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Accreditation No.: **SCS 108**

Client **CCS-TW (Auden)**

Certificate No: **D2450V2-728\_May10**

**CALIBRATION CERTIFICATE**

Object **D2450V2 - SN: 728**

Calibration procedure(s) **QA CAL-05.v7  
Calibration procedure for dipole validation kits**

Calibration date: **May 27, 2010**

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

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	06-Oct-09 (No. 217-01086)	Oct-10
Power sensor HP 8481A	US37292783	06-Oct-09 (No. 217-01086)	Oct-10
Reference 20 dB Attenuator	SN: 5086 (20g)	30-Mar-10 (No. 217-01158)	Mar-11
Type-N mismatch combination	SN: 5047.2 / 06327	30-Mar-10 (No. 217-01162)	Mar-11
Reference Probe ES3DV3	SN: 3205	30-Apr-10 (No. ES3-3205_Apr10)	Apr-11
DAE4	SN: 601	02-Mar-10 (No. DAE4-601_Mar10)	Mar-11

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-09)	In house check: Oct-11
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-09)	In house check: Oct-10

Calibrated by: **Dimce Iliev**      Name: **Dimce Iliev**      Function: **Laboratory Technician**

Approved by: **Katja Pokovic**      Name: **Katja Pokovic**      Function: **Technical Manager**

Signature  
*D. Iliev*  
*K. Pokovic*

Issued: May 27, 2010

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### Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

### Additional Documentation:

- DASY4/5 System Handbook

### Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

## Measurement Conditions

DASY system configuration, as far as not given on page 1.

<b>DASY Version</b>	DASY5	V5.2
<b>Extrapolation</b>	Advanced Extrapolation	
<b>Phantom</b>	Modular Flat Phantom V4.9	
<b>Distance Dipole Center - TSL</b>	10 mm	with Spacer
<b>Zoom Scan Resolution</b>	dx, dy, dz = 5 mm	
<b>Frequency</b>	2450 MHz $\pm$ 1 MHz	

## Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
<b>Nominal Head TSL parameters</b>	22.0 °C	39.2	1.80 mho/m
<b>Measured Head TSL parameters</b>	(22.0 $\pm$ 0.2) °C	39.0 $\pm$ 6 %	1.76 mho/m $\pm$ 6 %
<b>Head TSL temperature during test</b>	(21.5 $\pm$ 0.2) °C	----	----

## SAR result with Head TSL

<b>SAR averaged over 1 cm<sup>3</sup> (1 g) of Head TSL</b>	Condition	
SAR measured	250 mW input power	13.0 mW / g
SAR normalized	normalized to 1W	52.0 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	<b>52.5 mW /g <math>\pm</math> 17.0 % (k=2)</b>

<b>SAR averaged over 10 cm<sup>3</sup> (10 g) of Head TSL</b>	condition	
SAR measured	250 mW input power	6.13 mW / g
SAR normalized	normalized to 1W	24.5 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	<b>24.6 mW /g <math>\pm</math> 16.5 % (k=2)</b>

## Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.7	1.95 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	53.6 ± 6 %	1.97 mho/m ± 6 %
Body TSL temperature during test	(21.8 ± 0.2) °C	----	----

## SAR result with Body TSL

SAR averaged over 1 cm <sup>3</sup> (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	13.4 mW / g
SAR normalized	normalized to 1W	53.6 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	<b>53.5 mW / g ± 17.0 % (k=2)</b>

SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL	condition	
SAR measured	250 mW input power	6.33 mW / g
SAR normalized	normalized to 1W	25.3 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	<b>25.3 mW / g ± 16.5 % (k=2)</b>

## Appendix

### Antenna Parameters with Head TSL

Impedance, transformed to feed point	$54.0 \Omega + 2.6 j\Omega$
Return Loss	- 26.8 dB

### Antenna Parameters with Body TSL

Impedance, transformed to feed point	$50.1 \Omega + 4.1 j\Omega$
Return Loss	- 27.7 dB

### General Antenna Parameters and Design

Electrical Delay (one direction)	1.153 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

### Additional EUT Data

Manufactured by	SPEAG
Manufactured on	January 09, 2003

## DASY5 Validation Report for Head TSL

Date/Time: 17.05.2010 16:42:07

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:728**

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL U11 BB

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.76$  mho/m;  $\epsilon_r = 39$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.53, 4.53, 4.53); Calibrated: 30.04.2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 02.03.2010
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 61

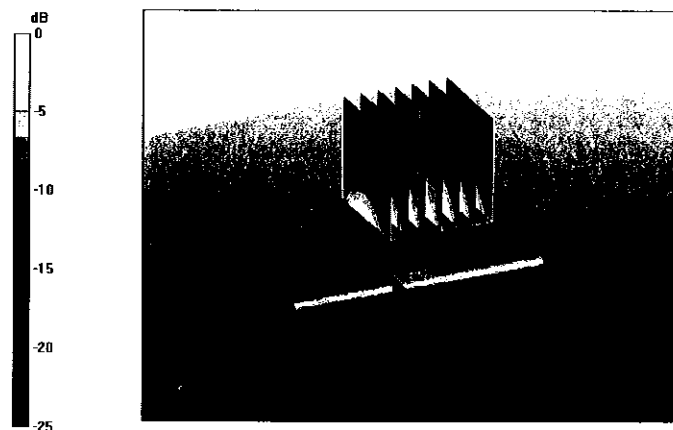
**Pin=250 mW /d=10mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7) /Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 100.6 V/m; Power Drift = 0.078 dB

Peak SAR (extrapolated) = 26.7 W/kg

**SAR(1 g) = 13 mW/g; SAR(10 g) = 6.13 mW/g**

Maximum value of SAR (measured) = 16.6 mW/g



0 dB = 16.6mW/g

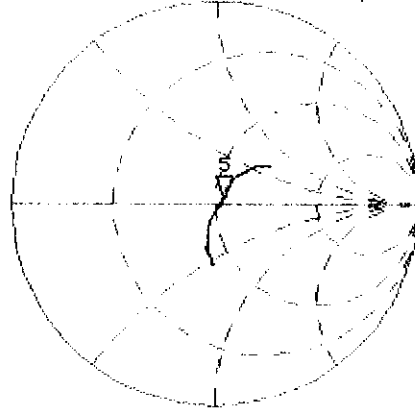
# Impedance Measurement Plot for Head TSL

17 May 2010 09:40:10

CH1 S11 1 U FS 5: 54.000  $\Omega$  2.5918  $\Omega$  168.37  $\mu$ H 2 450.000 000 MHz

\*  
De1

CA



Avg  
16

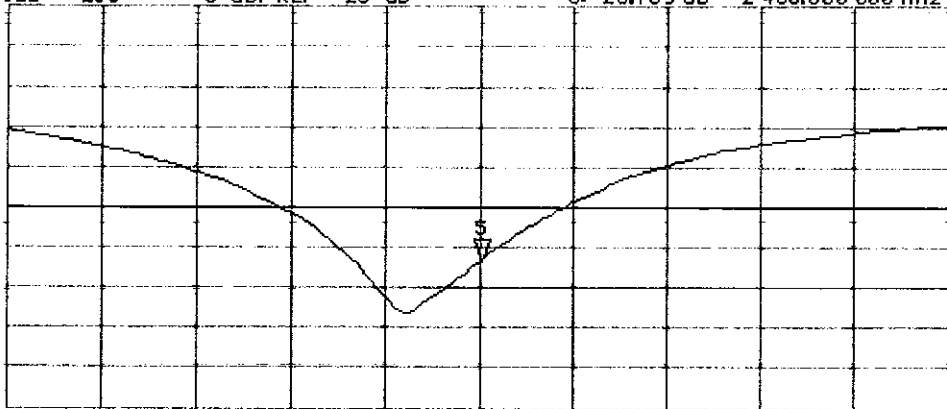
↑

CH2 S11 LOG 5 dB/REF -20 dB 5: -26.769 dB 2 450.000 000 MHz

CA

Avg  
16

↑



START 2 250.000 000 MHz

STOP 2 650.000 000 MHz

## DASY5 Validation Report for Body

Date/Time: 27.05.2010 09:53:21

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:728**

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: MSL U11 BB

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.97$  mho/m;  $\epsilon_r = 53.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.31, 4.31, 4.31); Calibrated: 30.04.2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 02.03.2010
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 61

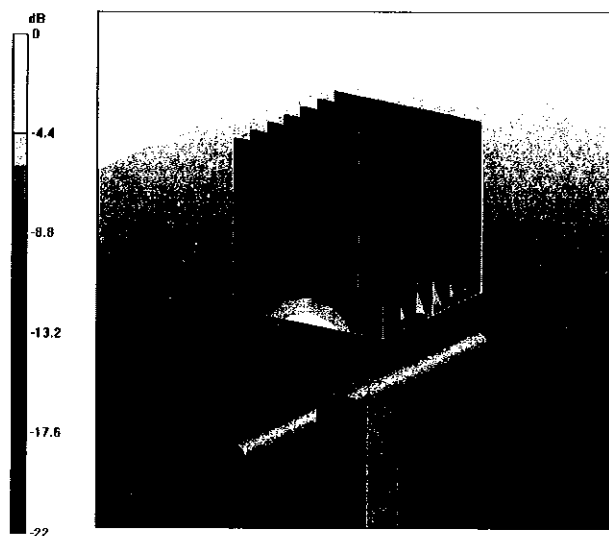
**Pin=250 mW /d=10mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7) /Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 96.7 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 27.4 W/kg

