

Test Laboratory: Advance Data Technology

WPC54G v3-Mode 1 11b

DUT: PCMCIA Card ; Type: WPC54G v3 ; Test Frequency: 2462 MHz

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

Medium: MSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.87 \text{ mho/m}$; $\epsilon_r = 53.4$; $\rho = 1000 \text{ kg/m}^3$; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

High Channel 11/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.303 mW/g

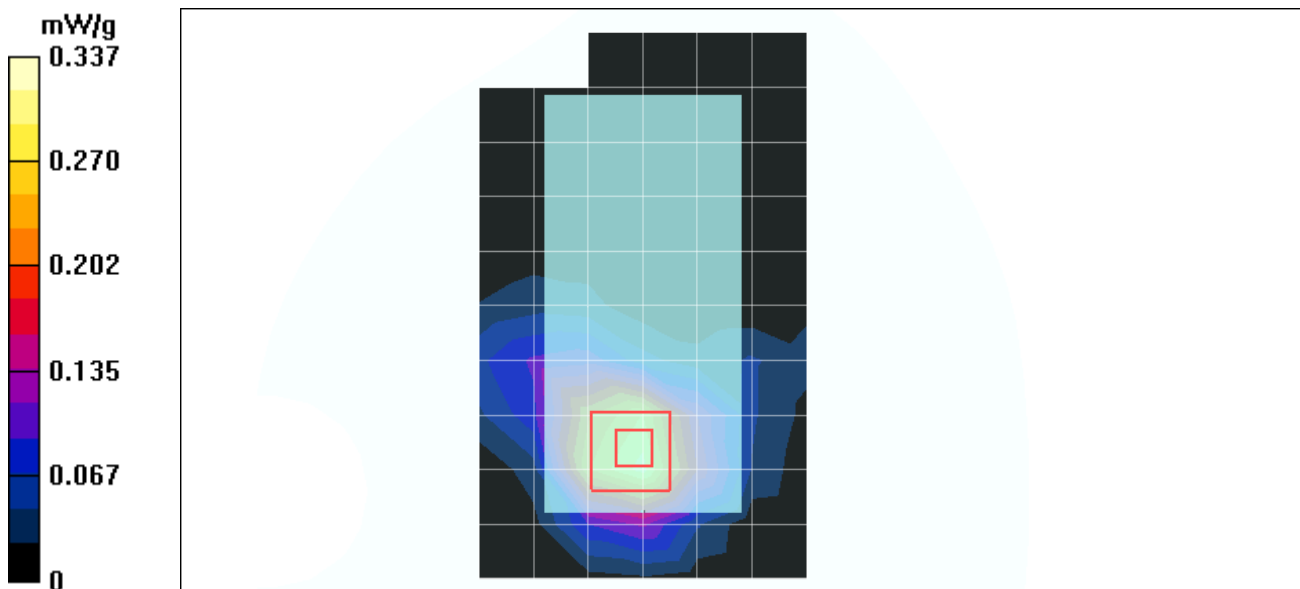
High Channel 11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.7 V/m

Peak SAR (extrapolated) = 0.473 W/kg

SAR(1 g) = 0.304 mW/g; SAR(10 g) = 0.170 mW/g

Maximum value of SAR (measured) = 0.337 mW/g



Test Laboratory: Advance Data Technology

WPC54G v3-Mode 2 11g

DUT: PCMCIA Card ; Type: WPC54G v3 ; Test Frequency: 2412 MHz

Communication System: 802.11g ; Frequency: 2412 MHz ; Duty Cycle: 1:1 ; Modulation type: OFDM

Medium: MSL2450 Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.87 \text{ mho/m}$; $\epsilon_r = 52.4$; $\rho = 1000 \text{ kg/m}^3$; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

Low Channel 1/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.263 mW/g

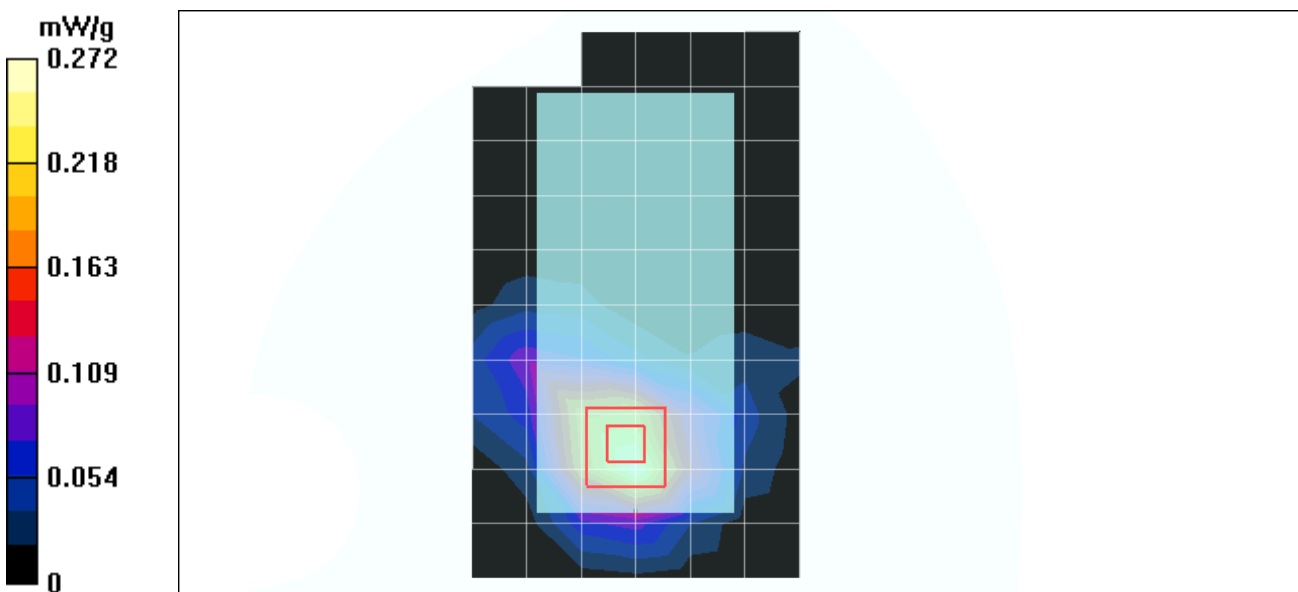
Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10 V/m

Peak SAR (extrapolated) = 0.385 W/kg

SAR(1 g) = 0.246 mW/g; SAR(10 g) = 0.136 mW/g

Maximum value of SAR (measured) = 0.272 mW/g



Test Laboratory: Advance Data Technology

WPC54G v3-Mode 2 11g

DUT: PCMCIA Card ; Type: WPC54G v3 ; Test Frequency: 2437 MHz

Communication System: 802.11g ; Frequency: 2437 MHz ; Duty Cycle: 1:1 ; Modulation type: OFDM

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.88$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

