

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 DSSS Band SAR Measurement Plot Numbers

Test Position	Plot No.	Mode	Ant	Bit rate Mode (Mbps)	Channel Bandwidth (MHz)	Test Channel
Tablet	1	OFDM	Aux	6	-	06
Tablet	2	OFDM	Main	6	-	06
Z-Axis graphs for Plots 1 to 2						
Edge On Side (Primary Portrait)	3	OFDM	Aux	6	-	01
	4	OFDM	Aux	6	-	06
	5	OFDM	Aux	6	-	11
Z-Axis graphs for Plots 3 to 5						
Edge on Secondary Landscape	6	DSSS	Main	1	-	06
	7	OFDM	Main	1	-	06
	8	OFDM	Aux	6	-	06
	9	OFDM	Main	HT0	HT0	06
	10	OFDM	Main	HT0	40	06

Table: 2450MHz Validation Plot

Plot 11	Validation 2450 MHz 30 th April 2008
Z-Axis graphs for Plots 13	

Test Date: 30 April 2008

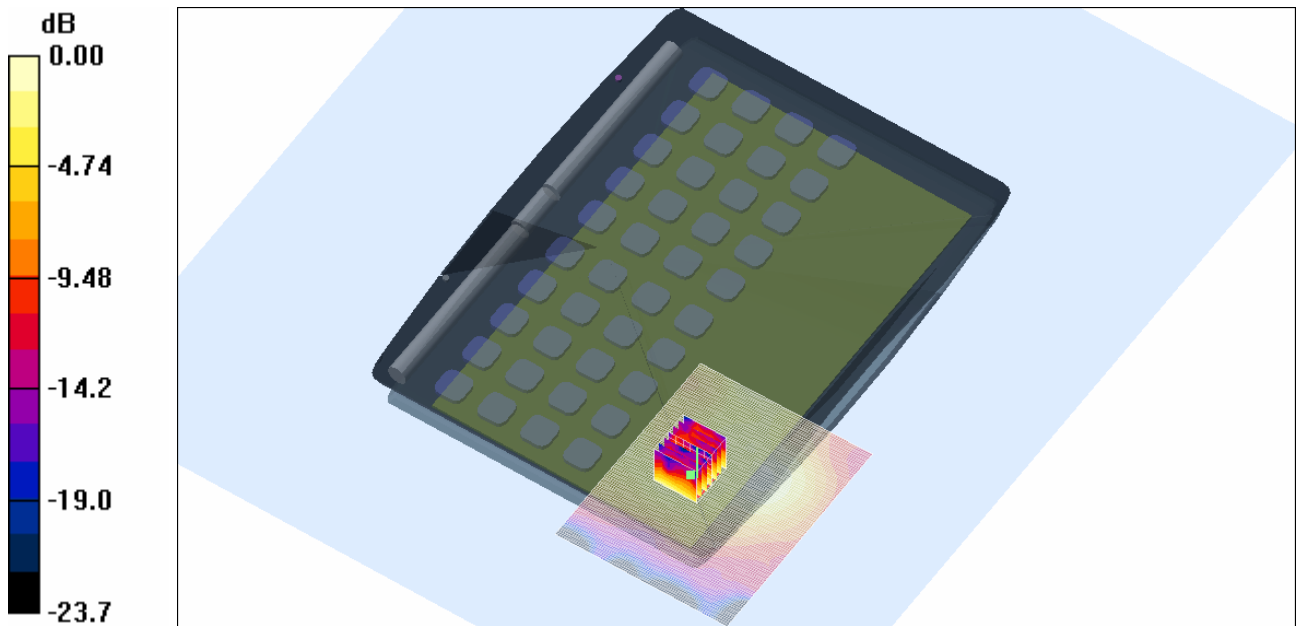
File Name: Tablet OFDM 2450 MHz Seneca Antenna Aux 30-04-08.da4

DUT: Fujitsu Notebook Seneca with Atheros 11abgn and Bluetooth; Type: HB92; Serial: MAC: 001B9E-C850F4

- * Communication System: OFDM 2450 MHz; Frequency: 2437 MHz; Duty Cycle: 1:1
- * Medium parameters used: $\sigma = 1.90152$ mho/m, $\epsilon_r = 52.3501$; $\rho = 1000$ 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 (81x101x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.028 mW/g

Channel 6 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 2.52 V/m; Power Drift = 0.481 dB
 Peak SAR (extrapolated) = 0.048 W/kg
SAR(1 g) = 0.025 mW/g; SAR(10 g) = 0.014 mW/g
 Maximum value of SAR (measured) = 0.027 mW/g



SAR MEASUREMENT PLOT 1

Ambient Temperature
 Liquid Temperature
 Humidity

21.5 Degrees Celsius
21.2 Degrees Celsius
35.0 %



Test Date: 30 April 2008

File Name: Tablet OFDM 2450 MHz Seneca Antenna Main 30-04-08.da4

DUT: Fujitsu Notebook Seneca with Atheros 11abgn and Bluetooth; Type: HB92; Serial: MAC: 001B9E-C850F4

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

* Medium parameters used: $\sigma = 1.90152$ mho/m, $\epsilon_r = 52.3501$; $\rho = 1000$ 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 (81x101x1): Measurement grid: dx=15mm, dy=15mm

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

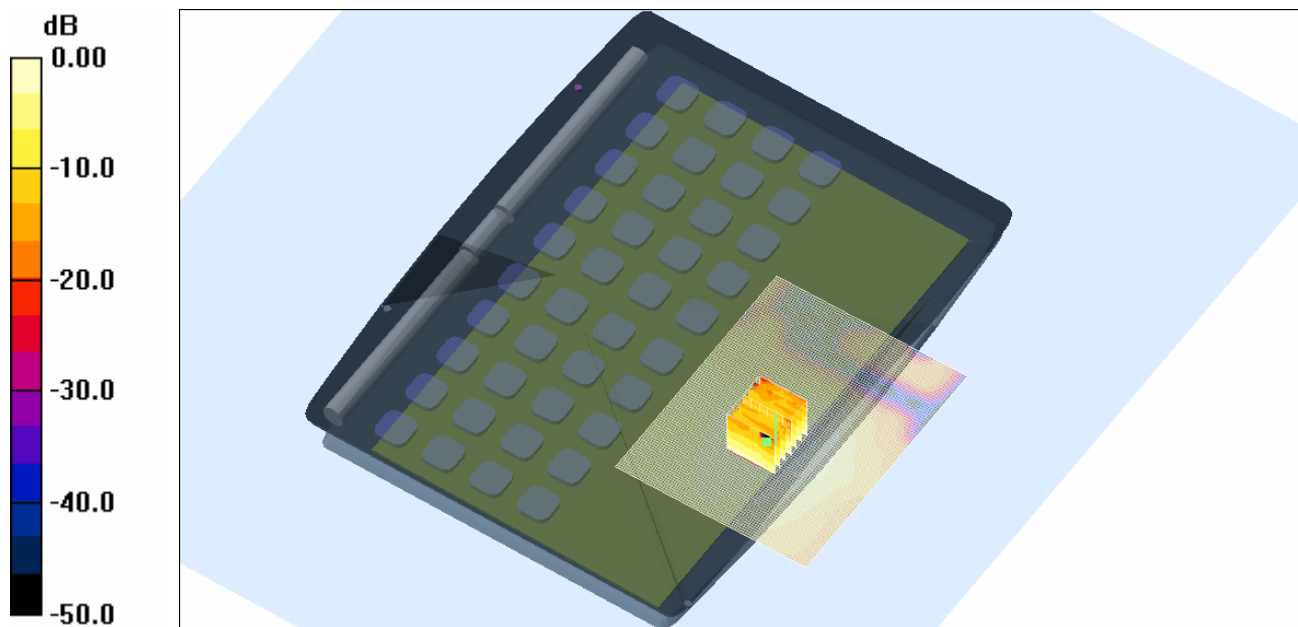
Channel 6 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.48 V/m; Power Drift = 0.134 dB

Peak SAR (extrapolated) = 0.056 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

