

## APPENDIX A: TEST DATA

### Liquid Level Photo

MSL 2450MHz D=150mm



Date/Time: 2005/5/5 09:31:39

Test Laboratory: Advance Data Technology

## D600-11b-CH1-Mode 1

**DUT: Dynex Wireless Enhanced G USB dongle ; Type: DX-WGPUSB ; 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;  $\sigma = 1.98$  mho/m;  $\epsilon_r = 53.8$ ;  $\rho = 1000$

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

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1753 ; ConvF(4.25, 4.25, 4.25) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

**Low Channel 1/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.28 mW/g

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

Reference Value = 4.83 V/m

Peak SAR (extrapolated) = 3.34 W/kg

**SAR(1 g) = 1.21 mW/g; SAR(10 g) = 0.559 mW/g**

Maximum value of SAR (measured) = 1.34 mW/g

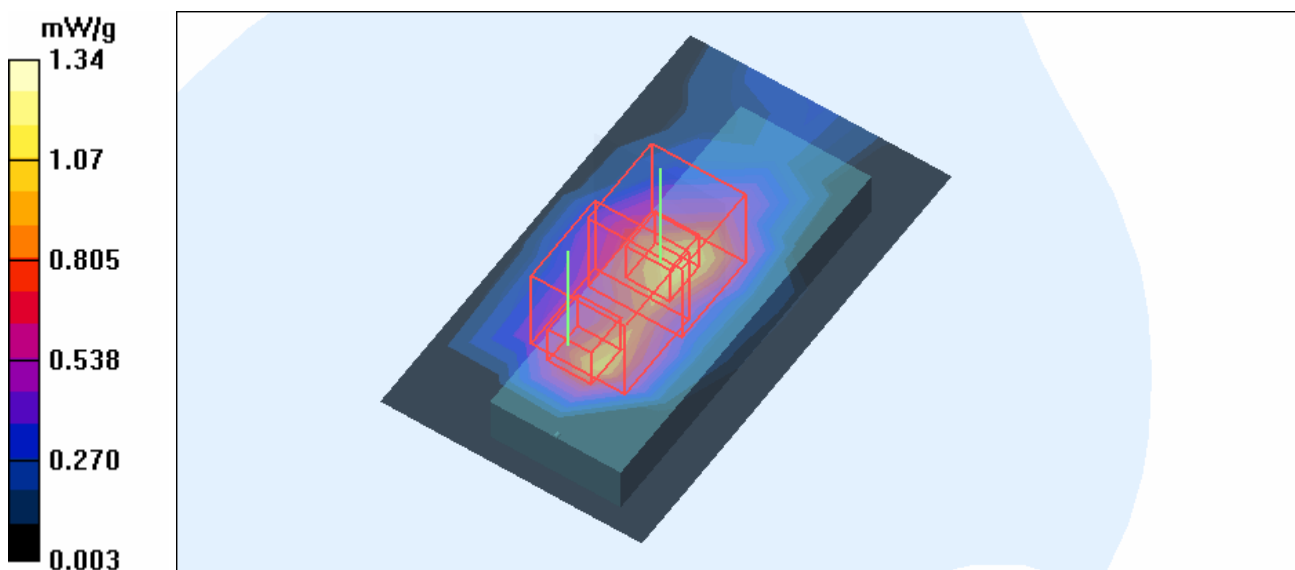
**Low Channel 1/Zoom Scan (7x7x7)/Cube 1:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