Middle Channel 6/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.214 mW/g

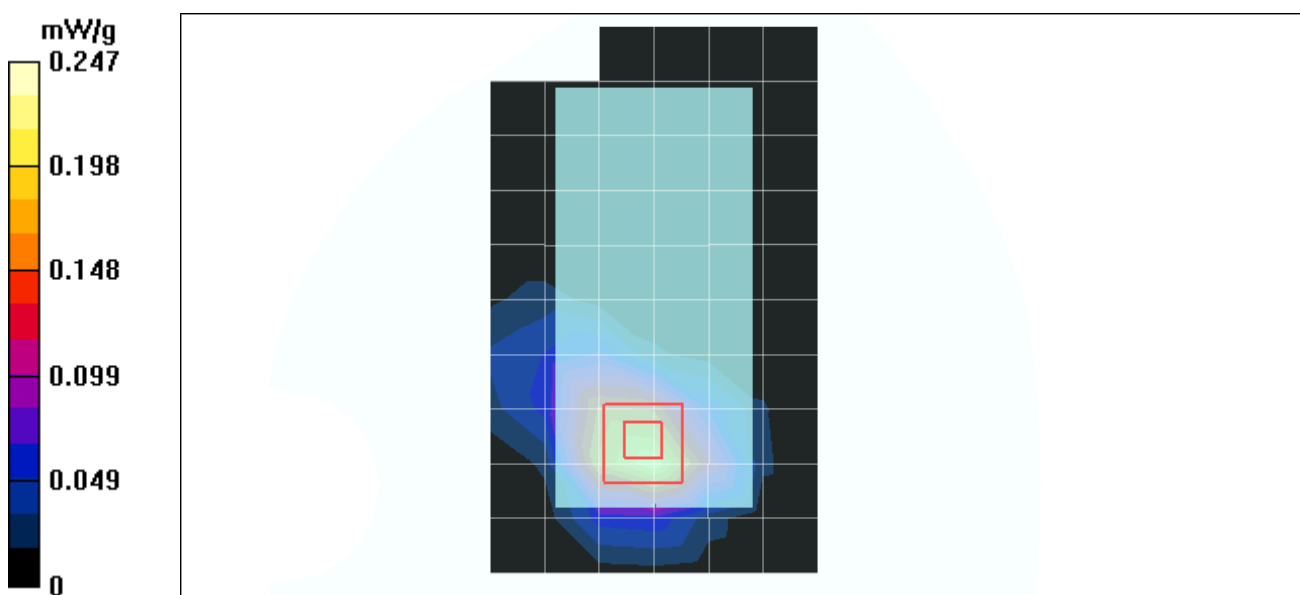
Middle Channel 6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.78 V/m

Peak SAR (extrapolated) = 0.345 W/kg

SAR(1 g) = 0.222 mW/g; SAR(10 g) = 0.123 mW/g

Maximum value of SAR (measured) = 0.247 mW/g



Test Laboratory: Advance Data Technology

WPC54G v3-Mode 2 11g

DUT: PCMCIA Card ; Type: WPC54G v3 ; Test Frequency: 2462 MHz

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

Medium: MSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.87 \text{ mho/m}$; $\epsilon_r = 53.4$; $\rho = 1000 \text{ kg/m}^3$; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

High Channel 11/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

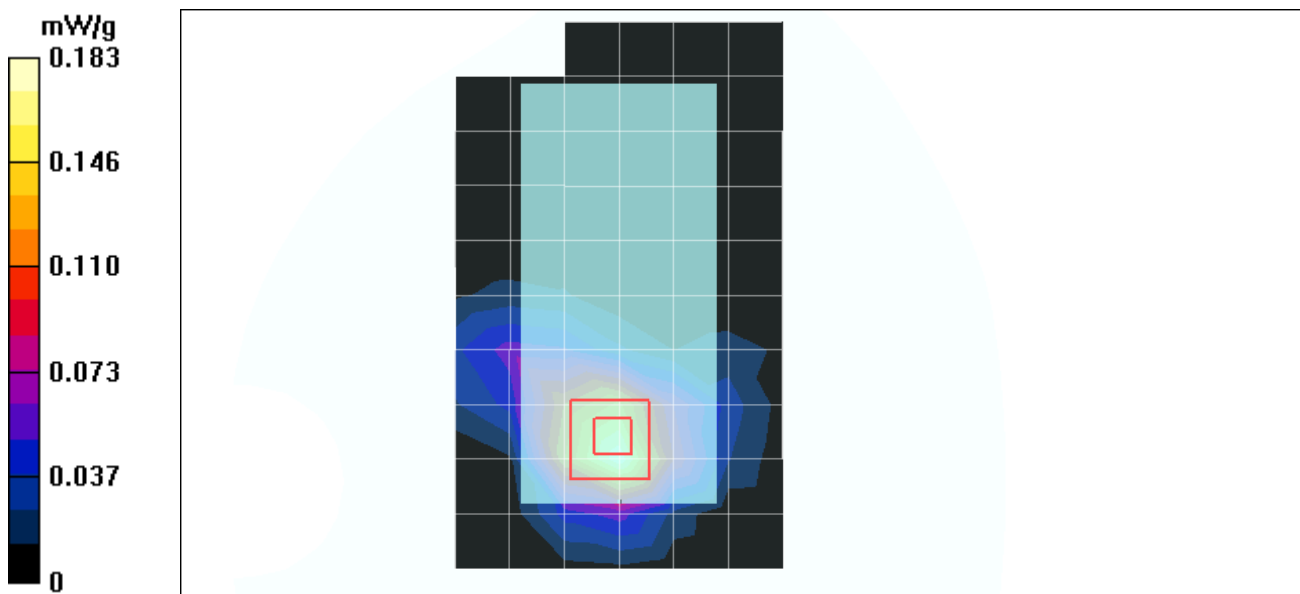
Maximum value of SAR (measured) = 0.183 mW/g

High Channel 11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.61 V/m

Peak SAR (extrapolated) = 0.260 W/kg

SAR(1 g) = 0.166 mW/g; SAR(10 g) = 0.089 mW/g



Test Laboratory: Advance Data Technology

WPC54G v3-Mode 3 11b

DUT: Notebook ; Type: 259KI1 ; Test 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; $\sigma = 1.87$ mho/m; $\epsilon_r = 52.4$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

Low Channel 1/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.271 mW/g

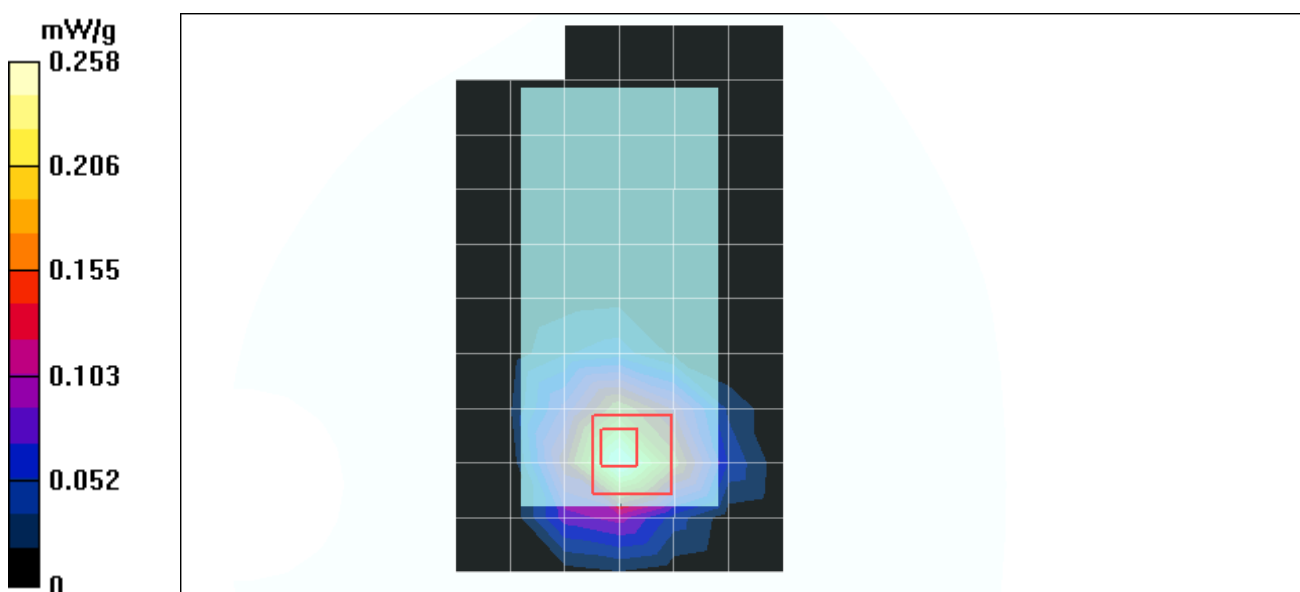
Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

