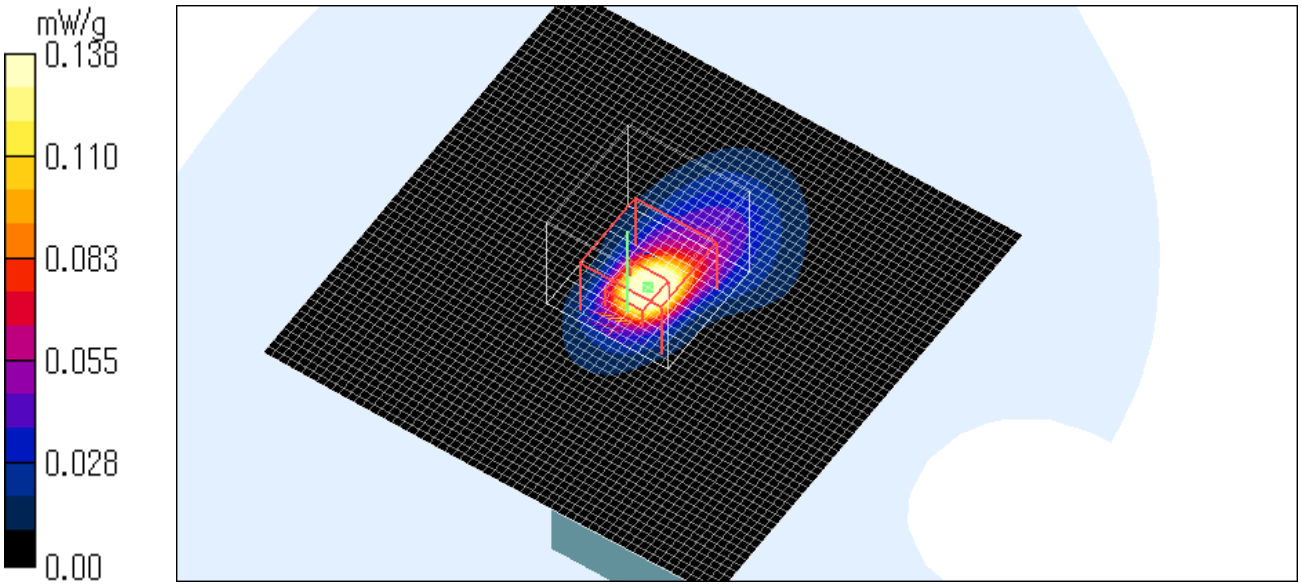
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.95 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x61x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.179 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.68 V/m; Power Drift = -0.241 dB
Peak SAR (extrapolated) = 0.373 W/kg

SAR(1 g) = 0.103 mW/g; SAR(10 g) = 0.033 mW/g
Maximum value of SAR (measured) = 0.138 mW/g

Test Date = 05/25/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 24.5 degree.C. , After 24.5 degree.C.



COOLPIX P2-11g-Body-54Mbps-Mid ch (2437MHz)-Right side

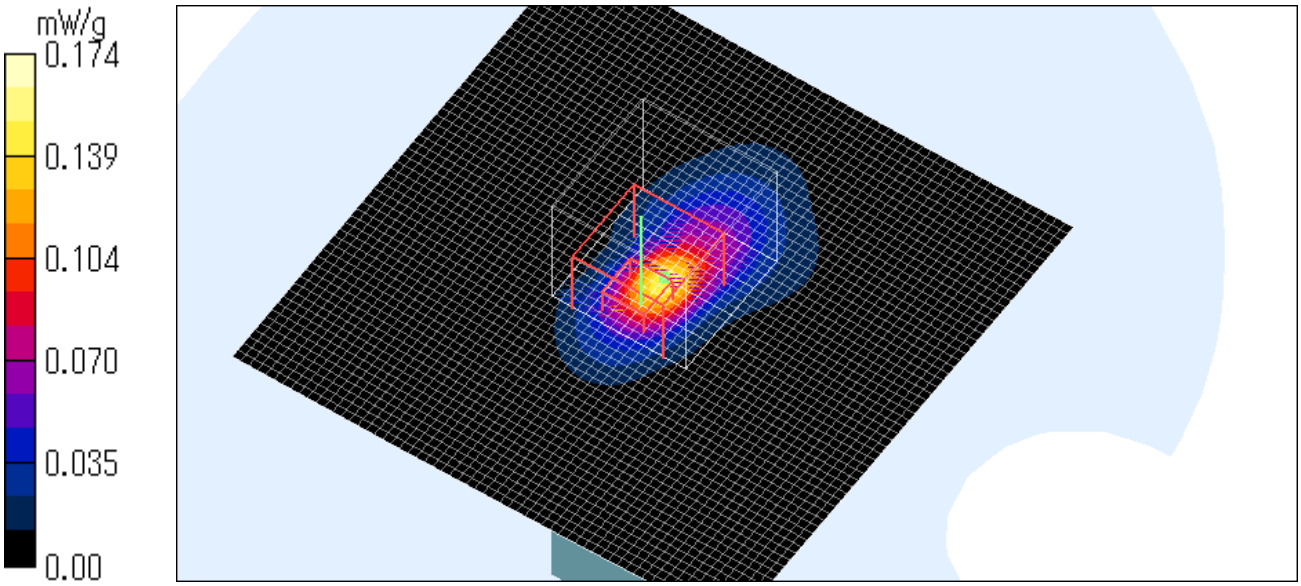
Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.95 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x61x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.149 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.09 V/m; Power Drift = -0.267 dB
Peak SAR (extrapolated) = 0.406 W/kg

SAR(1 g) = 0.112 mW/g; SAR(10 g) = 0.037 mW/g
Maximum value of SAR (measured) = 0.174 mW/g

Test Date = 05/25/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 24.4 degree.C. , After 24.4 degree.C.



COOLPIX P2-11g-Body-54Mbps-Mid ch (2437MHz)-Left side

Crest factor: 1
Medium parameters used: f = 2450 MHz; σ = 1.95 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)
DASY4 Configuration:
Probe: ET3DV6 - SN1684; ConvF(4.14, 4.14, 4.14); Calibrated: 2004/09/02
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Electronics: DAE3 Sn516; Calibrated: 2005/03/10
Phantom: SAM 1196
Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Area Scan (61x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.012 mW/g

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.57 V/m; Power Drift = -0.170 dB
Peak SAR (extrapolated) = 0.052 W/kg

SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00382 mW/g
Maximum value of SAR (measured) = 0.012 mW/g

Test Date = 05/25/05
Ambient Temperature = 25.0 degree.C.
Liquid Temperature = Before 24.4 degree.C. , After 24.4 degree.C.