

APPENDIX H1

EUT Plots – 2.4 GHz

APPENDIX B PLOTS OF THE SAR MEASUREMENTS

Plots of the measured SAR distributions inside the phantom are given in this Appendix for all tested configurations. The spatial peak SAR values were assessed with the procedure described in this report.

Table: 2450 MHz SAR Measurement Plot Numbers

Test Position	Mode	Plot No.	Ant	Bit rate Mode (Mbps)	Channel Bandwidth (MHz)	Test Channel
Laps On	OFDM	1	C	6	-	01
		2	C	6	-	06
		3	C	6	-	11
Z-Axis graphs for Plots 1 to 3						
Laps On	DSSS	4	C	1	-	06
Laps On	OFDM	5	C	6	20 (HT0)	06
Laps On	OFDM	6	C	6	40 (HT0)	06
Z-Axis graphs for Plots 4 to 6						

Table: 2450MHz Validation Plot

Plot 7	Validation 2450 MHz 18 th March 2008
Z-Axis graphs for Plot 7	

Test Date: 18 March 2008

File Name: Laps On OFDM 2450 MHz Elen Antenna C UWB Off 18-03-08.da4

DUT: Fujitsu Notebook Elen with Shirley Peak 11abgn and UWB; Type: 533AN_HMW; Serial: MAC: 0016EA042268

* Communication System: OFDM 2450 MHz; Frequency: 2412 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 1.89924$ mho/m, $\epsilon_r = 51.6469$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1377; ConvF(3.98, 3.98, 3.98)

- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

Channel 1 Test/Area Scan (101x131x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.013 mW/g

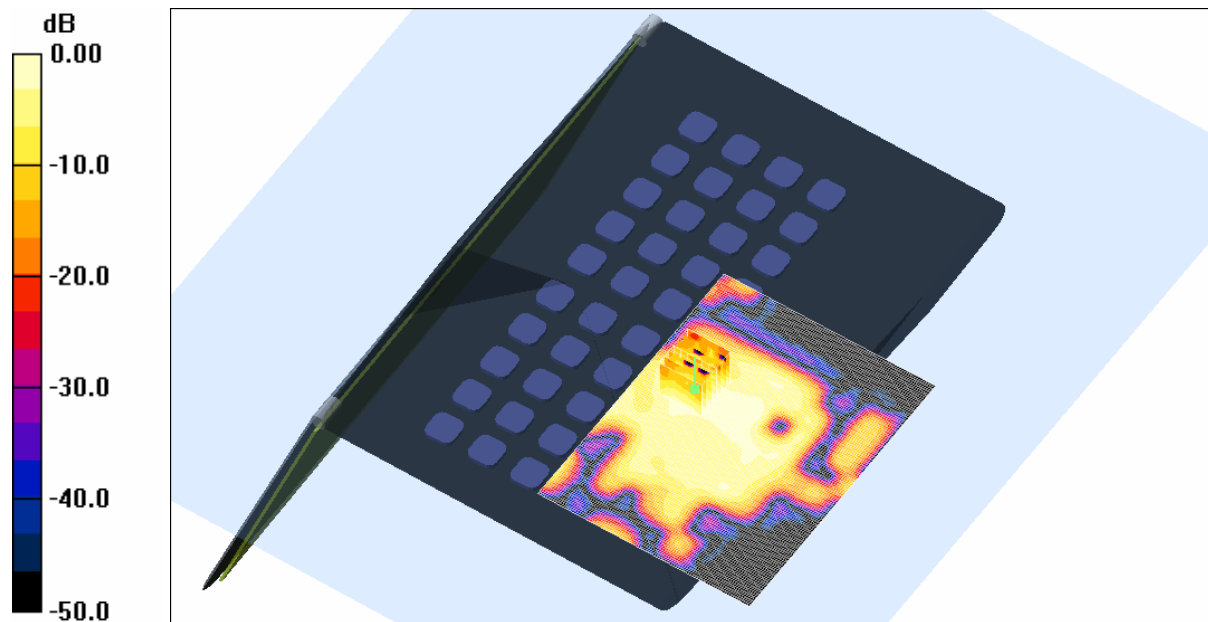
Channel 1 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.06 V/m; Power Drift = 0.318 dB