**SAR(1 g) = 13.4 mW/g; SAR(10 g) = 6.33 mW/g**

Maximum value of SAR (measured) = 17.5 mW/g



0 dB = 17.5mW/g



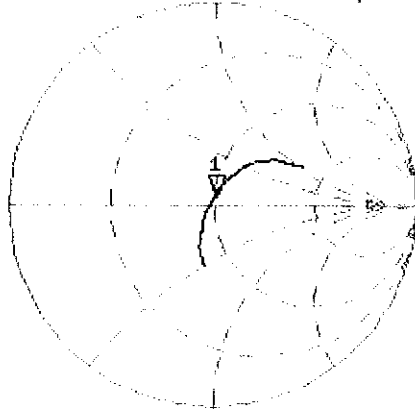
# Impedance Measurement Plot for Body TSL

27 May 2010 08:19:45

CH1 S11 1 U FS 1: 50.109  $\Omega$  4.1191  $\Omega$  267.58 pF 2 450.000 000 MHz

\*  
De1  
Cor

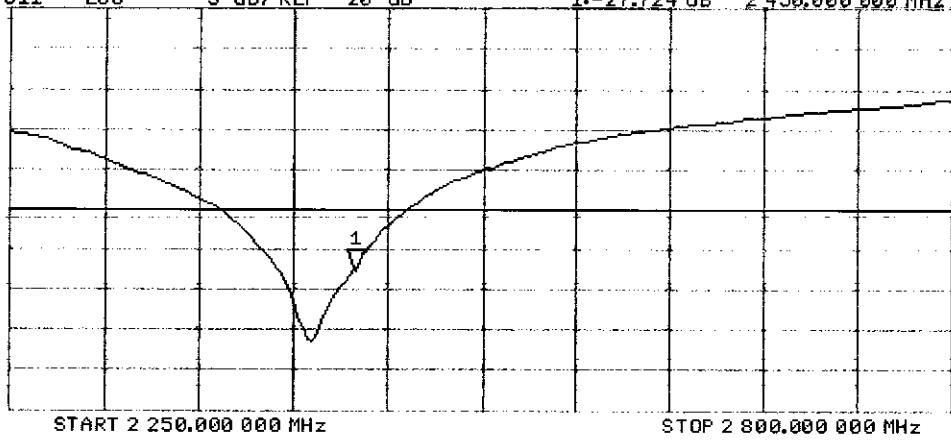
Avg  
16



CH2 S11 LOG 5 dB/REF -20 dB 1: -27.724 dB 2 450.000 000 MHz

Cor

Avg  
16





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Accreditation No.: **SCS 108**

Client **Auden**

Certificate No: **EX3-3578\_Jun10**

## CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3578**

Calibration procedure(s) **QA CAL-01.v6, QA CAL-14.v3, QA CAL-23.v3 and QA CAL-25.v2  
Calibration procedure for dosimetric E-field probes**

Calibration date: **June 22, 2010**

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

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	1-Apr-10 (No. 217-01136)	Apr-11
Power sensor E4412A	MY41495277	1-Apr-10 (No. 217-01136)	Apr-11
Power sensor E4412A	MY41498087	1-Apr-10 (No. 217-01136)	Apr-11
Reference 3 dB Attenuator	SN: S5054 (3c)	30-Mar-10 (No. 217-01159)	Mar-11
Reference 20 dB Attenuator	SN: S5086 (20b)	30-Mar-10 (No. 217-01161)	Mar-11
Reference 30 dB Attenuator	SN: S5129 (30b)	30-Mar-10 (No. 217-01160)	Mar-11
Reference Probe ES3DV2	SN: 3013	30-Dec-09 (No. ES3-3013_Dec09)	Dec-10
DAE4	SN: 660	20-Apr-10 (No. DAE4-660_Apr10)	Apr-11
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-09)	In house check: Oct10

Calibrated by: **Katja Pokovic** Technical Manager

Signature

Approved by: **Fin Bomholt** R&D Director

Issued: June 23, 2010

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### Glossary:

TSL	tissue simulating liquid
NORM <sub>x,y,z</sub>	sensitivity in free space
ConvF	sensitivity in TSL / NORM <sub>x,y,z</sub>
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C	modulation dependent linearization parameters
Polarization $\varphi$	$\varphi$ rotation around probe axis
Polarization $\vartheta$	$\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis

### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005

### Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not effect the E<sup>2</sup>-field uncertainty inside TSL (see below *ConvF*).
- NORM(f)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* *frequency\_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; VR<sub>x,y,z</sub>**: A, B, C are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

# Probe EX3DV4

## SN:3578

Manufactured:	November 4, 2005
Last calibrated:	June 26, 2009
Recalibrated:	June 22, 2010

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

**DASY/EASY - Parameters of Probe: EX3DV4 SN:3578****Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup>	0.55	0.50	0.56	± 10.1%
DCP (mV) <sup>B</sup>	92.3	88.3	86.1	

**Modulation Calibration Parameters**

UID	Communication System Name	PAR		A dB	B dBuV	C	VR mV	Unc <sup>E</sup> (k=2)
10000	CW	0.00	X	0.00	0.00	1.00	300	± 1.5%
			Y	0.00	0.00	1.00	300	
			Z	0.00	0.00	1.00	300	

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

<sup>A</sup> The uncertainties of NormX,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the maximum deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

## DASY/EASY - Parameters of Probe: EX3DV4 SN:3578

### Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz]	Validity [MHz] <sup>c</sup>	Permittivity	Conductivity	ConvF X	ConvF Y	ConvF Z	Alpha	Depth Unc (k=2)
835	± 50 / ± 100	41.5 ± 5%	0.90 ± 5%	8.44	8.44	8.44	0.84	0.61 ± 11.0%
900	± 50 / ± 100	41.5 ± 5%	0.97 ± 5%	8.25	8.25	8.25	0.70	0.65 ± 11.0%
1810	± 50 / ± 100	40.0 ± 5%	1.40 ± 5%	7.11	7.11	7.11	0.85	0.58 ± 11.0%
1900	± 50 / ± 100	40.0 ± 5%	1.40 ± 5%	7.05	7.05	7.05	0.79	0.60 ± 11.0%
2300	± 50 / ± 100	39.5 ± 5%	1.67 ± 5%	6.78	6.78	6.78	0.74	0.59 ± 11.0%
2450	± 50 / ± 100	39.2 ± 5%	1.80 ± 5%	6.38	6.38	6.38	0.46	0.75 ± 11.0%
2600	± 50 / ± 100	39.0 ± 5%	1.96 ± 5%	6.41	6.41	6.41	0.40	0.85 ± 11.0%
3500	± 50 / ± 100	37.9 ± 5%	2.91 ± 5%	6.31	6.31	6.31	0.40	1.02 ± 13.1%
5200	± 50 / ± 100	36.0 ± 5%	4.66 ± 5%	4.18	4.18	4.18	0.45	1.80 ± 13.1%
5300	± 50 / ± 100	35.9 ± 5%	4.76 ± 5%	4.01	4.01	4.01	0.45	1.80 ± 13.1%
5500	± 50 / ± 100	35.6 ± 5%	4.96 ± 5%	3.90	3.90	3.90	0.50	1.80 ± 13.1%
5600	± 50 / ± 100	35.5 ± 5%	5.07 ± 5%	3.83	3.83	3.83	0.55	1.80 ± 13.1%
5800	± 50 / ± 100	35.3 ± 5%	5.27 ± 5%	3.72	3.72	3.72	0.50	1.80 ± 13.1%

<sup>c</sup> The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

## DASY/EASY - Parameters of Probe: EX3DV4 SN:3578

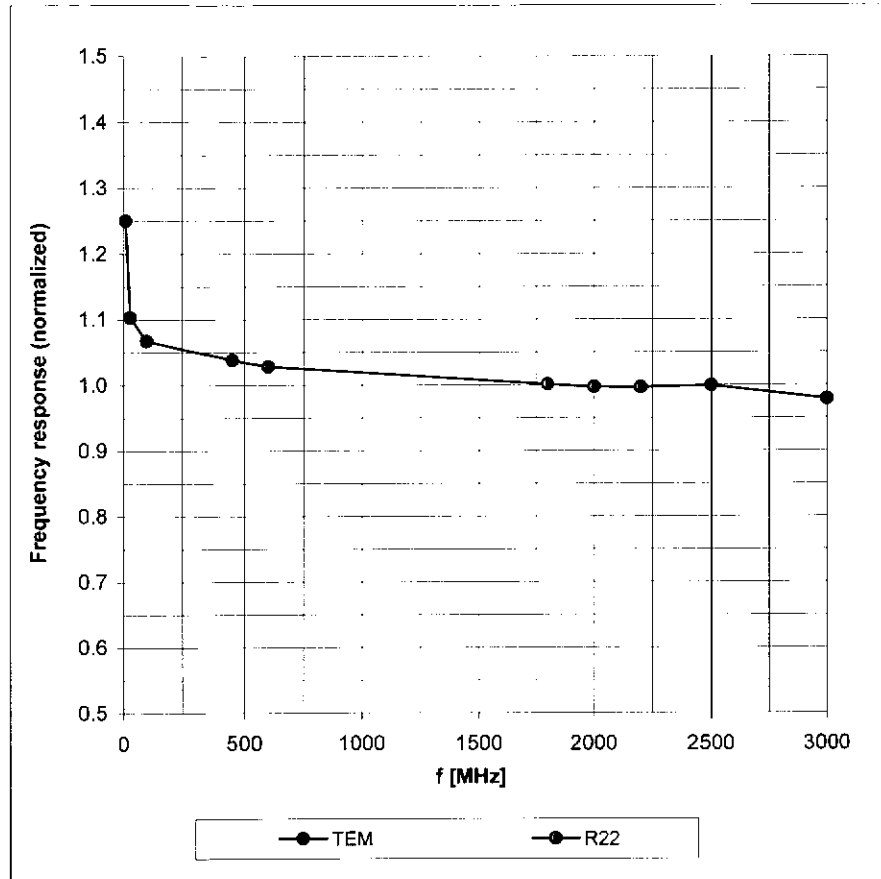
### Calibration Parameter Determined in Body Tissue Simulating Media