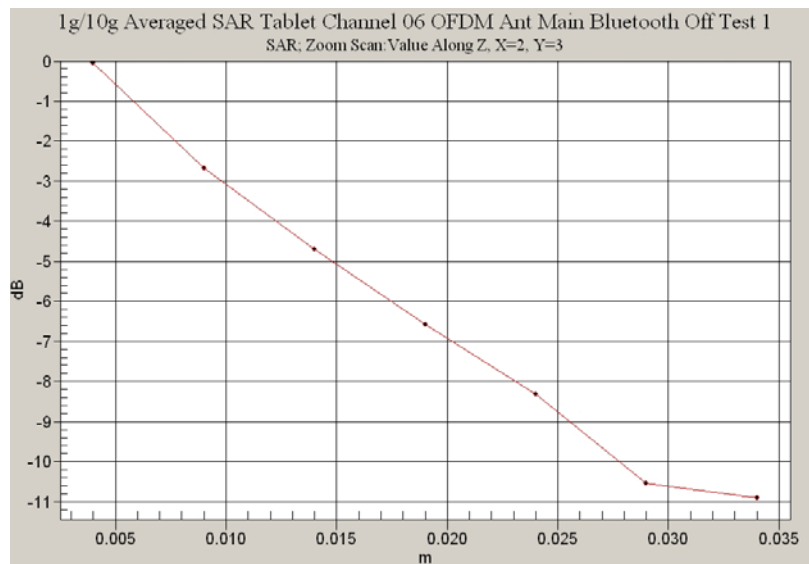
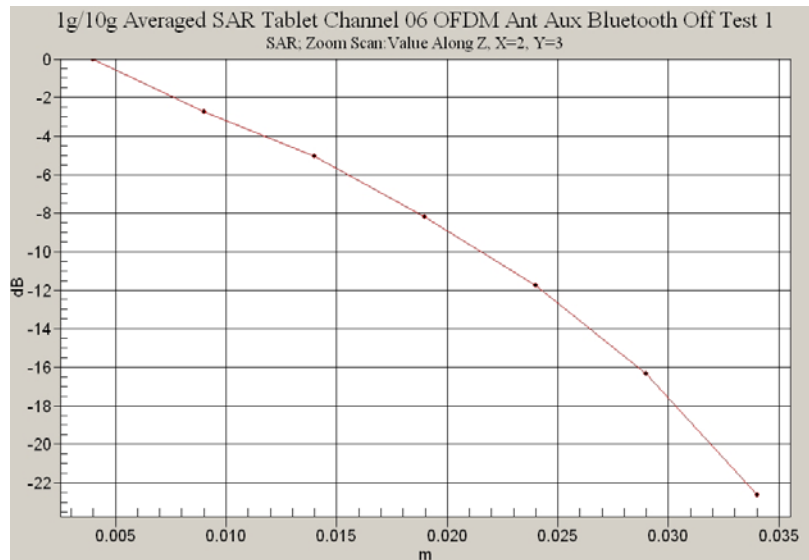


0 dB = 0.028mW/g

SAR MEASUREMENT PLOT 2

Ambient Temperature
Liquid Temperature
Humidity

21.5 Degrees Celsius
21.2 Degrees Celsius
35.0 %



Test Date: 30 April 2008

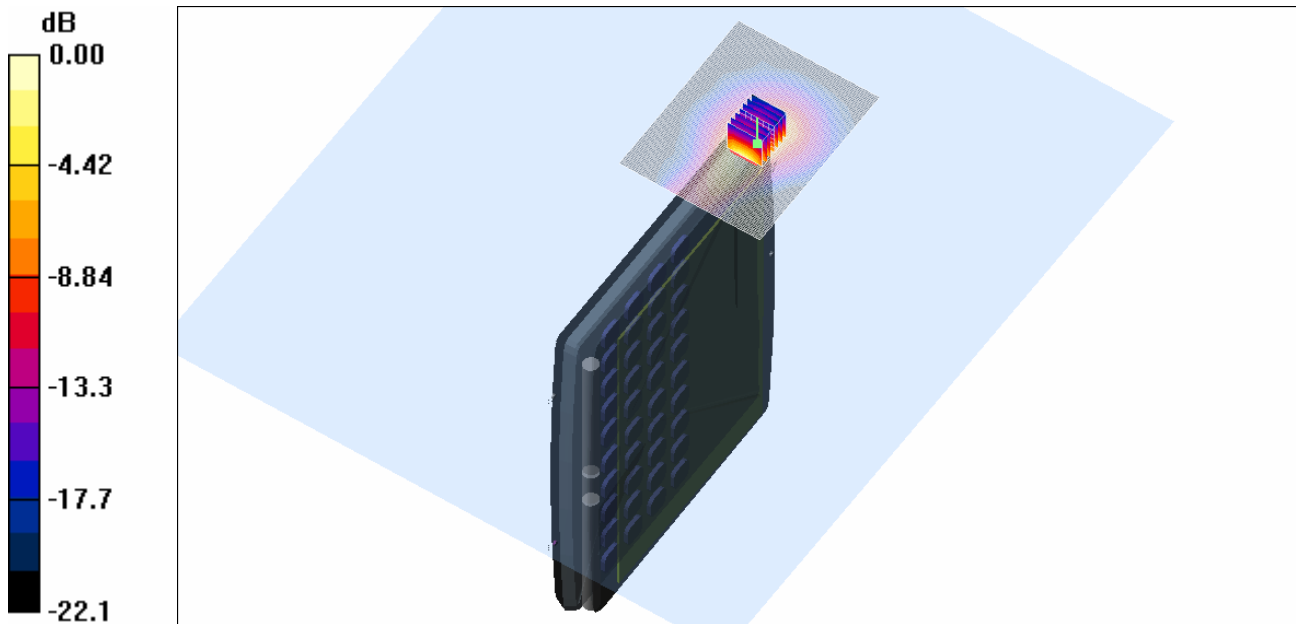
File Name: Edge On Side (Primary Portrait) OFDM 2450 MHz Seneca Antenna Aux 30-04-08.da4

DUT: Fujitsu Notebook Seneca with Atheros 11abgn and Bluetooth; Type: HB92; Serial: MAC: 001B9E-C850F4

- * Communication System: OFDM 2450 MHz; Frequency: 2412 MHz; Duty Cycle: 1:1
- * Medium parameters used: $\sigma = 1.86567$ mho/m, $\epsilon_r = 52.5055$; $\rho = 1000$ 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 (81x101x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.220 mW/g

Channel 1 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 7.35 V/m; Power Drift = -0.301 dB
 Peak SAR (extrapolated) = 0.517 W/kg
SAR(1 g) = 0.225 mW/g; SAR(10 g) = 0.106 mW/g
 Maximum value of SAR (measured) = 0.253 mW/g



0 dB = 0.253mW/g

SAR MEASUREMENT PLOT 3

Ambient Temperature
Liquid Temperature
Humidity

21.5 Degrees Celsius
21.2 Degrees Celsius
35.0 %



Test Date: 30 April 2008

File Name: Edge On Side (Primary Portrait) OFDM 2450 MHz Seneca Antenna Aux 30-04-08.da4

DUT: Fujitsu Notebook Seneca with Atheros 11abgn and Bluetooth; Type: HB92; Serial: MAC: 001B9E-C850F4

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

* Medium parameters used: $\sigma = 1.90152$ mho/m, $\epsilon_r = 52.3501$; $\rho = 1000$ 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 (81x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.137 mW/g