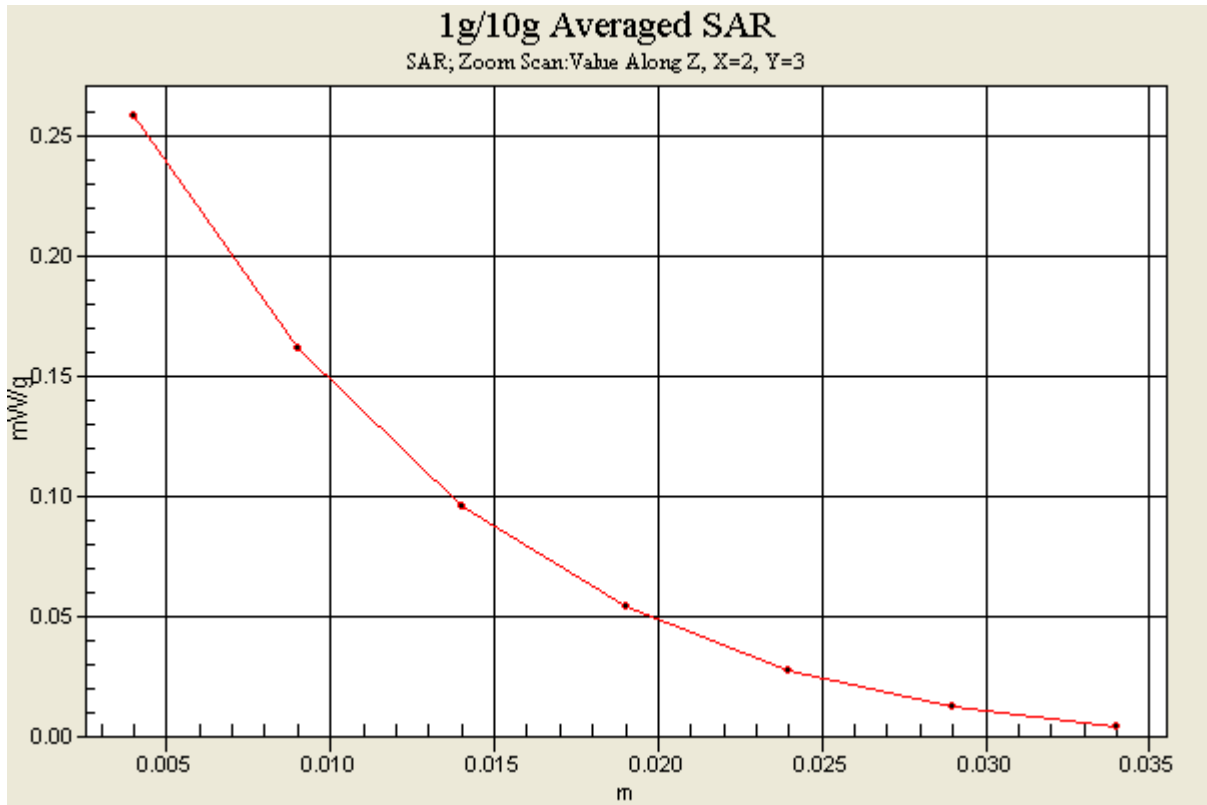
Reference Value = 11 V/m

Peak SAR (extrapolated) = 0.603 W/kg

SAR(1 g) = 0.257 mW/g; SAR(10 g) = 0.123 mW/g

Maximum value of SAR (measured) = 0.258 mW/g





Test Laboratory: Advance Data Technology

WPC54G v3-Mode 3 11b

DUT: Notebook ; Type: 259K11 ; Test 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; $\sigma = 1.88$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

Middle Channel 6/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.227 mW/g

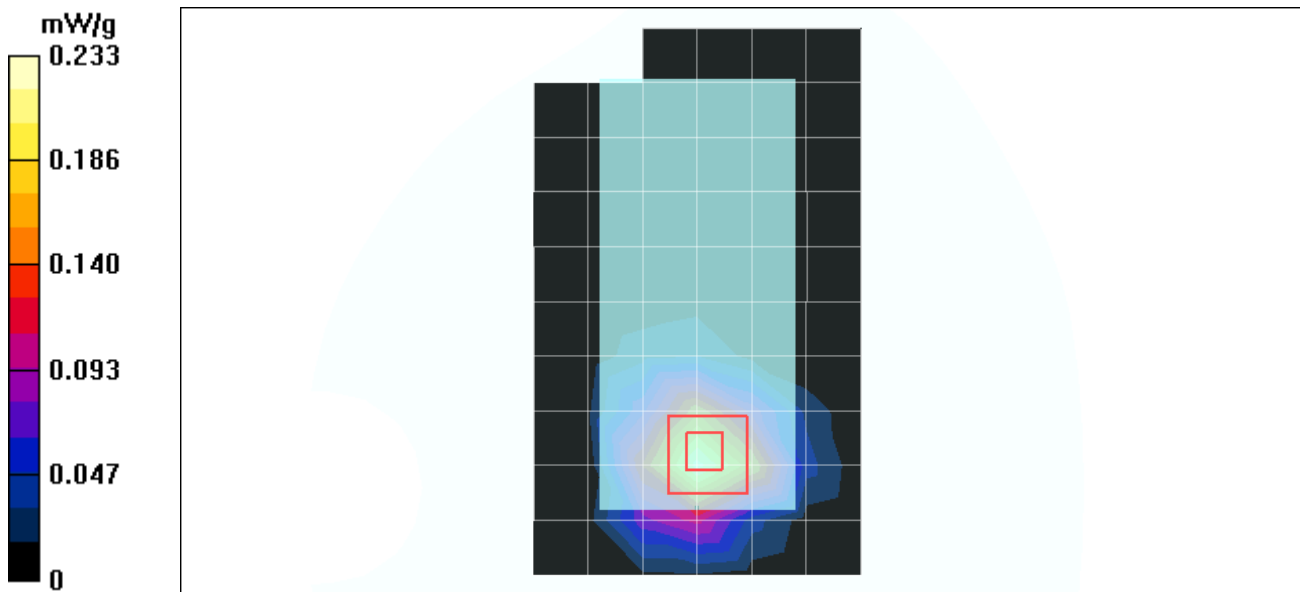
Middle Channel 6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.5 V/m; Power Drift = -0.7 dB

Peak SAR (extrapolated) = 0.321 W/kg

SAR(1 g) = 0.207 mW/g; SAR(10 g) = 0.111 mW/g.

Maximum value of SAR (measured) = 0.233 mW/g



Test Laboratory: Advance Data Technology

WPC54G v3-Mode 3 11b

DUT: Notebook ; Type: 259KI1 ; Test 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; $\sigma = 1.87$ mho/m; $\epsilon_r = 53.4$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

High Channel 11/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.225 mW/g

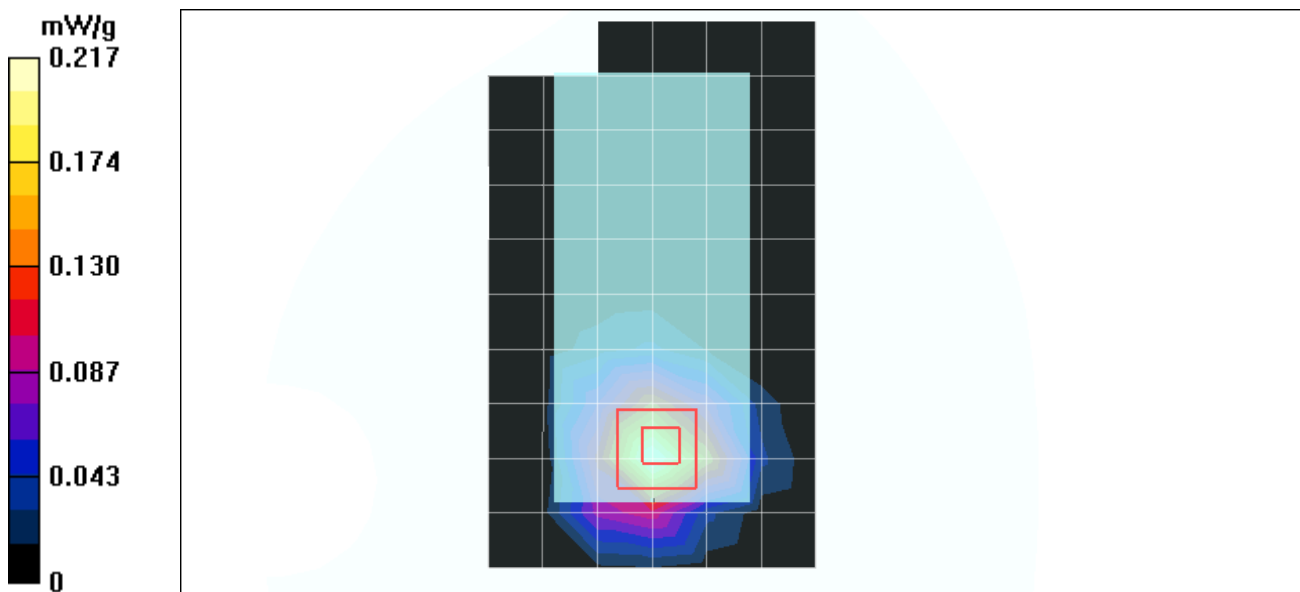
High Channel 11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.2 V/m