Peak SAR (extrapolated) = 0.017 W/kg

SAR(1 g) = 0.010 mW/g; SAR(10 g) = 0.00607 mW/g

Maximum value of SAR (measured) = 0.011 mW/g



0 dB = 0.011mW/g

SAR MEASUREMENT PLOT 1

Ambient Temperature

21.4 Degrees Celsius

Liquid Temperature

21.0 Degrees Celsius

Humidity

57.0 %

Test Date: 18 March 2008

File Name: Laps On OFDM 2450 MHz Elen Antenna C UWB Off 18-03-08.da4

DUT: Fujitsu Notebook Elen with Shirley Peak 11abgn and UWB; Type: 533AN_HMW; Serial: MAC: 0016EA042268

* Communication System: OFDM 2450 MHz; Frequency: 2437 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 1.93426$ mho/m, $\epsilon_r = 51.5076$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1377; ConvF(3.98, 3.98, 3.98)

- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

Channel 6 Test/Area Scan (101x131x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.033 mW/g

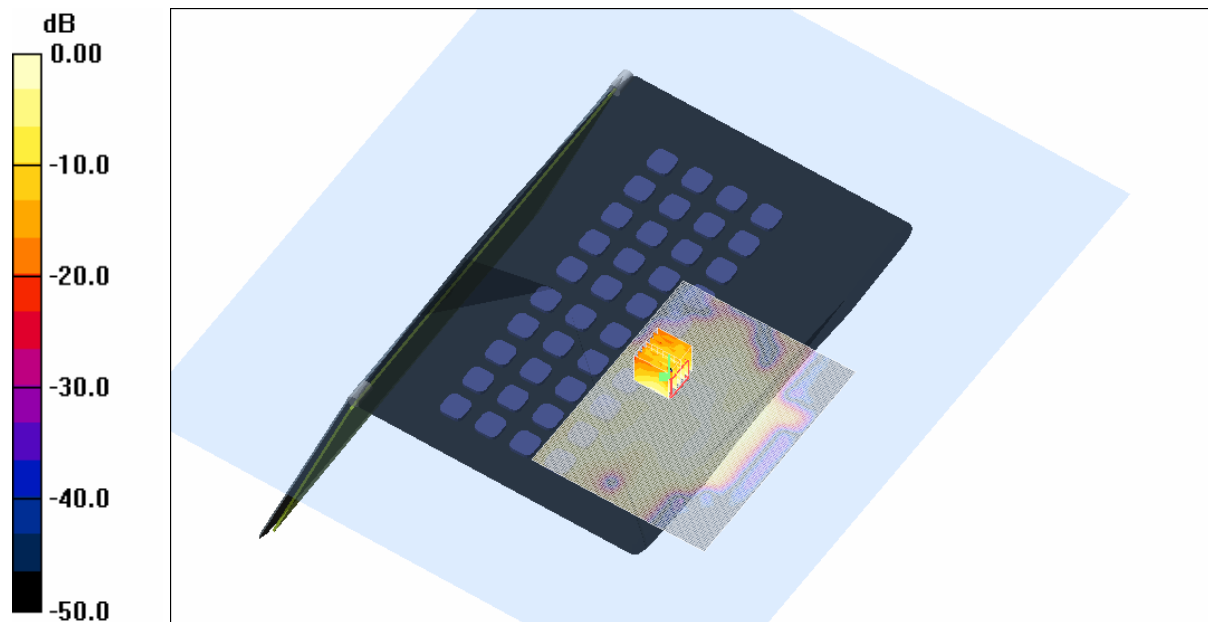
Channel 6 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.59 V/m; Power Drift = -0.055 dB

Peak SAR (extrapolated) = 0.046 W/kg

SAR(1 g) = 0.027 mW/g; SAR(10 g) = 0.015 mW/g

Maximum value of SAR (measured) = 0.029 mW/g



0 dB = 0.029mW/g

SAR MEASUREMENT PLOT 2

Ambient Temperature

21.4 Degrees Celsius

Liquid Temperature

21.0 Degrees Celsius

Humidity

57.0 %

Test Date: 18 March 2008

File Name: Laps On OFDM 2450 MHz Elen Antenna C UWB Off 18-03-08.da4

DUT: Fujitsu Notebook Elen with Shirley Peak 11abgn and UWB; Type: 533AN_HMW; Serial: MAC: 0016EA042268