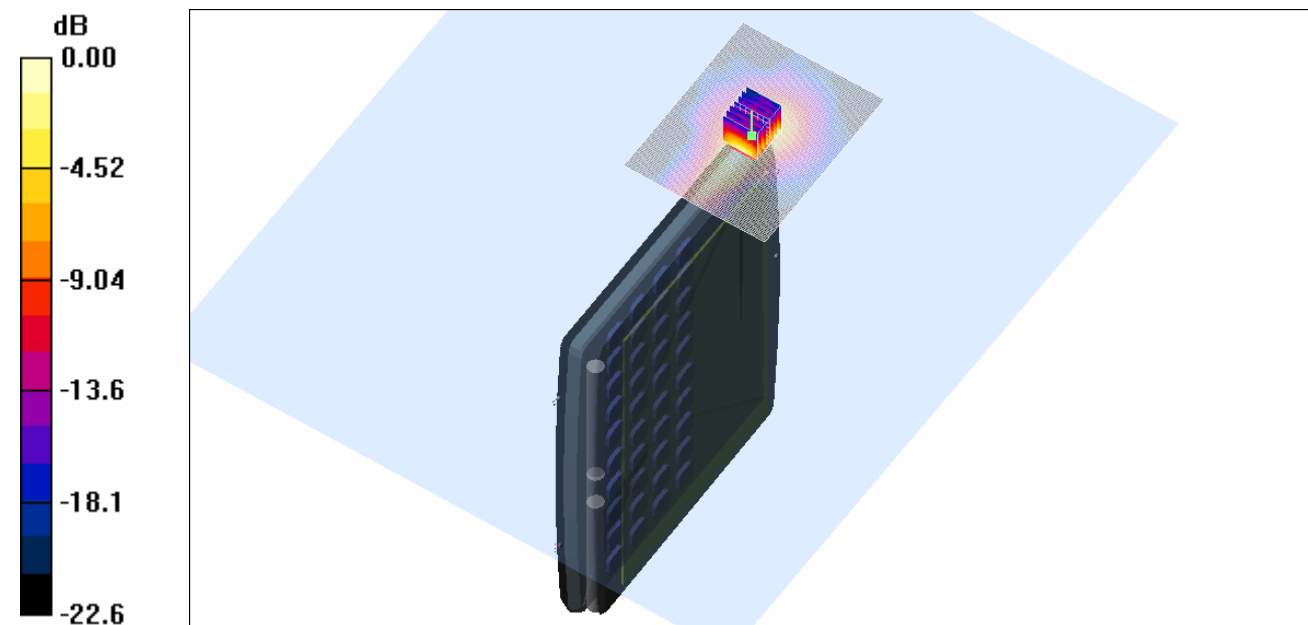
Channel 6 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.07 V/m; Power Drift = -0.035 dB

Peak SAR (extrapolated) = 0.270 W/kg

SAR(1 g) = 0.120 mW/g; SAR(10 g) = 0.057 mW/g

Maximum value of SAR (measured) = 0.138 mW/g



0 dB = 0.138mW/g

SAR MEASUREMENT PLOT 4

Ambient Temperature
Liquid Temperature
Humidity

21.5 Degrees Celsius
21.2 Degrees Celsius
35.0 %

Test Date: 30 April 2008

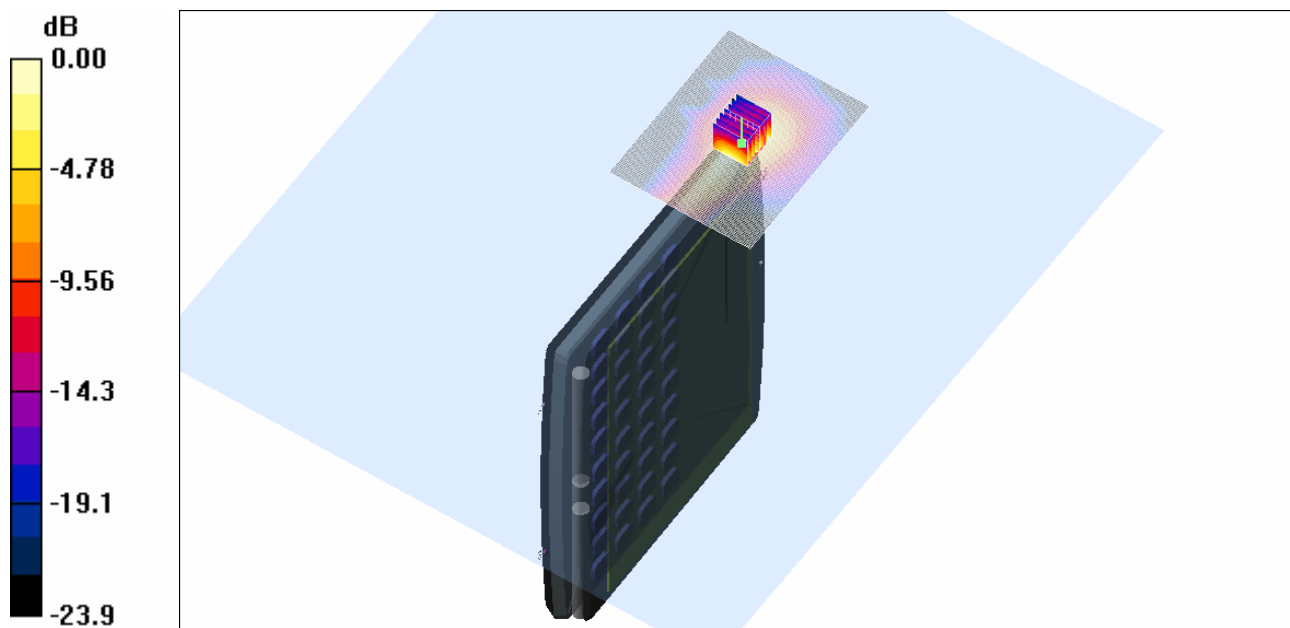
File Name: Edge On Side (Primary Portrait) OFDM 2450 MHz Seneca Antenna Aux 30-04-08.da4

DUT: **Fujitsu Notebook Seneca with Atheros 11abgn and Bluetooth; Type: HB92; Serial: MAC: 001B9E-C850F4**

- * Communication System: OFDM 2450 MHz; Frequency: 2462 MHz; Duty Cycle: 1:1
- * Medium parameters used: $\sigma = 1.93742$ mho/m, $\epsilon_r = 52.198$; $\rho = 1000$ 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 (81x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.125 mW/g

Channel 11 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.93 V/m; Power Drift = -0.475 dB
Peak SAR (extrapolated) = 0.261 W/kg
SAR(1 g) = 0.117 mW/g; SAR(10 g) = 0.057 mW/g
Maximum value of SAR (measured) = 0.131 mW/g



