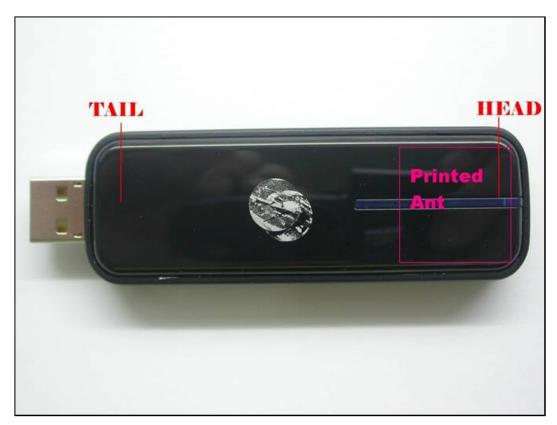


## APPENDIX A: TEST DATA

## **Liquid Level Photo**









Date/Time: 2008/8/20 10:20:46

Test Laboratory: Advance Data Technology

## M01-5M-QPSK-Ch0

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2498.5 MHz

Communication System: FCC Wimax ; Frequency: 2498.5 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f=2498.5 MHz;  $\sigma=2.05$  mho/m;  $\epsilon_r=53.9$ ;  $\rho=1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## **Low Channel 0/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.01 mW/g

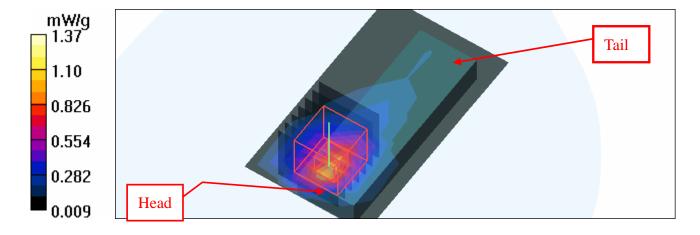
## **Low Channel 0/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.0 V/m

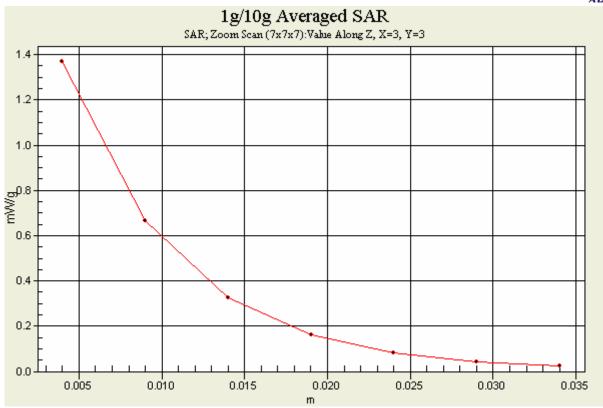
Peak SAR (extrapolated) = 2.63 W/kg

SAR(1 g) = 1.19 mW/g; SAR(10 g) = 0.500 mW/g

Maximum value of SAR (measured) = 1.37 mW/g









Date/Time: 2008/8/20 10:47:21

Test Laboratory: Advance Data Technology

## M01-5M-QPSK-Ch354

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f = 2587 MHz;  $\sigma = 2.14$  mho/m;  $\varepsilon_r = 53.1$ ;  $\rho = 1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Mid Channel 354/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.954 mW/g

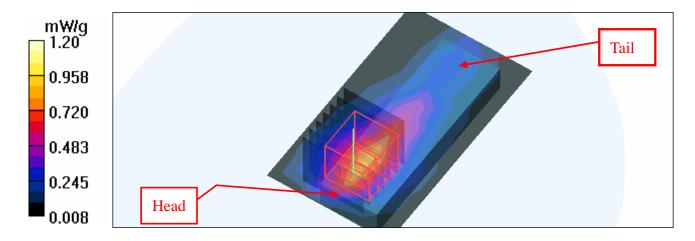
## **Mid Channel 354/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.3 V/m

Peak SAR (extrapolated) = 2.37 W/kg

 $SAR(1 g) = \frac{1.07}{mW/g}; SAR(10 g) = 0.486 mW/g$ 

Maximum value of SAR (measured) = 1.20 mW/g





Date/Time: 2008/8/20 11:12:16

Test Laboratory: Advance Data Technology

## M01-5M-QPSK-Ch756

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2687.5 MHz

Communication System: FCC Wimax ; Frequency: 2687.5 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f=2687.5 MHz;  $\sigma=2.22$  mho/m;  $\epsilon_r=52.8$ ;  $\rho=1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## **High Channel 756/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.992 mW/g

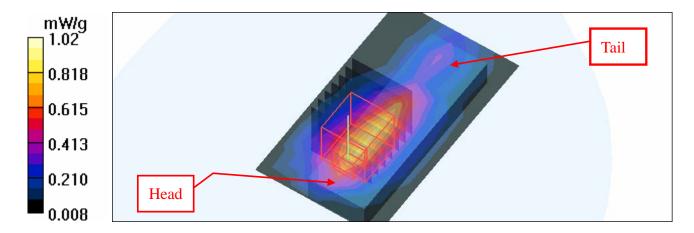
## **High Channel 756/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.9 V/m

Peak SAR (extrapolated) = 2.02 W/kg

SAR(1 g) = 0.937 mW/g; SAR(10 g) = 0.465 mW/g

Maximum value of SAR (measured) = 1.02 mW/g





Date/Time: 2008/8/20 11:36:40

Test Laboratory: Advance Data Technology

## M02-5M-QPSK-Ch0

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2498.5 MHz

Communication System: FCC Wimax ; Frequency: 2498.5 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f=2498.5 MHz;  $\sigma=2.05$  mho/m;  $\epsilon_r=53.9$ ;  $\rho=1000$  kg/m $^3$ ; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The front side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## **Low Channel 0/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.915 mW/g

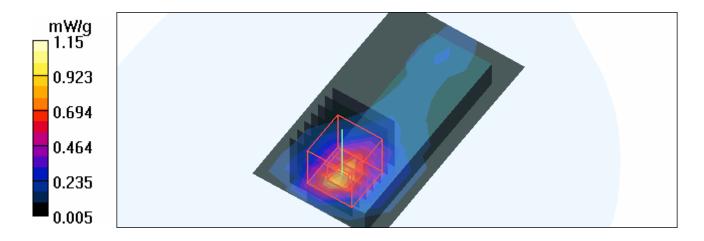
## **Low Channel 0/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.8 V/m

Peak SAR (extrapolated) = 2.16 W/kg

SAR(1 g) = 0.995 mW/g; SAR(10 g) = 0.431 mW/g

Maximum value of SAR (measured) = 1.15 mW/g





Date/Time: 2008/8/20 12:09:36

Test Laboratory: Advance Data Technology

## M02-5M-QPSK-Ch354

## DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f=2587 MHz;  $\sigma=2.14$  mho/m;  $\epsilon_r=53.1$ ;  $\rho=1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The front side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Mid Channel 354/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.703 mW/g

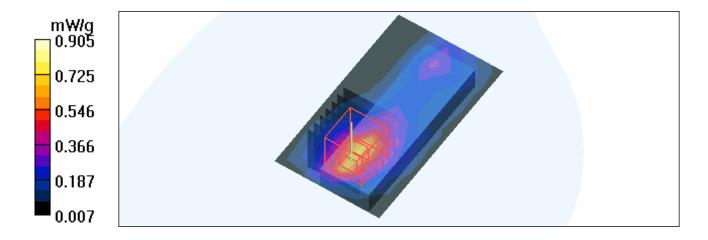
## **Mid Channel 354/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.9 V/m

Peak SAR (extrapolated) = 1.79 W/kg

SAR(1 g) = 0.807 mW/g; SAR(10 g) = 0.362 mW/g

Maximum value of SAR (measured) = 0.905 mW/g





Date/Time: 2008/8/20 13:39:10

Test Laboratory: Advance Data Technology

## M02-5M-QPSK-Ch756

DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2687.5 MHz

Communication System: FCC Wimax ; Frequency: 2687.5 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f=2687.5 MHz;  $\sigma=2.22$  mho/m;  $\epsilon_r=52.8$ ;  $\rho=1000$  kg/m $^3$ ; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The front side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

#### **High Channel 756/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.676 mW/g

**High Channel 756/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.7 V/m

Peak SAR (extrapolated) = 1.51 W/kg

 $SAR(1 g) = \frac{0.696}{0.696} mW/g; SAR(10 g) = 0.341 mW/g$ 

Maximum value of SAR (measured) = 0.772 mW/g

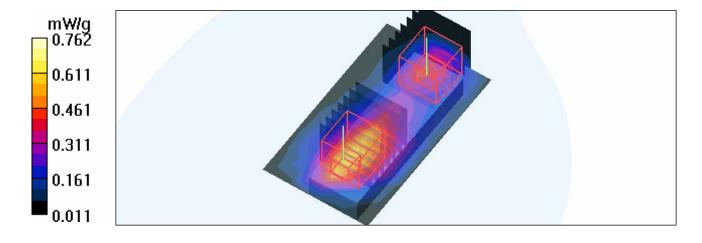
**High Channel 756/Zoom Scan (7x7x7) (7x7x7)/Cube 1:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.7 V/m

Peak SAR (extrapolated) = 0.925 W/kg

SAR(1 g) = 0.469 mW/g; SAR(10 g) = 0.231 mW/g

Maximum value of SAR (measured) = 0.526 mW/g





Date/Time: 2008/8/20 14:06:23

Test Laboratory: Advance Data Technology

## M03-5M-QPSK-Ch354

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f=2587 MHz;  $\sigma=2.14$  mho/m;  $\epsilon_r=53.1$ ;  $\rho=1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The edge side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Mid Channel 354/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.155 mW/g