f [MHz]	Validity [MHz] <sup>c</sup>	Permittivity	Conductivity	ConvF X	ConvF Y	ConvF Z	Alpha	Depth Unc (k=2)
835	± 50 / ± 100	55.2 ± 5%	0.97 ± 5%	8.55	8.55	8.55	0.89	0.64 ± 11.0%
900	± 50 / ± 100	55.0 ± 5%	1.05 ± 5%	8.39	8.39	8.39	0.85	0.65 ± 11.0%
1810	± 50 / ± 100	53.3 ± 5%	1.52 ± 5%	6.81	6.81	6.81	0.81	0.64 ± 11.0%
1900	± 50 / ± 100	53.3 ± 5%	1.52 ± 5%	6.70	6.70	6.70	0.76	0.63 ± 11.0%
2300	± 50 / ± 100	52.8 ± 5%	1.85 ± 5%	6.67	6.67	6.67	0.34	0.92 ± 11.0%
2450	± 50 / ± 100	52.7 ± 5%	1.95 ± 5%	6.51	6.51	6.51	0.62	0.67 ± 11.0%
2600	± 50 / ± 100	52.5 ± 5%	2.16 ± 5%	6.53	6.53	6.53	0.43	0.82 ± 11.0%
3500	± 50 / ± 100	51.3 ± 5%	3.31 ± 5%	5.59	5.59	5.59	0.37	1.26 ± 13.1%
5200	± 50 / ± 100	49.0 ± 5%	5.30 ± 5%	3.59	3.59	3.59	0.63	1.95 ± 13.1%
5300	± 50 / ± 100	48.5 ± 5%	5.42 ± 5%	3.39	3.39	3.39	0.63	1.95 ± 13.1%
5500	± 50 / ± 100	48.6 ± 5%	5.65 ± 5%	3.32	3.32	3.32	0.63	1.95 ± 13.1%
5600	± 50 / ± 100	48.5 ± 5%	5.77 ± 5%	3.09	3.09	3.09	0.65	1.95 ± 13.1%
5800	± 50 / ± 100	48.2 ± 5%	6.00 ± 5%	3.29	3.29	3.29	0.65	1.95 ± 13.1%

<sup>c</sup> The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

# Frequency Response of E-Field

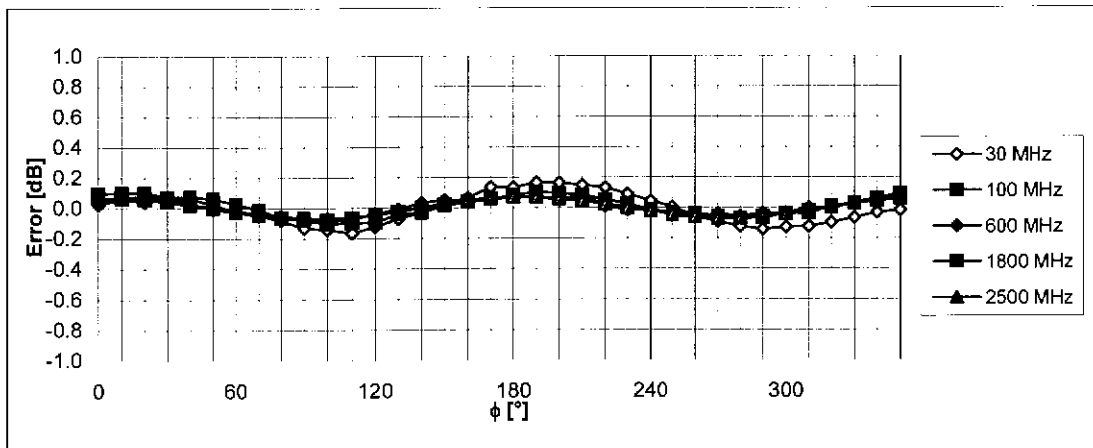
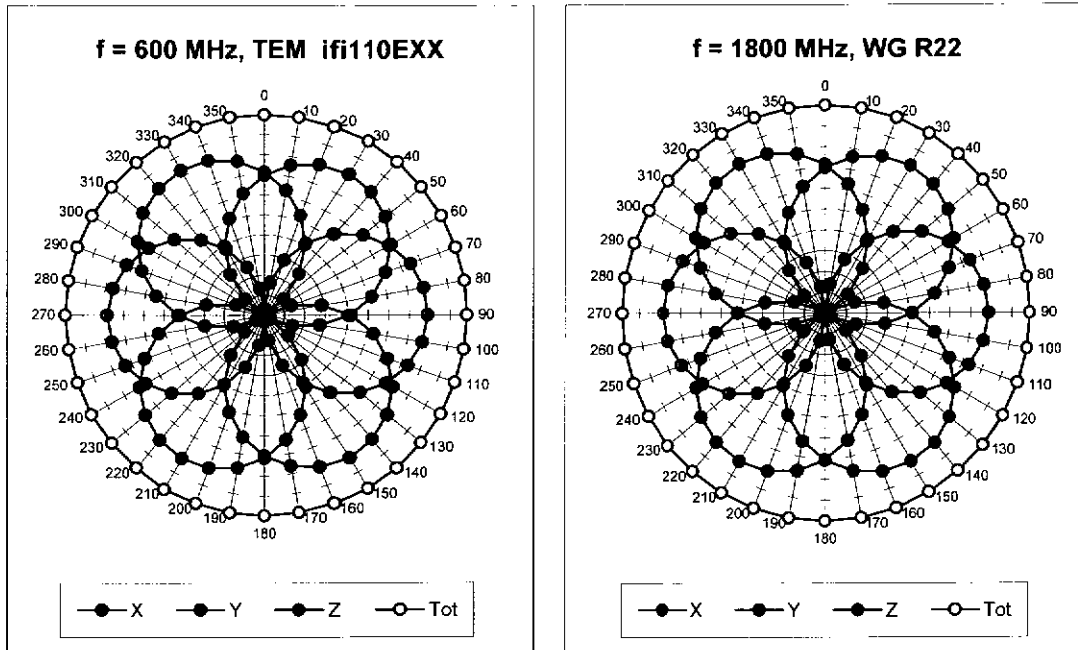
(TEM-Cell:ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

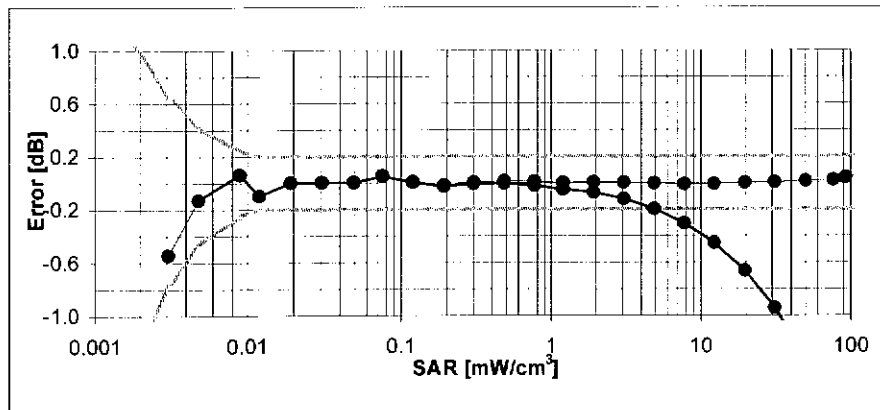
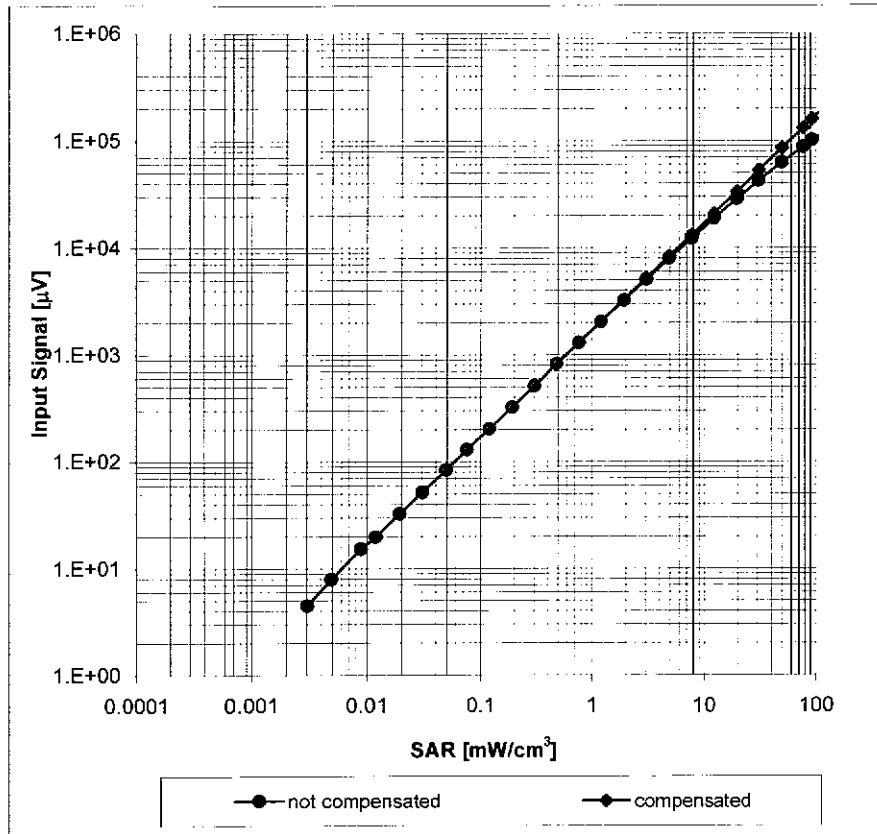