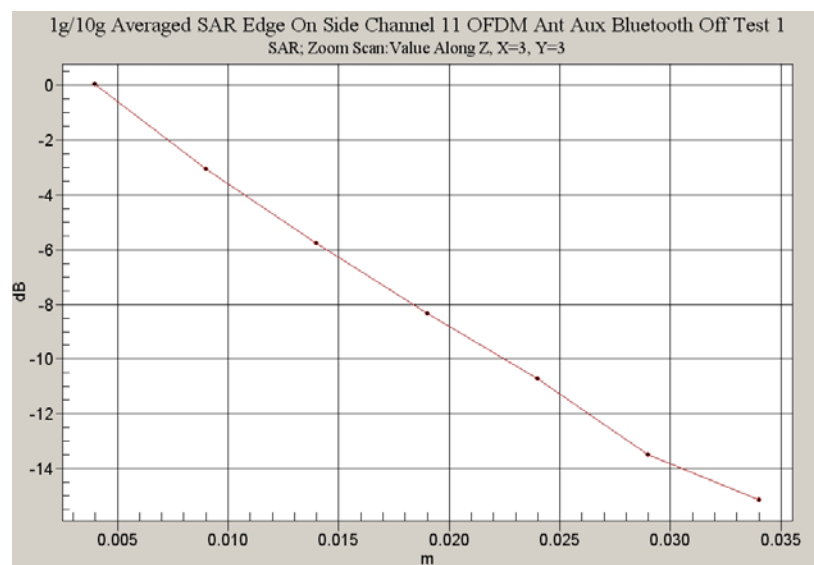
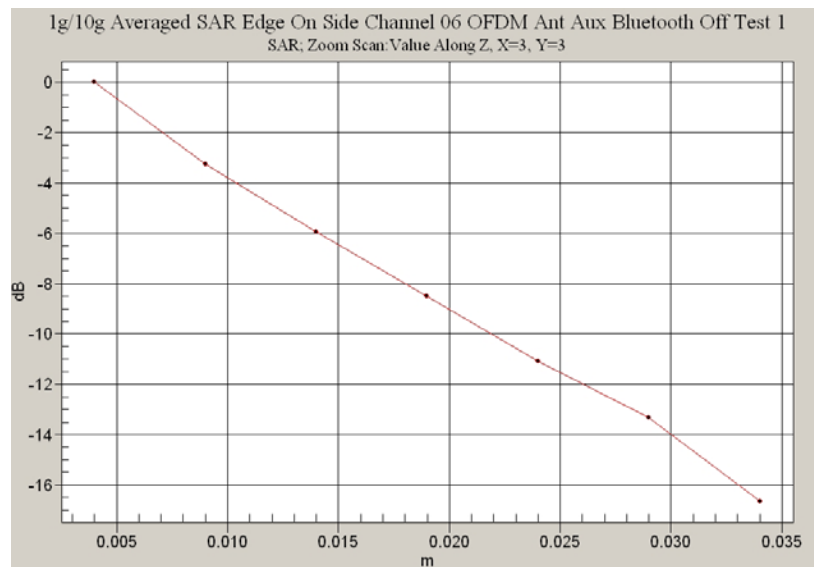
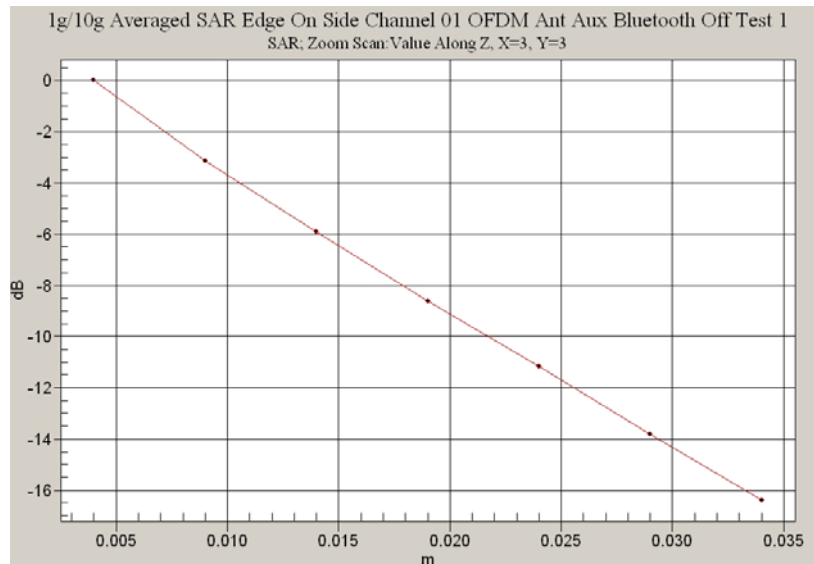
0 dB = 0.131mW/g

SAR MEASUREMENT PLOT 5

Ambient Temperature
Liquid Temperature
Humidity

21.5 Degrees Celsius
21.2 Degrees Celsius
35.0 %





Test Date: 30 April 2008

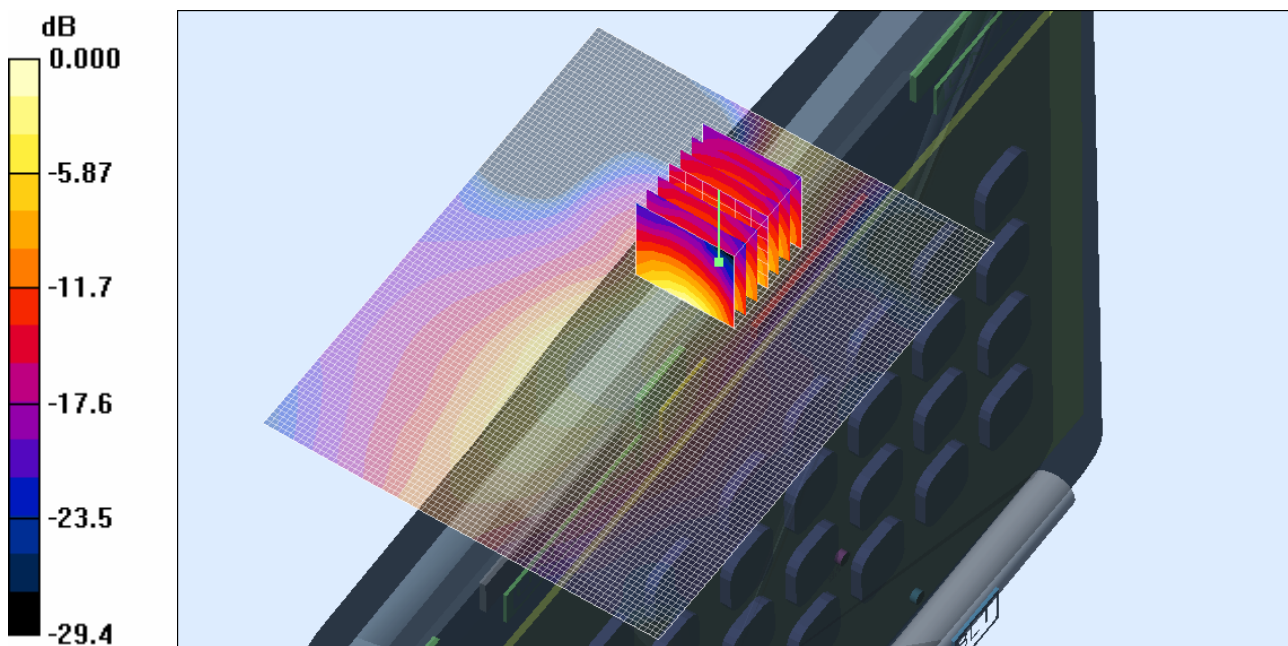
File Name: M080425 Edge On Secondary Landscape DSSS 2450 MHz Seneca Antenna A (Main - 1) 30-04-08.da4

DUT: Fujitsu Notebook Seneca with Atheros 11abgn and Bluetooth; Type: HB92; Serial: MAC: 001B9E-C850F4

- * Communication System: DSSS 2450 MHz; Frequency: 2437 MHz; Duty Cycle: 1:1
- * Medium parameters used: $f = 2438 \text{ MHz}$; $\sigma = 1.9 \text{ mho/m}$; $\epsilon_r = 52.4$; $\rho = 1000 \text{ kg/m}^3$
- 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 (81x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.210 mW/g

Channel 6 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 10.3 V/m; Power Drift = -0.470 dB
 Peak SAR (extrapolated) = 0.459 W/kg
SAR(1 g) = 0.202 mW/g; SAR(10 g) = 0.092 mW/g
 Maximum value of SAR (measured) = 0.236 mW/g