* Communication System: OFDM 2450 MHz; Frequency: 2462 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 1.96686$ mho/m, $\epsilon_r = 51.3824$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1377; ConvF(3.98, 3.98, 3.98)

- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

Channel 11 Test/Area Scan (101x131x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.017 mW/g

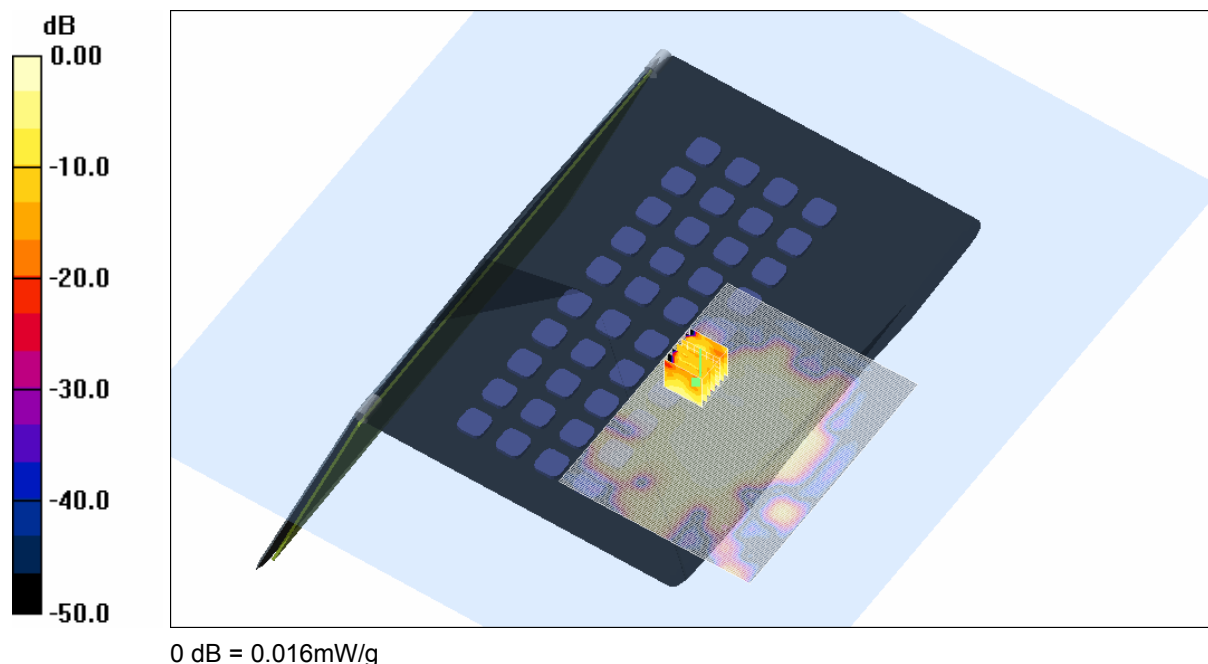
Channel 11 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.31 V/m; Power Drift = -0.314 dB