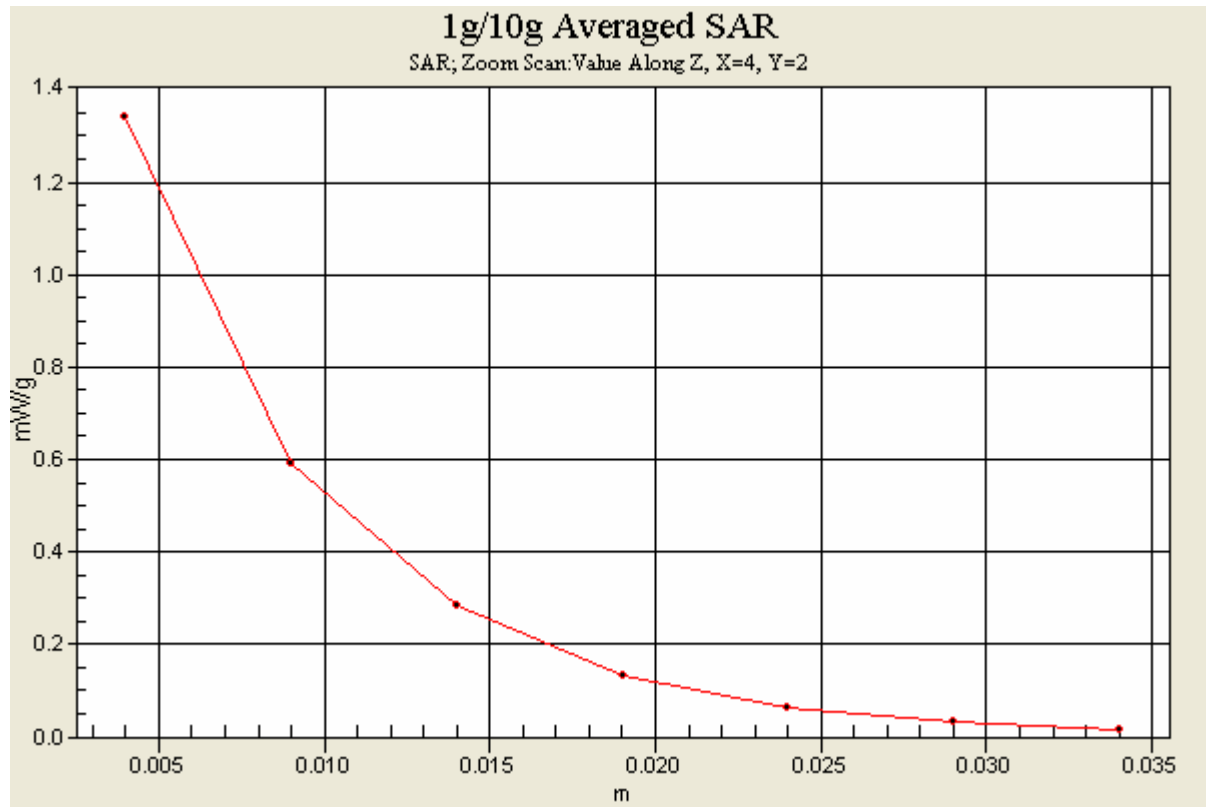
Reference Value = 4.83 V/m;

Peak SAR (extrapolated) = 2.06 W/kg

**SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.520 mW/g**

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





Test Laboratory: Advance Data Technology

## D600-11b-CH6-Mode 1

**DUT: Dynex Wireless Enhanced G USB dongle ; Type: DX-WGPUSB ; 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;  $\sigma = 2.02$  mho/m;  $\epsilon_r = 53.7$ ;  $\rho = 1000$  kg/m<sup>3</sup> ; Liquid level : 150mm

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1753 ; ConvF(4.25, 4.25, 4.25) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