### Receiving Pattern ( $\phi$ ), $\vartheta = 0^\circ$



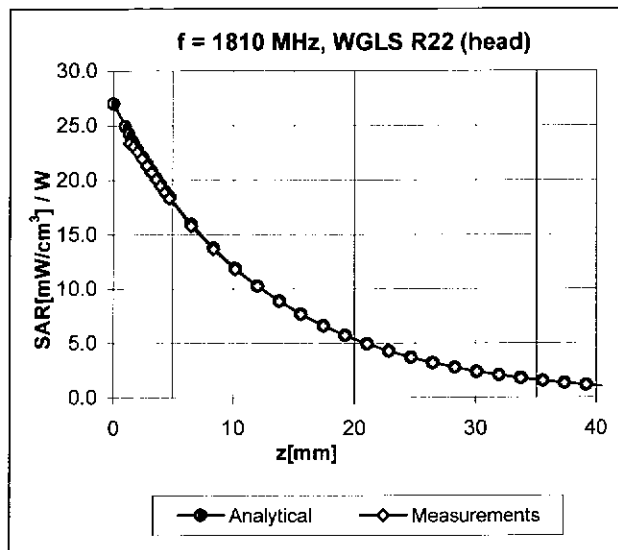
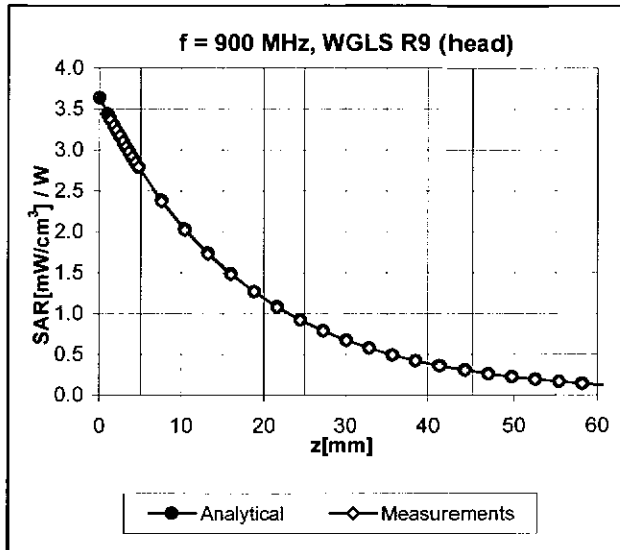
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  ( $k=2$ )

### Dynamic Range $f(SAR_{head})$ (Waveguide R22, $f = 1800$ MHz)



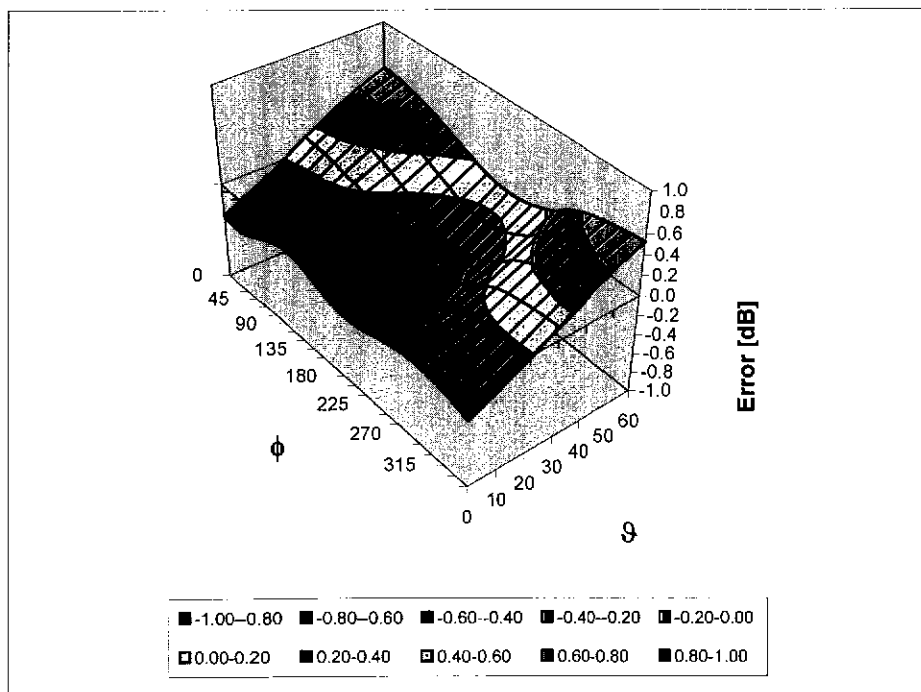
Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

### Conversion Factor Assessment



### Deviation from Isotropy in HSL

Error ( $\phi, \vartheta$ ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment:  $\pm 2.6\%$  (k=2)

## Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	Not applicable
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	2 mm

Test Laboratory: Compliance Certification Services Inc.

## D2450V2 SN-728 Body

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:728**

Communication System: CW2450; Frequency: 2450 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 2450$  MHz;  $\sigma = 1.96$  mho/m;  $\epsilon_r = 51.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Air Temperature: 24.6 deg C; Liquid Temperature: 23.6 deg C  
Area Scan Find Secondary Maximum Within 2dB and with a peak SAR value greater than 0.0012W/kg

### DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.51, 6.51, 6.51);
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn558; Calibrated: 2010/7/14
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN: 1052
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Pin=250mW,d=10mm/Area Scan (6x6x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 14.1 mW/g

**Pin=250mW,d=10mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 98.2 V/m; Power Drift = -0.033 dB

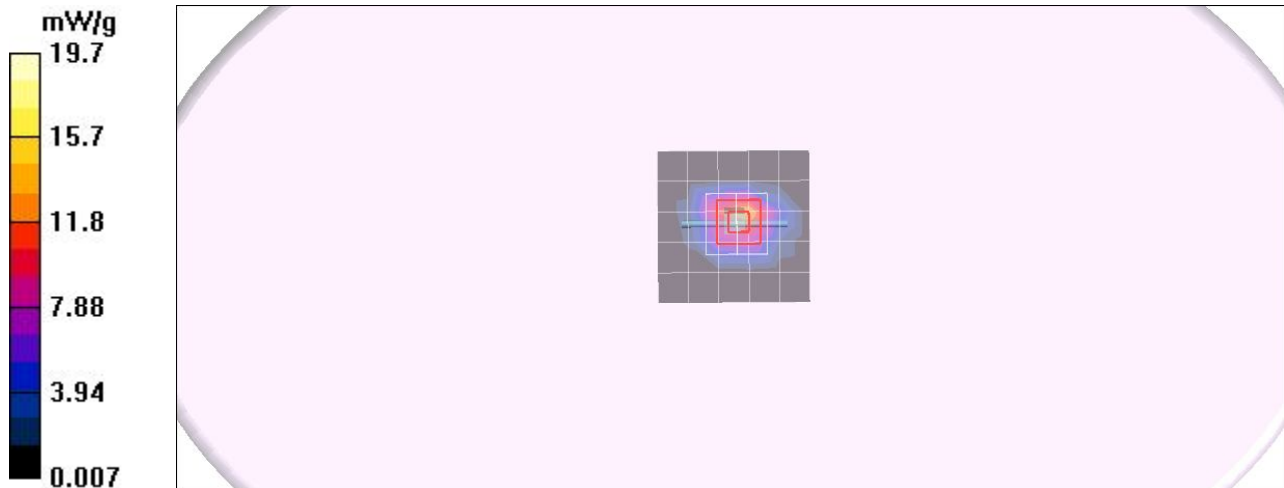
Peak SAR (extrapolated) = 27.8 W/kg

**SAR(1 g) = 13.4 mW/g; SAR(10 g) = 6.17 mW/g**

Maximum value of SAR (measured) = 19.1 mW/g

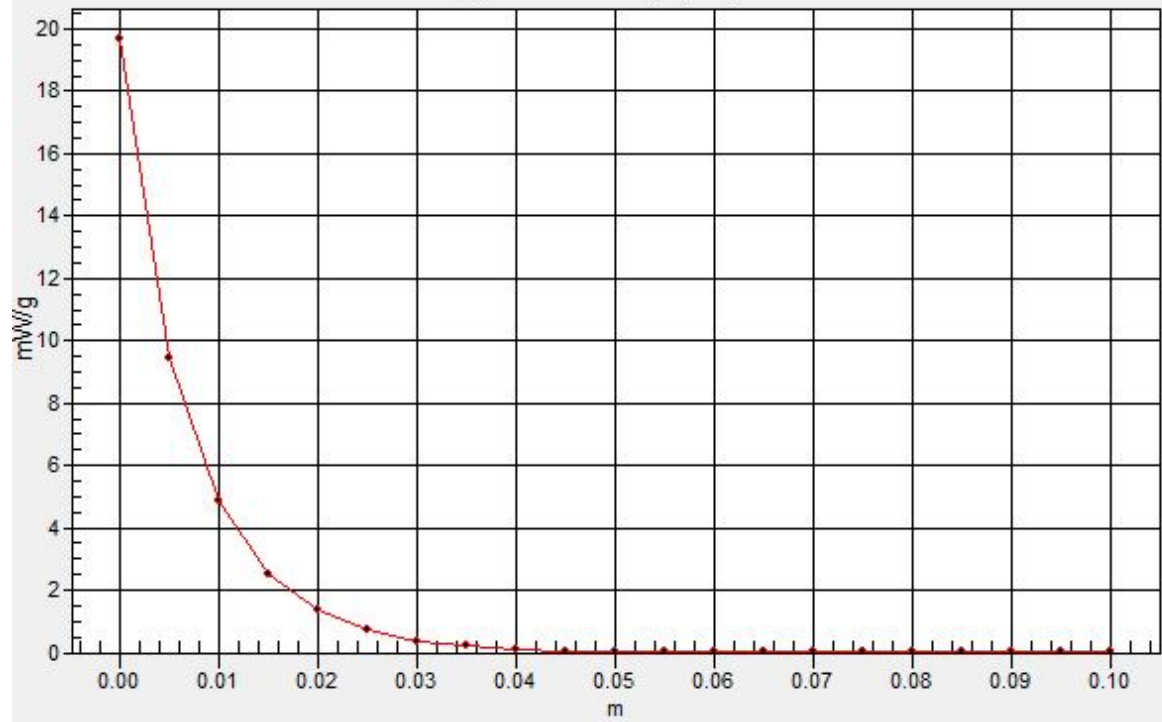
**Pin=250mW,d=10mm/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 19.7 mW/g



# SAR(x,y,z,f0)

SAR; Z Scan: Value Along Z, X=0, Y=0



Test Laboratory: Compliance Certification Services Inc.