Peak SAR (extrapolated) = 0.322 W/kg

SAR(1 g) = 0.193 mW/g; SAR(10 g) = 0.103 mW/g

Maximum value of SAR (measured) = 0.217 mW/g



Test Laboratory: Advance Data Technology

WPC54G v3-Mode 4 11g

DUT: PCMCIA Card ; Type: WPC54G v3 ; Test Frequency: 2412 MHz

Communication System: 802.11g ; Frequency: 2412 MHz ; Duty Cycle: 1:1 ; Modulation type: OFDM

Medium: MSL2450 Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.87 \text{ mho/m}$; $\epsilon_r = 52.4$; $\rho = 1000 \text{ kg/m}^3$; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

Low Channel 1/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.276 mW/g

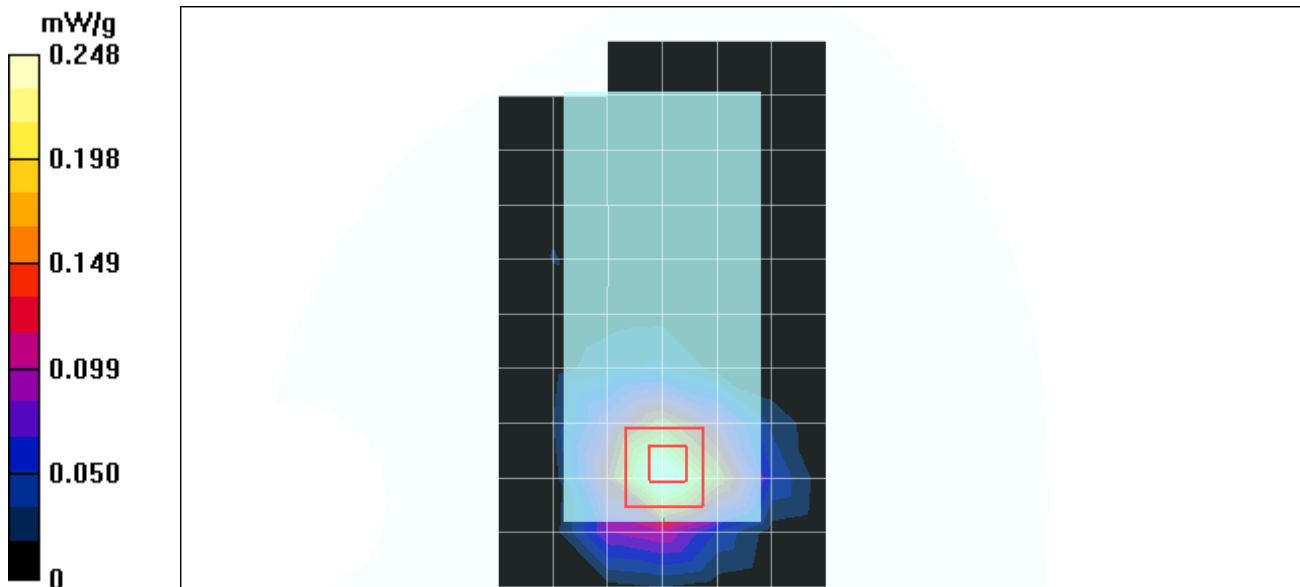
Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.5 V/m

Peak SAR (extrapolated) = 0.345 W/kg

SAR(1 g) = 0.221 mW/g; SAR(10 g) = 0.121 mW/g

Maximum value of SAR (measured) = 0.248 mW/g



Test Laboratory: Advance Data Technology

WPC54G v3-Mode 4 11g

DUT: PCMCIA Card ; Type: WPC54G v3 ; Test Frequency: 2437 MHz

Communication System: 802.11g ; Frequency: 2437 MHz ; Duty Cycle: 1:1 ; Modulation type: OFDM

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.88$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

Middle Channel 6/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.242 mW/g

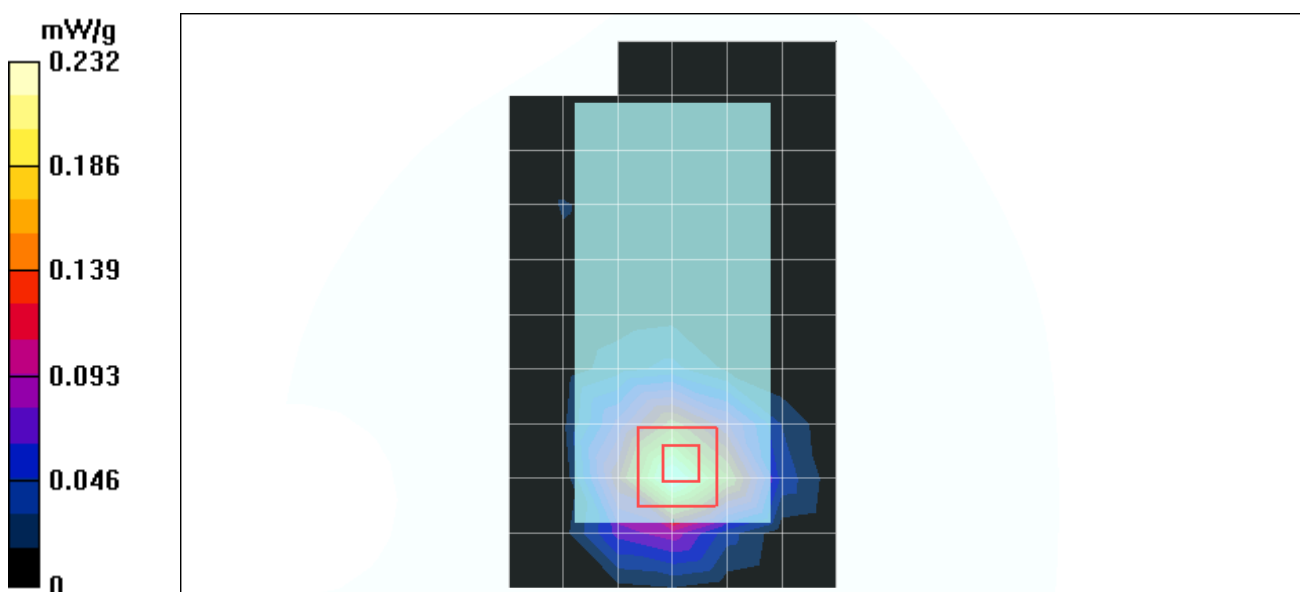
Middle Channel 6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.4 V/m; Power Drift = -0.5 dB

Peak SAR (extrapolated) = 0.325 W/kg

SAR(1 g) = 0.210 mW/g; SAR(10 g) = 0.114 mW/g

Maximum value of SAR (measured) = 0.232 mW/g



Test Laboratory: Advance Data Technology

WPC54G v3-Mode 4 11g

DUT: PCMCIA Card ; Type: WPC54G v3 ; Test 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; $\sigma = 1.87$ mho/m; $\epsilon_r = 53.4$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

