

APPENDIX A: TEST CONFIGURATIONS AND TEST DATA

A1: TEST CONFIGURATION

Mode 1 Main Antenna Bottom Position



The bottom of the EUT to the flat phantom distance 0 mm

Mode 2 Main Antenna Tip Position



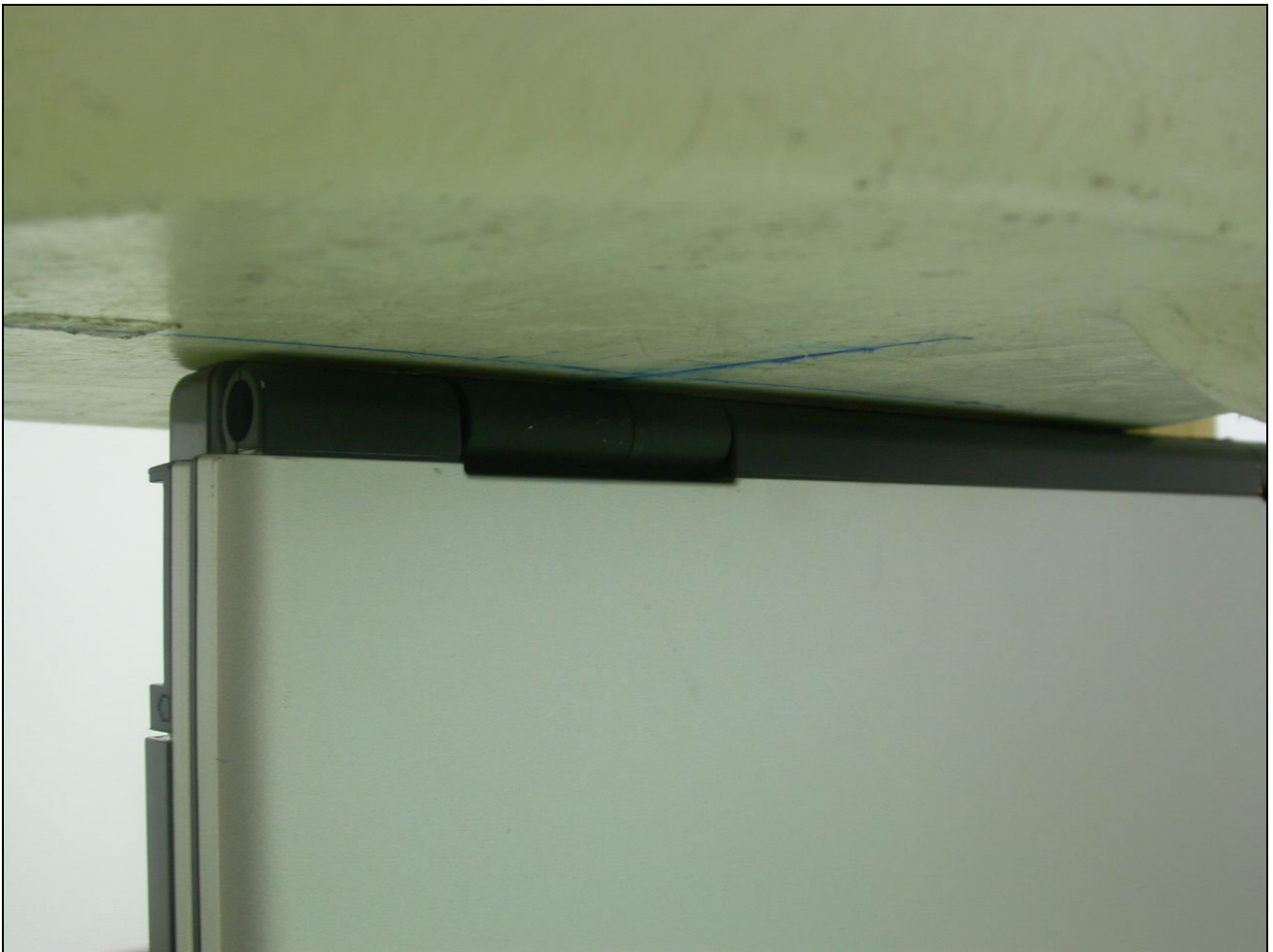
The tip of the EUT to the flat phantom distance 0 mm

Mode 3 Auxiliary Antenna Bottom Position



The bottom of the EUT to the flat phantom distance 0 mm

Mode 4 Auxiliary Antenna Tip Position



The tip of the EUT to the flat phantom distance 0 mm

Mode 5 Main Antenna Tip Position



The tip of the EUT to the flat phantom distance 0 mm

Mode 6 Auxiliary Antenna Tip Position



The tip of the EUT to the flat phantom distance 0 mm

EUT Photo





Liquid Level Photo

MSL 2450MHz D=155mm



A2 : TEST DATA

Date/Time: 10/07/04 17:35:17

Test Laboratory: Advance Data Technology

255KI1 11b Main Antenna Bottom Mode 1 Ch 1

DUT: Notebook ; Type: 255KI1 ; Test Channel Frequency: 2412 MHz

Communication System: 802.11b ; Frequency: 2412 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
Medium: MSL2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.94$ mho/m; $\epsilon_r = 51$; $\rho = 1000$

kg/m^3 ; Liquid level : 155mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2004/8/17
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22 ; Postprocessing SW: SEMCAD, V1.8 Build 127

Low Channel/Area Scan (6x8x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.00435 mW/g

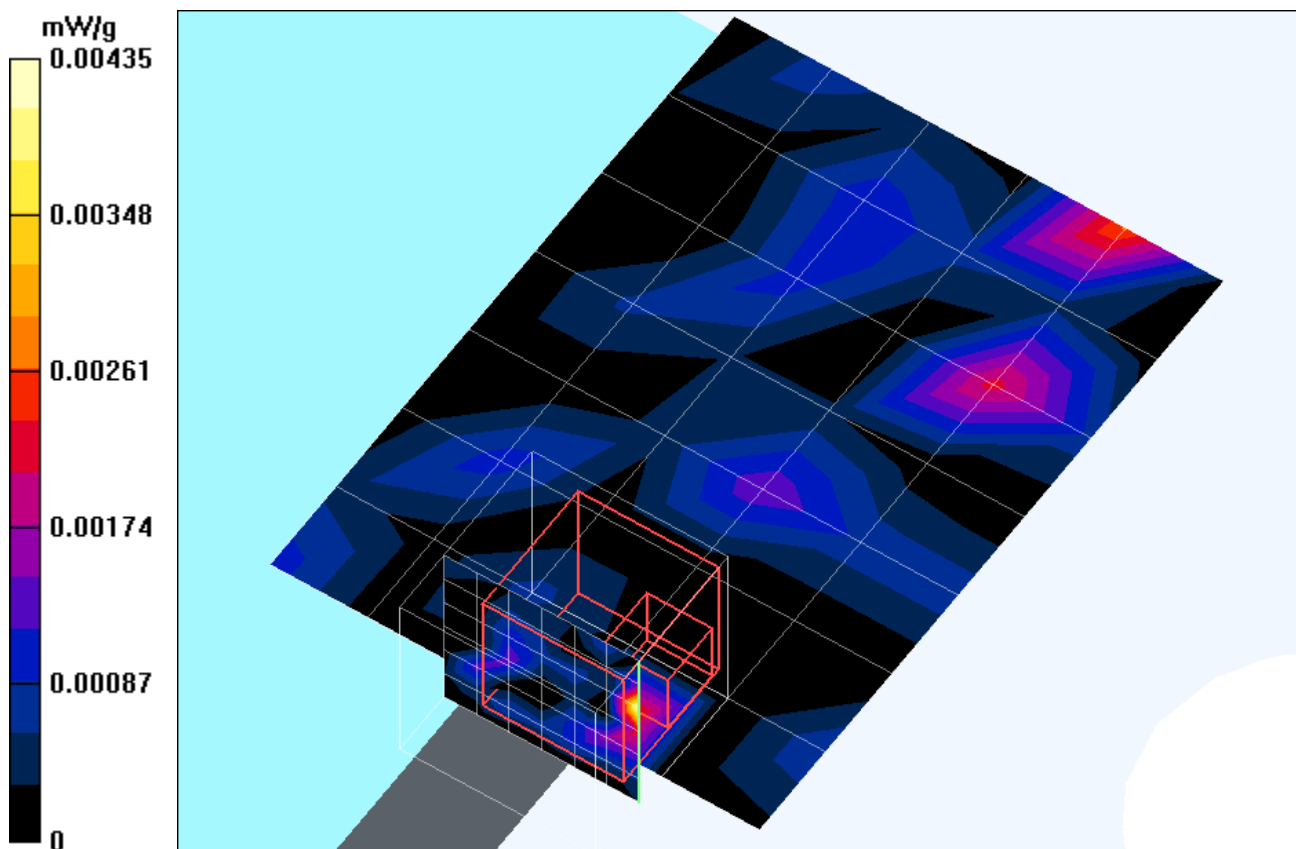
Low Channel/Zoon Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 0.361 V/m; Power Drift = 0.2 dB

Peak SAR (extrapolated) = 0.015 W/kg

SAR(1 g) = 0.000251 mW/g; SAR(10 g) = 5.05e-005 mW/g

Maximum value of SAR (measured) = 0.015 mW/g



Test Laboratory: Advance Data Technology

255KI1 11b Main Antenna Bottom Mode 1 Ch 6**DUT: Notebook ; Type: 255KI1 ; Test Channel Frequency: 2437 MHz**

Communication System: 802.11b ; Frequency: 2437 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.98$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$

kg/m^3 ; Liquid level : 155mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2004/8/17
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22 ; Postprocessing SW: SEMCAD, V1.8 Build 127

Middle Channel/Area Scan (6x8x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.00341 mW/g