### 80211b Body Bottom Flated mode P235

DUT: P235; Type: P235; Serial: N/A

Communication System: IEEE 802.11b WLAN; Frequency: 2412 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 2412 \text{ MHz}$ ;  $\sigma = 1.88 \text{ mho/m}$ ;  $\epsilon_r = 51.9$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section  
Air Temperature: 24.6 deg C; Liquid Temperature: 23.6 deg C  
Area Scan Find Secondary Maximum Within 2dB and with a peak SAR value greater than 0.0012W/kg

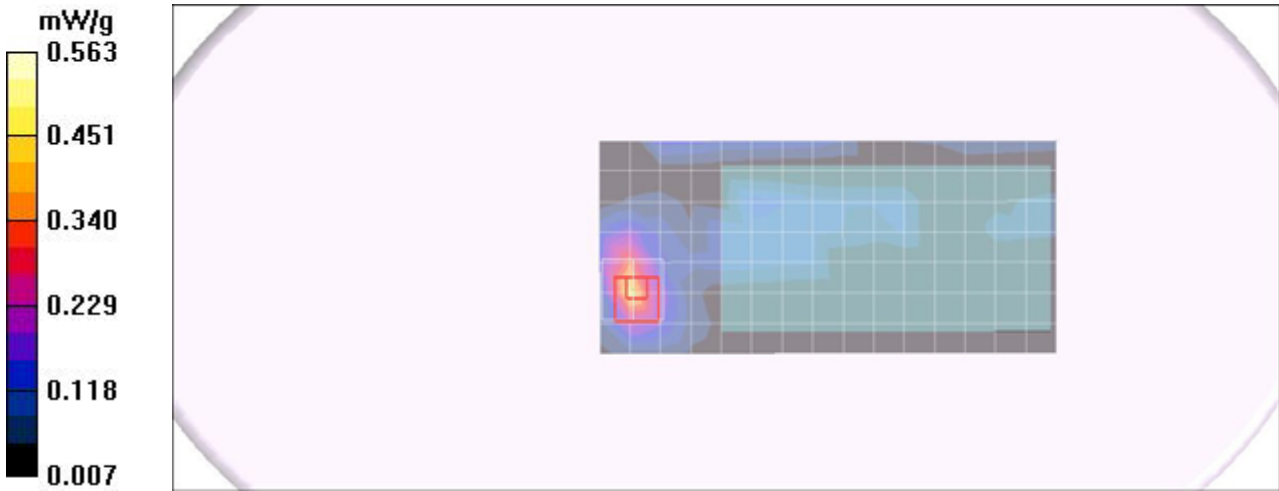
#### DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.51, 6.51, 6.51);
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn558; Calibrated: 2010/7/14
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN: 1052
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**80211b Low CH 1/Area Scan (8x16x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.650 mW/g

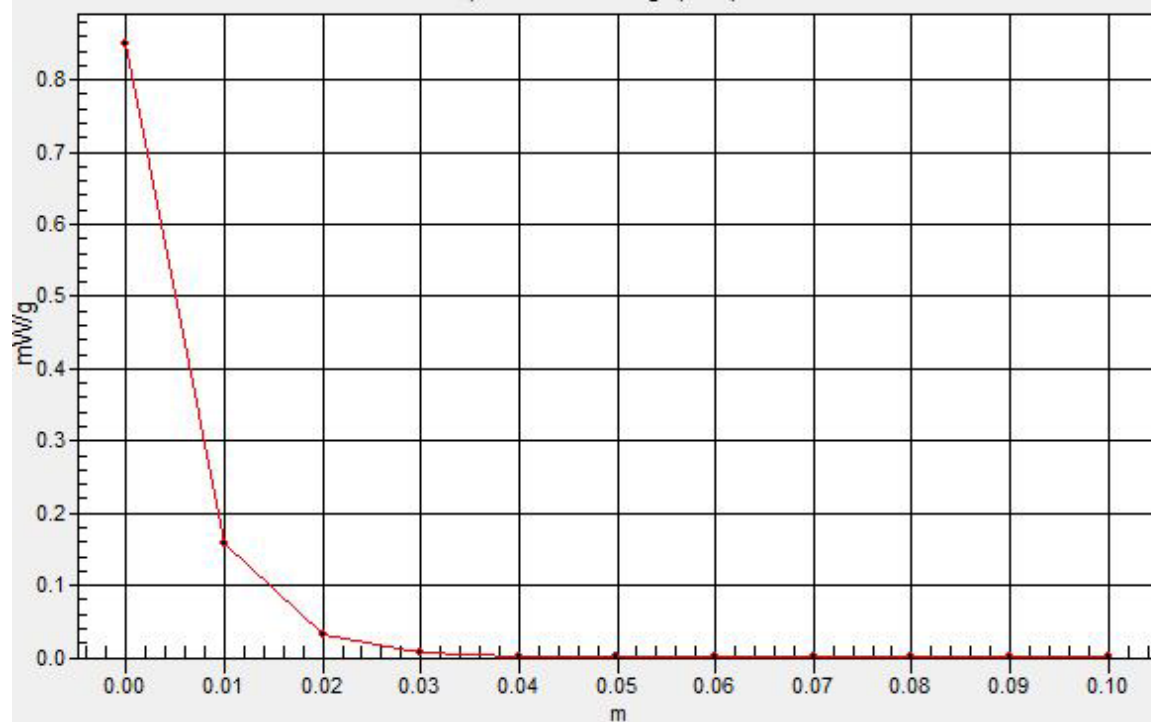
**80211b Low CH 1/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm  
Reference Value = 3.99 V/m; Power Drift = -0.115 dB  
Peak SAR (extrapolated) = 1.12 W/kg  
**SAR(1 g) = 0.501 mW/g; SAR(10 g) = 0.238 mW/g**  
Maximum value of SAR (measured) = 0.646 mW/g

**80211b Low CH 1/Z Scan (1x1x11):** Measurement grid: dx=20mm, dy=20mm, dz=10mm  
Maximum value of SAR (measured) = 0.663 mW/g



# SAR(x,y,z,f0)

SAR; Z Scan: Value Along Z, X=0, Y=0





Test Laboratory: Compliance Certification Services Inc.

## 80211b Body Face Up Touched mode P235

**DUT: P235; Type: P235; Serial: N/A**

Communication System: IEEE 802.11b WLAN; Frequency: 2412 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.88$  mho/m;  $\epsilon_r = 51.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Air Temperature: 24.6 deg C; Liquid Temperature: 23.6 deg C  
Area Scan Find Secondary Maximum Within 2dB and with a peak SAR value greater than 0.0012W/kg

### DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.51, 6.51, 6.51);
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn558; Calibrated: 2010/7/14
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN: 1052
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

### 80211b Low CH 1/Area Scan (8x16x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.129 mW/g

### 80211b Low CH 1/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 0.000 V/m; Power Drift = -0.102 dB

Peak SAR (extrapolated) = 0.277 W/kg

**SAR(1 g) = 0.132 mW/g; SAR(10 g) = 0.074 mW/g**

Maximum value of SAR (measured) = 0.167 mW/g

### 80211b Low CH 1/Zoom Scan (7x7x9)/Cube 1:

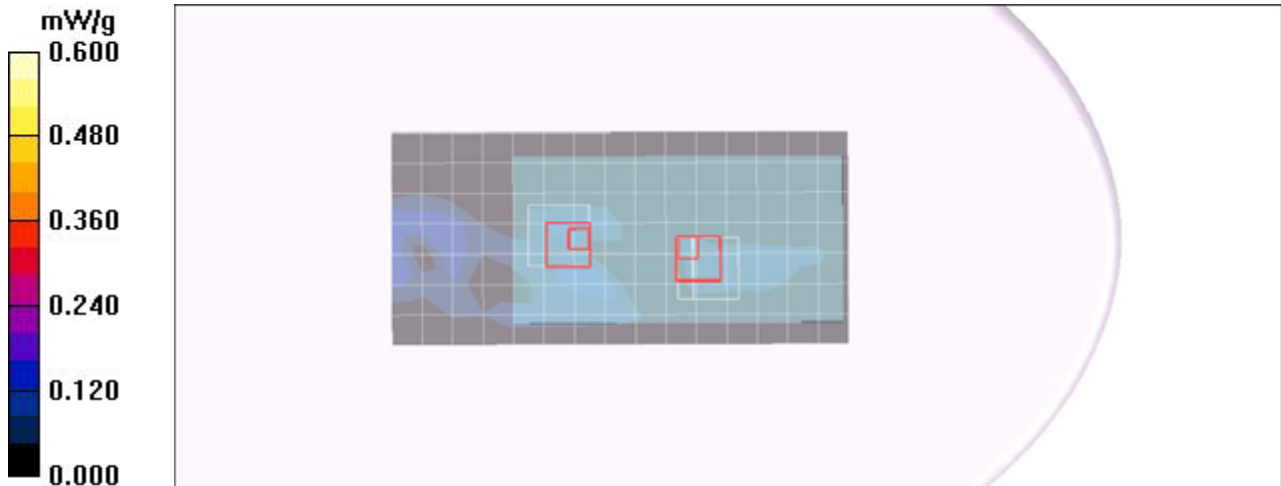
Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 0.000 V/m; Power Drift = -0.102 dB

Peak SAR (extrapolated) = 0.276 W/kg

**SAR(1 g) = 0.062 mW/g; SAR(10 g) = 0.014 mW/g**

Maximum value of SAR (measured) = 0.117 mW/g



Test Laboratory: Compliance Certification Services Inc.