High Channel 11/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.211 mW/g

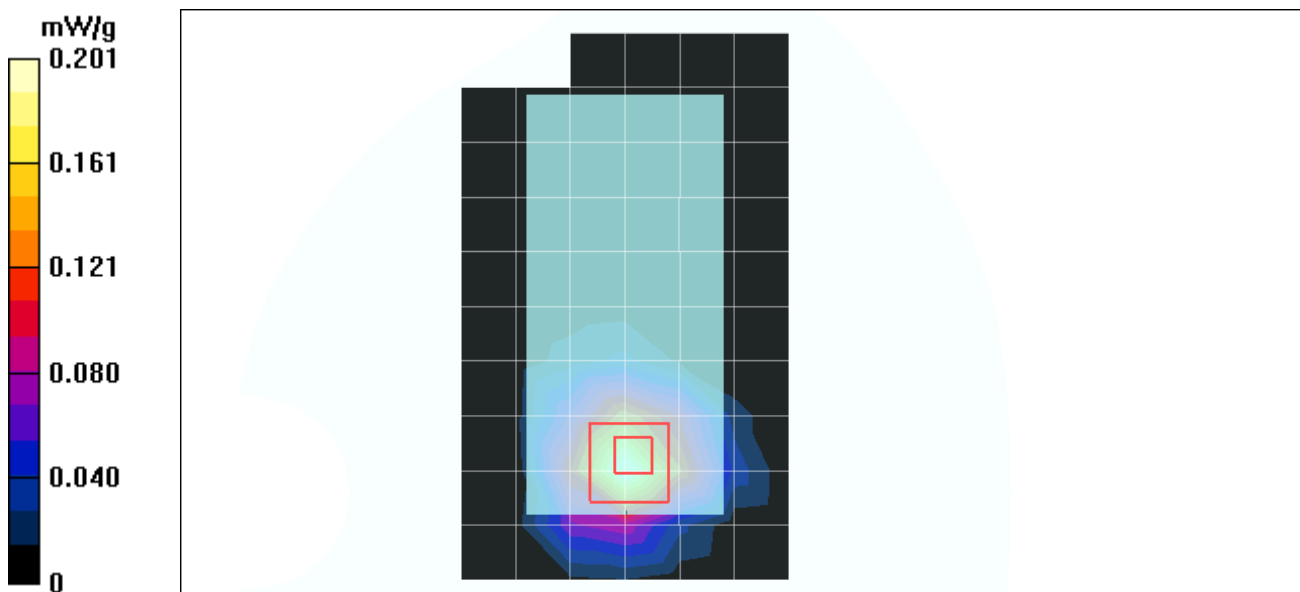
High Channel 11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.38 V/m

Peak SAR (extrapolated) = 0.283 W/kg

SAR(1 g) = 0.179 mW/g; SAR(10 g) = 0.096 mW/g

Maximum value of SAR (measured) = 0.201 mW/g



Test Laboratory: Advance Data Technology

WPC54G v3-Mode 5 11b

DUT: PCMCIA Card ; Type: WPC54G v3 ; Test Frequency: 2412 MHz

Communication System: 802.11b ; Frequency: 2412 MHz ; Duty Cycle: 1:1 ; Modulation type: CCK

Medium: MSL2450 Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.87 \text{ mho/m}$; $\epsilon_r = 52.4$; $\rho = 1000 \text{ kg/m}^3$; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

Low Channel 1/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.345 mW/g

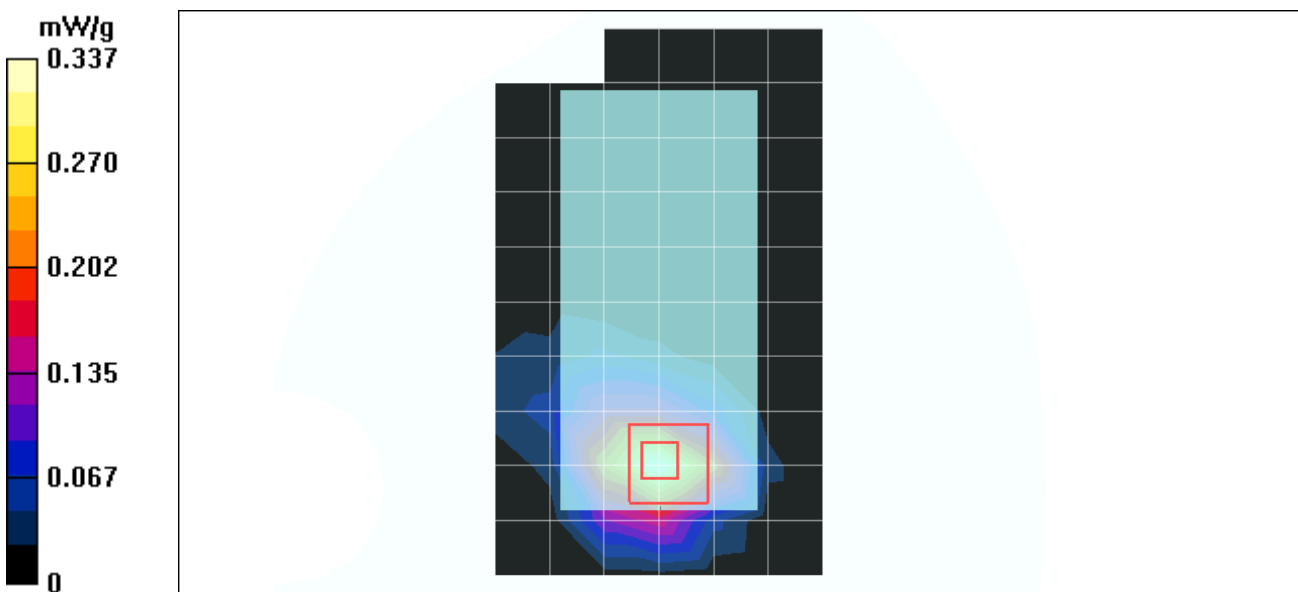
Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.2 V/m

Peak SAR (extrapolated) = 0.476 W/kg

SAR(1 g) = 0.301 mW/g; SAR(10 g) = 0.158 mW/g

Maximum value of SAR (measured) = 0.337 mW/g



Test Laboratory: Advance Data Technology

WPC54G v3-Mode 5 11b

DUT: PCMCIA Card ; Type: WPC54G v3 ; Test 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; $\sigma = 1.88$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

Middle Channel 6/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.366 mW/g

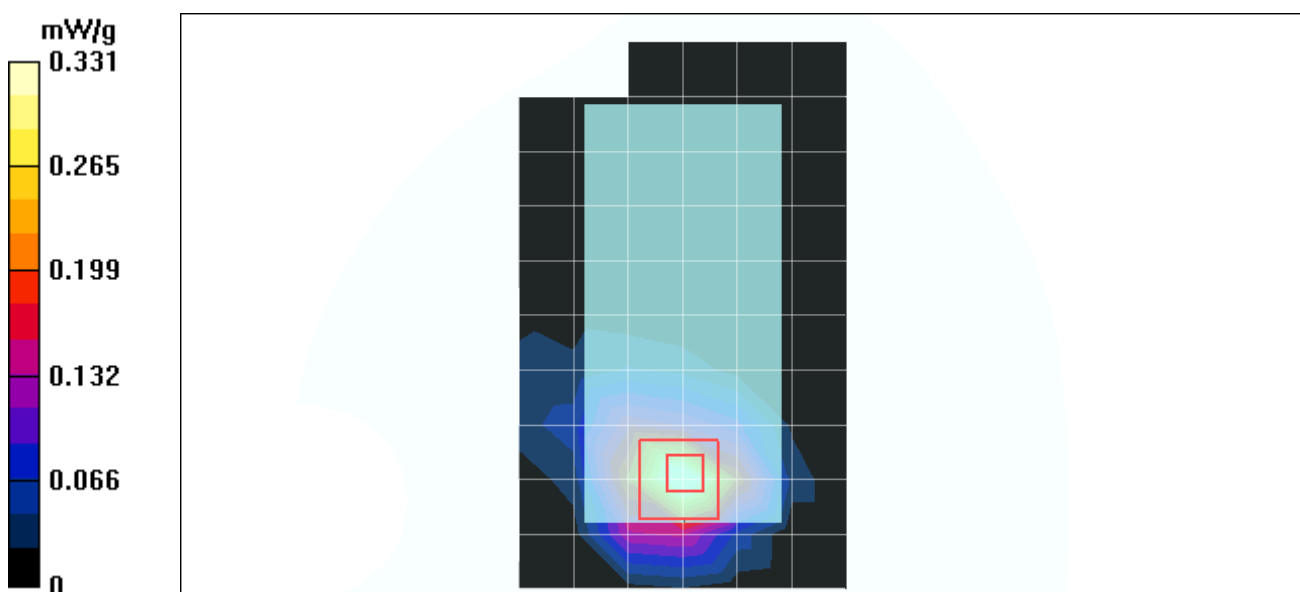
Middle Channel 6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13 V/m