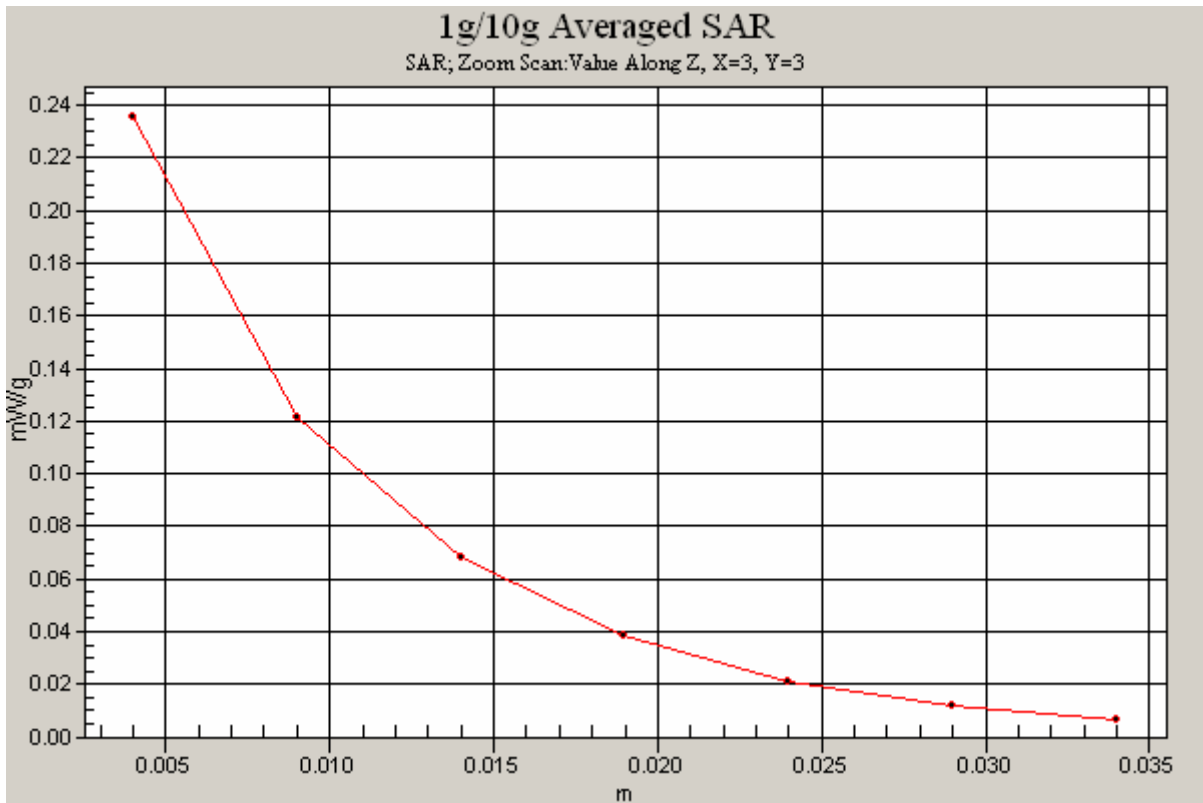


SAR MEASUREMENT PLOT 6

Ambient Temperature
Liquid Temperature
Humidity

21.5 Degrees Celsius
21.2 Degrees Celsius
35.0 %





Test Date: 30 April 2008

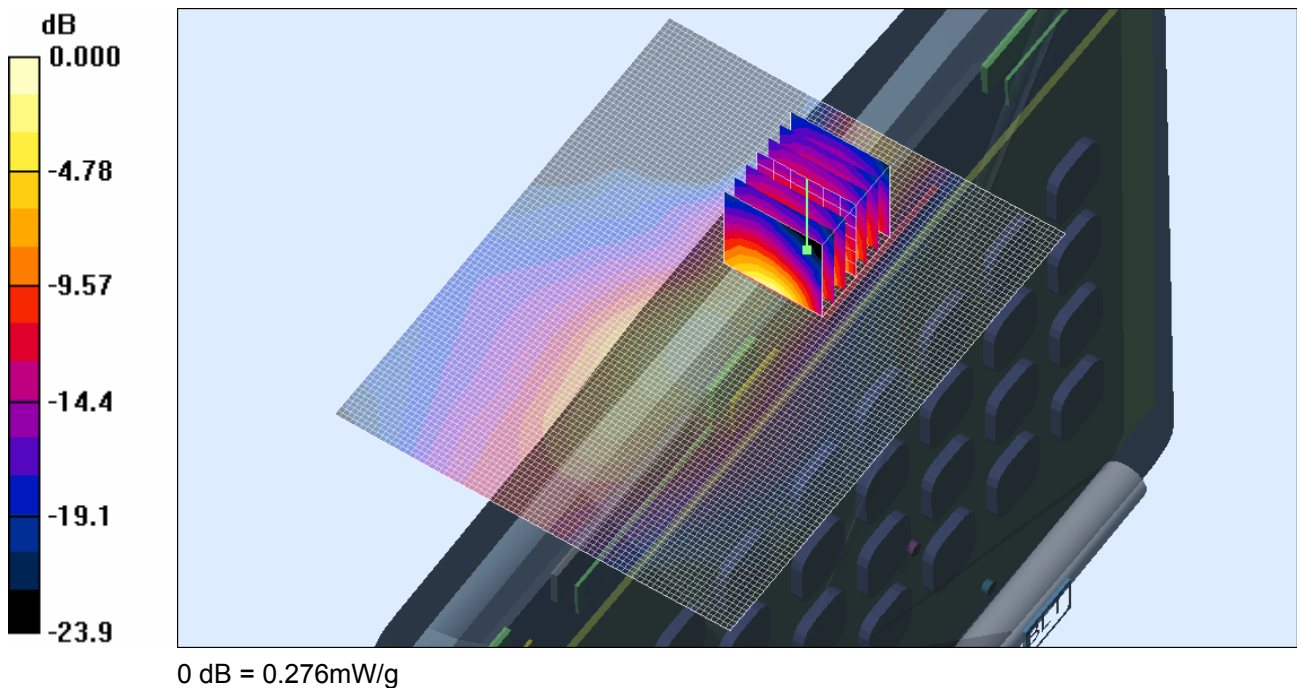
File Name: M080425 Edge On Secondary Landscape OFDM 2450 MHz Seneca Antenna A (Main - 1) 30-04-08.da4

DUT: Fujitsu Notebook Seneca with Atheros 11abgn and Bluetooth; Type: HB92; Serial: MAC: 001B9E-C850F4

- * Communication System: OFDM 2450 MHz; Frequency: 2437 MHz; Duty Cycle: 1:1
- * Medium parameters used: $f = 2438 \text{ MHz}$; $\sigma = 1.9 \text{ mho/m}$; $\epsilon_r = 52.4$; $\rho = 1000 \text{ kg/m}^3$
- 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 (81x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.254 mW/g

Channel 6 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 10.0 V/m; Power Drift = -0.212 dB
 Peak SAR (extrapolated) = 0.536 W/kg
SAR(1 g) = 0.232 mW/g; SAR(10 g) = 0.105 mW/g
 Maximum value of SAR (measured) = 0.276 mW/g

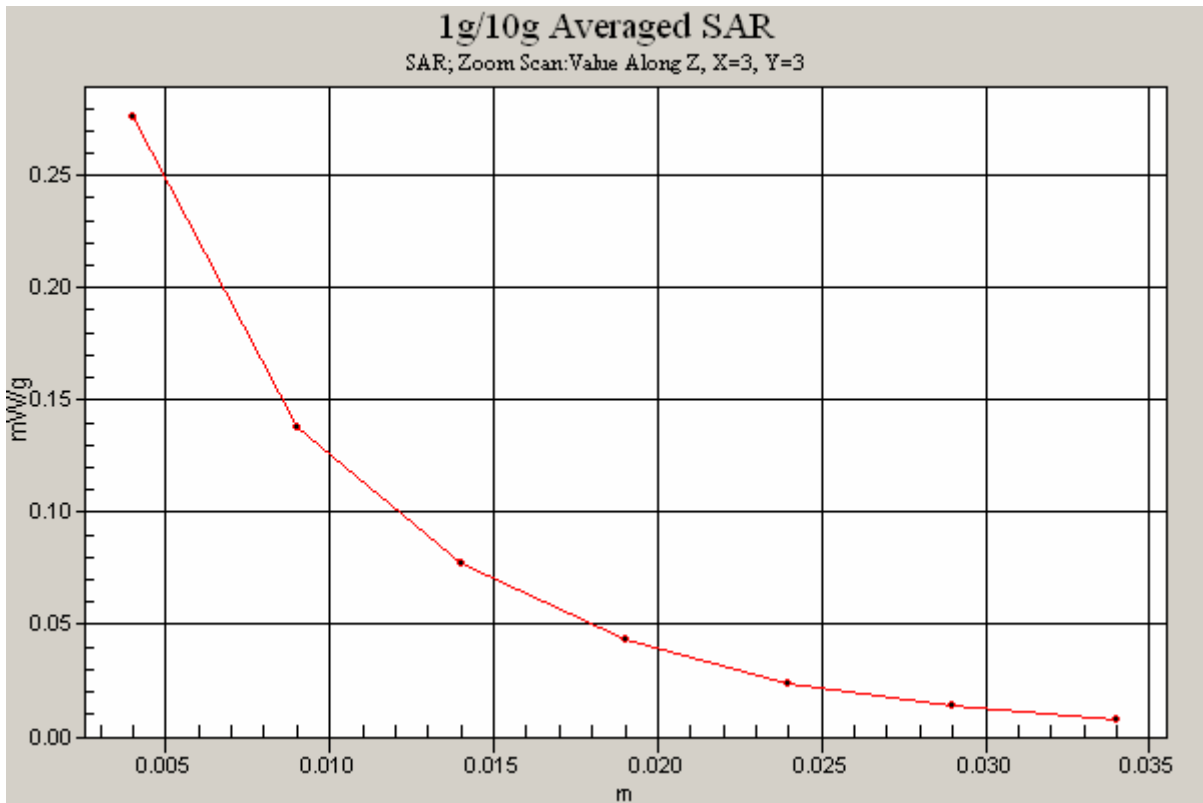


SAR MEASUREMENT PLOT 7

Ambient Temperature
 Liquid Temperature
 Humidity

21.5 Degrees Celsius
21.2 Degrees Celsius
35.0 %





Test Date: 30 April 2008

File Name: M080425 Edge On Secondary Landscape OFDM 2450 MHz Seneca Antenna B (Aux - 2) 30-04-08.da4