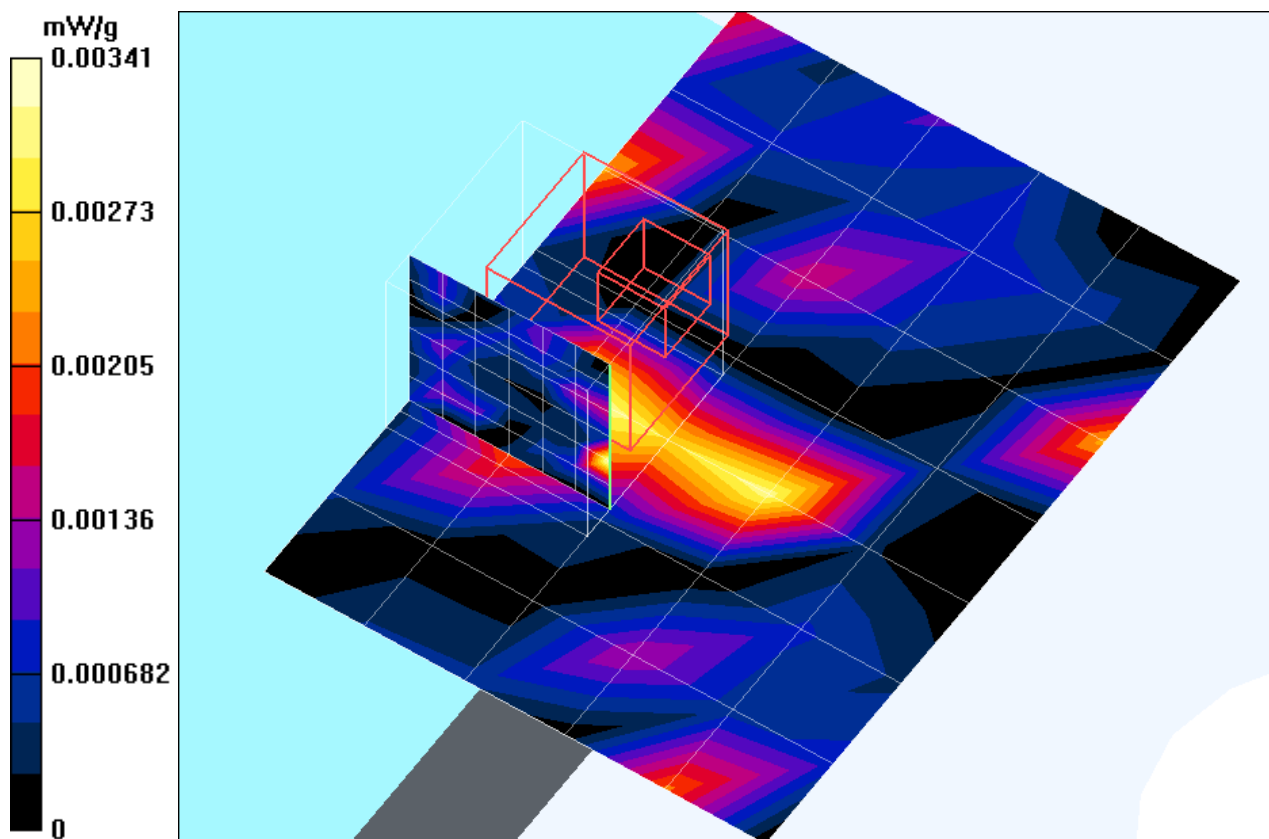
Middle Channel/Zoon Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 0.958 V/m; Power Drift = -0.2 dB

Peak SAR (extrapolated) = 0.014 W/kg

SAR(1 g) = 0.000284 mW/g; SAR(10 g) = 5.27e-005 mW/g

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



Test Laboratory: Advance Data Technology

255KI1 11b Main Antenna Bottom Mode 1 Ch 11**DUT: Notebook ; Type: 255KI1 ; Test Channel Frequency: 2462 MHz**

Communication System: 802.11b ; Frequency: 2462 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 2.02 \text{ mho/m}$; $\epsilon_r = 50.9$; $\rho = 1000$

kg/m^3 ; Liquid level : 155mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2004/8/17
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22 ; Postprocessing SW: SEMCAD, V1.8 Build 127

High Channel/Area Scan (6x8x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.00678 mW/g

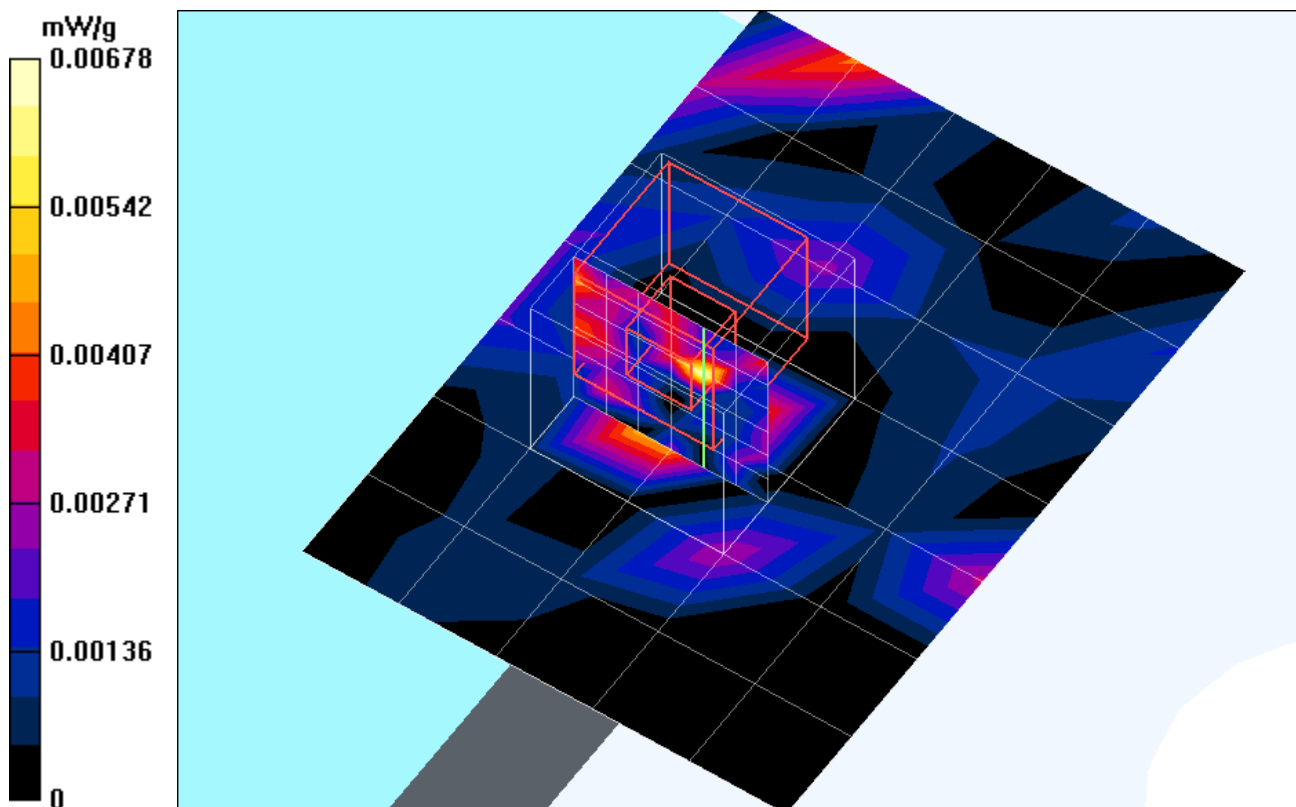
High Channel/Zoon Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 0.962 V/m; Power Drift = -0.2 dB

Peak SAR (extrapolated) = 0.00786 W/kg

SAR(1 g) = 0.000223 mW/g; SAR(10 g) = 5.29e-005 mW/g

Maximum value of SAR (measured) = 0.00786 mW/g



Test Laboratory: Advance Data Technology

255KI1 11b Main Antenna Tip Mode 2 Ch 1**DUT: Notebook ; Type: 255KI1 ; Test Channel Frequency: 2412 MHz**

Communication System: 802.11b ; Frequency: 2412 MHz; Duty Cycle: 1:1; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.94$ mho/m; $\epsilon_r = 51$; $\rho = 1000$

kg/m^3 ; Liquid level : 155 mm

Phantom section: Flat Section ; Separation distance : 0 mm (The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2004/8/17
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

Low Channel/Area Scan (6x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.451 mW/g

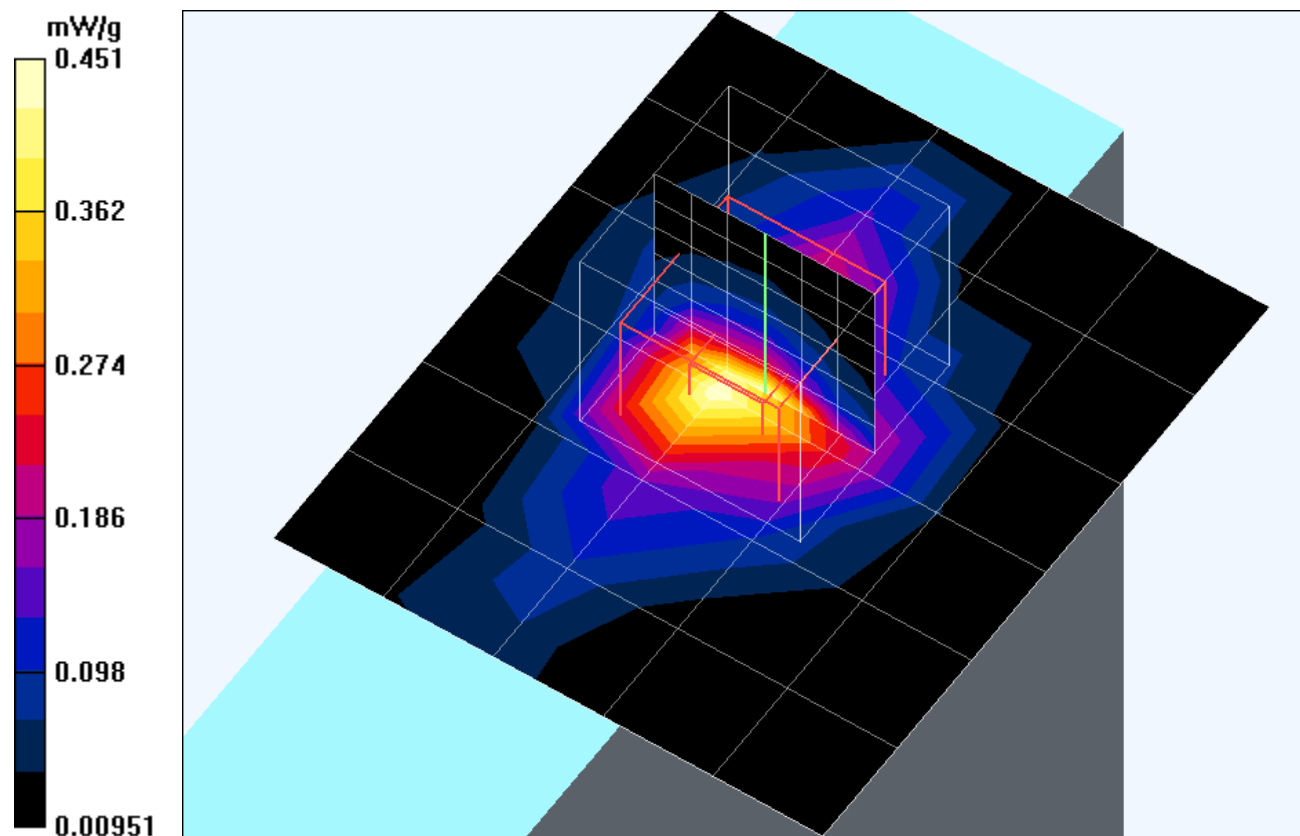
Low Channel/Zoon Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.4 V/m; Power Drift = -0.2 dB