**Mid Channel 6/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 5.18 V/m

Peak SAR (extrapolated) = 3.13 W/kg

**SAR(1 g) = 1.13 mW/g; SAR(10 g) = 0.503 mW/g**

Maximum value of SAR (measured) = 1.34 mW/g

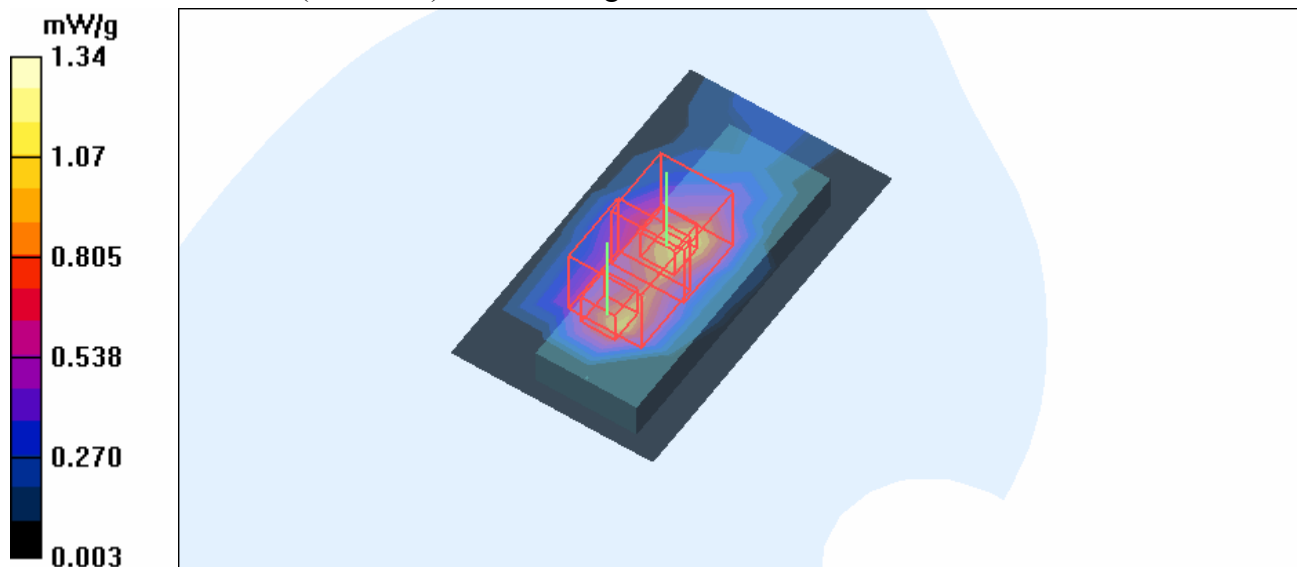
**High Channel 11/Zoom Scan (7x7x7)/Cube 1:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.18 V/m;

Peak SAR (extrapolated) = 2.10 W/kg

**SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.529 mW/g**

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



Date/Time: 2005/5/5 10:09:25

Test Laboratory: Advance Data Technology

### D600-11b-CH11-Mode 1

**DUT: Dynex Wireless Enhanced G USB dongle ; Type: DX-WGPUSB ; Test Frequency: 2462 MHz**

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

Medium: MSL2450 Medium parameters used:  $f = 2462 \text{ MHz}$ ;  $\sigma = 2.05 \text{ mho/m}$ ;  $\epsilon_r = 53.6$ ;  $\rho = 1000$

$\text{kg/m}^3$  ; Liquid level : 150mm

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1753 ; ConvF(4.25, 4.25, 4.25) ; Calibrated: 2004/8/26

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

- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23

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

- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

**High Channel 11/Area Scan (5x8x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 1.05 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 = 5.21 V/m