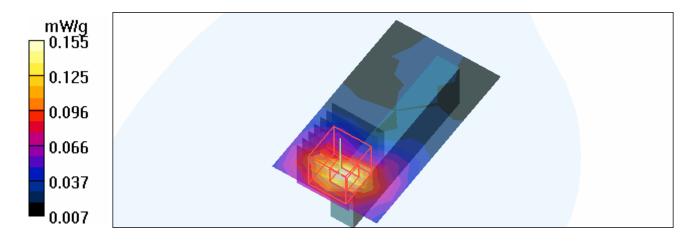
## **Mid Channel 354/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.64 V/m

Peak SAR (extrapolated) = 0.282 W/kg

SAR(1 g) = 0.142 mW/g; SAR(10 g) = 0.073 mW/g

Maximum value of SAR (measured) = 0.151 mW/g





Date/Time: 2008/8/20 14:32:28

Test Laboratory: Advance Data Technology

## M04-5M-QPSK-Ch0

#### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2498.5 MHz

Communication System: FCC Wimax ; Frequency: 2498.5 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f=2498.5 MHz;  $\sigma=2.05$  mho/m;  $\epsilon_r=53.9$ ;  $\rho=1000$  kg/m $^3$ ; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The edge side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## **Low Channel 0/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.496 mW/g

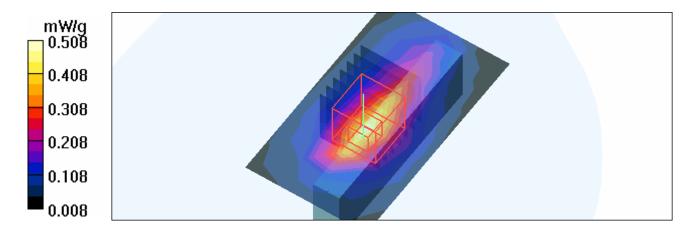
## **Low Channel 0/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.58 V/m

Peak SAR (extrapolated) = 0.893 W/kg

SAR(1 g) = 0.452 mW/g; SAR(10 g) = 0.224 mW/g

Maximum value of SAR (measured) = 0.508 mW/g





Date/Time: 2008/8/20 14:57:11

Test Laboratory: Advance Data Technology

## M04-5M-QPSK-Ch354

## DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f=2587 MHz;  $\sigma=2.14$  mho/m;  $\epsilon_r=53.1$ ;  $\rho=1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The edge side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Mid Channel 354/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.764 mW/g

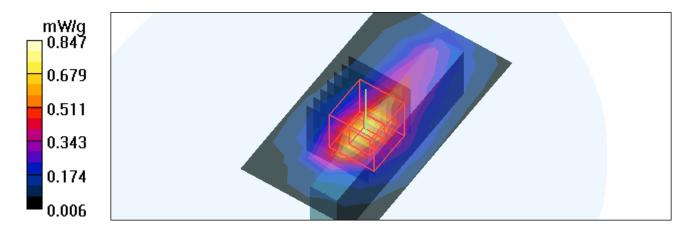
## **Mid Channel 354/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.92 V/m

Peak SAR (extrapolated) = 1.46 W/kg

SAR(1 g) = 0.738 mW/g; SAR(10 g) = 0.361 mW/g

Maximum value of SAR (measured) = 0.847 mW/g





Date/Time: 2008/8/20 15:20:03

Test Laboratory: Advance Data Technology

## **M04-5M-QPSK-Ch756**

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2687.5 MHz

Communication System: FCC Wimax ; Frequency: 2687.5 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f=2687.5 MHz;  $\sigma=2.22$  mho/m;  $\epsilon_r=52.8$ ;  $\rho=1000$  kg/m³; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The edge side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

# **High Channel 756/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.680 mW/g

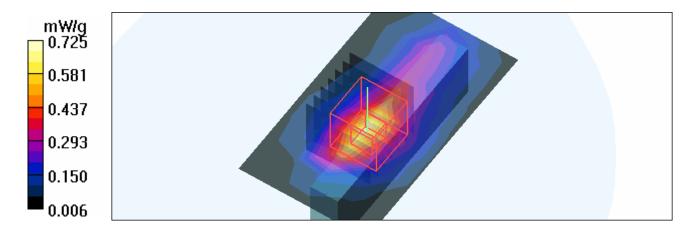
## **High Channel 756/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.37 V/m

Peak SAR (extrapolated) = 1.28 W/kg

SAR(1 g) = 0.641 mW/g; SAR(10 g) = 0.307 mW/g

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





Date/Time: 2008/8/20 15:44:38

Test Laboratory: Advance Data Technology

## M05-5M-QPSK-Ch0

#### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2498.5 MHz

Communication System: FCC Wimax ; Frequency: 2498.5 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2498.5 MHz;  $\sigma = 2.05$  mho/m;  $\epsilon_r = 53.9$ ;  $\rho = 1000$  kg/m³; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The top side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## **Low Channel 0/Area Scan (5x5x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.15 mW/g

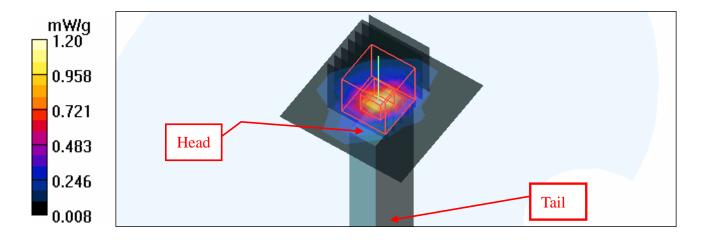
## **Low Channel 0/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.1 V/m

Peak SAR (extrapolated) = 2.30 W/kg

 $SAR(1 g) = \frac{1}{1} mW/g; SAR(10 g) = 0.394 mW/g$ 

Maximum value of SAR (measured) = 1.20 mW/g





Date/Time: 2008/8/20 16:10:10

Test Laboratory: Advance Data Technology

## M05-5M-QPSK-Ch354

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2587 MHz;  $\sigma = 2.14$  mho/m;  $\epsilon_r = 53.1$ ;  $\rho = 1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The top side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Mid Channel 354/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.04 mW/g

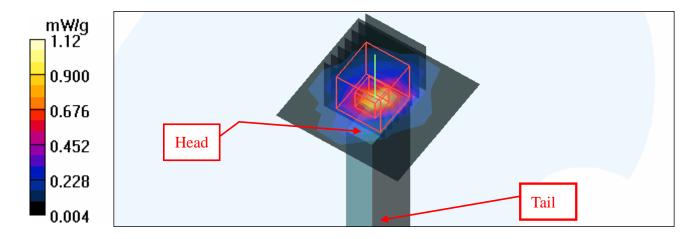
## **Mid Channel 354/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.0 V/m

Peak SAR (extrapolated) = 2.25 W/kg

SAR(1 g) = 0.931 mW/g; SAR(10 g) = 0.361 mW/g

Maximum value of SAR (measured) = 1.12 mW/g





Date/Time: 2008/8/20 16:36:01

Test Laboratory: Advance Data Technology

## M05-5M-QPSK-Ch756

## DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2687.5 MHz

Communication System: FCC Wimax ; Frequency: 2687.5 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f=2687.5 MHz;  $\sigma=2.22$  mho/m;  $\epsilon_r=52.8$ ;  $\rho=1000$  kg/m $^3$ ; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The top side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

# **High Channel 756/Area Scan (5x5x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.982 mW/g

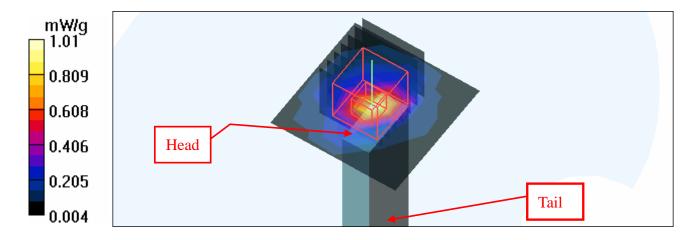
## **High Channel 756/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.7 V/m

Peak SAR (extrapolated) = 2.08 W/kg

SAR(1 g) = 0.850 mW/g; SAR(10 g) = 0.334 mW/g

Maximum value of SAR (measured) = 1.01 mW/g





Date/Time: 2008/8/20 17:02:51

Test Laboratory: Advance Data Technology

## M06-10M-QPSK-Ch0

## DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2501 MHz

Communication System: FCC Wimax ; Frequency: 2501 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f = 2501 MHz;  $\sigma$  = 2.05 mho/m;  $\epsilon_r$  = 53.9;  $\rho$  = 1000

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Low Channel 0/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.993 mW/g

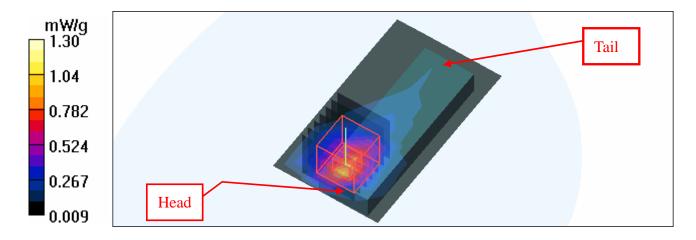
# **Low Channel 0/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.0 V/m