Peak SAR (extrapolated) = 0.966 W/kg

SAR(1 g) = 0.461 mW/g; SAR(10 g) = 0.220 mW/g

Maximum value of SAR (measured) = 0.520 mW/g



Test Laboratory: Advance Data Technology

255KI1 11b Main Antenna Tip Mode 2 Ch 6**DUT: Notebook ; Type: 255KI1 ; Test Channel Frequency: 2437 MHz**

Communication System: 802.11b ; Frequency: 2437 MHz; Duty Cycle: 1:1; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.98$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$

kg/m^3 ; Liquid level : 155 mm

Phantom section: Flat Section ; Separation distance : 0 mm (The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2004/8/17
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

Middle Channel/Area Scan (6x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.430 mW/g

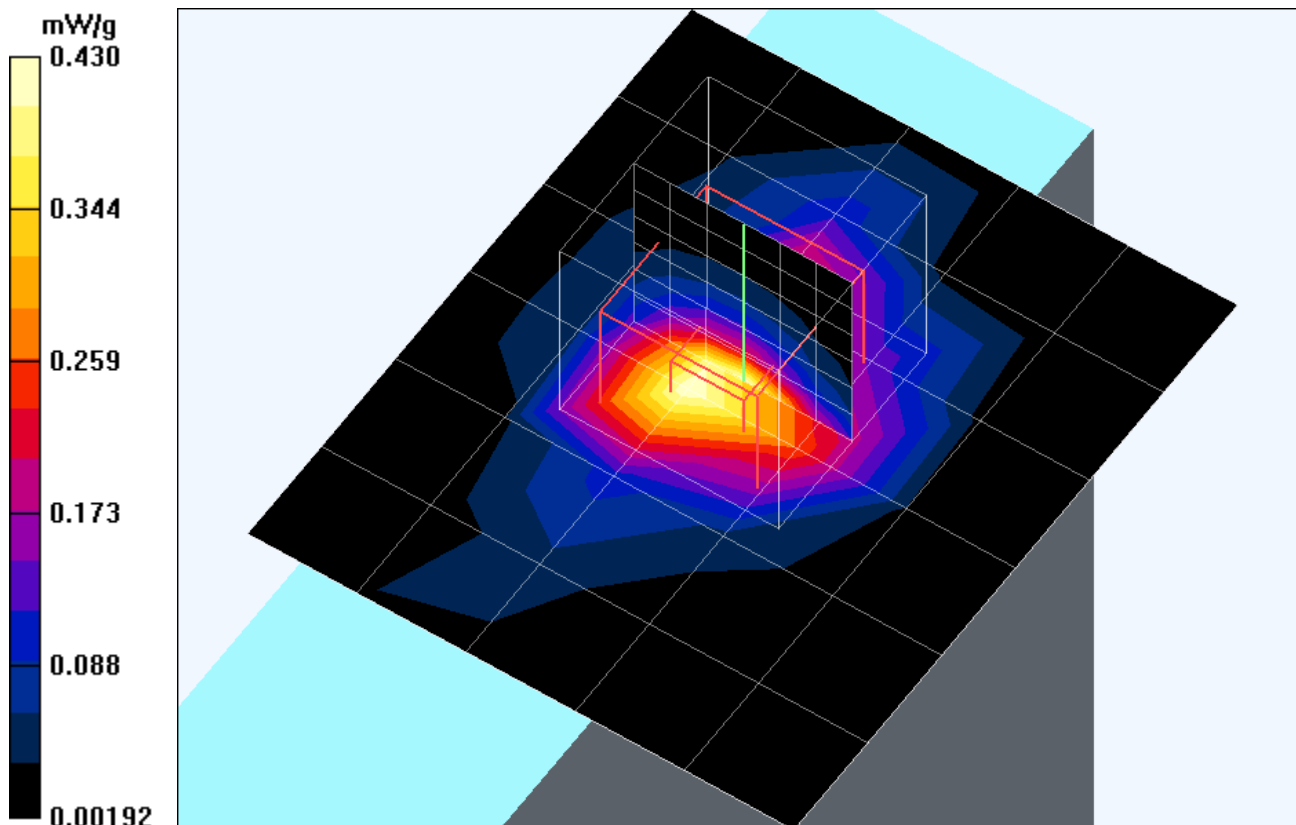
Middle Channel/Zoon Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.7 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 1.11 W/kg

SAR(1 g) = 0.510 mW/g; SAR(10 g) = 0.223 mW/g

Maximum value of SAR (measured) = 0.587 mW/g



Test Laboratory: Advance Data Technology

255KI1 11b Main Antenna Tip Mode 2 Ch 11**DUT: Notebook ; Type: 255KI1 ; Test Channel Frequency: 2462 MHz**

Communication System: 802.11b ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 2.02$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$

kg/m^3 ; Liquid level : 155 mm

Phantom section: Flat Section ; Separation distance : 0 mm (The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2004/8/17
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

High Channel/Area Scan (6x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.671 mW/g

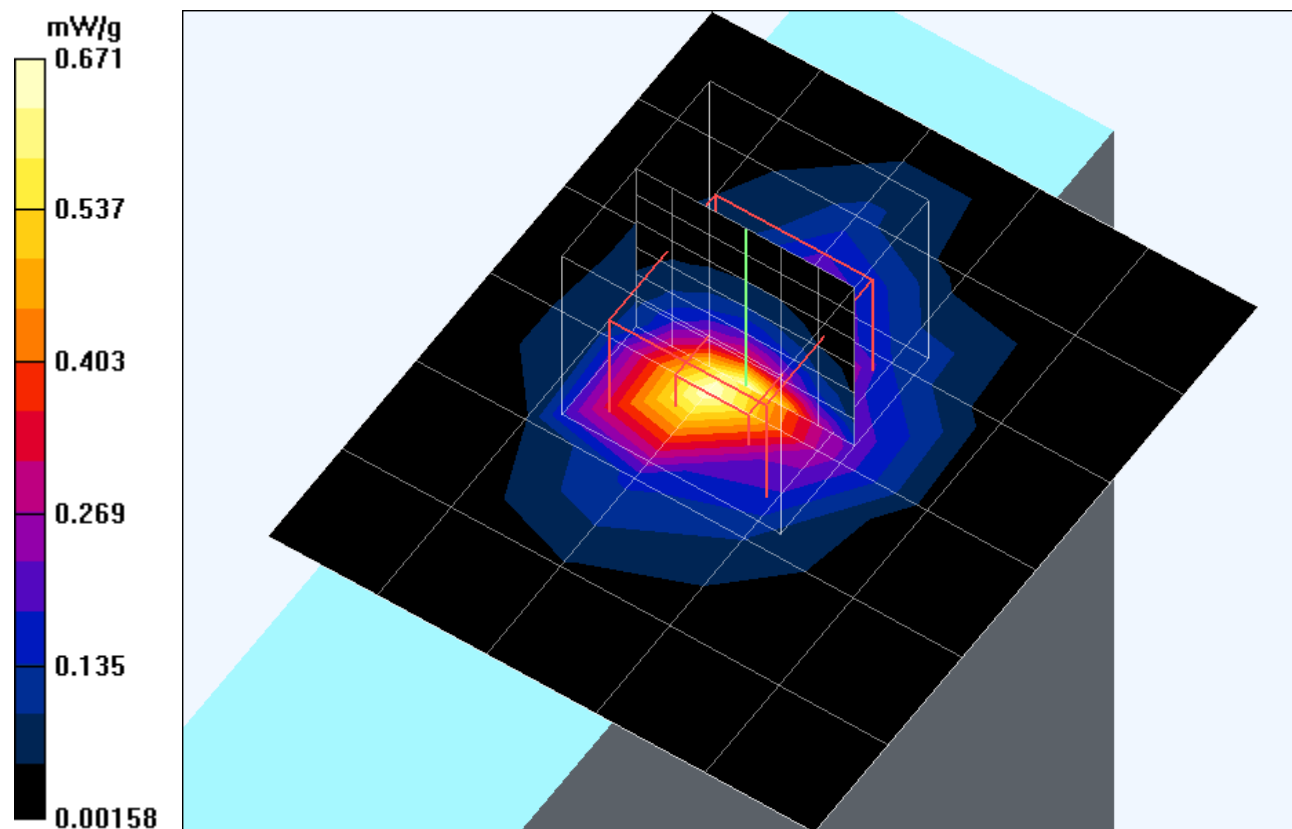
High Channel/Zoon Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.8 V/m; Power Drift = -0.0 dB