Peak SAR (extrapolated) = 0.470 W/kg

SAR(1 g) = 0.300 mW/g; SAR(10 g) = 0.162 mW/g

Maximum value of SAR (measured) = 0.331 mW/g



Test Laboratory: Advance Data Technology

WPC54G v3-Mode 5 11b

DUT: PCMCIA Card ; Type: WPC54G v3 ; Test 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; $\sigma = 1.87$ mho/m; $\epsilon_r = 53.4$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

High Channel 11/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.362 mW/g

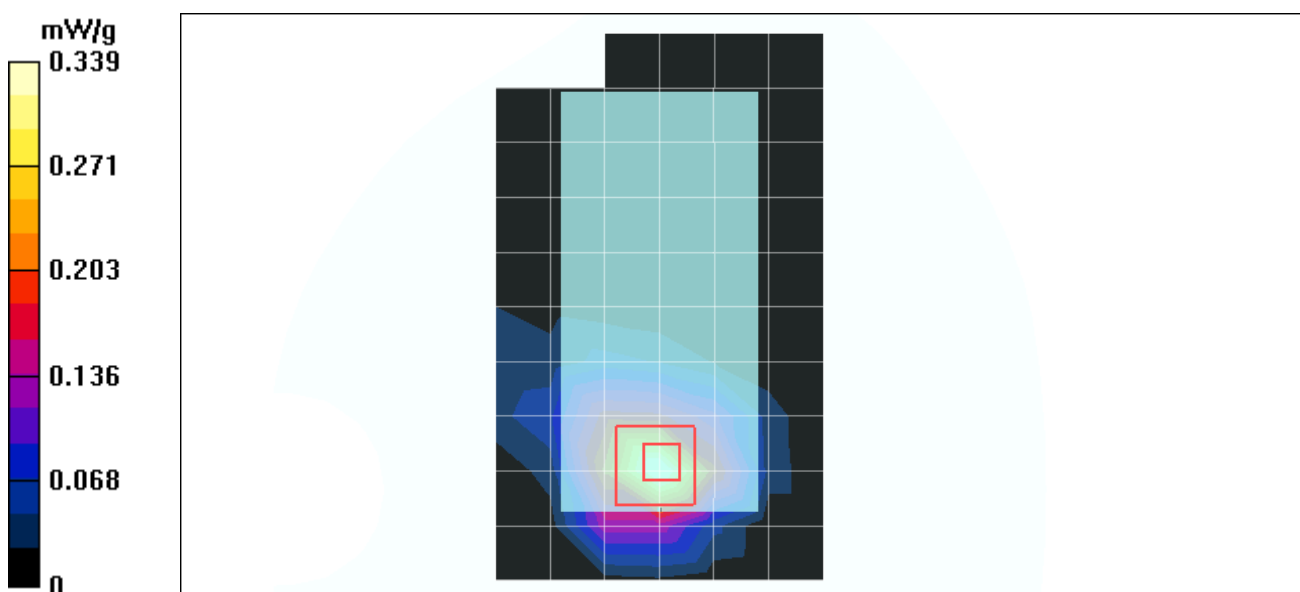
High Channel 11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

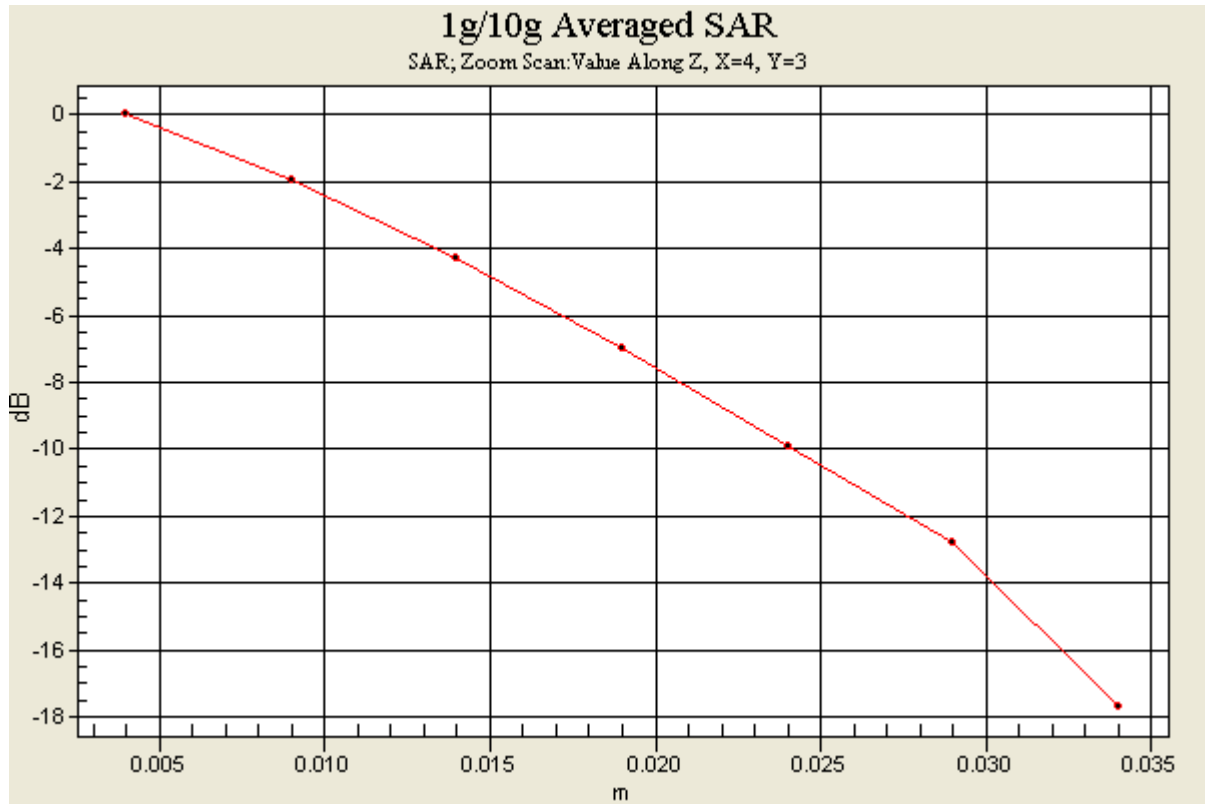
Reference Value = 13.1 V/m

Peak SAR (extrapolated) = 0.486 W/kg

SAR(1 g) = 0.308 mW/g; SAR(10 g) = 0.167 mW/g

Maximum value of SAR (measured) = 0.339 mW/g





Test Laboratory: Advance Data Technology

WPC54G v3-Mode 6 11g

DUT: Notebook ; Type: 259KI1 ; Test Frequency: 2412 MHz

Communication System: 802.11g ; Frequency: 2412 MHz ; Duty Cycle: 1:1 ; Modulation type: OFDM

Medium: MSL2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.87$ mho/m; $\epsilon_r = 52.4$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