## 80211b Body Rear edge mode P235

DUT: P235; Type: P235; Serial: N/A

Communication System: IEEE 802.11g WLAN; Frequency: 2412 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.88$  mho/m;  $\epsilon_r = 51.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Air Temperature: 24.6 deg C; Liquid Temperature: 23.6 deg C  
Area Scan Find Secondary Maximum Within 2dB and with a peak SAR value greater than 0.0012W/kg

### DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.38, 6.38, 6.38);
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn558; Calibrated: 2010/7/14
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN: 1052
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

### 80211b Low CH 1/Area Scan (6x16x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.145 mW/g

### 80211b Low CH 1/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 8.27 V/m; Power Drift = -0.101 dB

Peak SAR (extrapolated) = 0.446 W/kg

SAR(1 g) = 0.138 mW/g; SAR(10 g) = 0.037 mW/g

Maximum value of SAR (measured) = 0.215 mW/g

### 80211b Low CH 1/Zoom Scan (7x7x9)/Cube 1:

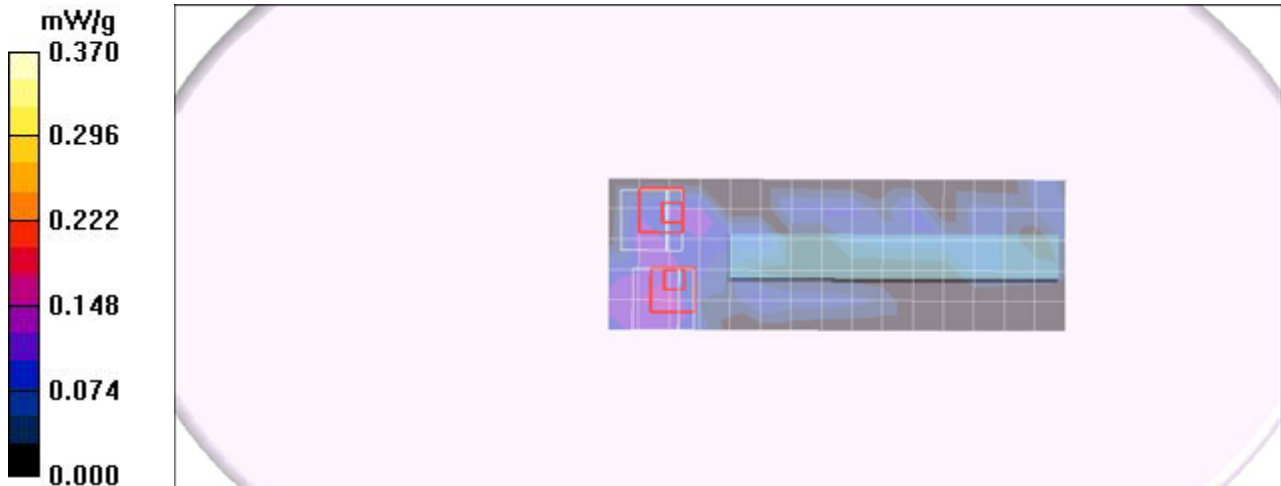
Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 8.27 V/m; Power Drift = -0.101 dB

Peak SAR (extrapolated) = 0.188 W/kg

SAR(1 g) = 0.077 mW/g; SAR(10 g) = 0.036 mW/g

Maximum value of SAR (measured) = 0.117 mW/g



Test Laboratory: Compliance Certification Services Inc.

## 80211g Body Bottom Flated mode P235

DUT: P235; Type: P235; Serial: N/A

Communication System: IEEE 802.11g WLAN; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.88$  mho/m;  $\epsilon_r = 51.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Air Temperature: 24.6 deg C; Liquid Temperature: 23.6 deg C

Area Scan Find Secondary Maximum Within 2dB and with a peak SAR value greater than 0.0012W/kg

### DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.51, 6.51, 6.51);
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn558; Calibrated: 2010/7/14
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN: 1052
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

### 80211g Low CH 1/Area Scan (8x16x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.450 mW/g

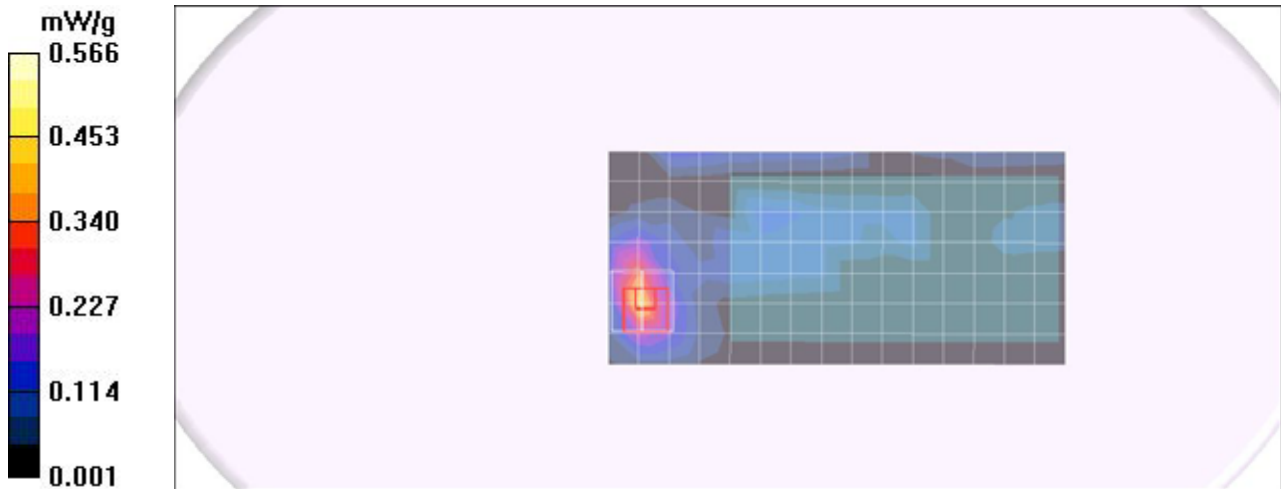
### 80211g Low CH 1/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 2.89 V/m; Power Drift = -0.082 dB

Peak SAR (extrapolated) = 0.894 W/kg

SAR(1 g) = 0.397 mW/g; SAR(10 g) = 0.177 mW/g

Maximum value of SAR (measured) = 0.566 mW/g



Test Laboratory: Compliance Certification Services Inc.

## 80211g Body Face Up Flated mode P235

DUT: P235; Type: P235; Serial: N/A

Communication System: IEEE 802.11g WLAN; Frequency: 2412 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.88$  mho/m;  $\epsilon_r = 51.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Air Temperature: 24.6 deg C; Liquid Temperature: 23.6 deg C  
Area Scan Find Secondary Maximum Within 2dB and with a peak SAR value greater than 0.0012W/kg

### DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.38, 6.38, 6.38);
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn558; Calibrated: 2010/7/14
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN: 1052
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

### 80211g Low CH 1/Area Scan (8x16x1): Measurement grid: dx=15mm, dy=15mm

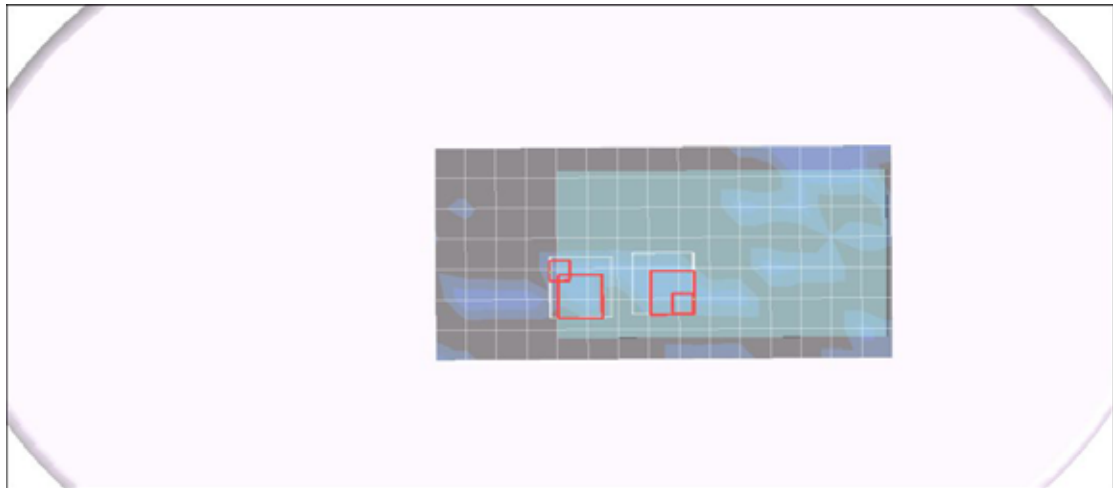
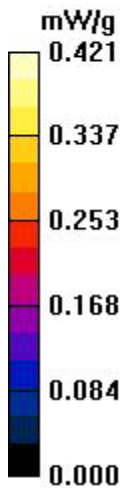
Maximum value of SAR (measured) = 0.085 mW/g

### 80211g Low CH 1/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 5.56 V/m; Power Drift = -0.099 dB  
Peak SAR (extrapolated) = 0.186 W/kg  
SAR(1 g) = 0.029 mW/g; SAR(10 g) = 0.00688 mW/g  
Maximum value of SAR (measured) = 0.121 mW/g

### 80211g Low CH 1/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 5.56 V/m; Power Drift = -0.099 dB  
Peak SAR (extrapolated) = 0.221 W/kg  
SAR(1 g) = 0.013 mW/g; SAR(10 g) = 0.00691 mW/g  
Maximum value of SAR (measured) = 0.161 mW/g



Test Laboratory: Compliance Certification Services Inc.