Peak SAR (extrapolated) = 1.42 W/kg

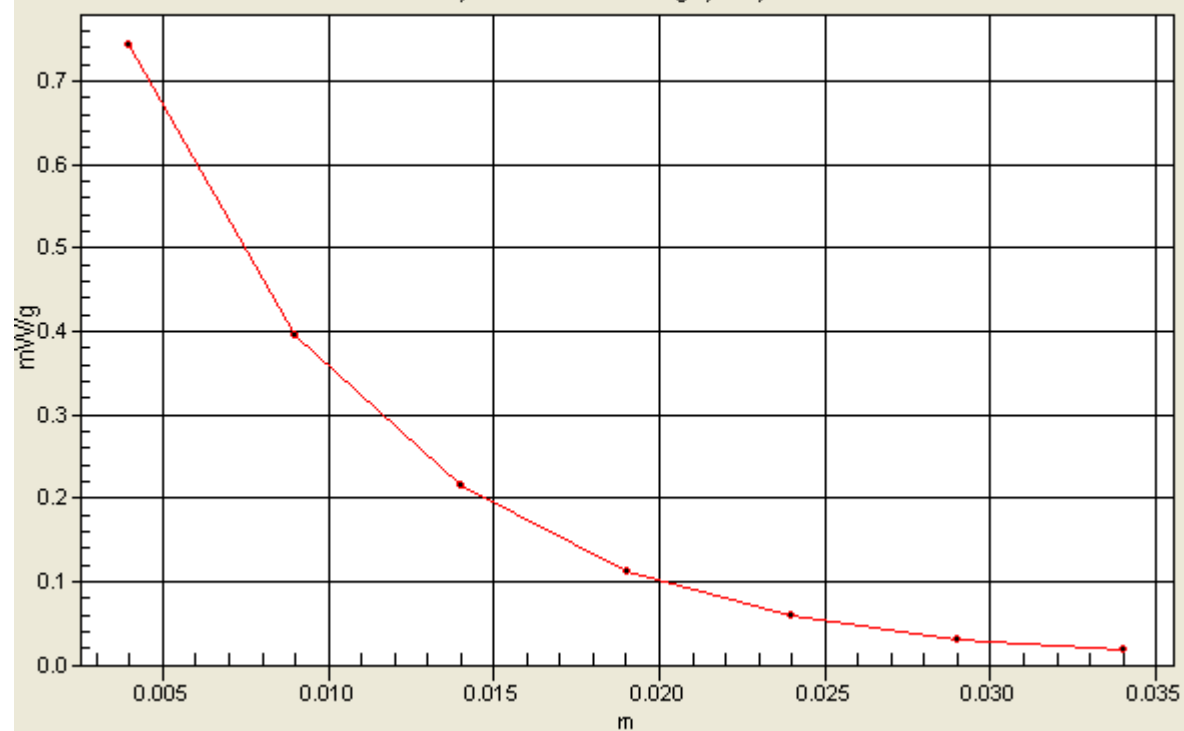
SAR(1 g) = 0.635 mW/g; SAR(10 g) = 0.273 mW/g

Maximum value of SAR (measured) = 0.744 mW/g



1g/10g Averaged SAR

SAR; Zoon Scan: Value Along Z, X=3, Y=3



Test Laboratory: Advance Data Technology

255KI1 11b Auxiliary Antenna Bottom Mode 3 Ch 1**DUT: Notebook ; Type: 255KI1 ; Test Channel Frequency: 2412 MHz**

Communication System: 802.11b ; Frequency: 2412 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.94 \text{ mho/m}$; $\epsilon_r = 51$; $\rho = 1000$

kg/m^3 ; Liquid level : 155mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2004/8/17
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22 ; Postprocessing SW: SEMCAD, V1.8 Build 127

Low Channel/Area Scan (6x8x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.00725 mW/g

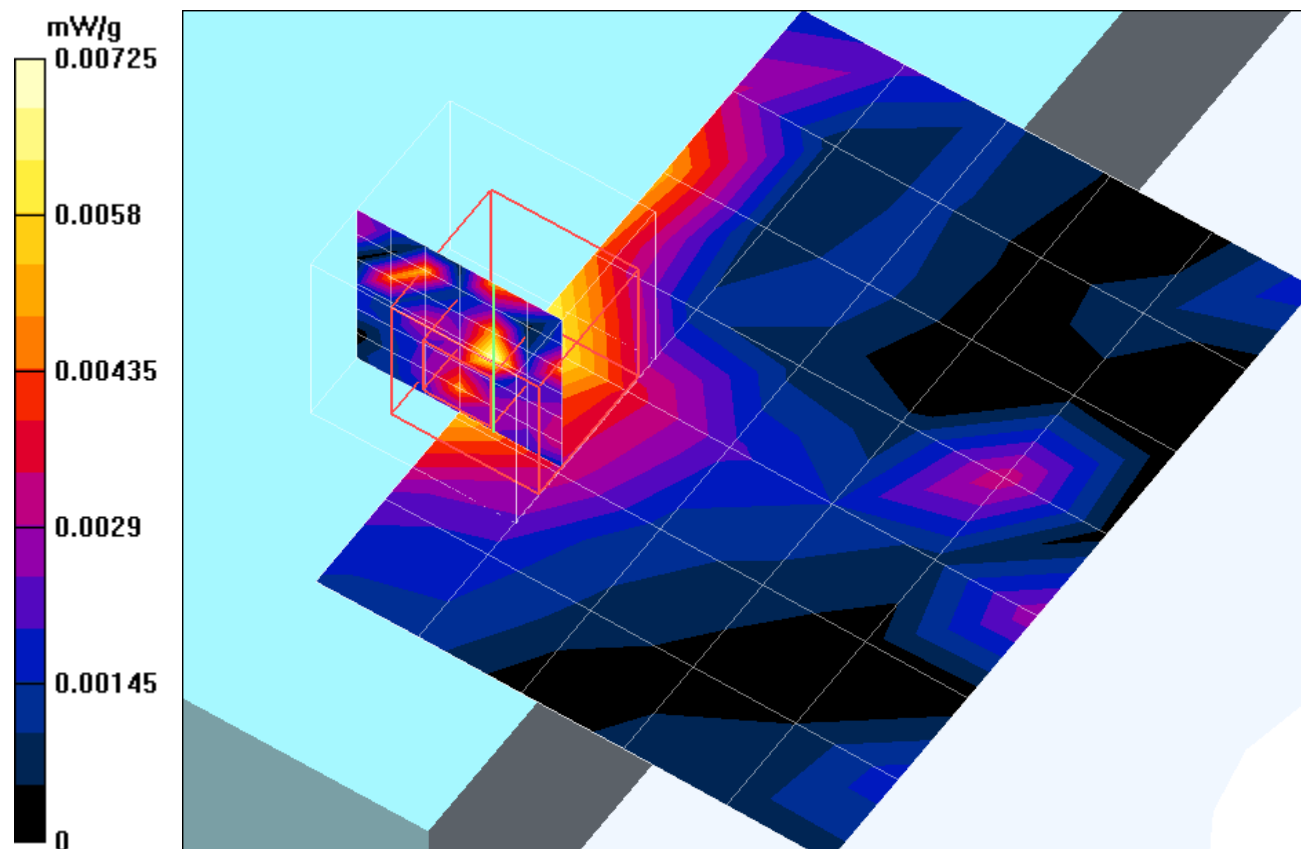
Low Channel/Zoon Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 0.567 V/m; Power Drift = 0.2 dB

Peak SAR (extrapolated) = 0.016 W/kg

SAR(1 g) = 0.00112 mW/g; SAR(10 g) = 0.000143 mW/g

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



Test Laboratory: Advance Data Technology

255KI1 11b Auxiliary Antenna Bottom Mode 3 Ch 6**DUT: Notebook ; Type: 255KI1 ; Test Channel Frequency: 2437 MHz**

Communication System: 802.11b ; Frequency: 2437 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.98$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$

kg/m^3 ; Liquid level : 155mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2004/8/17
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22 ; Postprocessing SW: SEMCAD, V1.8 Build 127

Middle Channel/Area Scan (6x8x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.00505 mW/g

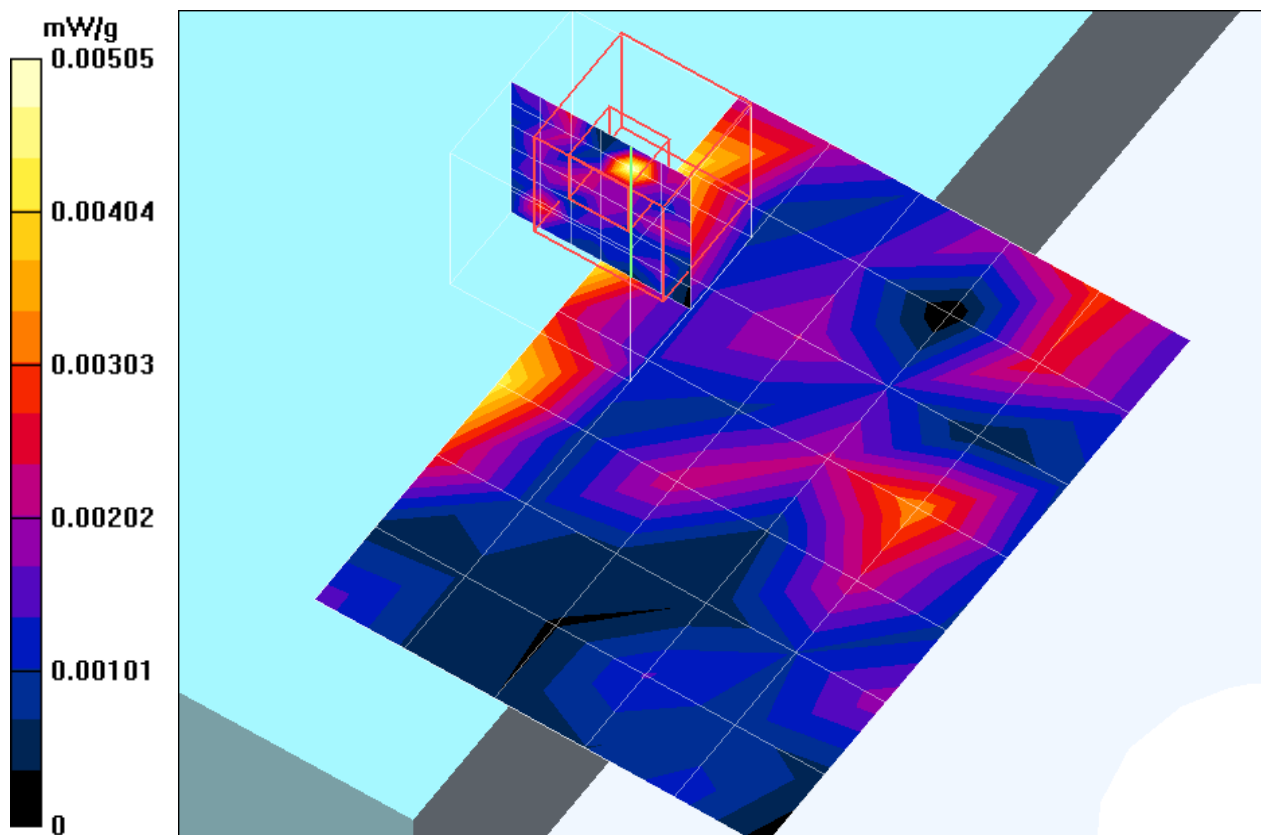
Middle Channel/Zoon Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 0.544 V/m; Power Drift = -0.2 dB