Peak SAR (extrapolated) = 2.95 W/kg

**SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.459 mW/g**

Maximum value of SAR (measured) = 1.21 mW/g

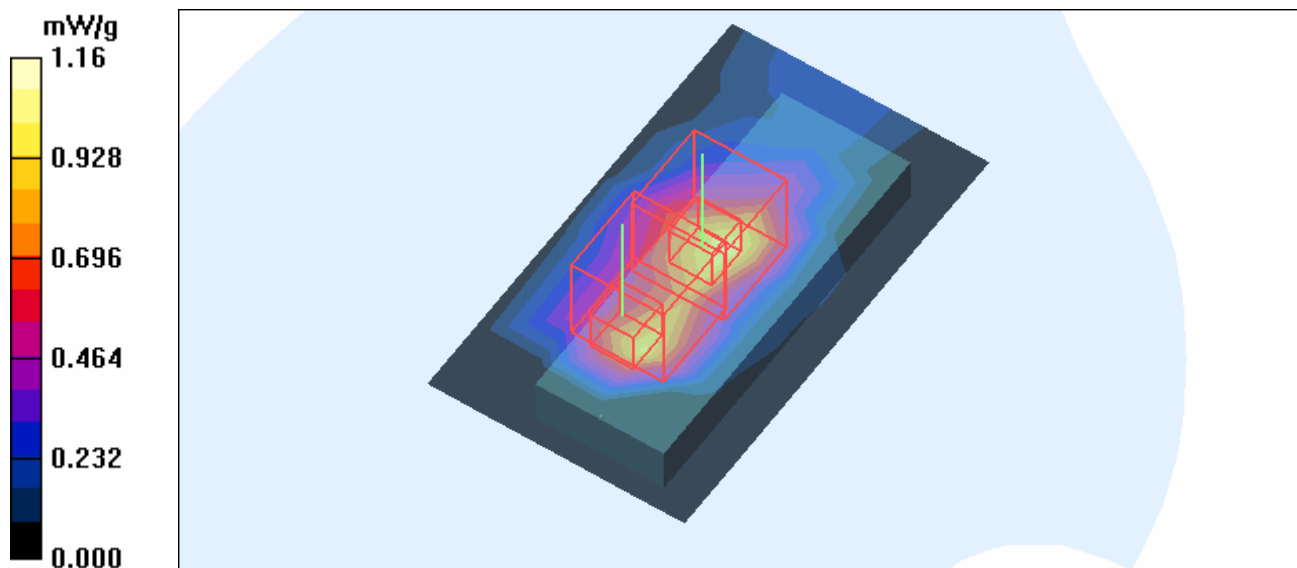
**High Channel 11/Zoom Scan (7x7x7)/Cube 1:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 5.21 V/m

Peak SAR (extrapolated) = 2.13 W/kg

**SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.537 mW/g**

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



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## D600-11g-CH1-Mode 2

**DUT: Dynex Wireless Enhanced G USB dongle ; Type: DX-WGPUSB ; Test Frequency: 2412 MHz**

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

Medium: MSL2450 Medium parameters used:  $f = 2412 \text{ MHz}$ ;  $\sigma = 1.98 \text{ mho/m}$ ;  $\epsilon_r = 53.8$ ;  $\rho = 1000$

$\text{kg/m}^3$  ; Liquid level : 150mm

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1753 ; ConvF(4.25, 4.25, 4.25) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579 ; Calibrated: 2005/3/23
- Phantom: SAM 12 ; Type: SAM V4.0 ; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19 ; Postprocessing SW: SEMCAD, V1.8 Build 146

**Low Channel 1/Area Scan (5x8x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.391 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 = 2.95 V/m

Peak SAR (extrapolated) = 0.876 W/kg

**SAR(1 g) = 0.330 mW/g; SAR(10 g) = 0.159 mW/g**

Maximum value of SAR (measured) = 0.393 mW/g

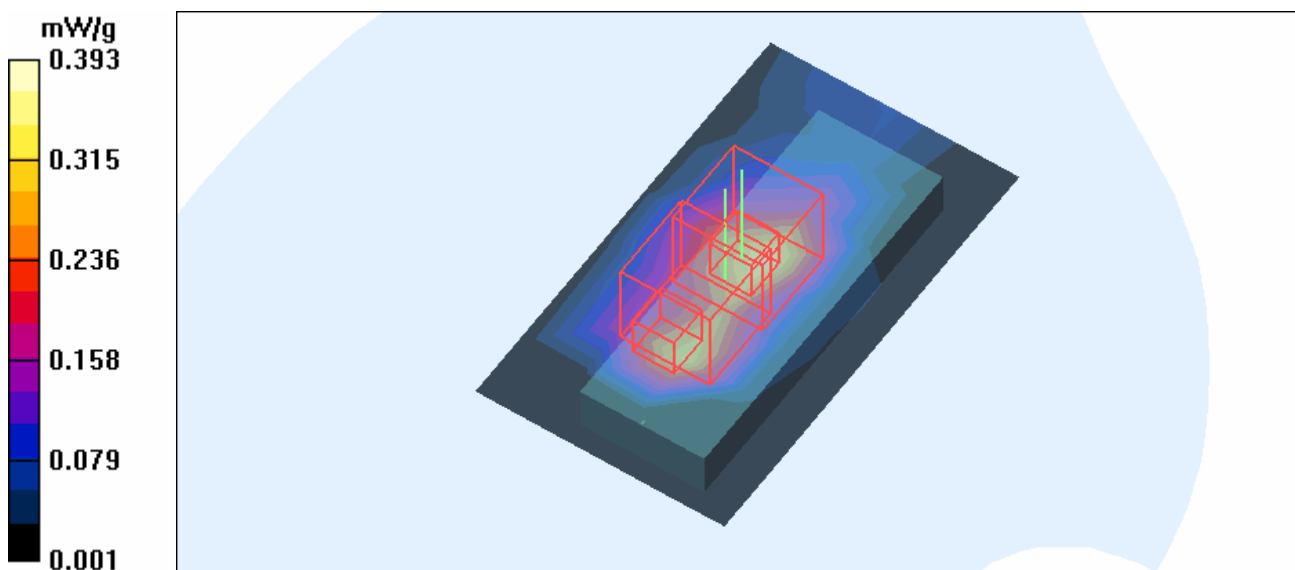
**High Channel 11/Zoom Scan (7x7x7)/Cube 1:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 2.95 V/m