Low Channel 1/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.320 mW/g

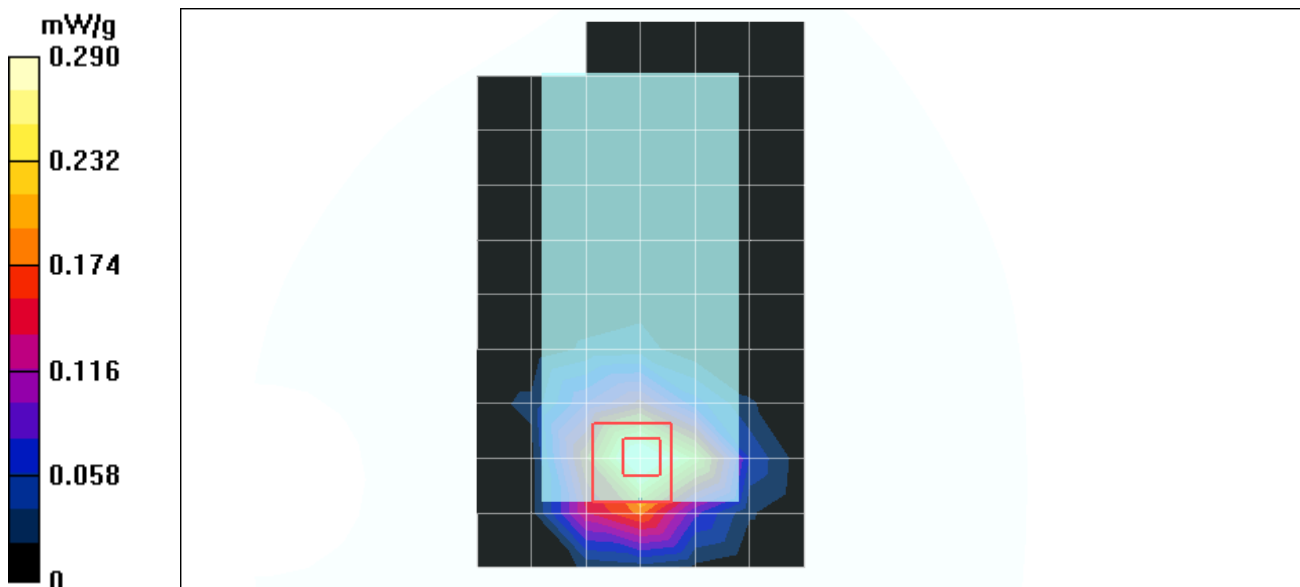
Low Channel 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12 V/m

Peak SAR (extrapolated) = 0.406 W/kg

SAR(1 g) = 0.265 mW/g; SAR(10 g) = 0.128 mW/g

Maximum value of SAR (measured) = 0.290 mW/g



Test Laboratory: Advance Data Technology

WPC54G v3-Mode 6 11g

DUT: Notebook ; Type: 259KI1 ; Test Frequency: 2437 MHz

Communication System: 802.11g ; Frequency: 2437 MHz ; Duty Cycle: 1:1 ; Modulation type: OFDM

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.88$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

Middle Channel 6/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.290 mW/g

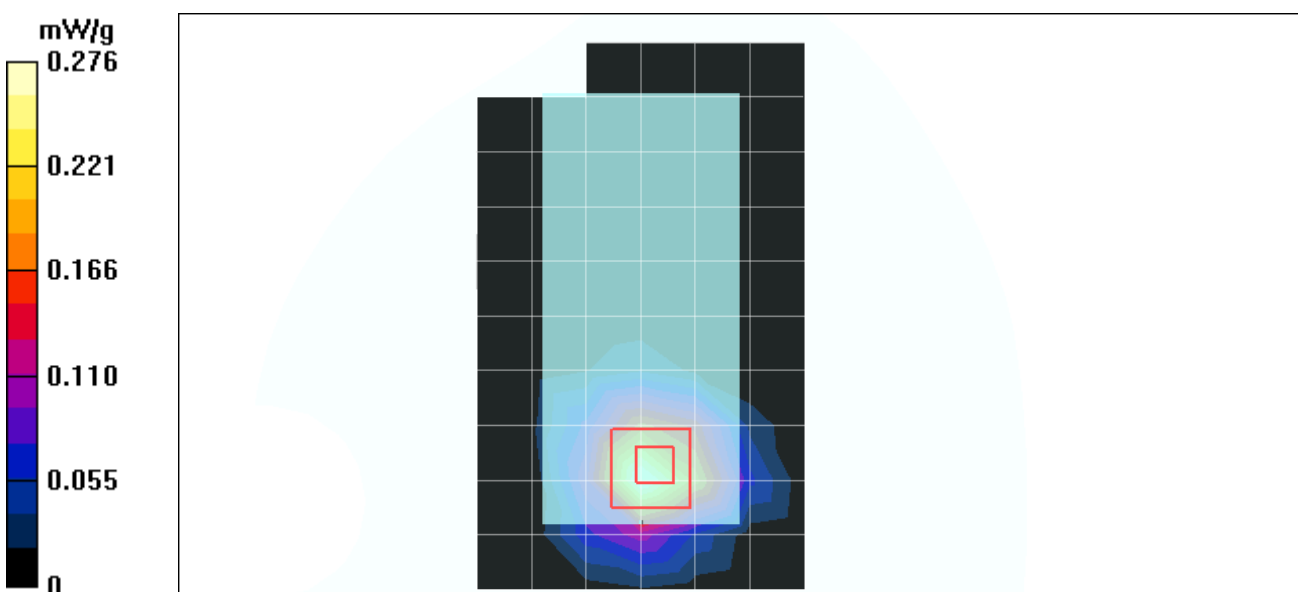
Middle Channel 6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.4 V/m

Peak SAR (extrapolated) = 0.385 W/kg

SAR(1 g) = 0.250 mW/g; SAR(10 g) = 0.136 mW/g

Maximum value of SAR (measured) = 0.276 mW/g



Test Laboratory: Advance Data Technology

WPC54G v3-Mode 6 11g

DUT: Notebook ; Type: 259KI1 ; Test 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; $\sigma = 1.87$ mho/m; $\epsilon_r = 53.4$; $\rho = 1000$ kg/m³ ; Liquid level : 150mm

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, V4.4 Build 3 ; Postprocessing SW: SEMCAD, V1.8 Build 130

High Channel 11/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.217 mW/g

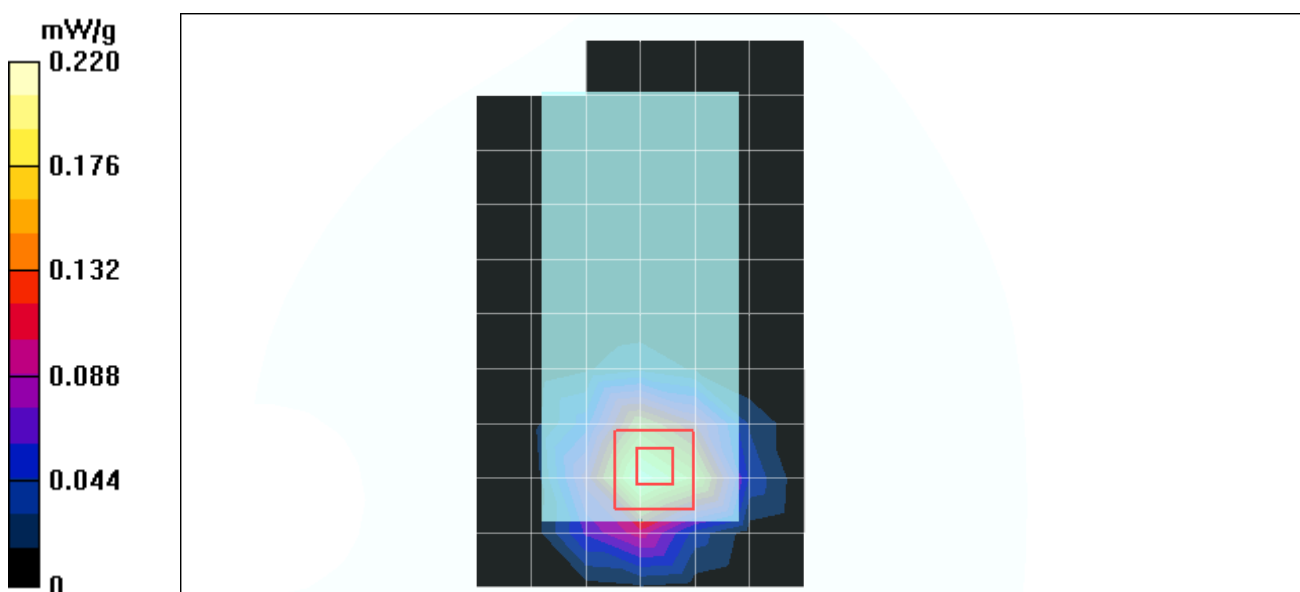
High Channel 11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.3 V/m