Peak SAR (extrapolated) = 0.030 W/kg

SAR(1 g) = 0.015 mW/g; SAR(10 g) = 0.00827 mW/g

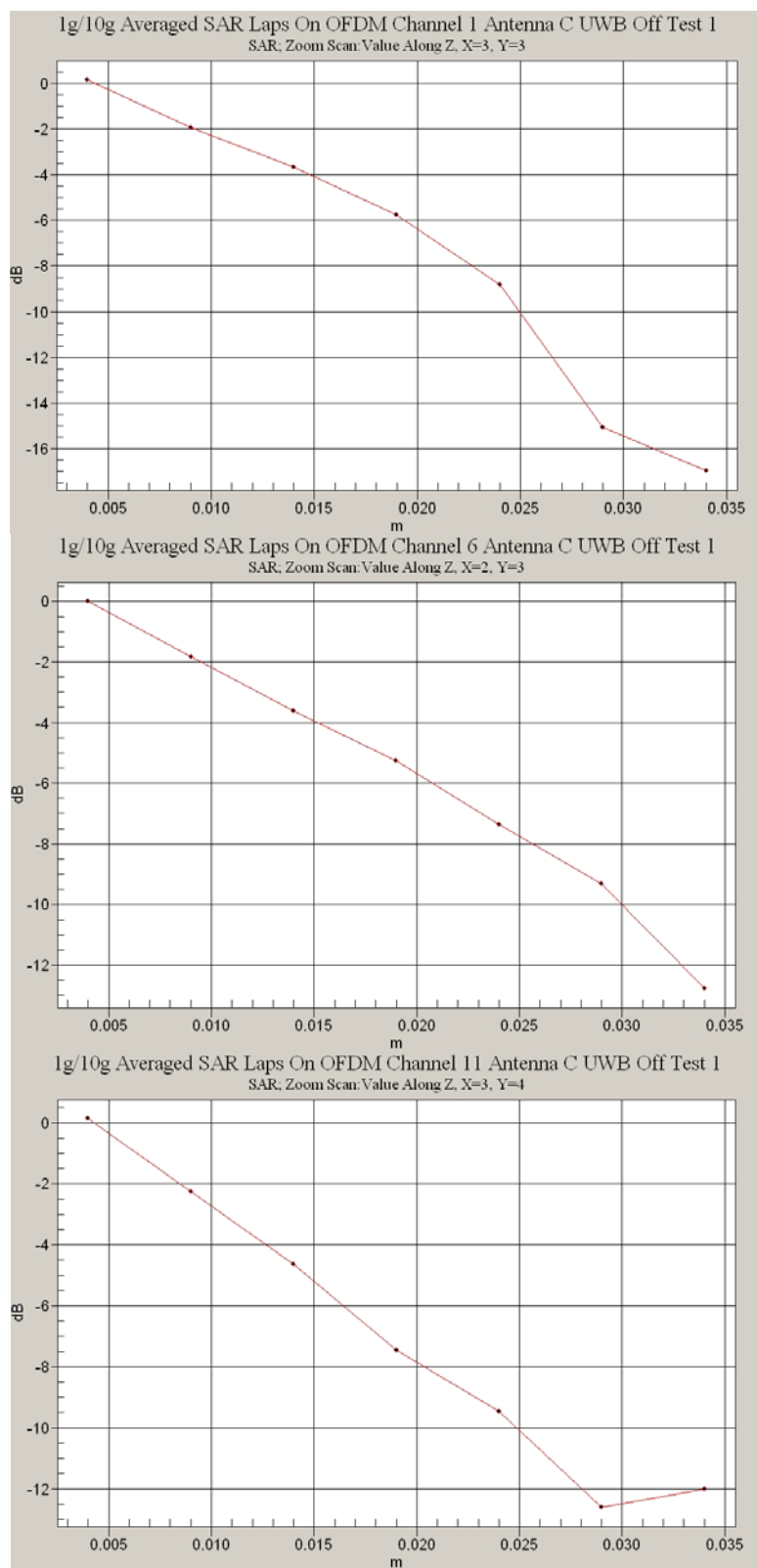
Maximum value of SAR (measured) = 0.016 mW/g



SAR MEASUREMENT PLOT 3

Ambient Temperature
Liquid Temperature
Humidity

21.4 Degrees Celsius
21.0 Degrees Celsius
57.0 %



Test Date: 18 March 2008

File Name: Laps On DSSS 2450 MHz Elen Antenna C UWB Off 18-03-08.da4

DUT: Fujitsu Notebook Elen with Shirley Peak 11abgn and UWB; Type: 533AN_HMW; Serial: MAC: 0016EA042268

* Communication System: DSSS 2450 MHz; Frequency: 2437 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 1.93426$ mho/m, $\epsilon_r = 51.5076$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1377; ConvF(3.98, 3.98, 3.98)

- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

Channel 6 Test/Area Scan (101x131x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.026 mW/g