Peak SAR (extrapolated) = 0.018 W/kg

SAR(1 g) = 0.000611 mW/g; SAR(10 g) = 0.000171 mW/g

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



Test Laboratory: Advance Data Technology

255KI1 11b Auxiliary Antenna Bottom Mode 3 Ch 11**DUT: Notebook ; Type: 255KI1 ; Test Channel Frequency: 2462 MHz**

Communication System: 802.11b ; Frequency: 2462 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 2.02$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$

kg/m^3 ; Liquid level : 155mm

Phantom section: Flat Section ; Separation distance : 0 mm (The bottom side of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510 ; Calibrated: 2004/8/17
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22 ; Postprocessing SW: SEMCAD, V1.8 Build 127

High Channel/Area Scan (6x8x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.00634 mW/g

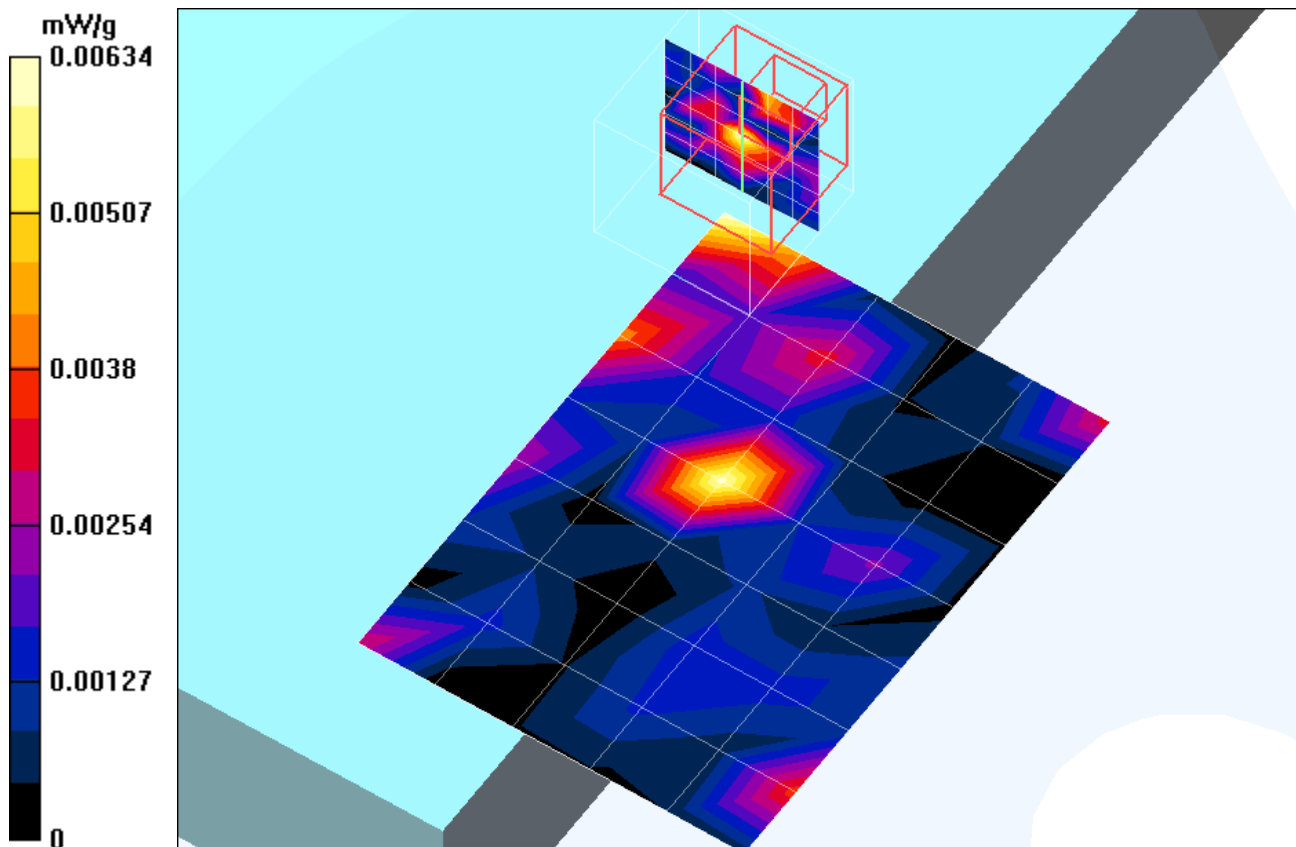
High Channel/Zoon Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 0.228 V/m; Power Drift = 0.2 dB

Peak SAR (extrapolated) = 0.015 W/kg

SAR(1 g) = 0.000217 mW/g; SAR(10 g) = 4.15e-005 mW/g

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



Test Laboratory: Advance Data Technology

255KI1 11b Auxiliary Antenna Tip Mode 4 Ch 1**DUT: Notebook ; Type: 255KI1 ; Test Channel Frequency: 2412 MHz**

Communication System: 802.11b ; Frequency: 2412 MHz; Duty Cycle: 1:1; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.94$ mho/m; $\epsilon_r = 51$; $\rho = 1000$

kg/m³ ; Liquid level : 155 mm

Phantom section: Flat Section ; Separation distance : 0 mm (The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2004/8/17
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

Low Channel/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.561 mW/g

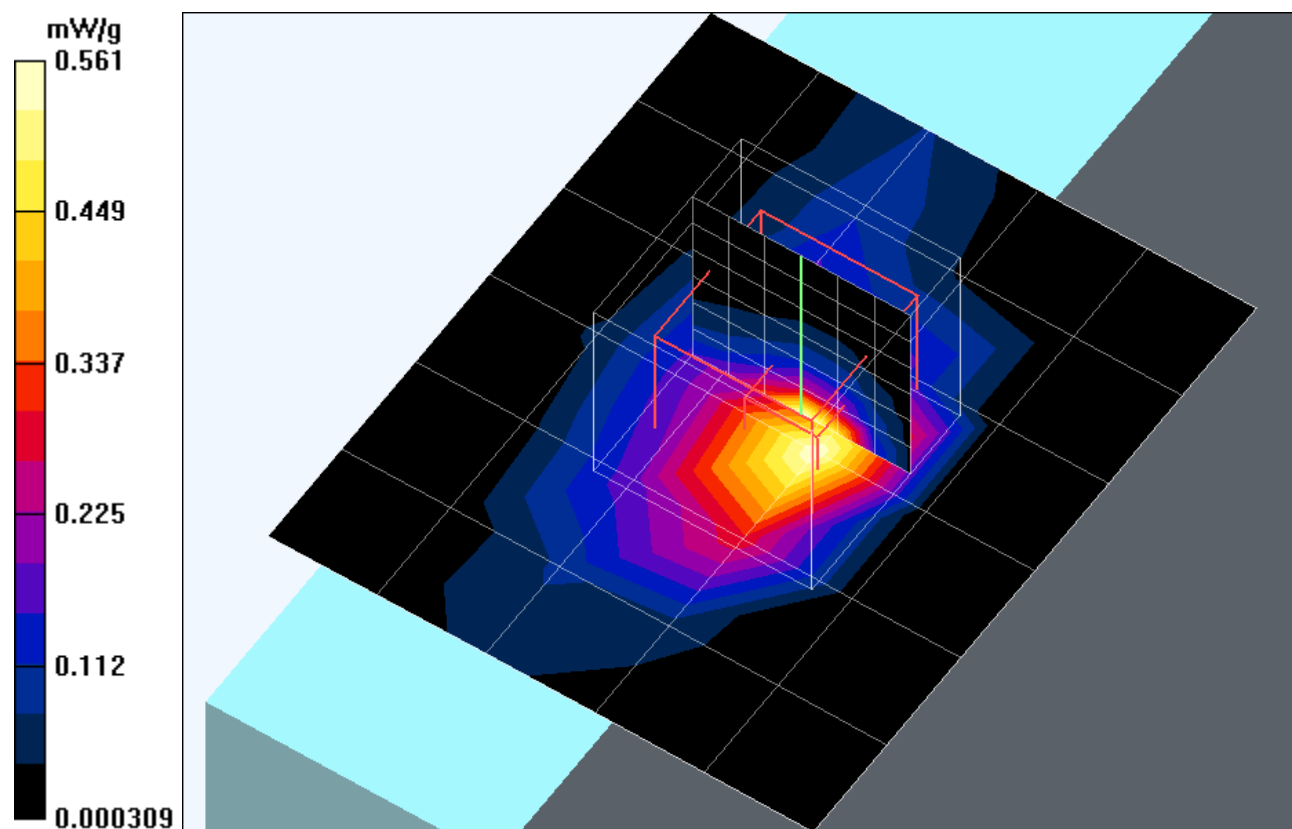
Low Channel/Zoon Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.8 V/m; Power Drift = 0.1 dB

Peak SAR (extrapolated) = 1.62 W/kg

SAR(1 g) = 0.541 mW/g; SAR(10 g) = 0.199 mW/g

Maximum value of SAR (measured) = 0.669 mW/g



Test Laboratory: Advance Data Technology

255KI1 11b Auxiliary Antenna Tip Mode 4 Ch 6**DUT: Notebook ; Type: 255KI1 ; Test Channel Frequency: 2437 MHz**

Communication System: 802.11b ; Frequency: 2437 MHz; Duty Cycle: 1:1; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.98$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$

kg/m^3 ; Liquid level : 155 mm

Phantom section: Flat Section ; Separation distance : 0 mm (The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2004/8/17
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

Middle Channel/Area Scan (6x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.765 mW/g