Peak SAR (extrapolated) = 2.51 W/kg

 $SAR(1 g) = \frac{1.11}{mW/g}; SAR(10 g) = 0.468 mW/g$ 

Maximum value of SAR (measured) = 1.30 mW/g





Date/Time: 2008/8/20 17:26:07

Test Laboratory: Advance Data Technology

## M06-10M-QPSK-Ch344

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f = 2587 MHz;  $\sigma = 2.14$  mho/m;  $\epsilon_r = 53.1$ ;  $\rho = 1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Mid Channel 344/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.980 mW/g

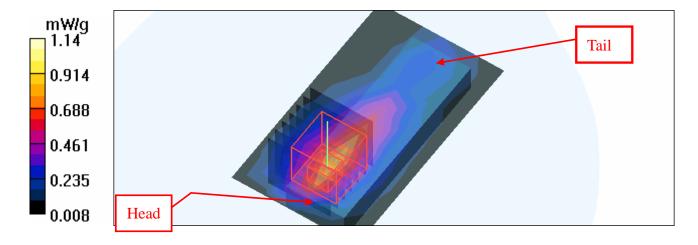
## **Mid Channel 344/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.9 V/m

Peak SAR (extrapolated) = 2.23 W/kg

 $SAR(1 g) = \frac{1.01}{1.01} \, mW/g; \, SAR(10 g) = 0.463 \, mW/g$ 

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





Date/Time: 2008/8/20 17:52:51

Test Laboratory: Advance Data Technology

## M06-10M-QPSK-Ch736

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2685 MHz

Communication System: FCC Wimax ; Frequency: 2685 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f = 2685 MHz;  $\sigma = 2.22$  mho/m;  $\epsilon_r = 52.8$ ;  $\rho = 1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## **High Channel 736/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.753 mW/g

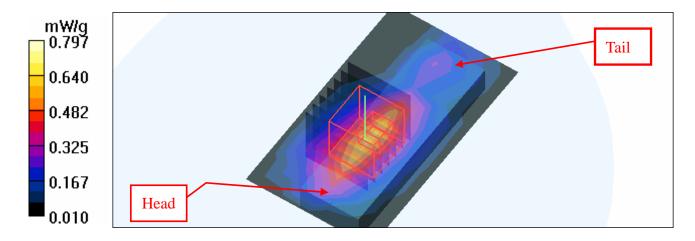
## **High Channel 736/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.4 V/m

Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = 0.723 mW/g; SAR(10 g) = 0.355 mW/g

Maximum value of SAR (measured) = 0.797 mW/g





Date/Time: 2008/8/20 18:17:51

Test Laboratory: Advance Data Technology

## M07-10M-QPSK-Ch0

## DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2501 MHz

Communication System: FCC Wimax ; Frequency: 2501 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f = 2501 MHz;  $\sigma$  = 2.05 mho/m;  $\epsilon_r$  = 53.9;  $\rho$  = 1000

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The front side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## **Low Channel 0/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.755 mW/g

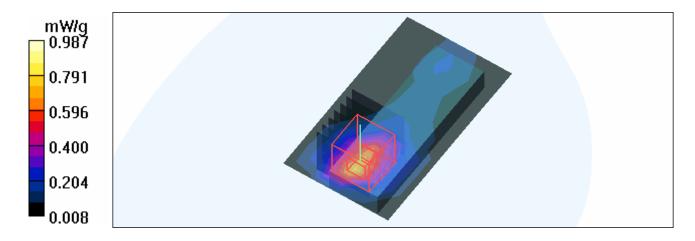
## **Low Channel 0/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.5 V/m

Peak SAR (extrapolated) = 1.83 W/kg

SAR(1 g) = 0.852 mW/g; SAR(10 g) = 0.371 mW/g

Maximum value of SAR (measured) = 0.987 mW/g





Date/Time: 2008/8/20 18:42:09

Test Laboratory: Advance Data Technology

## M07-10M-QPSK-Ch344

## DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f=2587 MHz;  $\sigma=2.14$  mho/m;  $\epsilon_r=53.1$ ;  $\rho=1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The front side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Mid Channel 344/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.644 mW/g

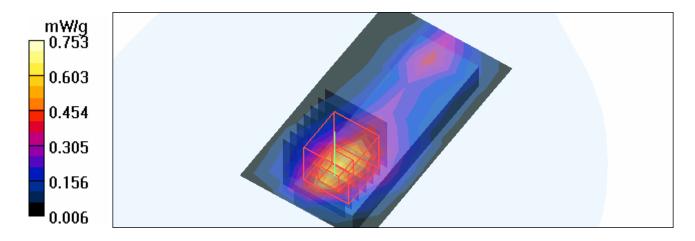
## **Mid Channel 344/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.1 V/m

Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 0.672 mW/g; SAR(10 g) = 0.311 mW/g

Maximum value of SAR (measured) = 0.753 mW/g





Date/Time: 2008/8/20 19:19:05

Test Laboratory: Advance Data Technology

## M07-10M-QPSK-Ch736

DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2685 MHz

Communication System: FCC Wimax ; Frequency: 2685 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2685 MHz;  $\sigma$  = 2.22 mho/m;  $\epsilon_r$  = 52.8;  $\rho$  = 1000

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The front side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

#### **High Channel 736/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.578 mW/g

**High Channel 736/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.2 V/m

Peak SAR (extrapolated) = 1.20 W/kg

SAR(1 g) = 0.558 mW/g; SAR(10 g) = 0.281 mW/g

Maximum value of SAR (measured) = 0.614 mW/g

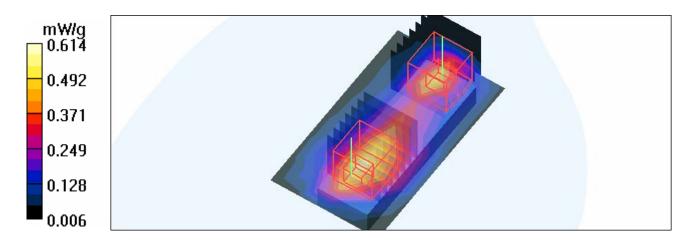
# **High Channel 736/Zoom Scan (7x7x7) (7x7x7)/Cube 1:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.2 V/m

Peak SAR (extrapolated) = 0.915 W/kg

### SAR(1 g) = 0.460 mW/g; SAR(10 g) = 0.221 mW/g

Maximum value of SAR (measured) = 0.517 mW/g





Date/Time: 2008/8/20 19:45:04

Test Laboratory: Advance Data Technology

## M08-10M-QPSK-Ch344

## DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f=2587 MHz;  $\sigma=2.14$  mho/m;  $\epsilon_r=53.1$ ;  $\rho=1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The edge side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Mid Channel 344/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.172 mW/g

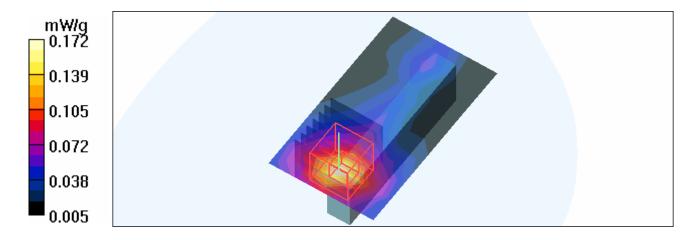
## **Mid Channel 344/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.85 V/m

Peak SAR (extrapolated) = 0.321 W/kg

 $SAR(1 g) = \frac{0.157}{mW/g}; SAR(10 g) = 0.079 mW/g$ 

Maximum value of SAR (measured) = 0.171 mW/g





Date/Time: 2008/8/20 20:11:23

Test Laboratory: Advance Data Technology

## M09-10M-QPSK-Ch0

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2501 MHz

Communication System: FCC Wimax ; Frequency: 2501 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f=2501 MHz;  $\sigma=2.05$  mho/m;  $\epsilon_r=53.9$ ;  $\rho=1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The edge side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## **Low Channel 0/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.427 mW/g

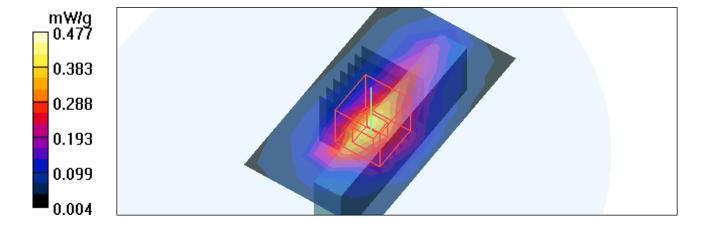
## **Low Channel 0/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.41 V/m

Peak SAR (extrapolated) = 0.841 W/kg

SAR(1 g) = 0.423 mW/g; SAR(10 g) = 0.207 mW/g

Maximum value of SAR (measured) = 0.477 mW/g





Date/Time: 2008/8/20 20:35:15

Test Laboratory: Advance Data Technology

## M09-10M-QPSK-Ch344

## DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f=2587 MHz;  $\sigma=2.14$  mho/m;  $\epsilon_r=53.1$ ;  $\rho=1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The edge side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Mid Channel 344/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.693 mW/g

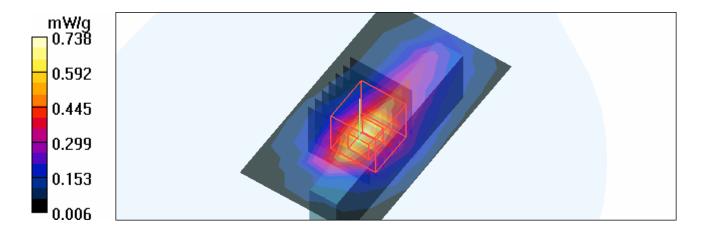
## **Mid Channel 344/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.57 V/m