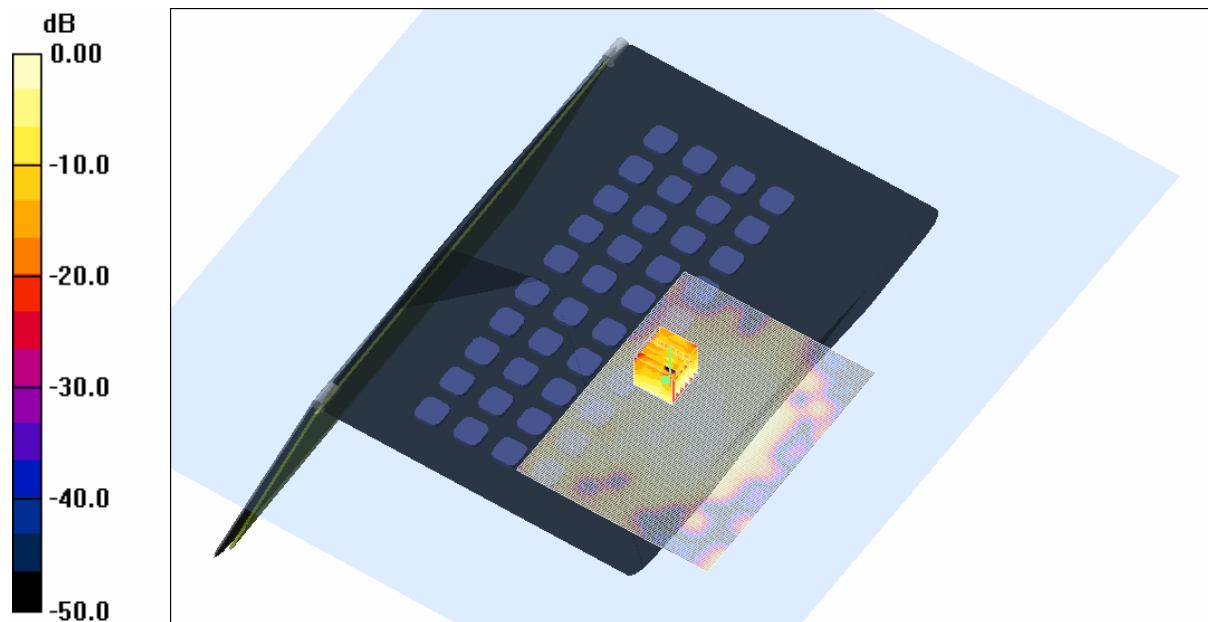
Channel 6 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.35 V/m; Power Drift = 0.239 dB

Peak SAR (extrapolated) = 0.041 W/kg

SAR(1 g) = 0.023 mW/g; SAR(10 g) = 0.013 mW/g

Maximum value of SAR (measured) = 0.025 mW/g



0 dB = 0.025mW/g

SAR MEASUREMENT PLOT 4

Ambient Temperature

21.4 Degrees Celsius

Liquid Temperature

21.0 Degrees Celsius

Humidity

57.0 %

Test Date: 18 March 2008

File Name: Laps On OFDM (20MHz HT0) 2450 MHz Elen Antenna C UWB Off 18-03-08.da4

DUT: Fujitsu Notebook Elen with Shirley Peak 11abgn and UWB; Type: 533AN_HMW; Serial: MAC: 0016EA042268

* Communication System: 20MHz HT0 2450 MHz; Frequency: 2437 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 1.93426$ mho/m, $\epsilon_r = 51.5076$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1377; ConvF(3.98, 3.98, 3.98)

- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

Channel 6 Test/Area Scan (101x131x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.033 mW/g

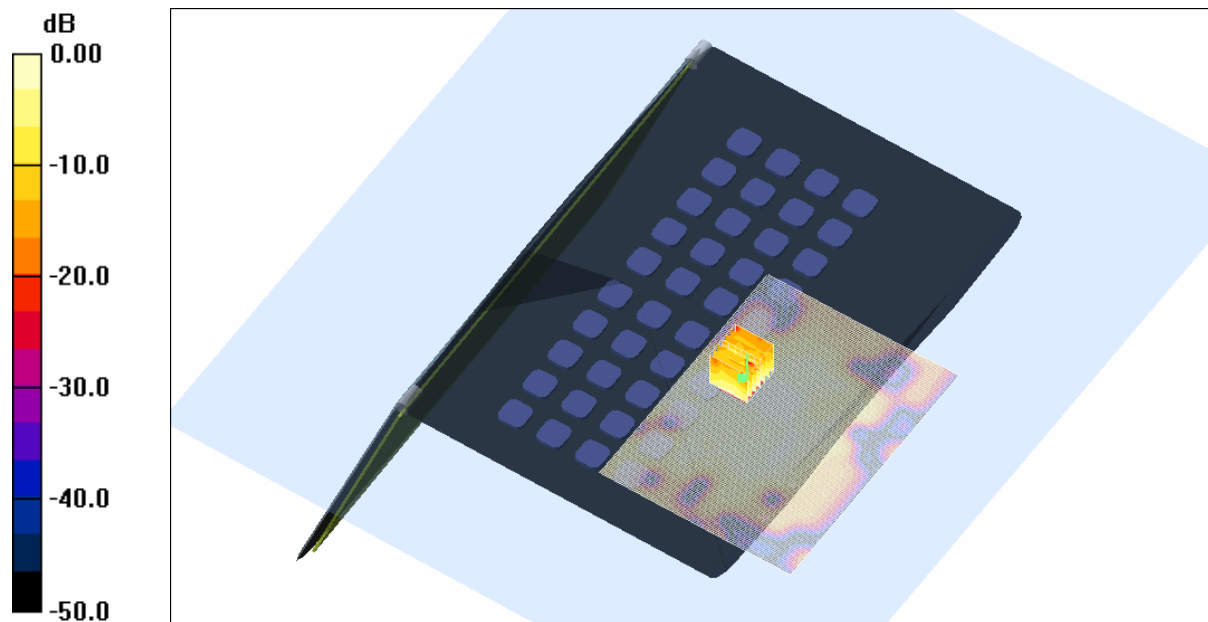
Channel 6 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.11 V/m; Power Drift = 0.115 dB