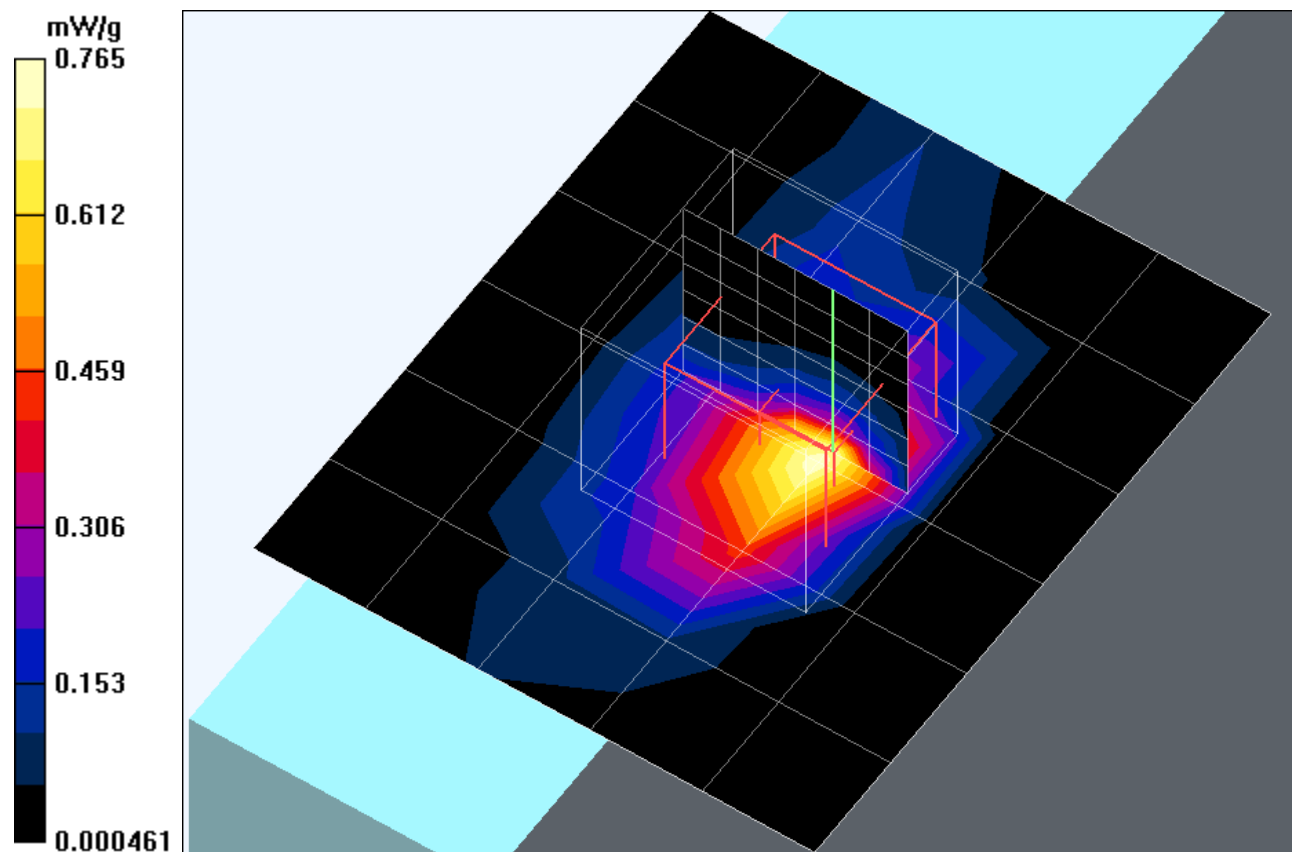
Middle Channel/Zoon Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.6 V/m ; Power Drift = -0.2 dB

Peak SAR (extrapolated) = 1.89 W/kg

SAR(1 g) = 0.649 mW/g ; SAR(10 g) = 0.234 mW/g

Maximum value of SAR (measured) = 0.779 mW/g



Test Laboratory: Advance Data Technology

255KI1 11b Auxiliary Antenna Tip Mode 4 Ch 11**DUT: Notebook ; Type: 255KI1 ; Test Channel Frequency: 2462 MHz**

Communication System: 802.11b ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: CCK
 Medium: MSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 2.02$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$

kg/m^3 ; Liquid level : 155 mm

Phantom section: Flat Section ; Separation distance : 0 mm (The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2004/8/17
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

High Channel/Area Scan (6x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.14 mW/g

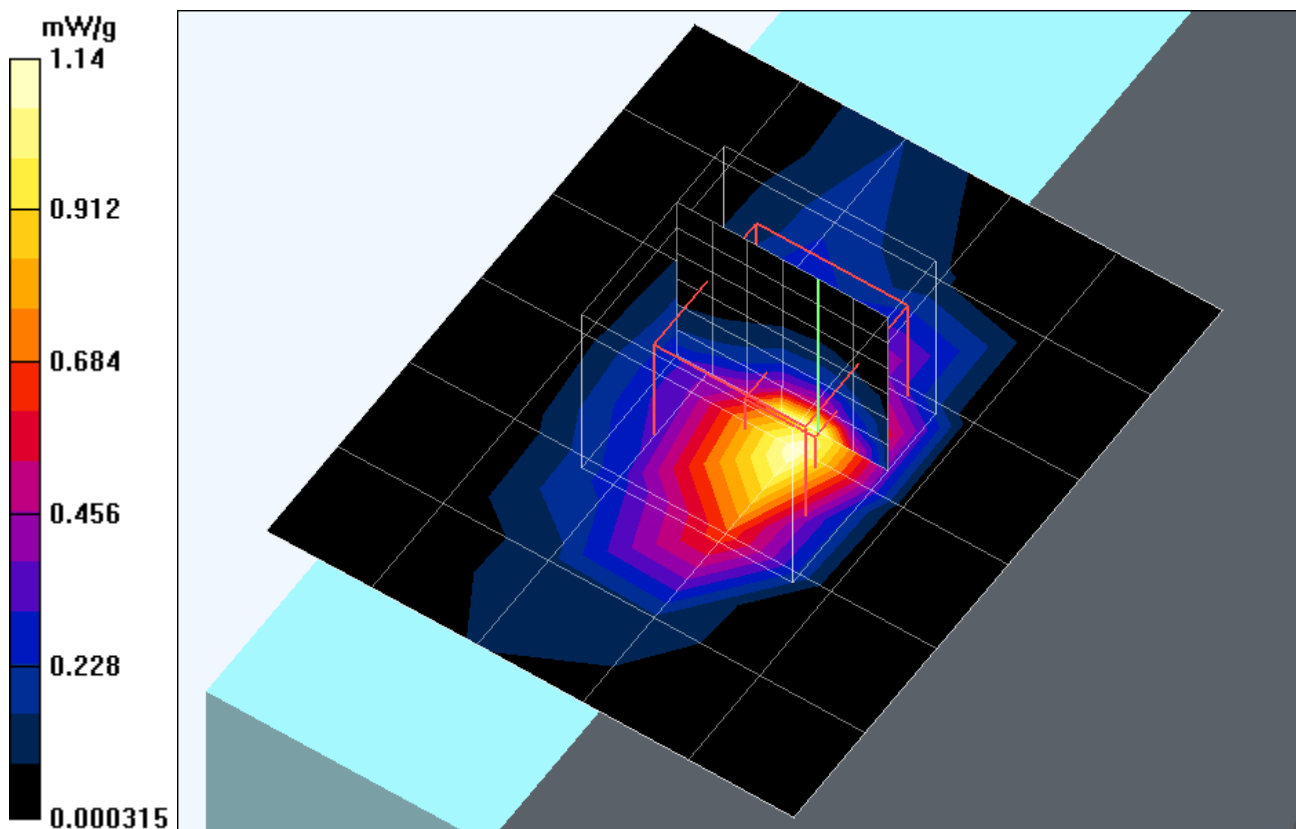
High Channel/Zoon Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 24.9 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 2.85 W/kg

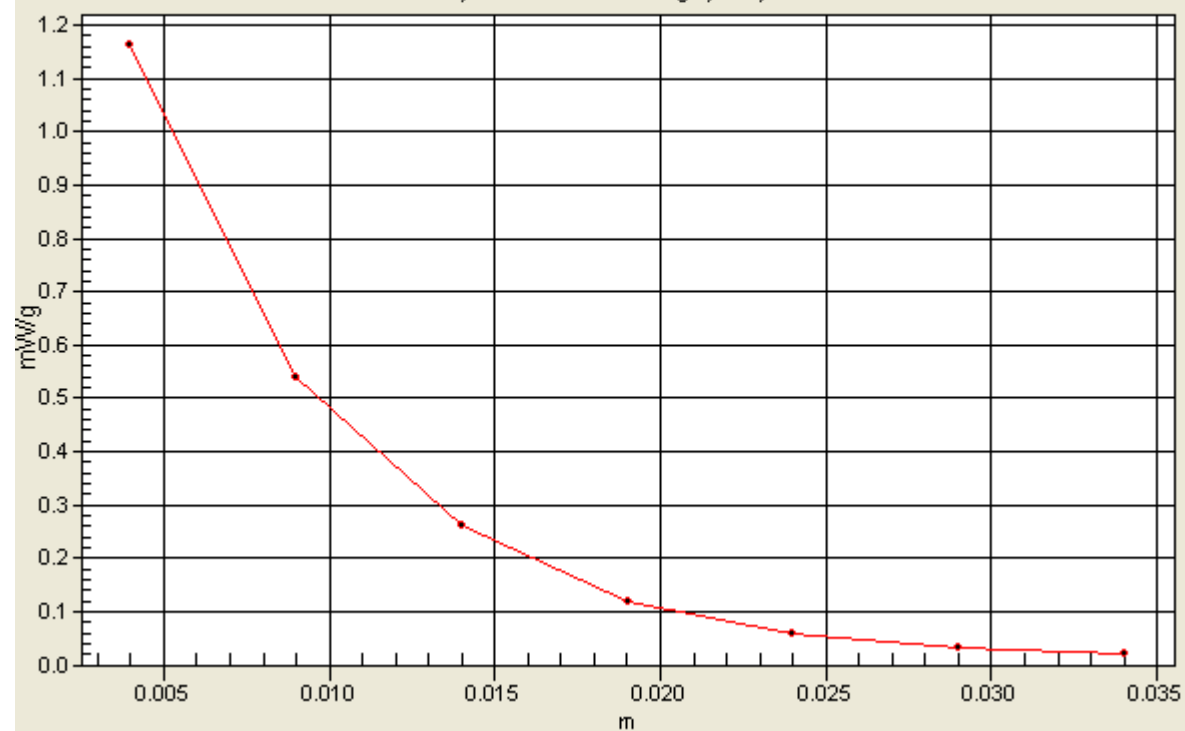
SAR(1 g) = 0.979 mW/g; SAR(10 g) = 0.358 mW/g