## 80211g Body Rear edge mode P235

DUT: P235; Type: P235; Serial: N/A

Communication System: IEEE 802.11g WLAN; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.88$  mho/m;  $\epsilon_r = 51.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Air Temperature: 24.6 deg C; Liquid Temperature: 23.6 deg C

Area Scan Find Secondary Maximum Within 2dB and with a peak SAR value greater than 0.0012W/kg

### DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.38, 6.38, 6.38);
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn558; Calibrated: 2010/7/14
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN: 1052
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

### 80211g Low CH 1/Area Scan (6x16x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.087 mW/g

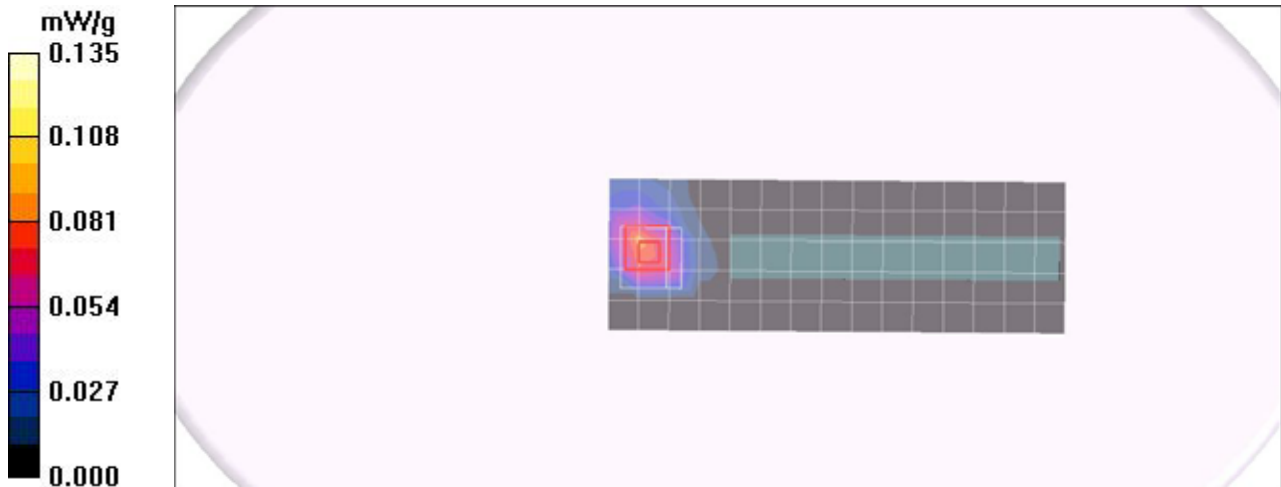
### 80211g Low CH 1/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 2.14 V/m; Power Drift = -0.062 dB

Peak SAR (extrapolated) = 0.200 W/kg

SAR(1 g) = 0.083 mW/g; SAR(10 g) = 0.037 mW/g

Maximum value of SAR (measured) = 0.135 mW/g



Test Laboratory: Compliance Certification Services Inc.

## 80211b Body Down Flated P235-1

**DUT: P235-1; Type: P235-1; Serial: N/A**

Communication System: IEEE 802.11b WLAN; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.88$  mho/m;  $\epsilon_r = 51.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Air Temperature: 24.6 deg C; Liquid Temperature: 23.6 deg C

Area Scan Find Secondary Maximum Within 2dB and with a peak SAR value greater than 0.0012W/kg

### DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.38, 6.38, 6.38);
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn558; Calibrated: 2010/7/14
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN: 1052
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

### 80211b Low CH 1/Area Scan (8x15x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.018 mW/g

### 80211b Low CH 1/Zoom Scan (7x7x9)/Cube 0:

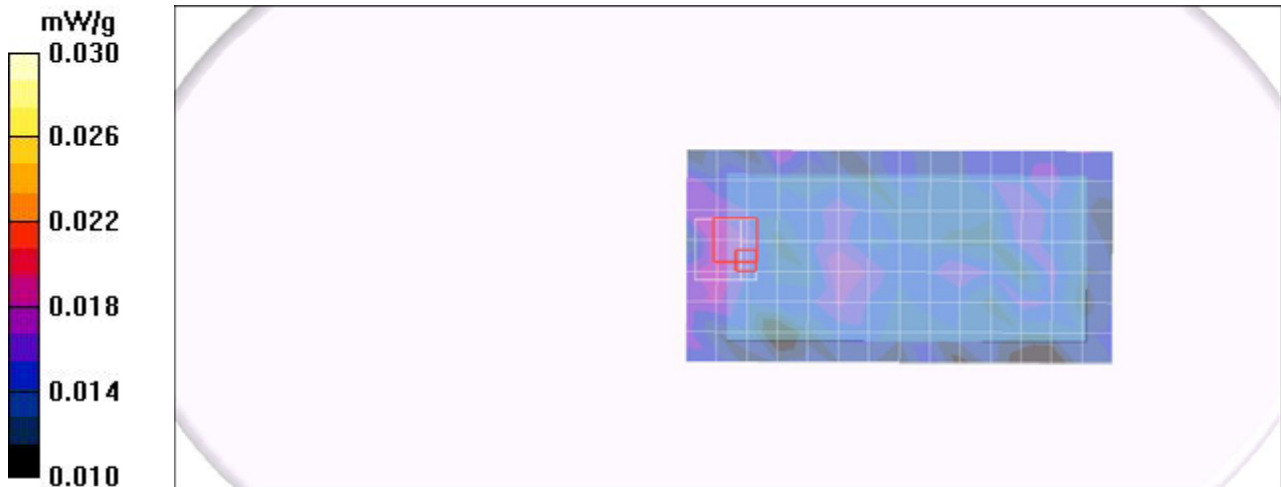
Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 3.46 V/m; Power Drift = -0.149 dB

Peak SAR (extrapolated) = 0.027 W/kg

**SAR(1 g) = 0.018 mW/g; SAR(10 g) = 0.017 mW/g**

Maximum value of SAR (measured) = 0.022 mW/g



Test Laboratory: Compliance Certification Services Inc.

## 80211b Body Face Up Flated mode P235-1

**DUT: P235-1; Type: P235-1; Serial: N/A**

Communication System: IEEE 802.11b WLAN; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.88$  mho/m;  $\epsilon_r = 51.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Air Temperature: 24.6 deg C; Liquid Temperature: 23.6 deg C

Area Scan Find Secondary Maximum Within 2dB and with a peak SAR value greater than 0.0012W/kg

### DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.38, 6.38, 6.38);
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn558; Calibrated: 2010/7/14
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN: 1052
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

### 80211g Low CH 1/Area Scan (8x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.014 mW/g

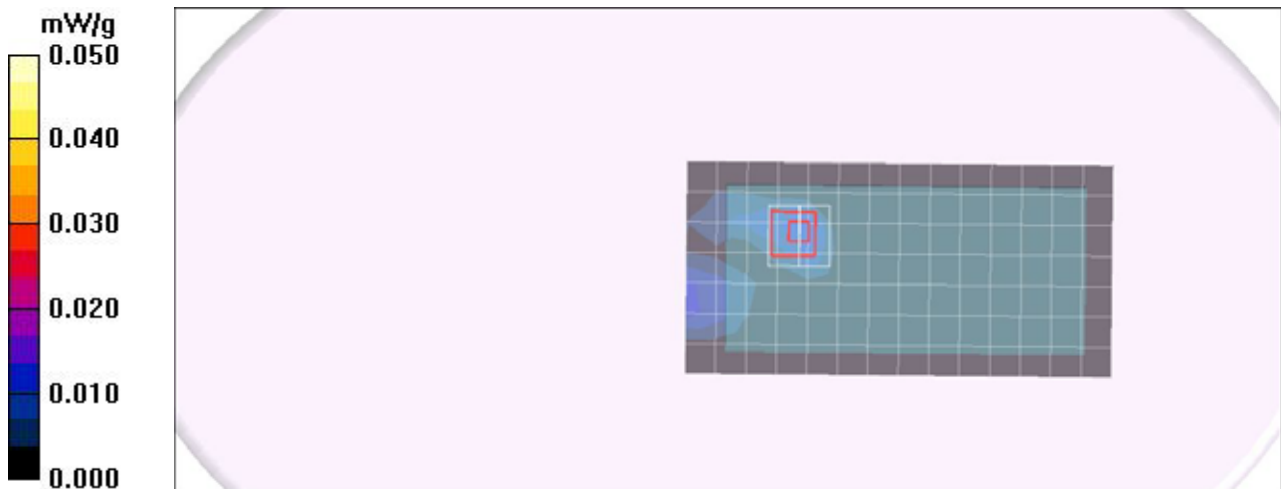
### 80211g Low CH 1/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 1.61 V/m; Power Drift = -0.106 dB

Peak SAR (extrapolated) = 0.037 W/kg

**SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.00408 mW/g**

Maximum value of SAR (measured) = 0.016 mW/g



Test Laboratory: Compliance Certification Services Inc.