Peak SAR (extrapolated) = 0.046 W/kg

SAR(1 g) = 0.026 mW/g; SAR(10 g) = 0.015 mW/g

Maximum value of SAR (measured) = 0.028 mW/g



0 dB = 0.028mW/g

SAR MEASUREMENT PLOT 5

Ambient Temperature

21.4 Degrees Celsius

Liquid Temperature

21.0 Degrees Celsius

Humidity

57.0 %

Test Date: 18 March 2008

File Name: Laps On OFDM (40MHz HT0) 2450 MHz Elen Antenna C UWB Off 18-03-08.da4

DUT: Fujitsu Notebook Elen with Shirley Peak 11abgn and UWB; Type: 533AN_HMW; Serial: MAC: 0016EA042268

* Communication System: 40MHz HT0 2450 MHz; Frequency: 2437 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 1.93426$ mho/m, $\epsilon_r = 51.5076$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1377; ConvF(3.98, 3.98, 3.98)

- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

Channel 6 Test/Area Scan (101x131x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.035 mW/g

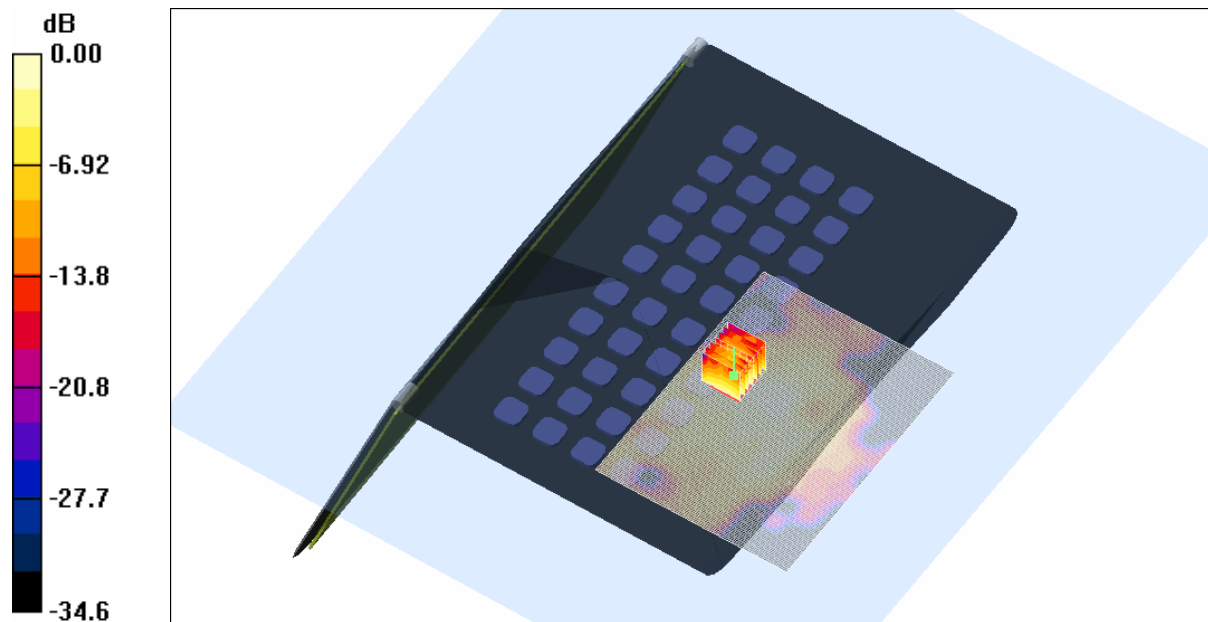
Channel 6 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.05 V/m; Power Drift = -0.101 dB