DUT: Fujitsu Notebook Seneca with Atheros 11abgn and Bluetooth; Type: HB92; Serial: MAC: 001B9E-C850F4

- * Communication System: OFDM 2450 MHz; Frequency: 2437 MHz; Duty Cycle: 1:1
- * Medium parameters used: $f = 2438 \text{ MHz}$; $\sigma = 1.9 \text{ mho/m}$; $\epsilon_r = 52.4$; $\rho = 1000 \text{ kg/m}^3$
- 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 (81x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.139 mW/g

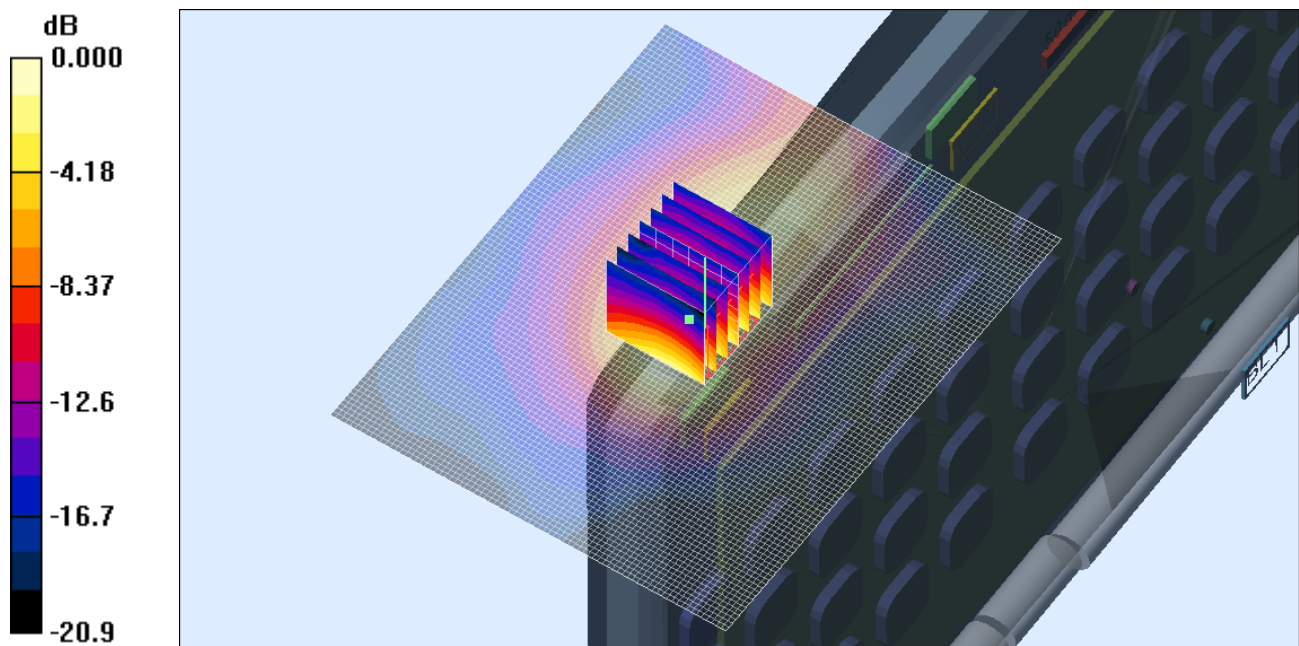
Channel 6 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.62 V/m; Power Drift = -0.026 dB

Peak SAR (extrapolated) = 0.279 W/kg

SAR(1 g) = 0.127 mW/g; SAR(10 g) = 0.066 mW/g

Maximum value of SAR (measured) = 0.140 mW/g

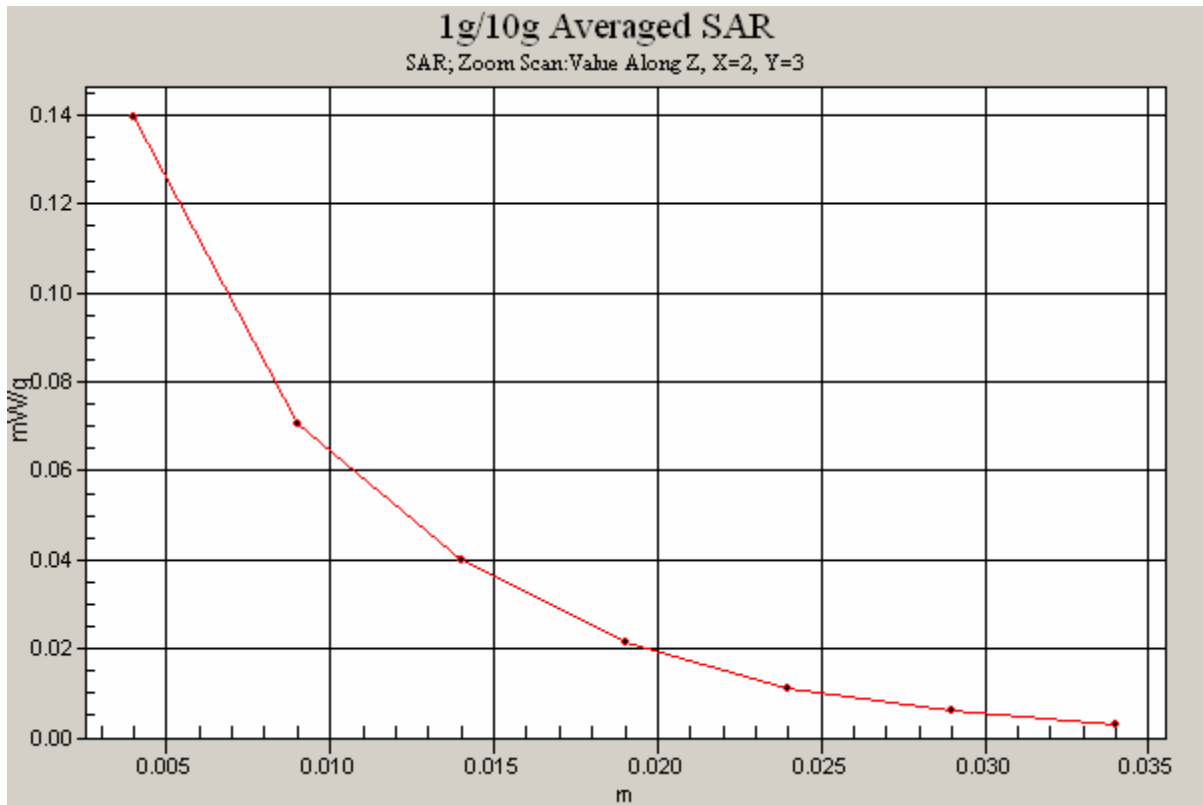


SAR MEASUREMENT PLOT 8

Ambient Temperature
Liquid Temperature
Humidity

21.5 Degrees Celsius
21.2 Degrees Celsius
35.0 %





Test Date: 30 April 2008

File Name: M080425 Edge On Secondary Landscape OFDM HT0 (20MHz) 2450 MHz Seneca Antenna A (Main - 1) 30-04-08.da4

DUT: Fujitsu Notebook Seneca with Atheros 11abgn and Bluetooth; Type: HB92; Serial: MAC: 001B9E-C850F4