Maximum value of SAR (measured) = 1.16 mW/g



1g/10g Averaged SAR

SAR; Zoon Scan: Value Along Z, X=2, Y=4



Test Laboratory: Advance Data Technology

255KI1 11g Main Antenna Tip Mode 5 Ch 11**DUT: Notebook ; Type: 255KI1 ; Test Channel Frequency: 2462 MHz**

Communication System: 802.11b ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: OFDM

Medium: MSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 2.02$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$ kg/m³ ; Liquid level : 155 mm

Phantom section: Flat Section ; Separation distance : 0 mm (The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2004/8/17
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

High Channel/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.254 mW/g

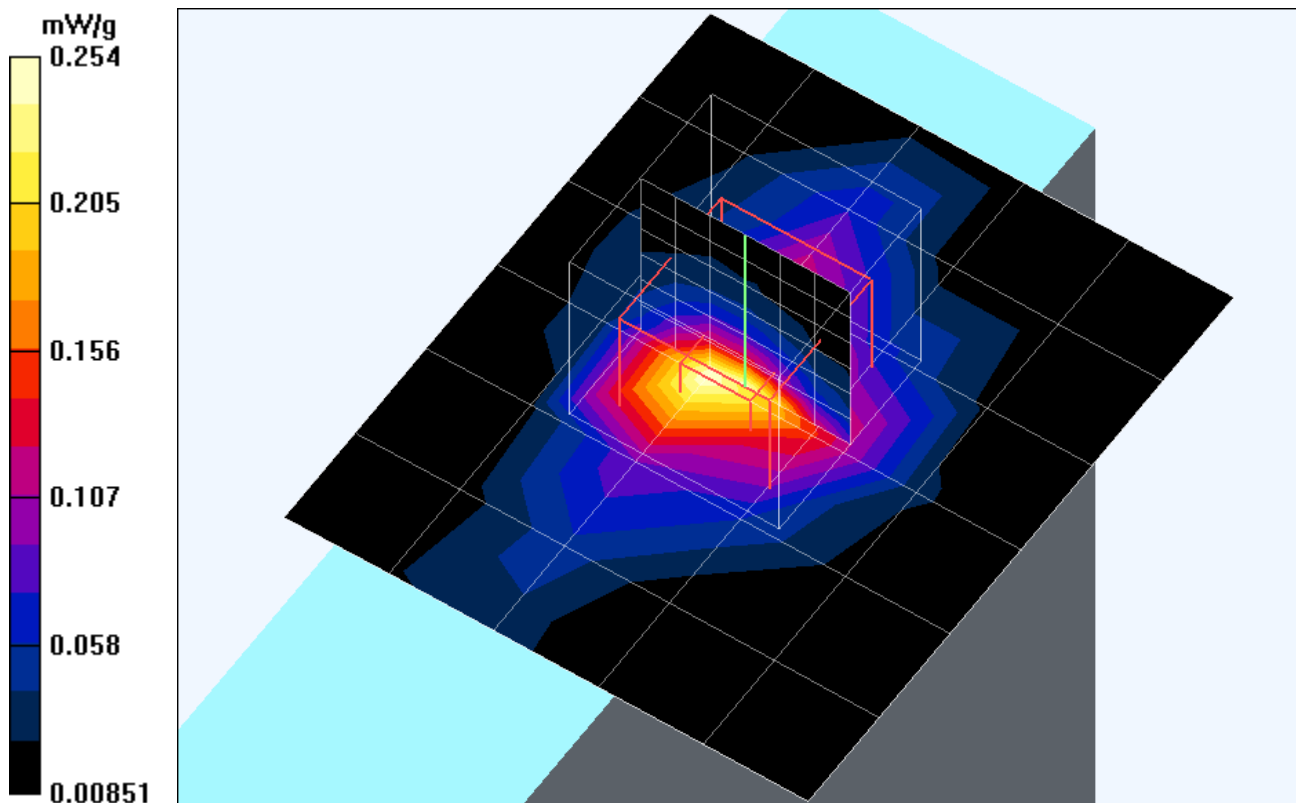
High Channel/Zoon Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.86 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.249 mW/g; SAR(10 g) = 0.118 mW/g

Maximum value of SAR (measured) = 0.282 mW/g



Test Laboratory: Advance Data Technology

255KI1 11g Auxiliary Antenna Tip Mode 6 Ch 11**DUT: Notebook ; Type: 255KI1 ; Test Channel Frequency: 2462 MHz**

Communication System: 802.11g ; Frequency: 2462 MHz; Duty Cycle: 1:1; Modulation type: OFDM

Medium: MSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 2.02$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$ kg/m³ ; Liquid level : 155 mm

Phantom section: Flat Section ; Separation distance : 0 mm (The tip of the EUT to the Phantom)

Antenna type : Internal Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2004/8/17
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

High Channel/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.704 mW/g

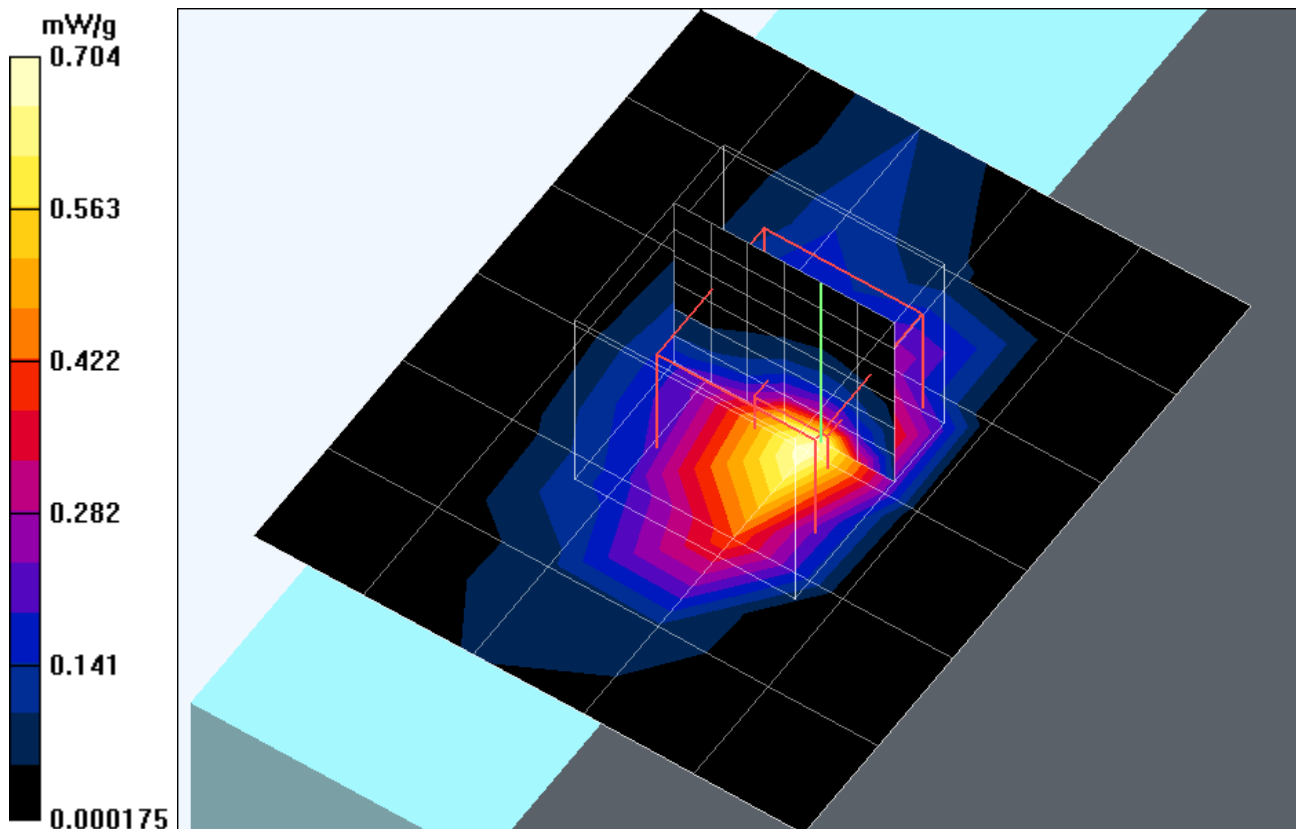
High Channel/Zoon Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.5 V/m; Power Drift = -0.0 dB

Peak SAR (extrapolated) = 1.74 W/kg

SAR(1 g) = 0.605 mW/g; SAR(10 g) = 0.219 mW/g

Maximum value of SAR (measured) = 0.725 mW/g



A3 : SYSTEM VALIDATION

Date/Time: 10/07/04 09:26:31

Test Laboratory: Advance Data Technology

System Validation Check-MSL 2450MHz

DUT: Dipole 2450 MHz ; Type: D2450V2 ; Test Channel Frequency: 2450 MHz

Communication System: CW ; Frequency: 2450 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: MSL2450; Medium parameters used: $f = 2450$ MHz; $\sigma = 2$ mho/m; $\epsilon_r = 50.9$; $\rho = 1000$

kg/m³ ; Liquid level : 155mm

Phantom section: Flat Section ; Separation distance : 10 mm (The feetpoint of the dipole to the Phantom) Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1687 ; ConvF(4.23, 4.23, 4.23) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2004/8/17
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

d=10mm, Pin=250mW/Area Scan (5x6x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 12.6 mW/g