Peak SAR (extrapolated) = 1.30 W/kg

SAR(1 g) = 0.658 mW/g; SAR(10 g) = 0.321 mW/g

Maximum value of SAR (measured) = 0.738 mW/g





Date/Time: 2008/8/20 21:01:24

Test Laboratory: Advance Data Technology

## M09-10M-QPSK-Ch736

## DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2685 MHz

Communication System: FCC Wimax ; Frequency: 2685 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f = 2685 MHz;  $\sigma$  = 2.22 mho/m;  $\epsilon_r$  = 52.8;  $\rho$  = 1000

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The edge side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## **High Channel 736/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.689 mW/g

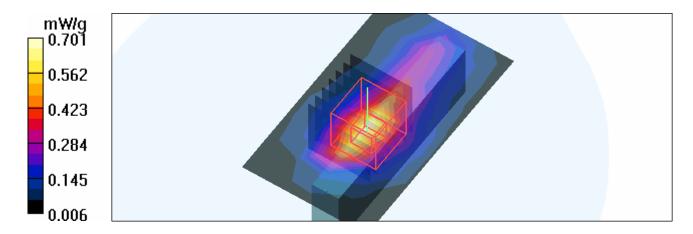
## **High Channel 736/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.07 V/m

Peak SAR (extrapolated) = 1.27 W/kg

SAR(1 g) = 0.618 mW/g; SAR(10 g) = 0.293 mW/g

Maximum value of SAR (measured) = 0.701 mW/g





Date/Time: 2008/8/20 21:25:49

Test Laboratory: Advance Data Technology

## M10-10M-QPSK-Ch0

#### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2501 MHz

Communication System: FCC Wimax ; Frequency: 2501 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f=2501 MHz;  $\sigma=2.05$  mho/m;  $\epsilon_r=53.9$ ;  $\rho=1000$  kg/m $^3$ ; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The top side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## **Low Channel 0/Area Scan (5x5x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.30 mW/g

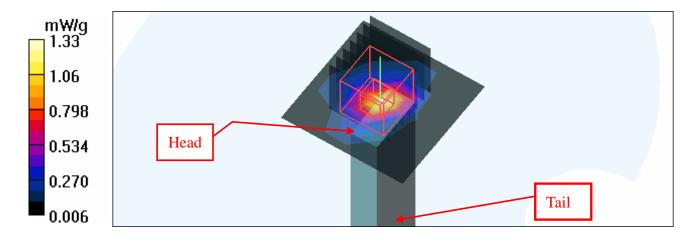
## **Low Channel 0/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.8 V/m

Peak SAR (extrapolated) = 2.66 W/kg

SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.417 mW/g

Maximum value of SAR (measured) = 1.33 mW/g





Date/Time: 2008/8/20 21:51:22

Test Laboratory: Advance Data Technology

## M10-10M-QPSK-Ch344

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f=2587 MHz;  $\sigma=2.14$  mho/m;  $\epsilon_r=53.1$ ;  $\rho=1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The top side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Mid Channel 344/Area Scan (5x5x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.05 mW/g

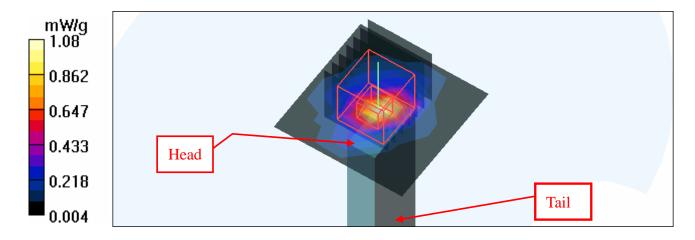
## **Mid Channel 344/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.9 V/m

Peak SAR (extrapolated) = 2.17 W/kg

SAR(1 g) = 0.893 mW/g; SAR(10 g) = 0.344 mW/g

Maximum value of SAR (measured) = 1.08 mW/g





Date/Time: 2008/8/20 22:18:21

Test Laboratory: Advance Data Technology

## M10-10M-QPSK-Ch736

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2685 MHz

Communication System: FCC Wimax ; Frequency: 2685 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2685 MHz;  $\sigma = 2.22$  mho/m;  $\varepsilon_r = 52.8$ ;  $\rho = 1000$ 

kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 5 mm (The top side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

# **High Channel 736/Area Scan (5x5x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.875 mW/g

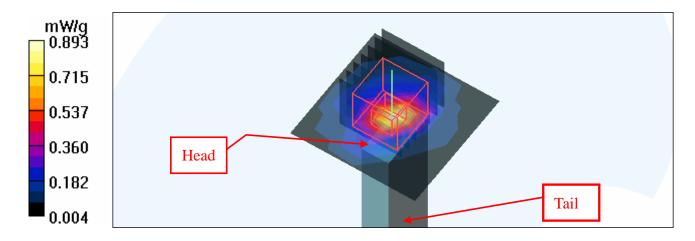
## **High Channel 736/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.2 V/m

Peak SAR (extrapolated) = 1.83 W/kg

SAR(1 g) = 0.743 mW/g; SAR(10 g) = 0.294 mW/g

Maximum value of SAR (measured) = 0.893 mW/g





Date/Time: 2008/8/20 09:31:30

Test Laboratory: Advance Data Technology

## System Validation Check-MSL 2600MHz

### DUT: Dipole 2587 MHz; Type: D2600V2; Serial: 1003; Test Frequency: 2600 MHz

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1; Modulation type: CW Medium: MSL2600; Medium parameters used: f = 2600 MHz;  $\sigma = 2.14$  mho/m;  $\varepsilon_r = 53.1$ ;  $\rho = 1000$ kg/m<sup>3</sup>; Liquid level: 150 mm

Phantom section: Flat Section; Separation distance: 10 mm (The feetpoint of the dipole to the

Phantom) Air temp.: 23.1 degrees; Liquid temp.: 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

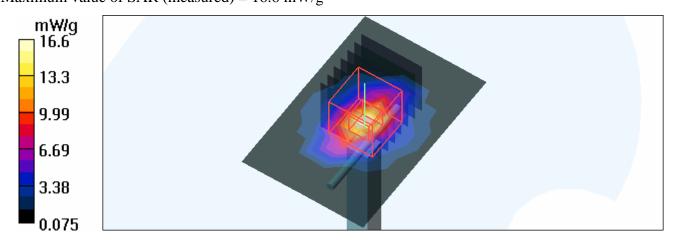
## d=10mm, Pin=250mW/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 17.3 mW/g

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

Reference Value = 90.4 V/m; Power Drift = -0.073 dB

Peak SAR (extrapolated) = 30.3 W/kg

 $SAR(1 g) = \frac{14.4}{M} \frac{MW}{g}; SAR(10 g) = 6.45 \frac{MW}{g}$ Maximum value of SAR (measured) = 16.6 mW/g





## APPENDIX A: TEST DATA

## **Liquid Level Photo**





Date/Time: 2008/10/29 13:21:37

Test Laboratory: Advance Data Technology

### M11-5M-16Q1\_2-Ch0

#### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100

Communication System: FCC Wimax ; Frequency: 2498.5 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2498.5 MHz;  $\sigma = 2.08$  mho/m;  $\epsilon r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom) Area scan find secondary maxima within 2dB and with a peak SAR value greater than 0.0012 W/Kg

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.52, 7.52, 7.52); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

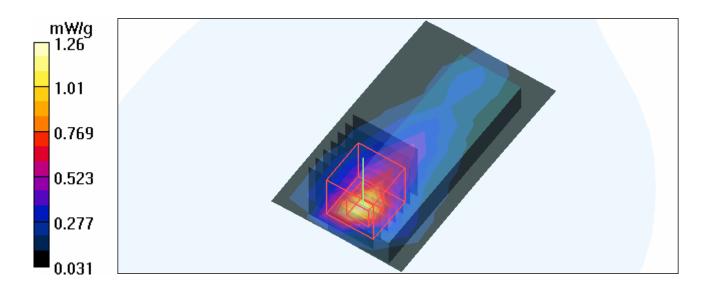
# **Low Channel 0/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.20 mW/g

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

Reference Value = 24.6 V/m

Peak SAR (extrapolated) = 2.22 W/kg

SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.479 mW/gMaximum value of SAR (measured) = 1.26 mW/g





Date/Time: 2008/10/29 14:20:23

Test Laboratory: Advance Data Technology

## M12-5M-16Q1\_2-Ch0

#### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100

Communication System: FCC Wimax ; Frequency: 2498.5 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2498.5 MHz;  $\sigma = 2.08$  mho/m;  $\epsilon r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section; Separation distance: 5 mm (The front side of the EUT to the Phantom) Area scan find secondary maxima within 2dB and with a peak SAR value greater than 0.0012 W/Kg

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.52, 7.52, 7.52); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

**Low Channel 0/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.953 mW/g

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

Reference Value = 21.5 V/m

0.026

Peak SAR (extrapolated) = 1.74 W/kg

SAR(1 g) = 0.854 mW/g; SAR(10 g) = 0.386 mW/gMaximum value of SAR (measured) = 1.00 mW/g