Peak SAR (extrapolated) = 0.044 W/kg

SAR(1 g) = 0.025 mW/g; SAR(10 g) = 0.015 mW/g

Maximum value of SAR (measured) = 0.028 mW/g



0 dB = 0.028mW/g

SAR MEASUREMENT PLOT 6

Ambient Temperature

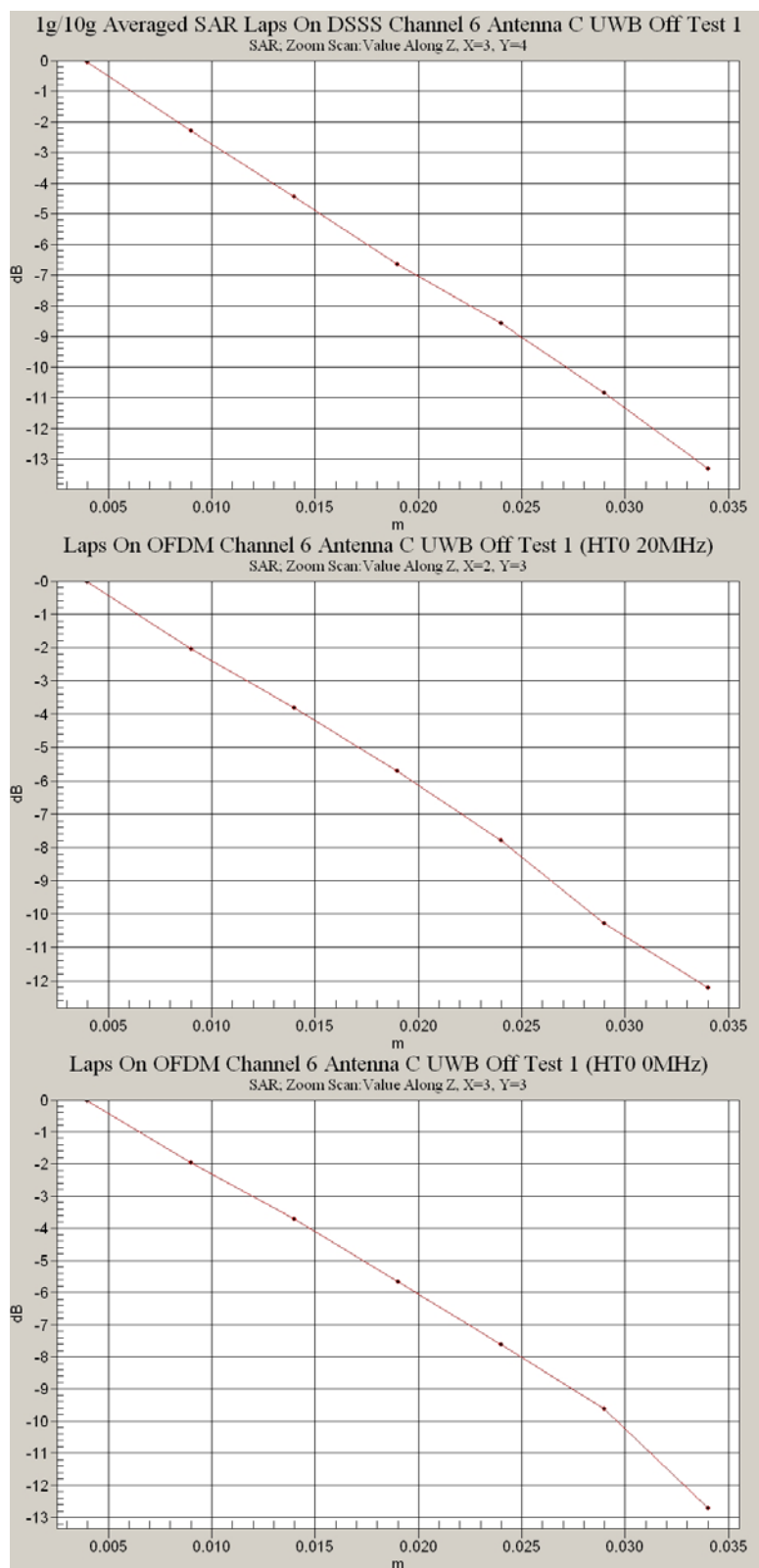
21.4 Degrees Celsius

Liquid Temperature

21.0 Degrees Celsius

Humidity

57.0 %



Test Date: 18 March 2008

File Name: Validation 2450 MHz (DAE442 Probe1377) 18-03-07.da4

DUT: Dipole 2450 MHz; Type: DV2450V2; Serial: 724

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

* Medium parameters used: $\sigma = 1.79516$ mho/m, $\epsilon_r = 39.5166$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1377; ConvF(4.45, 4.45, 4.45)