Peak SAR (extrapolated) = 0.306 W/kg

SAR(1 g) = 0.199 mW/g; SAR(10 g) = 0.108 mW/g

Maximum value of SAR (measured) = 0.220 mW/g



Test Laboratory: Advance Data Technology

System Validation Check-MSL 2450MHz

DUT: Dipole 2450 MHz ; Type: D2450V2 ; Serial: 716 ; Test Frequency: 2450 MHz

Communication System: CW ; Frequency: 2450 MHz; Duty Cycle: 1:1; Modulation type: CW
 Medium: MSL2450;Medium parameters used: $f = 2450$ MHz; $\sigma = 1.90$ mho/m; $\epsilon_r = 52.6$; $\rho = 1000$ kg/m³ ; Liquid level : 150 mm

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, V4.4 Build 3; Postprocessing SW: SEMCAD, V1.8 Build 130

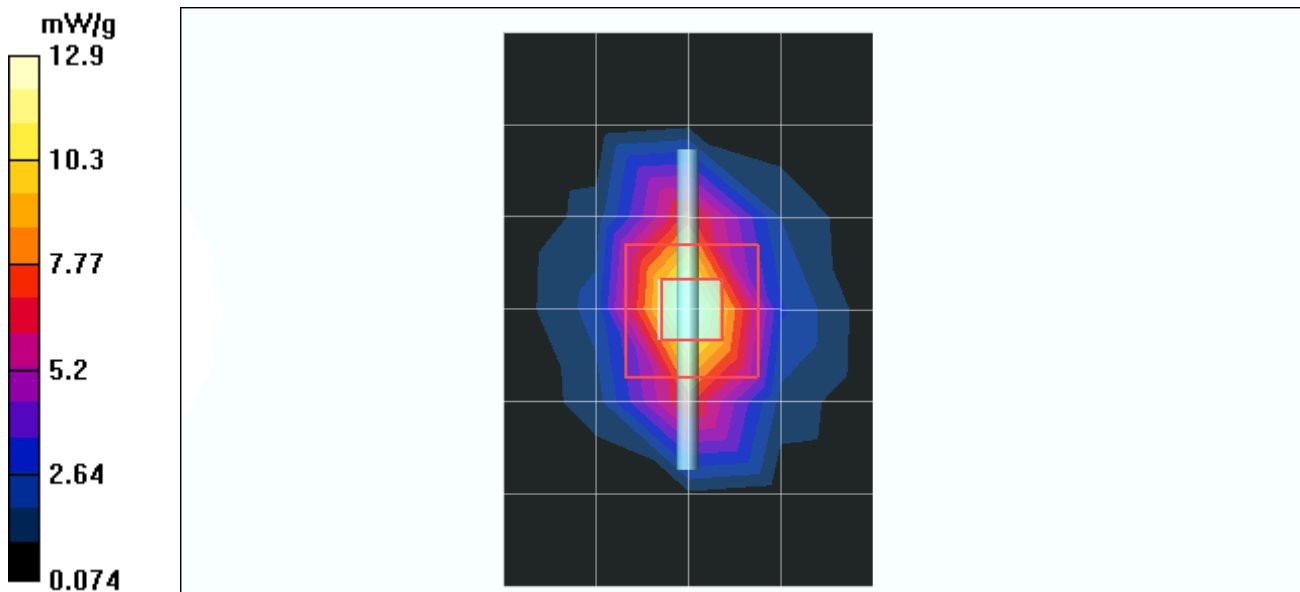
d=10mm, Pin=250mW 2/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 12.9 mW/g

d=10mm, Pin=250mW 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 86.9 V/m; Power Drift = -0.2 dB

Peak SAR (extrapolated) = 26.8 W/kg

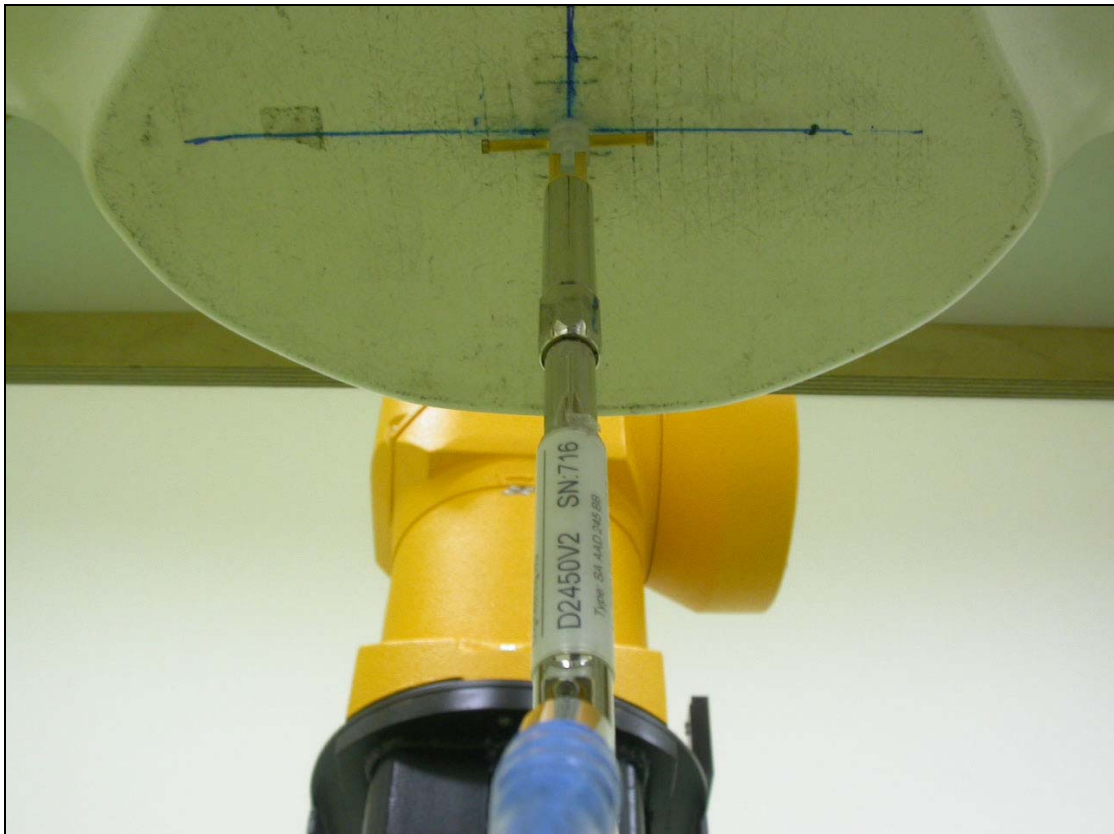
SAR(1 g) = 11.7 mW/g; SAR(10 g) = 5.42 mW/g.



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] GENELEC 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. Bumbult

**Schmid & Partner
Engineering AG**

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

Thomas Koga



D2: DOSIMETRIC E-FIELD PROBE SN: 1687

Calibration Laboratory of
Schmid & Partner
Engineering AG
 Zeughausstrasse 43, 8004 Zurich, Switzerland

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.