0.809 0.613 0.418 0.222



Date/Time: 2008/10/29 15:36:31

Test Laboratory: Advance Data Technology

## M13-5M-16Q1\_2-Ch0

#### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100

Communication System: FCC Wimax ; Frequency: 2498.5 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2498.5 MHz;  $\sigma = 2.08$  mho/m;  $\epsilon r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section; Separation distance: 5 mm (The tip side of the EUT to the Phantom) Area scan find secondary maxima within 2dB and with a peak SAR value greater than 0.0012 W/Kg

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.52, 7.52, 7.52); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

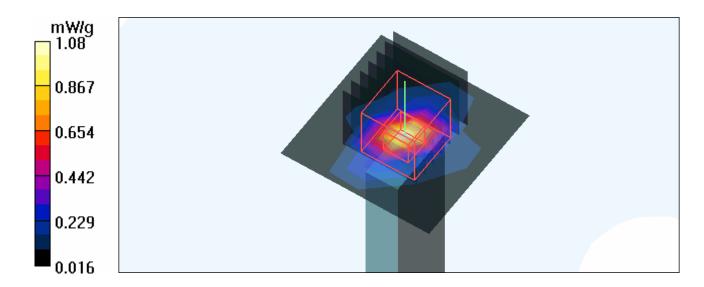
# **Low Channel 0/Area Scan (5x5x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.09 mW/g

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

Reference Value = 23.5 V/m

Peak SAR (extrapolated) = 2.16 W/kg

SAR(1 g) = 0.909 mW/g; SAR(10 g) = 0.349 mW/gMaximum value of SAR (measured) = 1.08 mW/g





Date/Time: 2008/10/29 13:58:58

Test Laboratory: Advance Data Technology

## M14-10M-16Q1\_2-Ch0

#### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100

Communication System: FCC Wimax ; Frequency: 2501 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f=2501 MHz;  $\sigma=2.08$  mho/m;  $\epsilon r=53$ ;  $\rho=1000$  kg/m<sup>3</sup> Phantom section: Flat Section ; Separation distance : 5 mm (The bottom side of the EUT to the Phantom) Area scan find secondary maxima within 2dB and with a peak SAR value greater than 0.0012 W/Kg

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.43, 7.43, 7.43); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

# **Low Channel 0/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.07 mW/g

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

Reference Value = 23.1 V/m

Peak SAR (extrapolated) = 2.12 W/kg

SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.453 mW/gMaximum value of SAR (measured) = 1.21 mW/g

0.975 0.738 0.501 0.264 0.028



Date/Time: 2008/10/29 14:48:11

Test Laboratory: Advance Data Technology

## M15-10M-16Q1\_2-Ch0

#### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100

Communication System: FCC Wimax ; Frequency: 2501 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2501 MHz;  $\sigma = 2.08$  mho/m;  $\epsilon r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section; Separation distance: 5 mm (The front side of the EUT to the Phantom) Area scan find secondary maxima within 2dB and with a peak SAR value greater than 0.0012 W/Kg

#### **DASY4** Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.43, 7.43, 7.43); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

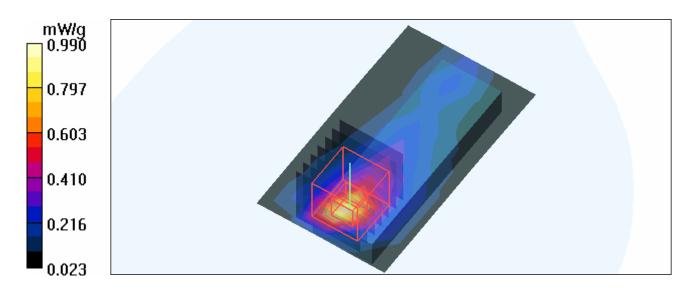
**Low Channel 0/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.940 mW/g

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

Reference Value = 21.5 V/m

Peak SAR (extrapolated) = 1.76 W/kg

SAR(1 g) = 0.845 mW/g; SAR(10 g) = 0.380 mW/gMaximum value of SAR (measured) = 0.990 mW/g





Date/Time: 2008/10/29 16:06:11

Test Laboratory: Advance Data Technology

## M16-10M-16Q1\_2-Ch0

#### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100

Communication System: FCC Wimax ; Frequency: 2501 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2501 MHz;  $\sigma = 2.08$  mho/m;  $\epsilon r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section; Separation distance: 5 mm (The tip side of the EUT to the Phantom) Area scan find secondary maxima within 2dB and with a peak SAR value greater than 0.0012 W/Kg

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.43, 7.43, 7.43); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

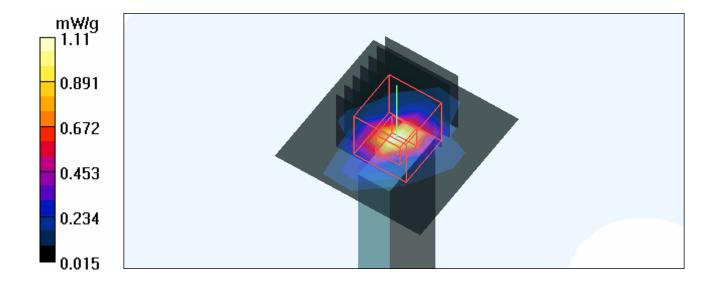
**Low Channel 0/Area Scan (5x5x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.15 mW/g

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

Reference Value = 23.3 V/m

Peak SAR (extrapolated) = 2.22 W/kg

SAR(1 g) = 0.929 mW/g; SAR(10 g) = 0.354 mW/gMaximum value of SAR (measured) = 1.11 mW/g





Date/Time: 2008/10/29 11:46:50

Test Laboratory: Advance Data Technology

## System Validation Check-MSL 2600MHz

## DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1003; Test Frequency: 2600 MHz

Communication System: CW ; Frequency: 2600 MHz; Duty Cycle: 1:1; Modulation type: CW Medium: MSL2600;Medium parameters used: f=2600 MHz;  $\sigma=2.17$  mho/m;  $\epsilon_r=52.2$ ;  $\rho=1000$  kg/m³; Liquid level : 154 mm

Phantom section: Flat Section; Separation distance: 10 mm (The feetpoint of the dipole to the

Phantom) Air temp. : 23.5 degrees ; Liquid temp. : 22.3 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.43, 7.43, 7.43); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

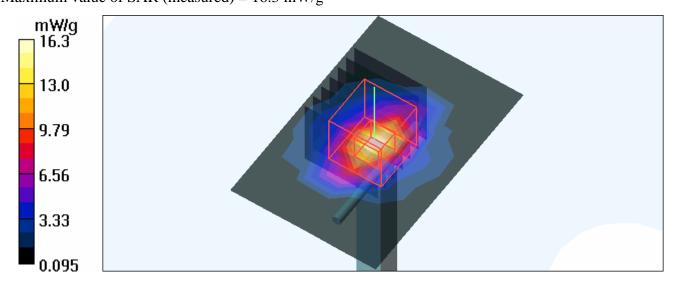
# **d=10mm, Pin=250mW/Area Scan (5x7x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 17.2 mW/g

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

Reference Value = 88.5 V/m; Power Drift = -0.091 dB

Peak SAR (extrapolated) = 32.2 W/kg

SAR(1 g) = 14.7 mW/g; SAR(10 g) = 6.45 mW/gMaximum value of SAR (measured) = 16.3 mW/g





Date/Time: 2008/10/15 09:47:15

Test Laboratory: Advance Data Technology

## 5M-QPSK\_1/2-Ch354 (12.5mW)

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f=2587 MHz;  $\sigma=2.13$  mho/m;  $\epsilon r=52.9$ ;  $\rho=1000$  kg/m $^3$ ; Liquid level: 150 mm

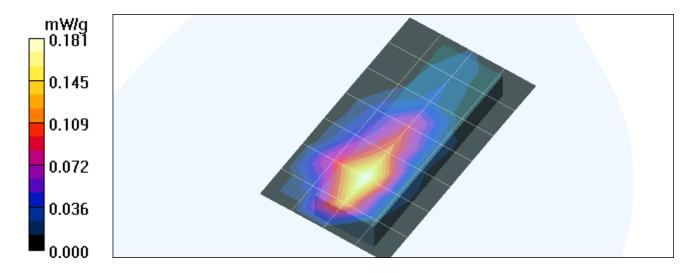
Phantom section: Flat Section; Separation distance: 0 mm (The bottom side of the sample to the Phantom)

Antenna type: Printed Antenna; Air temp.: 22.6 degrees; Liquid temp.: 21.2 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.43, 7.43, 7.43); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

# **Mid Channel 354/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.181 mW/g





Date/Time: 2008/10/15 09:53:43

Test Laboratory: Advance Data Technology

## 5M-QPSK\_1/2-Ch354 (25mW)

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f=2587 MHz;  $\sigma=2.13$  mho/m;  $\epsilon r=52.9$ ;  $\rho=1000$  kg/m $^3$ ; Liquid level: 150 mm

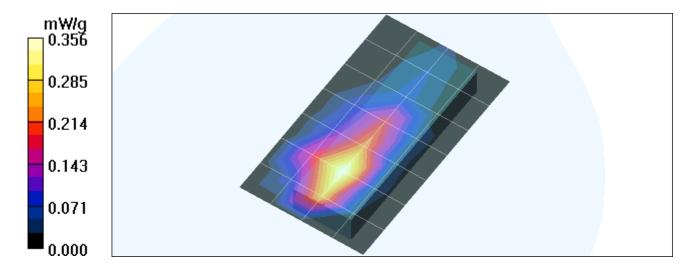
Phantom section: Flat Section; Separation distance: 0 mm (The bottom side of the sample to the Phantom)