Peak SAR (extrapolated) = 0.63 W/kg

**SAR(1 g) = 0.318 mW/g; SAR(10 g) = 0.136 mW/g**

Maximum value of SAR (measured) = 0.377 mW/g



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Test Laboratory: Advance Data Technology

### C600-11b-CH1-Mode 3

**DUT: Dynex Wireless Enhanced G USB dongle ; Type: DX-WGPUSB ; 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;  $\sigma = 1.98$  mho/m;  $\epsilon_r = 53.8$ ;  $\rho = 1000$  kg/m<sup>3</sup> ; Liquid level : 150 mm

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1753 ; ConvF(4.25, 4.25, 4.25) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2005/3/23
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

**Low Channel 1/Area Scan (5x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.597 mW/g

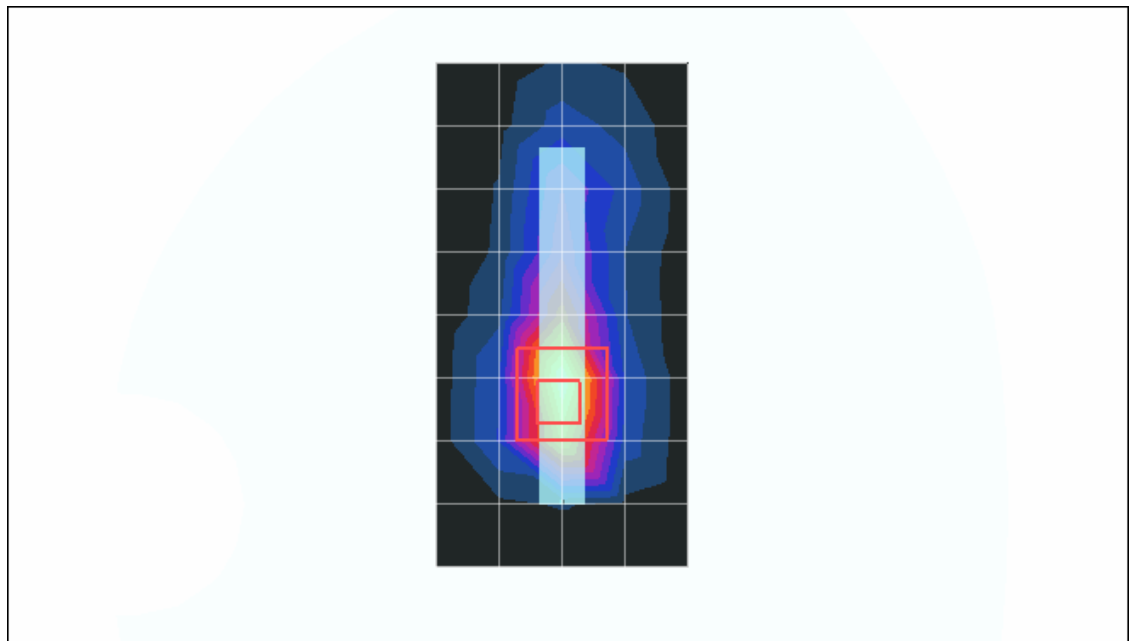
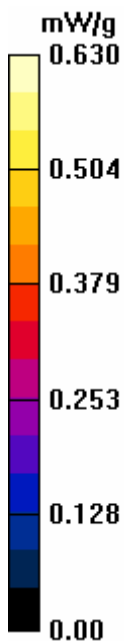
**Low Channel 1/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.38 V/m