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

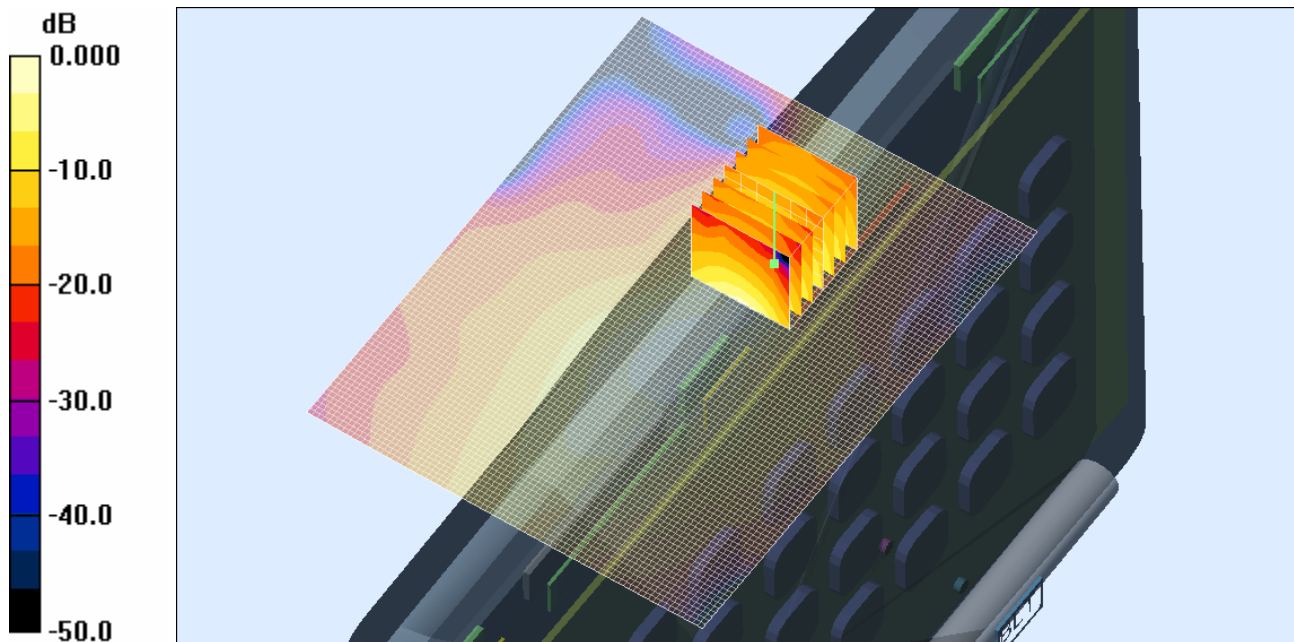
* Medium parameters used: $f = 2438$ MHz; $\sigma = 1.9$ mho/m; $\epsilon_r = 52.4$; $\rho = 1000$ kg/m³

- 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 (81x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.247 mW/g

Channel 6 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.17 V/m; Power Drift = 0.175 dB
Peak SAR (extrapolated) = 0.452 W/kg
SAR(1 g) = 0.204 mW/g; SAR(10 g) = 0.092 mW/g
Maximum value of SAR (measured) = 0.234 mW/g

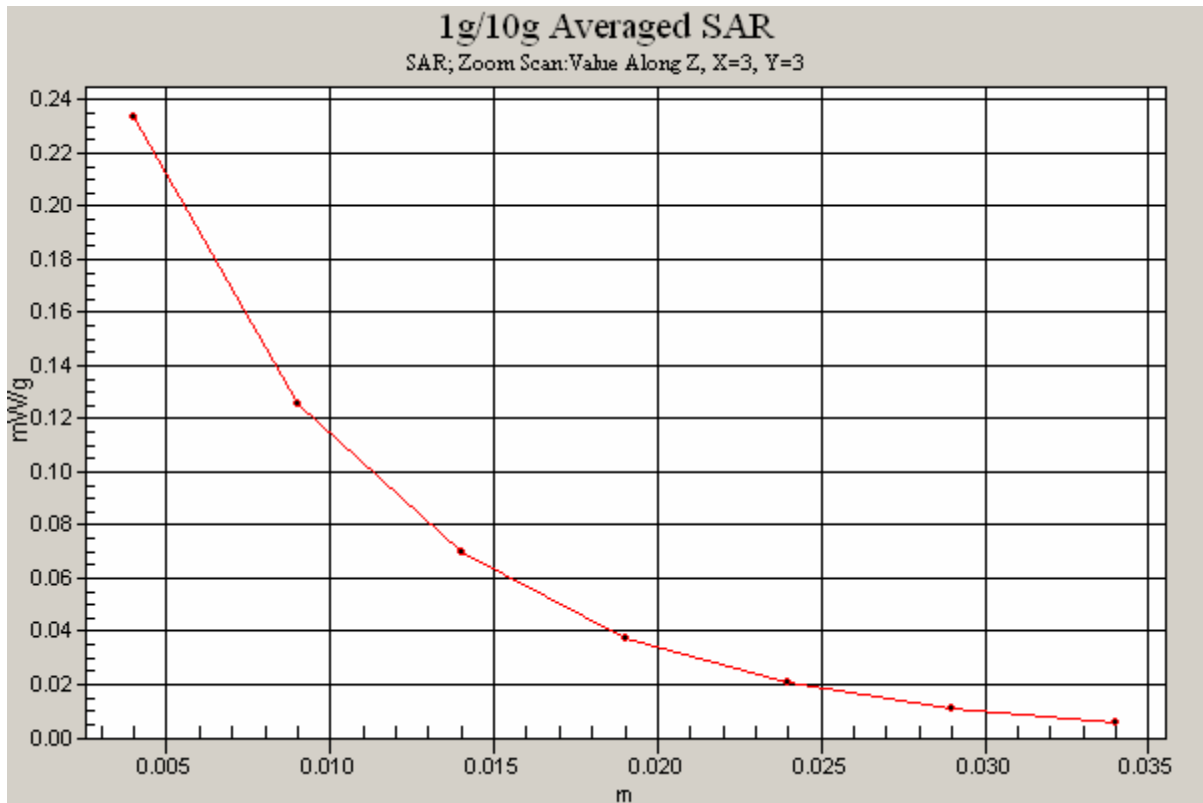


0 dB = 0.234mW/g

SAR MEASUREMENT PLOT 9

Ambient Temperature
Liquid Temperature
Humidity

21.5 Degrees Celsius
21.2 Degrees Celsius
35.0 %



Test Date: 30 April 2008

File Name: M080425 Edge On Secondary Landscape OFDM HT0 (40MHz) 2450 MHz Seneca Antenna A (Main -1) 30-04-08.da4

DUT: Fujitsu Notebook Seneca with Atheros 11abgn and Bluetooth; Type: HB92; Serial: MAC: 001B9E-C850F4

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

* Medium parameters used: $f = 2438 \text{ MHz}$; $\sigma = 1.9 \text{ mho/m}$; $\epsilon_r = 52.4$; $\rho = 1000 \text{ kg/m}^3$

- 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 (81x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.222 mW/g