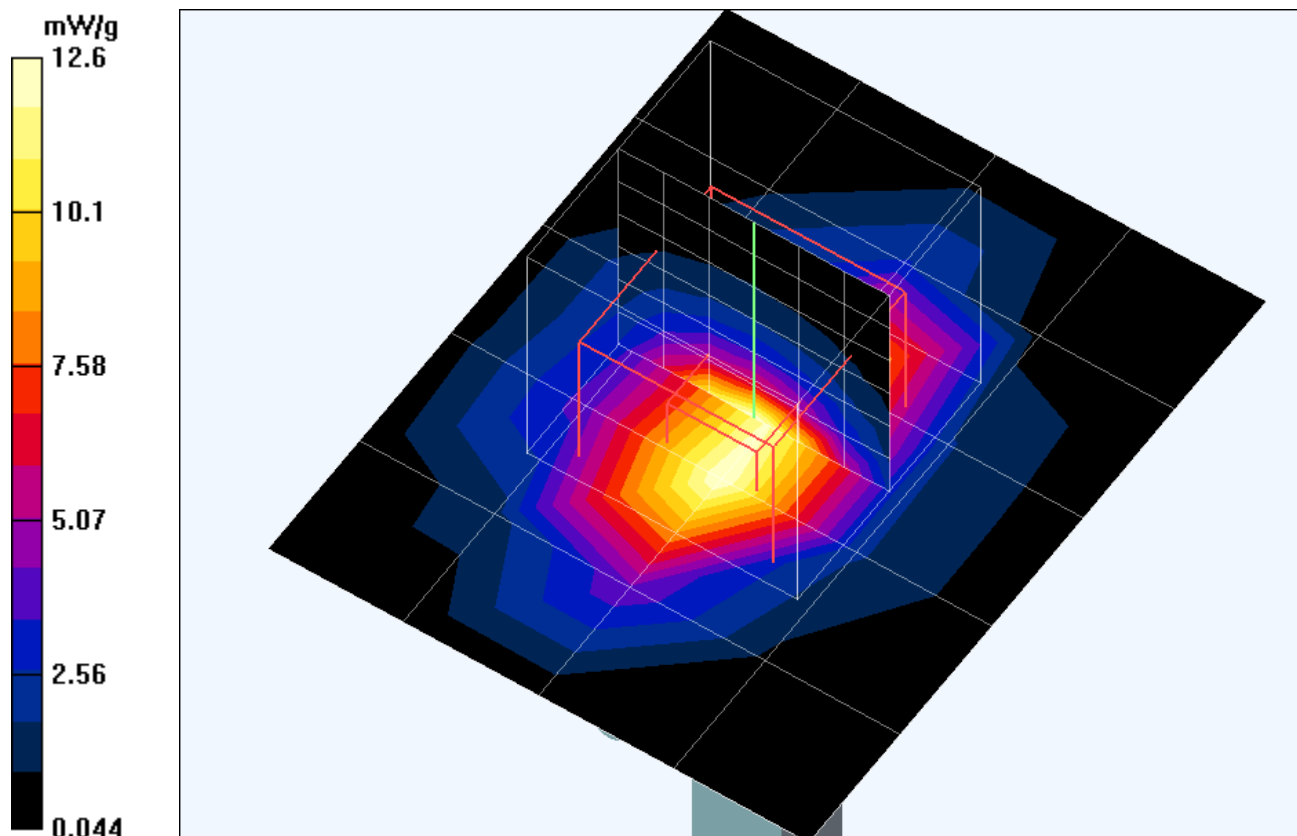
d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 26.9 W/kg

SAR(1 g) = 12.4 mW/g; SAR(10 g) = 5.73 mW/g

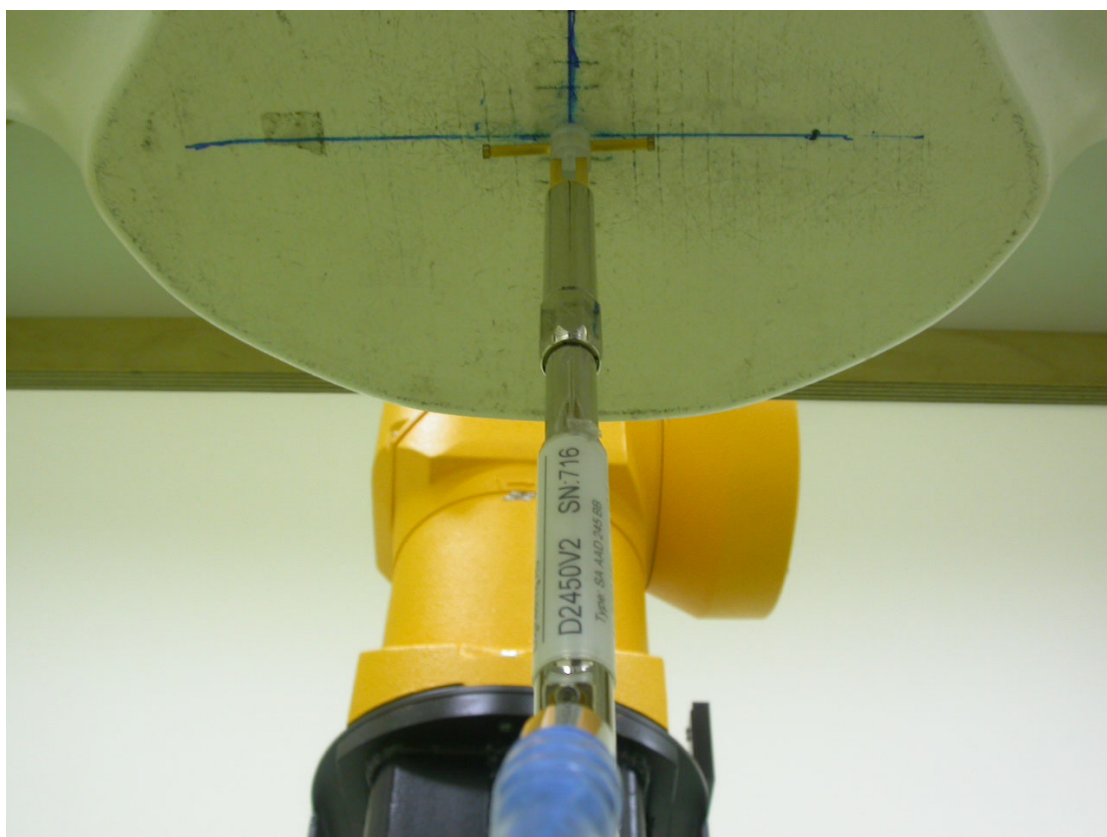
Maximum value of SAR (measured) = 14 mW/g



APPENDIX B : ADT SAR MEASUREMENT SYSTEM



APPENDIX C: PHOTOGRAPHS OF SYSTEM VALIDATION





APPENDIX D: SYSTEM CERTIFICATE & CALIBRATION

D1: SAM PHANTOM

Schmid & Partner Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland, Phone +41 1 245 97 00, Fax +41 1 245 97 79

Certificate of conformity / First Article Inspection

Item	SAM Twin Phantom V4.0
Type No	QD 000 P40 CA
Series No	TP-1150 and higher
Manufacturer / Origin	Untersee Composites Hauptstr. 69 CH-8559 Fruthwilen Switzerland

Tests

The series production process used allows the limitation to test of first articles. Complete tests were made on the pre-series Type No. QD 000 P40 AA, Serial No. TP-1001 and on the series first article Type No. QD 000 P40 BA, Serial No. TP-1006. Certain parameters have been retested using further series units (called samples).

Test	Requirement	Details	Units tested
Shape	Compliance with the geometry according to the CAD model.	IT'IS CAD File (*)	First article, Samples
Material thickness	Compliant with the requirements according to the standards	2mm +/- 0.2mm in specific areas	First article, Samples
Material parameters	Dielectric parameters for required frequencies	200 MHz – 3 GHz Relative permittivity < 5 Loss tangent < 0.05.	Material sample TP 104-5
Material resistivity	The material has been tested to be compatible with the liquids defined in the standards	Liquid type HSL 1800 and others according to the standard.	Pre-series, First article

Standards

- [1] CENELEC EN 50361
- [2] IEEE P1528-200x draft 6.5
- [3] IEC PT 62209 draft 0.9

(*) The IT'IS CAD file is derived from [2] and is also within the tolerance requirements of the shapes of [1] and [3].

Conformity

Based on the sample tests above, we certify that this item is in compliance with the uncertainty requirements of SAR measurements specified in standard [1] and draft standards [2] and [3].

Date 28.02.2002

Signature / Stamp

F. Bornhult

**Schmid & Partner
Engineering AG**

Zeughausstrasse 43, CH-8004 Zurich
Tel. +41 1 245 97 00, Fax +41 1 245 97 79

Volker Kofe



D2: DOSIMETRIC E-FIELD PROBE

IMPORTANT NOTICE

USAGE OF PROBES IN ORGANIC SOLVENTS

Diethylene Glycol Monobutyl Ether (the basis for liquids above 1 GHz), as many other organic solvents, is a very effective softener for synthetic materials. These solvents can cause irreparable damage to certain SPEAG products, except those which are explicitly declared as compliant with organic solvents.

Compatible Probes:

- ET3DV6
- ET3DV6R
- ES3DV2
- ER3DV6
- H3DV6

Important Note for ET3DV6 Probes:

The ET3DV6 probes shall not be exposed to solvents longer than necessary for the measurements and shall be cleaned daily after use with warm water and stored dry.

s p e a g

Schmid & Partner Engineering AG
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Phone +41 1 245 9700, Fax +41 1 245 9779
info@speag.com, <http://www.speag.com>

Schmid & Partner Engineering AG

Client **ADT (Auden)**

CALIBRATION CERTIFICATE

Object(s) **ET3DV6 - SN:1687**

Calibration procedure(s) **QA CAL-01.v2**
Calibration procedure for dosimetric E-field probes

Calibration date: **August 26, 2004**

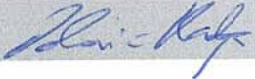
Condition of the calibrated item **In Tolerance (according to the specific calibration document)**

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 +/- 2 degrees Celsius and humidity < 75%.

Calibration Equipment used (M&TE critical for calibration)

Model Type	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM E4419B	GB41293874	5-May-04 (METAS, No 251-00388)	May-05
Power sensor E4412A	MY41495277	5-May-04 (METAS, No 251-00388)	May-05
Reference 20 dB Attenuator	SN: 5086 (20b)	3-May-04 (METAS, No 251-00389)	May-05
Fluke Process Calibrator Type 702	SN: 6295803	8-Sep-03 (Sintrel SCS No. E030020)	Sep-04
Power sensor HP 8481A	MY41092180	18-Sep-02 (SPEAG, in house check Oct03)	In house check: Oct 05
RF generator HP 8684C	US3642U01700	4-Aug-99 (SPEAG, in house check Aug02)	In house check: Aug05
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Oct03)	In house check: Oct 05

	Name	Function	Signature
Calibrated by:	Nico Vetterli	Technician	
Approved by:	Katja Pokovic	Laboratory Director	

Date issued: August 26, 2004

This calibration certificate is issued as an intermediate solution until the accreditation process (based on ISO/IEC 17025 International Standard) for Calibration Laboratory of Schmid & Partner Engineering AG is completed.