- Phantom: SAM 22; Serial: 1260; Phantom section: Flat Section

Channel 1 Test/Area Scan (51x51x1): Measurement grid: dx=15mm, dy=15mm

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

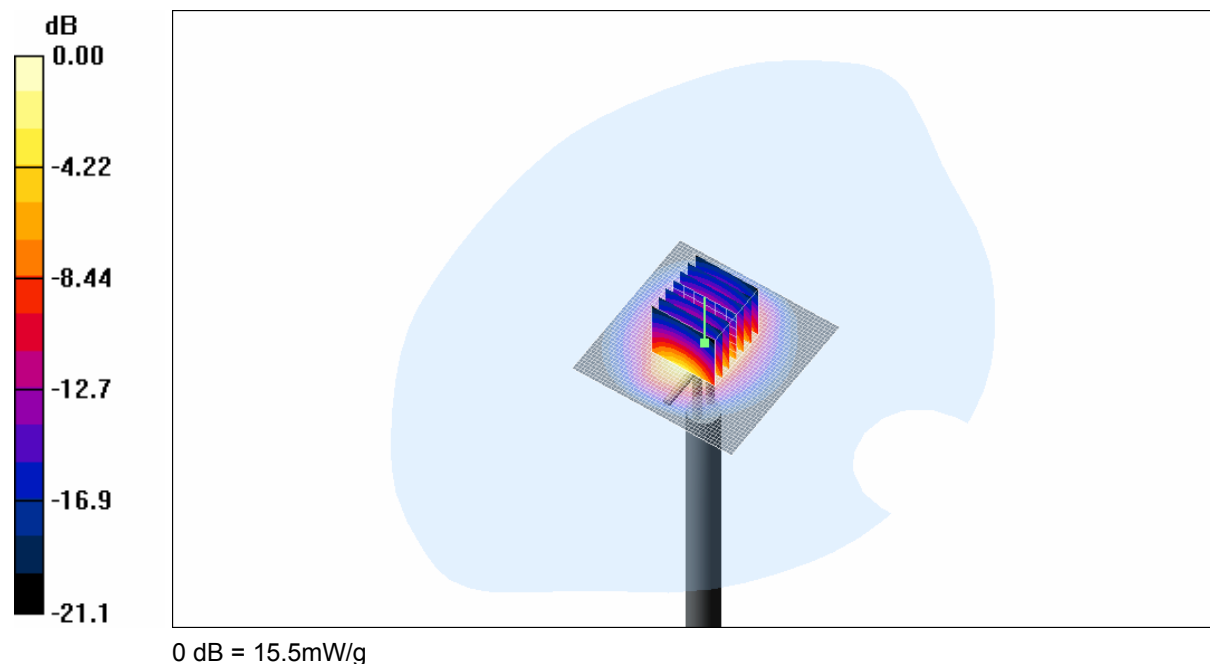
Channel 1 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 97.0 V/m; Power Drift = -0.018 dB

Peak SAR (extrapolated) = 29.6 W/kg

SAR(1 g) = 13.8 mW/g; SAR(10 g) = 6.49 mW/g

Maximum value of SAR (measured) = 15.5 mW/g



SAR MEASUREMENT PLOT 7

Ambient Temperature
Liquid Temperature
Humidity

21.4 Degrees Celsius
21.0 Degrees Celsius
57.0 %