Peak SAR (extrapolated) = 1.36 W/kg

**SAR(1 g) = 0.562 mW/g; SAR(10 g) = 0.261 mW/g**

Maximum value of SAR (measured) = 0.630 mW/g



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Test Laboratory: Advance Data Technology

### C600-11b-CH6-Mode 3

**DUT: Dynex Wireless Enhanced G USB dongle ; Type: DX-WGPUSB ; 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;  $\sigma = 2.02$  mho/m;  $\epsilon_r = 53.7$ ;  $\rho = 1000$  kg/m<sup>3</sup> ; Liquid level : 150 mm

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1753 ; ConvF(4.25, 4.25, 4.25) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2005/3/23
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

**Mid Channel 6/Area Scan (5x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.574 mW/g

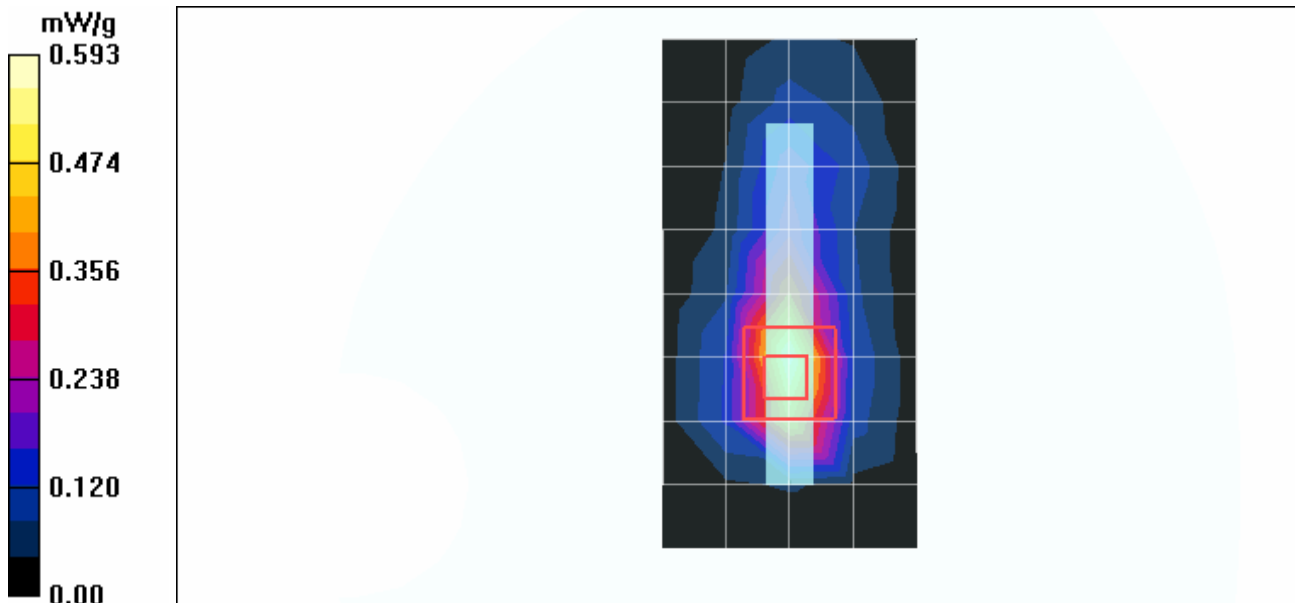
**Mid Channel 6/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.17 V/m