Antenna type: Printed Antenna; Air temp.: 22.6 degrees; Liquid temp.: 21.2 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.43, 7.43, 7.43); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

# **Mid Channel 354/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.356 mW/g





Date/Time: 2008/10/15 10:00:32

Test Laboratory: Advance Data Technology

## 5M-QPSK\_1/2-Ch354 (50mW)

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f=2587 MHz;  $\sigma=2.13$  mho/m;  $\epsilon r=52.9$ ;  $\rho=1000$  kg/m $^3$ ; Liquid level: 150 mm

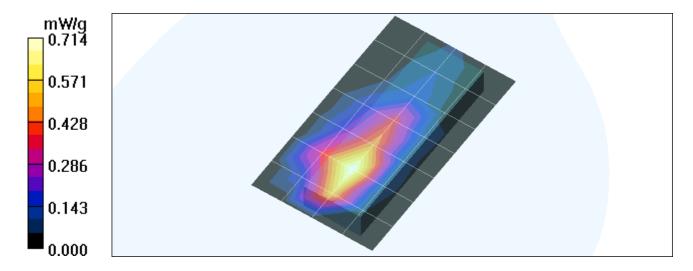
Phantom section: Flat Section; Separation distance: 0 mm (The bottom side of the sample to the Phantom)

Antenna type: Printed Antenna; Air temp.: 22.6 degrees; Liquid temp.: 21.2 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.43, 7.43, 7.43); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

# **Mid Channel 354/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.714 mW/g





Date/Time: 2008/10/15 10:06:26

Test Laboratory: Advance Data Technology

## 5M-QPSK\_1/2-Ch354 (100mW)

## DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f=2587 MHz;  $\sigma=2.13$  mho/m;  $\epsilon r=52.9$ ;  $\rho=1000$  kg/m $^3$ ; Liquid level: 150 mm

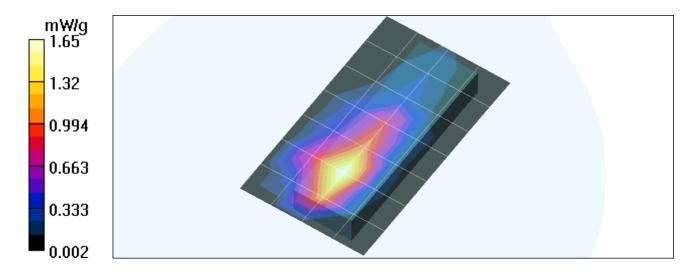
Phantom section: Flat Section; Separation distance: 0 mm (The bottom side of the sample to the Phantom)

Antenna type: Printed Antenna; Air temp.: 22.6 degrees; Liquid temp.: 21.2 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.43, 7.43, 7.43); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

# **Mid Channel 354/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.65 mW/g





Date/Time: 2008/10/15 10:12:37

Test Laboratory: Advance Data Technology

## 5M-QPSK\_1/2-Ch354 (200mW)

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2587 MHz;  $\sigma = 2.13$  mho/m;  $\epsilon r = 52.9$ ;  $\rho = 1000$  kg/m³; Liquid level: 150 mm

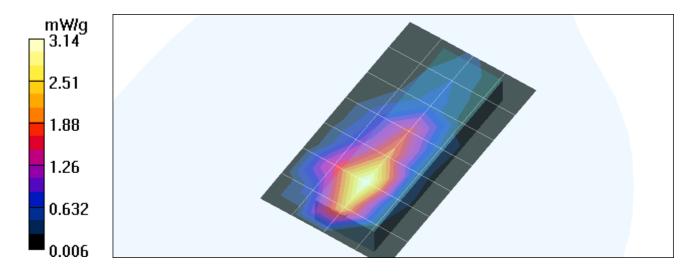
Phantom section: Flat Section; Separation distance: 0 mm (The bottom side of the sample to the Phantom)

Antenna type: Printed Antenna; Air temp.: 22.6 degrees; Liquid temp.: 21.2 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.43, 7.43, 7.43); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

# **Mid Channel 354/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 3.14 mW/g





Date/Time: 2008/10/15 07:47:36

Test Laboratory: Advance Data Technology

## System Validation Check-MSL 2600MHz

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1003; Test Frequency: 2600 MHz

Communication System: CW ; Frequency: 2600 MHz; Duty Cycle: 1:1; Modulation type: CW Medium: MSL2600;Medium parameters used: f=2600 MHz;  $\sigma=2.14$  mho/m;  $\epsilon_r=52.8$ ;  $\rho=1000$  kg/m³ ; Liquid level : 150 mm

Phantom section: Flat Section; Separation distance: 10 mm (The feetpoint of the dipole to the Phantom) Air temp.: 22.6 degrees; Liquid temp.: 21.2 degrees

#### **DASY4** Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.43, 7.43, 7.43); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

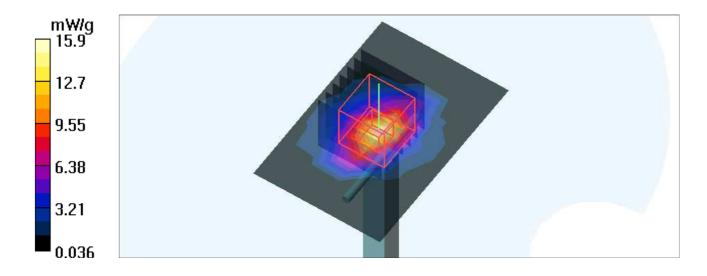
**d=10mm, Pin=250mW/Area Scan (5x7x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 16.2 mW/g

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

Reference Value = 89.1 V/m; Power Drift = -0.076 dB

Peak SAR (extrapolated) = 32.7 W/kg

SAR(1 g) = 14.1 mW/g; SAR(10 g) = 6.15 mW/gMaximum value of SAR (measured) = 15.9 mW/g





Date/Time: 2008/8/18 09:46:43

Test Laboratory: Advance Data Technology

## 5M-QPSK\_1/2-Ch354

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax; Frequency: 2587 MHz; Duty Cycle: 1:4.05; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f = 2587 MHz;  $\sigma = 2.12$  mho/m;  $\epsilon r = 52.8$ ;  $\rho = 1000$ 

kg/m<sup>3</sup>; Liquid level: 151 mm

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 22.6 degrees; Liquid temp.: 21.4 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Mid Channel 354/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.02 mW/g

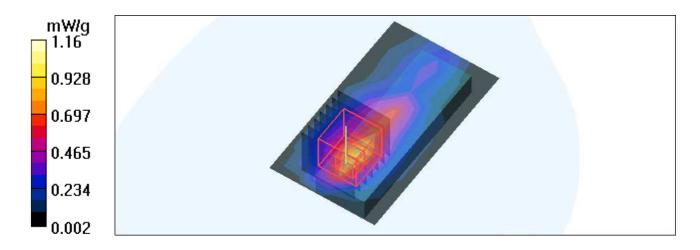
## Mid Channel 354/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.4 V/m

Peak SAR (extrapolated) = 2.43 W/kg

 $SAR(1 g) = \frac{1.03}{1.03} mW/g; SAR(10 g) = 0.472 mW/g$ 

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





Date/Time: 2008/8/18 10:34:35

Test Laboratory: Advance Data Technology

## 5M-QPSK\_3/4-Ch354

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax; Frequency: 2587 MHz; Duty Cycle: 1:4.05; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f = 2587 MHz;  $\sigma = 2.12$  mho/m;  $\epsilon r = 52.8$ ;  $\rho = 1000$ 

kg/m<sup>3</sup>; Liquid level: 151 mm

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 22.6 degrees; Liquid temp.: 21.4 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Mid Channel 354/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.874 mW/g

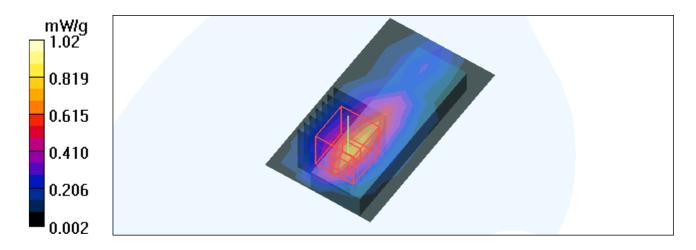
## Mid Channel 354/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.2 V/m

Peak SAR (extrapolated) = 2.15 W/kg

 $SAR(1 g) = \frac{0.913}{0.913} mW/g; SAR(10 g) = 0.414 mW/g$ 

Maximum value of SAR (measured) = 1.02 mW/g





Date/Time: 2008/8/18 11:03:06

Test Laboratory: Advance Data Technology

## 5M-16Q\_1/2-Ch354

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax; Frequency: 2587 MHz; Duty Cycle: 1:4.05; Modulation

type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2587 MHz;  $\sigma = 2.12$  mho/m;  $\epsilon r = 52.8$ ;  $\rho = 1000$ 

kg/m<sup>3</sup>; Liquid level: 151 mm

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 22.6 degrees; Liquid temp.: 21.4 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

# Mid Channel 354/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.875 mW/g

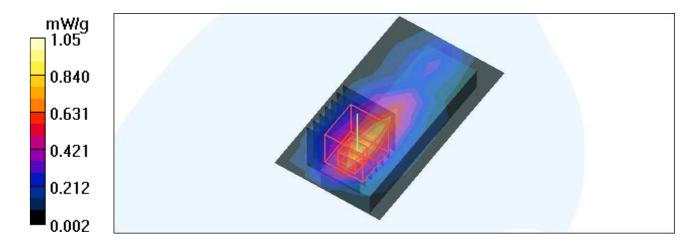
**Mid Channel 354/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.7 V/m