## 80211b Body Rear edge mode P235-1

**DUT: P235-1; Type: P235-1; Serial: N/A**

Communication System: IEEE 802.11b WLAN; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.88$  mho/m;  $\epsilon_r = 51.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Air Temperature: 24.6 deg C; Liquid Temperature: 23.6 deg C

Area Scan Find Secondary Maximum Within 2dB and with a peak SAR value greater than 0.0012W/kg

### DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.38, 6.38, 6.38);
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn558; Calibrated: 2010/7/14
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN: 1052
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

### 80211b Low CH 1/Area Scan (6x17x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.133 mW/g

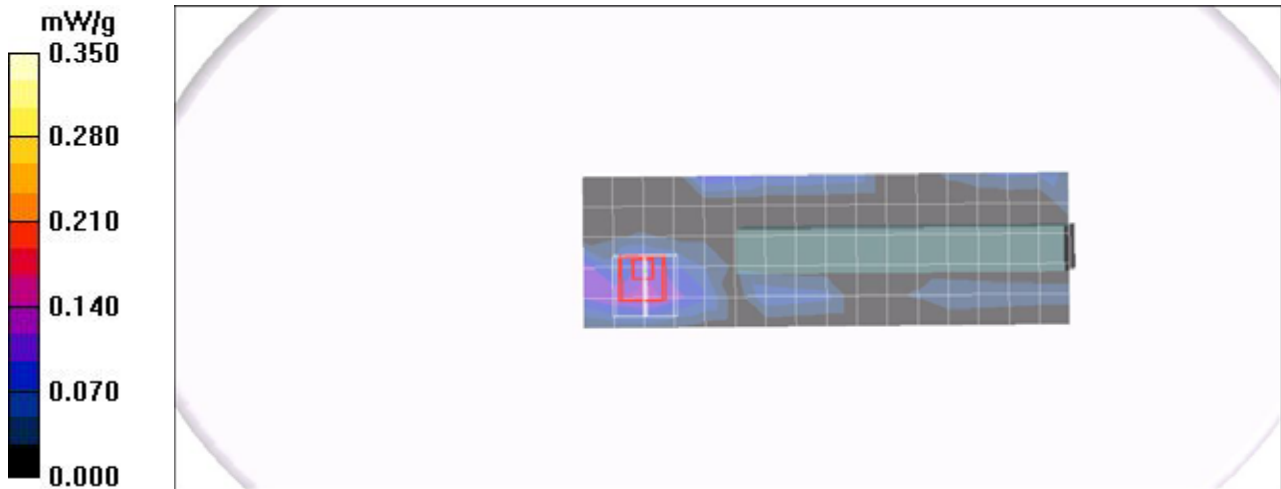
### 80211b Low CH 1/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 3.90 V/m; Power Drift = -0.137 dB

Peak SAR (extrapolated) = 0.177 W/kg

**SAR(1 g) = 0.076 mW/g; SAR(10 g) = 0.036 mW/g**

Maximum value of SAR (measured) = 0.106 mW/g





Test Laboratory: Compliance Certification Services Inc.

## 80211g Body Bottom Flated mode P235-1

**DUT: P235-1; Type: P235-1; Serial: N/A**

Communication System: IEEE 802.11g WLAN; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.88$  mho/m;  $\epsilon_r = 51.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Air Temperature: 24.6 deg C; Liquid Temperature: 23.6 deg C

Area Scan Find Secondary Maximum Within 2dB and with a peak SAR value greater than 0.0012W/kg

### DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.38, 6.38, 6.38);
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn558; Calibrated: 2010/7/14
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN: 1052
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

### 80211g Low CH 1/Area Scan (8x17x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.557 mW/g

### 80211g Low CH 1/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 1.22 V/m; Power Drift = -0.123 dB

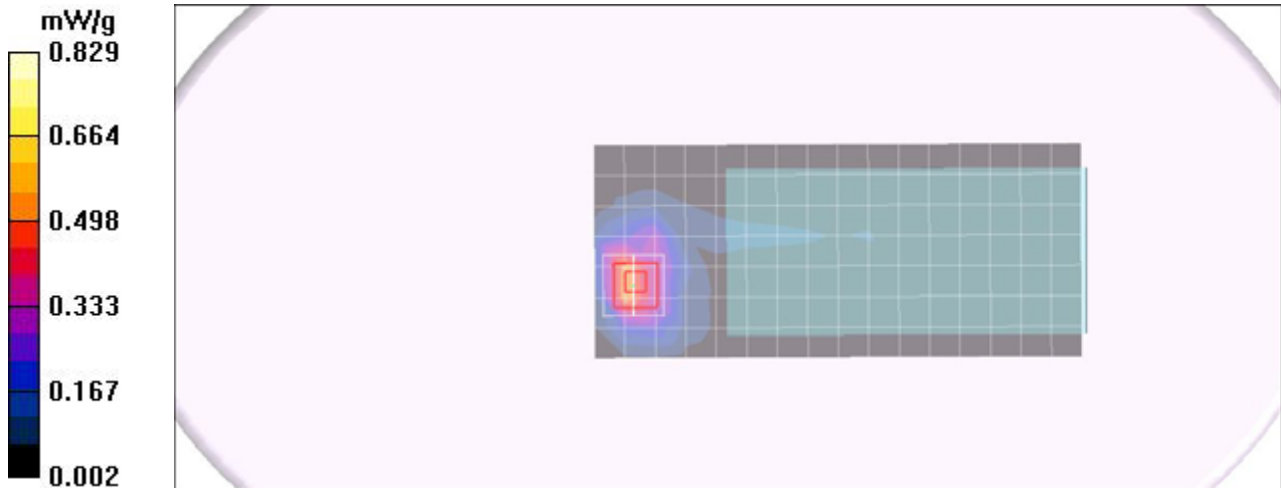
Peak SAR (extrapolated) = 1.31 W/kg

**SAR(1 g) = 0.355 mW/g; SAR(10 g) = 0.237 mW/g**

Maximum value of SAR (measured) = 0.829 mW/g

### 80211g Low CH 1/Z Scan (1x1x11): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 0.850 mW/g



Test Laboratory: Compliance Certification Services Inc.

## 80211g Body Face Up Flated mode P235-1

**DUT: P235-1; Type: P235-1; Serial: N/A**

Communication System: IEEE 802.11g WLAN; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.88$  mho/m;  $\epsilon_r = 51.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Air Temperature: 24.6 deg C; Liquid Temperature: 23.6 deg C

Area Scan Find Secondary Maximum Within 2dB and with a peak SAR value greater than 0.0012W/kg

### DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.38, 6.38, 6.38);
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn558; Calibrated: 2010/7/14
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN: 1052
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

### 80211g Low CH 1/Area Scan (8x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.009 mW/g

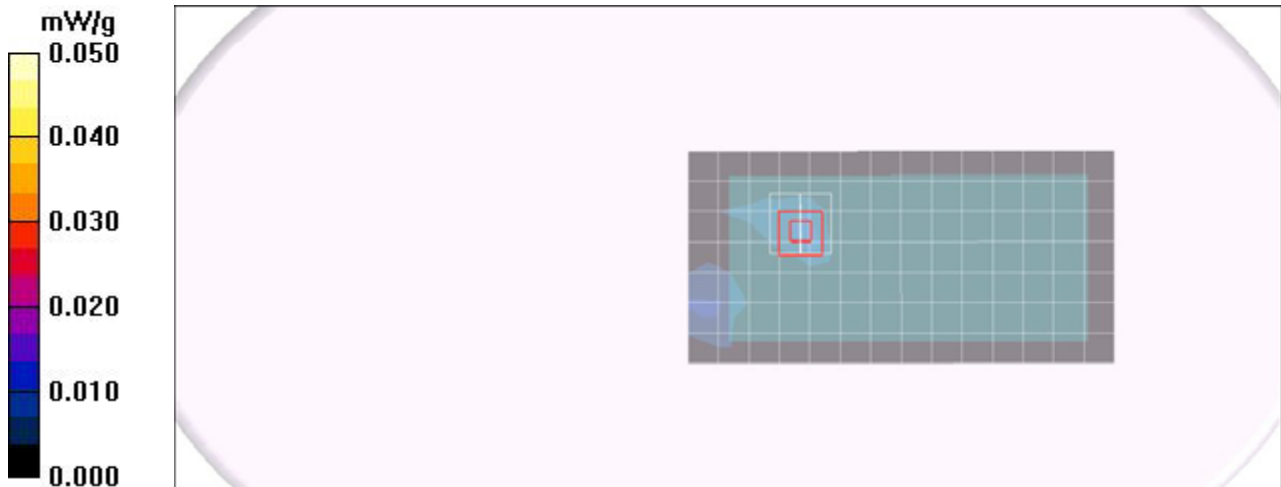
### 80211g Low CH 1/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 0.830 V/m; Power Drift = -0.103 dB

Peak SAR (extrapolated) = 0.015 W/kg

**SAR(1 g) = 0.0585 mW/g; SAR(10 g) = 0.0203 mW/g**

Maximum value of SAR (measured) = 0.009 mW/g



Test Laboratory: Compliance Certification Services Inc.

## 80211g Body Rear edge mode P235-1

**DUT: P235-1; Type: P235-1; Serial: N/A**

Communication System: IEEE 802.11g WLAN; Frequency: 2412 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.88$  mho/m;  $\epsilon_r = 51.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Air Temperature: 24.6 deg C; Liquid Temperature: 23.6 deg C  
Area Scan Find Secondary Maximum Within 2dB and with a peak SAR value greater than 0.0012W/kg

### DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.38, 6.38, 6.38);
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn558; Calibrated: 2010/7/14
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN: 1052
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

### 80211g Low CH 1/Area Scan (6x17x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.137 mW/g

### 80211g Low CH 1/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 4.90 V/m; Power Drift = -0.113 dB  
Peak SAR (extrapolated) = 0.192 W/kg  
**SAR(1 g) = 0.056 mW/g; SAR(10 g) = 0.020 mW/g**  
Maximum value of SAR (measured) = 0.143 mW/g

### 80211g Low CH 1/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 4.90 V/m; Power Drift = -0.113 dB  
Peak SAR (extrapolated) = 0.317 W/kg  
**SAR(1 g) = 0.140 mW/g; SAR(10 g) = 0.043 mW/g**  
Maximum value of SAR (measured) = 0.142 mW/g