Peak SAR (extrapolated) = 1.29 W/kg

**SAR(1 g) = 0.532 mW/g; SAR(10 g) = 0.245 mW/g**

Maximum value of SAR (measured) = 0.593 mW/g



Date/Time: 2005/5/5 11:50:56

Test Laboratory: Advance Data Technology

## C600-11b-CH11-Mode 3

**DUT: Dynex Wireless Enhanced G USB dongle ; Type: DX-WGPUSB ; 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;  $\sigma = 2.05$  mho/m;  $\epsilon_r = 53.6$ ;  $\rho = 1000$  kg/m<sup>3</sup> ; Liquid level : 150 mm

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1753 ; ConvF(4.25, 4.25, 4.25) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2005/3/23
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

**High Channel 11/Area Scan (5x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.555 mW/g

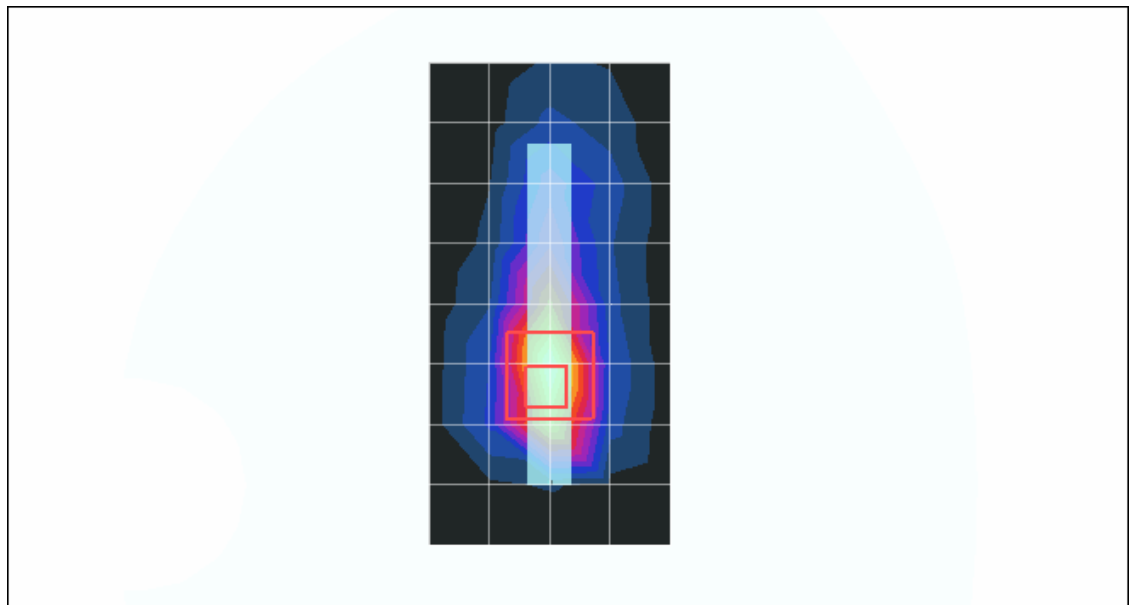
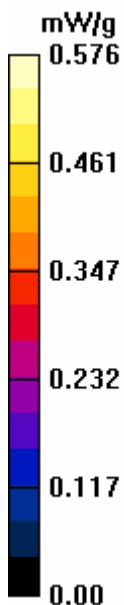
**High Channel 11/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.99 V/m

Peak SAR (extrapolated) = 1.28 W/kg

**SAR(1 g) = 0.524 mW/g; SAR(10 g) = 0.240 mW/g**

Maximum value of SAR (measured) = 0.576 mW/g



Date/Time: 2005/5/5 12:10:47

Test Laboratory: Advance Data Technology

## C600-11g-CH1-Mode 4

**DUT: Dynex Wireless Enhanced G USB dongle ; Type: DX-WGPUSB ; 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;  $\sigma = 1.98$  mho/m;  $\epsilon_r = 53.8$ ;  $\rho = 1000$  kg/m<sup>3</sup> ; Liquid level : 150 mm