Peak SAR (extrapolated) = 2.09 W/kg

 $SAR(1 g) = \frac{0.885}{0.885} mW/g; SAR(10 g) = 0.402 mW/g$ 

Maximum value of SAR (measured) = 1.05 mW/g





Date/Time: 2008/8/18 11:45:31

Test Laboratory: Advance Data Technology

## 5M-16Q\_3/4-Ch354

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax; Frequency: 2587 MHz; Duty Cycle: 1:4.05; Modulation

type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2587 MHz;  $\sigma = 2.12$  mho/m;  $\epsilon r = 52.8$ ;  $\rho = 1000$ 

kg/m<sup>3</sup>; Liquid level: 151 mm

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 22.6 degrees; Liquid temp.: 21.4 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Mid Channel 354/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.856 mW/g

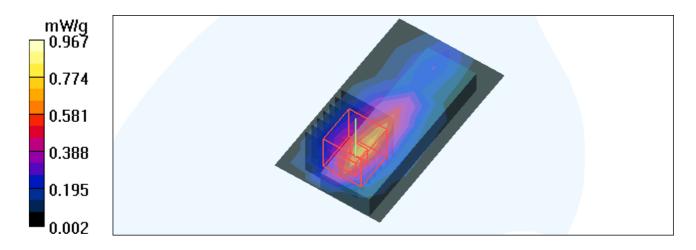
# **Mid Channel 354/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.9 V/m

Peak SAR (extrapolated) = 2.09 W/kg

 $SAR(1 g) = \frac{0.881}{0.881} mW/g; SAR(10 g) = 0.395 mW/g$ 

Maximum value of SAR (measured) = 0.967 mW/g





Date/Time: 2008/8/18 14:02:05

Test Laboratory: Advance Data Technology

## 10M-QPSK\_1/2-Ch344

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

 $Communication \ System: FCC \ Wimax \ ; \ Frequency: 2587 \ MHz \ ; \ Duty \ Cycle: 1:4.05 \ ; \ Modulation$ 

type: QPSK

Medium: MSL2600 Medium parameters used: f = 2587 MHz;  $\sigma = 2.12$  mho/m;  $\epsilon r = 52.8$ ;  $\rho = 1000$ 

kg/m<sup>3</sup>; Liquid level: 151 mm

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 22.6 degrees; Liquid temp.: 21.4 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

# Mid Channel 344/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.875 mW/g

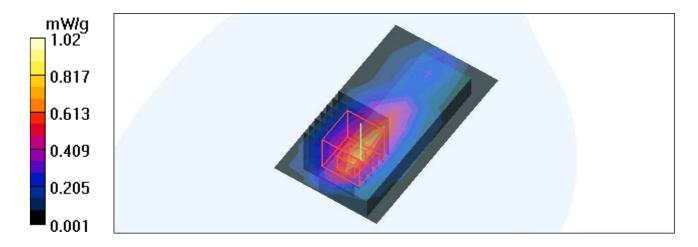
# **Mid Channel 344/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.4 V/m

Peak SAR (extrapolated) = 2.22 W/kg

SAR(1 g) = 0.930 mW/g; SAR(10 g) = 0.417 mW/g

Maximum value of SAR (measured) = 1.02 mW/g





Date/Time: 2008/8/18 14:27:31

Test Laboratory: Advance Data Technology

## 10M-QPSK\_3/4-Ch344

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

 $Communication \ System: FCC \ Wimax \ ; \ Frequency: 2587 \ MHz \ ; \ Duty \ Cycle: 1:4.05 \ ; \ Modulation$ 

type: QPSK

Medium: MSL2600 Medium parameters used: f = 2587 MHz;  $\sigma = 2.12$  mho/m;  $\epsilon r = 52.8$ ;  $\rho = 1000$ 

kg/m<sup>3</sup>; Liquid level: 151 mm

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 22.6 degrees; Liquid temp.: 21.4 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

# Mid Channel 344/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.847 mW/g

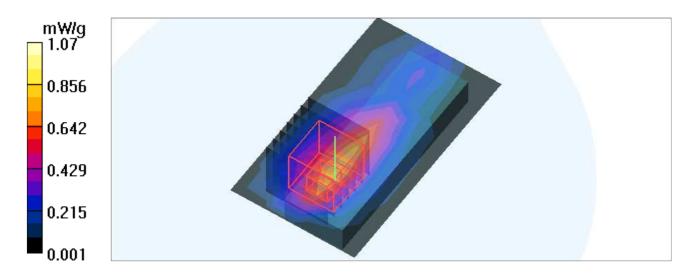
# **Mid Channel 344/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.8 V/m

Peak SAR (extrapolated) = 2.18 W/kg

SAR(1 g) = 0.914 mW/g; SAR(10 g) = 0.414 mW/g

Maximum value of SAR (measured) = 1.07 mW/g





Date/Time: 2008/8/18 15:34:06

Test Laboratory: Advance Data Technology

## 10M-16Q\_1/2-Ch344

#### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

Communication System: FCC Wimax ; Frequency: 2587 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2587 MHz;  $\sigma = 2.12$  mho/m;  $\epsilon r = 52.8$ ;  $\rho = 1000$ 

kg/m<sup>3</sup>; Liquid level: 151 mm

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 22.6 degrees; Liquid temp.: 21.4 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 - SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30

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

- Electronics: DAE3 Sn510; Calibrated: 2007/8/29

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Mid Channel 344/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.822 mW/g

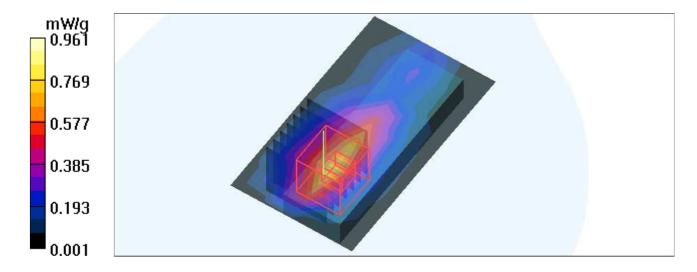
# **Mid Channel 344/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.1 V/m

Peak SAR (extrapolated) = 2.18 W/kg

 $SAR(1 g) = \frac{0.887}{mW/g}; SAR(10 g) = 0.246 mW/g$ 

Maximum value of SAR (measured) = 0.961 mW/g





Date/Time: 2008/8/18 16:49:40

Test Laboratory: Advance Data Technology

## 10M-16Q\_3/4-Ch344

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100; Test Frequency: 2587 MHz

 $Communication \ System: FCC \ Wimax \ ; \ Frequency: 2587 \ MHz \ ; \ Duty \ Cycle: 1:4.05 \ ; \ Modulation$ 

type: 16QAM

Medium: MSL2600 Medium parameters used: f = 2587 MHz;  $\sigma = 2.12$  mho/m;  $\epsilon r = 52.8$ ;  $\rho = 1000$ 

kg/m<sup>3</sup>; Liquid level: 151 mm

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom)

Antenna type: Printed Antenna; Air temp.: 22.6 degrees; Liquid temp.: 21.4 degrees

#### **DASY4** Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

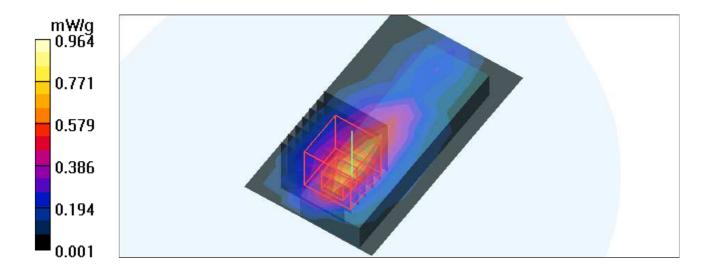
# Mid Channel 344/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.811 mW/g

# **Mid Channel 344/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.3 V/m

Peak SAR (extrapolated) = 2.05 W/kg

SAR(1 g) = 0.872 mW/g; SAR(10 g) = 0.396 mW/gMaximum value of SAR (measured) = 0.964 mW/g





Date/Time: 2008/8/18 08:57:16

Test Laboratory: Advance Data Technology

## System Validation Check-MSL 2600MHz

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1003; Test Frequency: 2600 MHz

Communication System: CW ; Frequency: 2600 MHz; Duty Cycle: 1:1; Modulation type: CW Medium: MSL2600;Medium parameters used: f=2600 MHz;  $\sigma=2.13$  mho/m;  $\epsilon_r=52.7$ ;  $\rho=1000$  kg/m $^3$ ; Liquid level : 151 mm

Phantom section: Flat Section; Separation distance: 10 mm (The feetpoint of the dipole to the

Phantom)Air temp.: 22.6 degrees; Liquid temp.: 21.4 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3504; ConvF(7.09, 7.09, 7.09); Calibrated: 2007/8/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2007/8/29
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

**d=10mm, Pin=250mW/Area Scan (5x7x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 17.3 mW/g

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

Reference Value = 90.4 V/m; Power Drift = -0.083 dB

Peak SAR (extrapolated) = 30.3 W/kg

SAR(1 g) = 14.4 mW/g; SAR(10 g) = 6.45 mW/gMaximum value of SAR (measured) = 16.6 mW/g

13.3 9.99 6.69 3.38 0.075

## Compare with different scan resolution



Date/Time: 2008/10/22 16:15:44

Test Laboratory: Advance Data Technology

## 5M-QPSK1\_2-Ch0

### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100

Communication System: FCC Wimax ; Frequency: 2498.5 MHz ; Duty Cycle: 1:4.05 ; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2498.5 MHz;  $\sigma = 2.06$  mho/m;  $\epsilon_r = 53.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom) Area scan find secondary maxima within 2dB and with a peak SAR value greater than 0.0012 W/Kg

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.52, 7.52, 7.52); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

# **Low Channel 0/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.02 mW/g

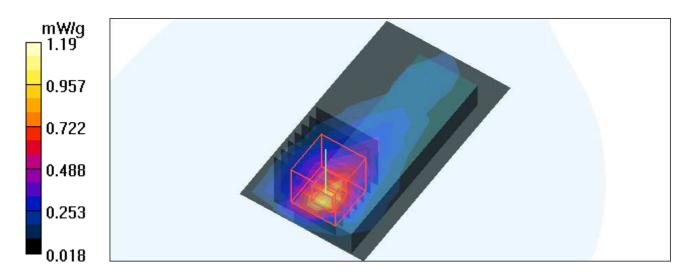
# **Low Channel 0/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.1 V/m

Peak SAR (extrapolated) = 2.28 W/kg

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.438 mW/g

Maximum value of SAR (measured) = 1.19 mW/g



## Compare with different scan resolution



Date/Time: 2008/10/22 17:31:38

Test Laboratory: Advance Data Technology

## 5M-QPSK1\_2-Ch0

#### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100

Communication System: FCC Wimax ; Frequency: 2498.5 MHz ; Duty Cycle: 1:4.05 ; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f = 2498.5 MHz;  $\sigma = 2.06$  mho/m;  $\varepsilon_r = 53.3$ ;  $\rho = 1000$ 

kg/m<sup>3</sup>

Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom) Area scan find secondary maxima within 2dB and with a peak SAR value greater than 0.0012 W/Kg

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.52, 7.52, 7.52); Calibrated: 2008/9/30
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Low Channel 0/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.04 mW/g

## Low Channel 0/Zoom Scan (7x7x7) (13x13x13)/Cube 0: Measurement grid: dx=2.5mm,

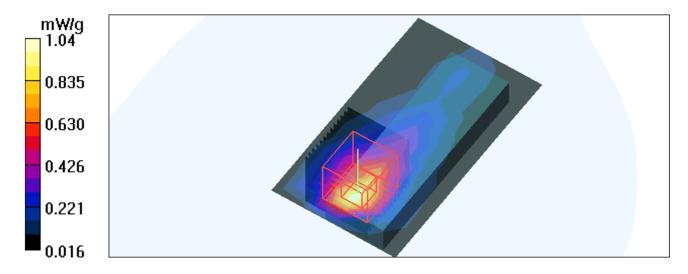
dy=2.5mm, dz=2.5mm

Reference Value = 22.0 V/m

Peak SAR (extrapolated) = 2.32 W/kg

SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.441 mW/g

Maximum value of SAR (measured) = 1.69 mW/g



## Compare with different scan resolution



Date/Time: 2008/10/22 14:08:24

Test Laboratory: Advance Data Technology

## System Validation Check-MSL 2600MHz

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1003; Test Frequency: 2600 MHz

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1; Modulation type: CW

Medium: MSL2600; Medium parameters used: f = 2600 MHz;  $\sigma = 2.15$  mho/m;  $\varepsilon_r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup>;

Liquid level: 155 mm

Phantom section: Flat Section; Separation distance: 10 mm (The feetpoint of the dipole to the

Phantom)Air temp.: 22.8 degrees; Liquid temp.: 21.6 degrees

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.43, 7.43, 7.43); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

**d=10mm, Pin=250mW/Area Scan (5x7x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 16.3 mW/g

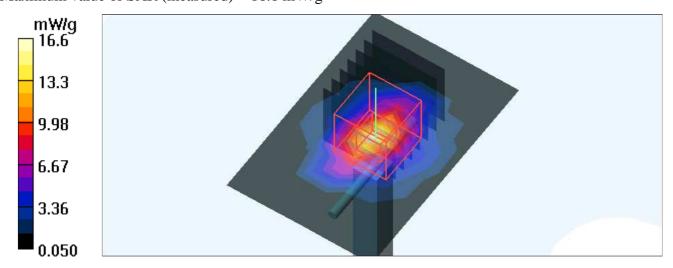
**d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.4 V/m; Power Drift = -0.091 dB

Peak SAR (extrapolated) = 33.9 W/kg

SAR(1 g) = 14.4 mW/g; SAR(10 g) = 6.16 mW/g

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



## Concern for swivel adapter



Date/Time: 2008/10/29 18:03:04

Test Laboratory: Advance Data Technology

## 5M-QPSK1 2-Ch0 (w/o swivel adapter)

#### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100

Communication System: FCC Wimax; Frequency: 2498.5 MHz; Duty Cycle: 1:4.05; Modulation type: QPSK

Medium: MSL2600 Medium parameters used: f = 2498.5 MHz;  $\sigma = 2.08$  mho/m;  $\epsilon r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom) Area scan find secondary maxima within 2dB and with a peak SAR value greater than 0.0012 W/Kg

#### DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.52, 7.52, 7.52); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

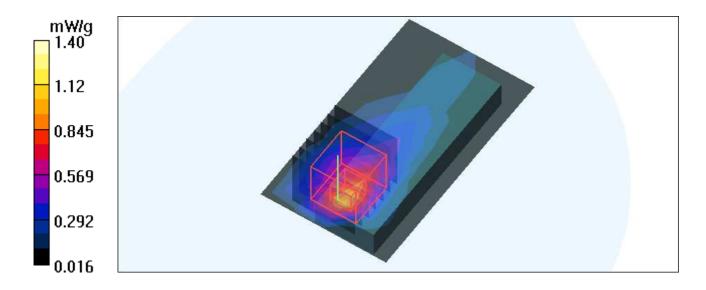
## Low Channel 0/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.07 mW/g

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

Reference Value = 23.0 V/m

Peak SAR (extrapolated) = 2.45 W/kg

SAR(1 g) = 1.18 mW/g; SAR(10 g) = 0.524 mW/gMaximum value of SAR (measured) = 1.40 mW/g



## Concern for swivel adapter



Date/Time: 2008/10/29 18:20:04

Test Laboratory: Advance Data Technology

## 5M-QPSK1\_2-Ch0 (with swivel adapter)

#### DUT: IEEE802.16e WiMax USB Dongle; Type: USBw25100

Communication System: FCC Wimax; Frequency: 2498.5 MHz; Duty Cycle: 1:4.05; Modulation

type: QPSK

Medium: MSL2600 Medium parameters used: f = 2498.5 MHz;  $\sigma = 2.08$  mho/m;  $\epsilon r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section; Separation distance: 5 mm (The bottom side of the EUT to the Phantom) Area scan find secondary maxima within 2dB and with a peak SAR value greater than 0.0012 W/Kg

#### **DASY4** Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.52, 7.52, 7.52); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

## Low Channel 0/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.17 mW/g

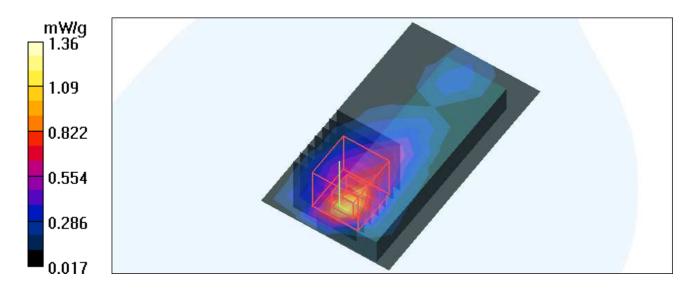
## Low Channel 0/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.5 V/m

Peak SAR (extrapolated) = 2.39 W/kg

SAR(1 g) = 1.14 mW/g; SAR(10 g) = 0.507 mW/g

Maximum value of SAR (measured) = 1.36 mW/g



## Concern for swivel adapter



Date/Time: 2008/10/29 17:15:27

Test Laboratory: Advance Data Technology

## System Validation Check-MSL 2600MHz

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1003; Test Frequency: 2600 MHz

Communication System: CW ; Frequency: 2600 MHz; Duty Cycle: 1:1; Modulation type: CW Medium: MSL2600;Medium parameters used: f=2600 MHz;  $\sigma=2.16$  mho/m;  $\epsilon_r=52.7$ ;  $\rho=1000$ 

kg/m<sup>3</sup>; Liquid level: 152 mm

Phantom section: Flat Section; Separation distance: 10 mm (The feetpoint of the dipole to the

Phantom)Air temp.: 23.0 degrees; Liquid temp.: 22.2 degrees

## DASY4 Configuration:

- Probe: EX3DV3 SN3506; ConvF(7.43, 7.43, 7.43); Calibrated: 2008/9/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2008/3/13
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

**d=10mm, Pin=250mW/Area Scan (5x7x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 17.2 mW/g

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

Reference Value = 88.5 V/m; Power Drift = -0.107 dB

Peak SAR (extrapolated) = 32.2 W/kg

SAR(1 g) = 14.7 mW/g; SAR(10 g) = 6.45 mW/g

Maximum value of SAR (measured) = 16.3 mW/g