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

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

DASY4 Configuration:

- Probe: ET3DV6 - SN1753 ; ConvF(4.25, 4.25, 4.25) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2005/3/23
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

**Low Channel 1 /Area Scan (5x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.176 mW/g

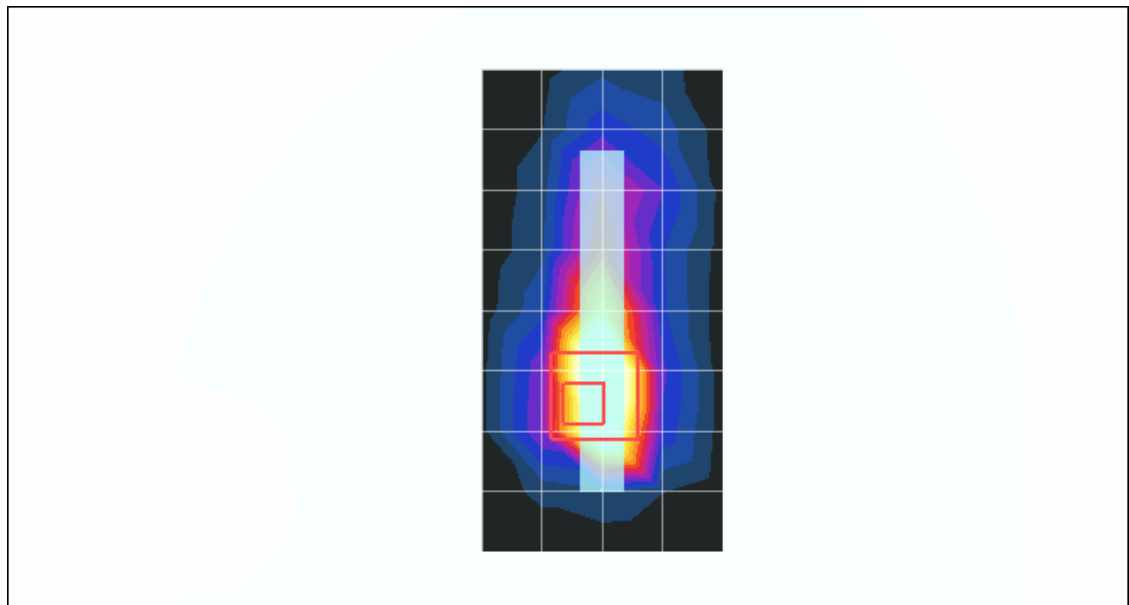
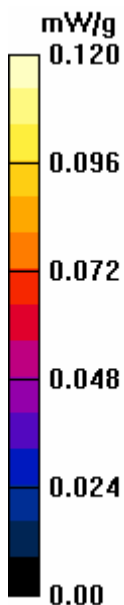
**Low Channel 1 /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.86 V/m

Peak SAR (extrapolated) = 0.488 W/kg

**SAR(1 g) = 0.089 mW/g; SAR(10 g) = 0.040 mW/g**

Maximum value of SAR (measured) = 0.120 mW/g



Date/Time: 2005/5/5 09:10:03

Test Laboratory: Advance Data Technology

## System Validation Check-MSL 2450MHz

**DUT: Dipole 2450 MHz ; Type: D2450V2 ; Serial: 737 ; 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;  $\sigma = 2.03$  mho/m;  $\epsilon_r = 53.7$ ;  $\rho = 1000$  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. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1753 ; ConvF(4.25, 4.25, 4.25) ; Calibrated: 2004/8/26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2005/3/23
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

**d=10mm, Pin=250mW/Area Scan (5x7x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 13.7 mW/g

**d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 86.5 V/m; Power Drift = -0.137 dB  
Peak SAR (extrapolated) = 27.1 W/kg

**SAR(1 g) = 12.7 mW/g; SAR(10 g) = 5.85 mW/g**  
Maximum value of SAR (measured) = 13.6 mW/g