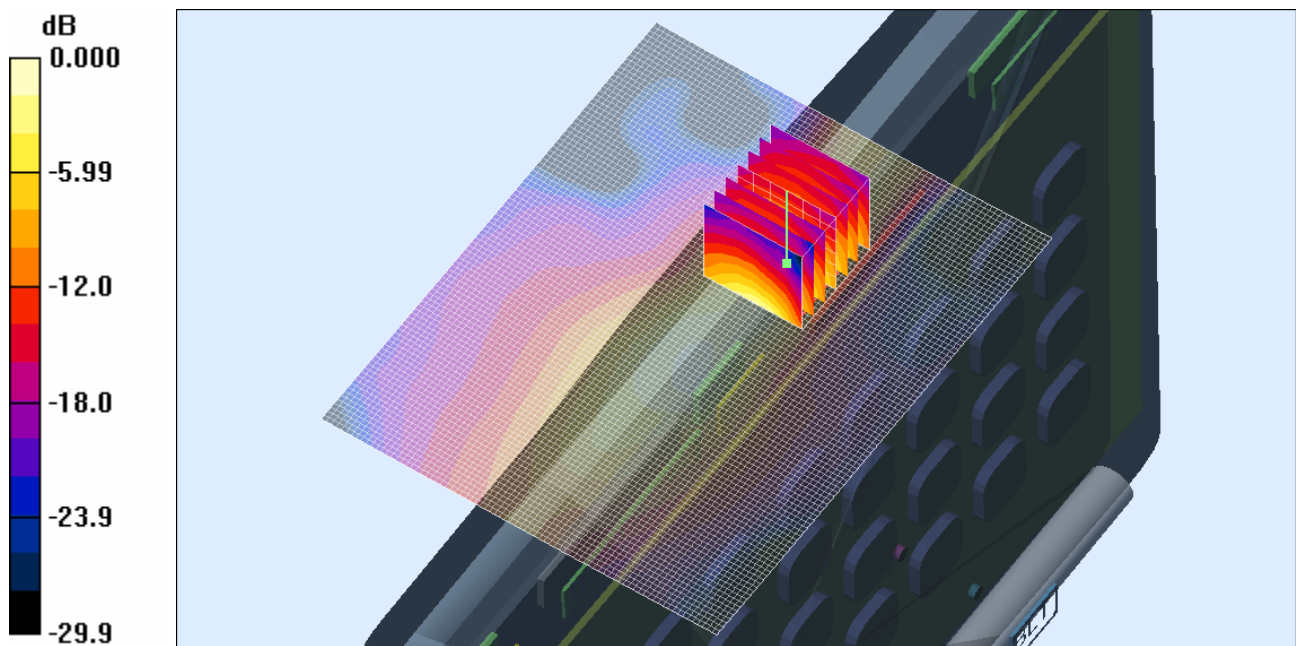
Channel 6 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.59 V/m; Power Drift = -0.160 dB

Peak SAR (extrapolated) = 0.432 W/kg

SAR(1 g) = 0.194 mW/g; SAR(10 g) = 0.089 mW/g

Maximum value of SAR (measured) = 0.222 mW/g

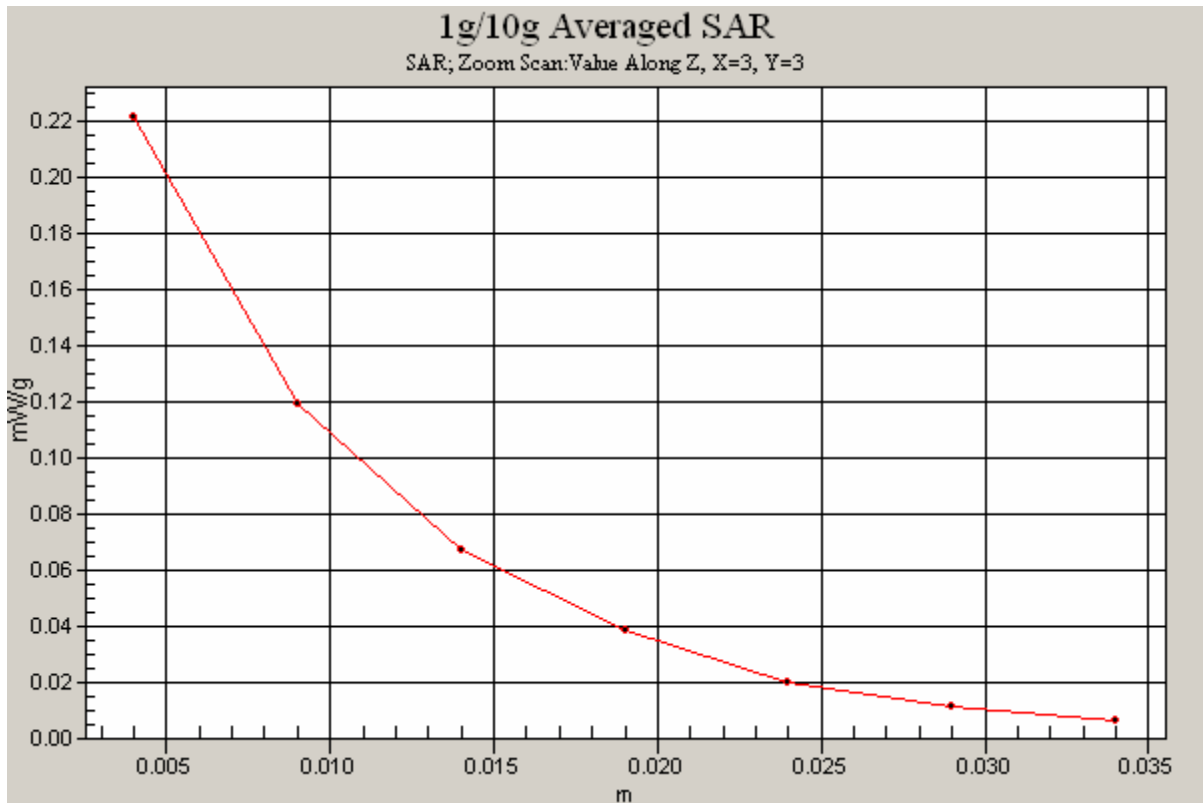


SAR MEASUREMENT PLOT 10

Ambient Temperature
Liquid Temperature
Humidity

21.5 Degrees Celsius
21.2 Degrees Celsius
35.0 %





Test Date: 30 April 2008

File Name: Validation 2450 MHz (DAE442 Probe1377) 30-04-08.da4

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

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

* Medium parameters used: $\sigma = 1.74423$ mho/m, $\epsilon_r = 39.5284$; $\rho = 1000$ 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) = 19.2 mW/g

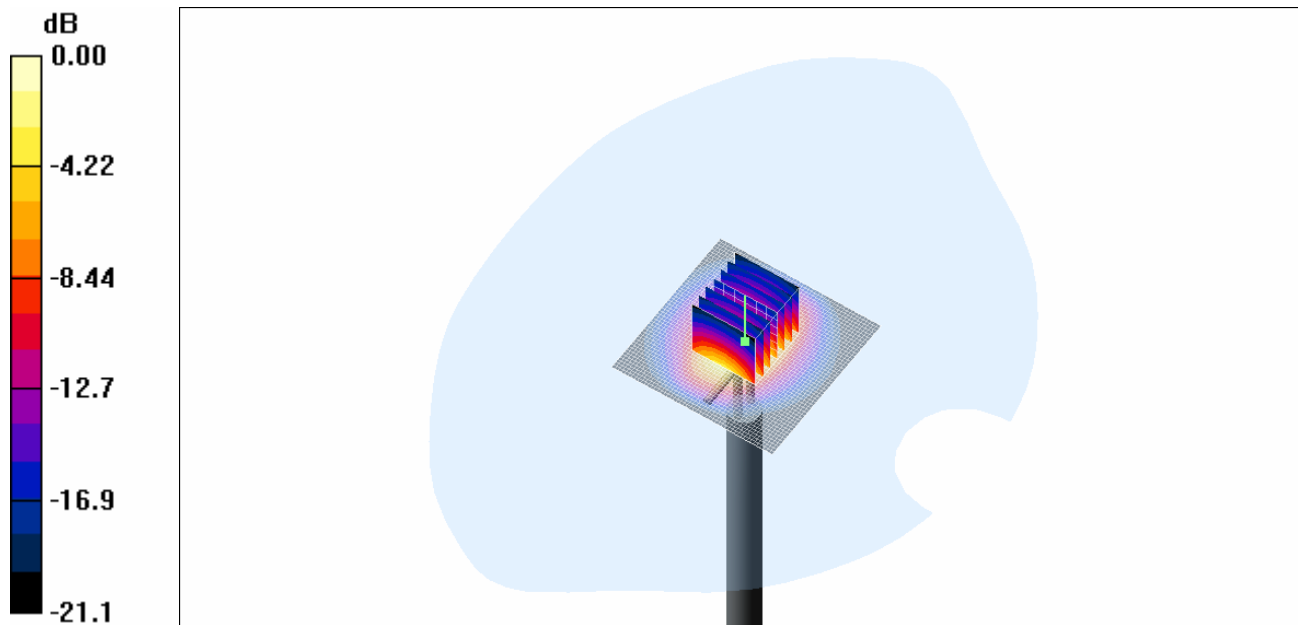
Channel 1 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 98.7 V/m; Power Drift = -0.086 dB

Peak SAR (extrapolated) = 29.4 W/kg

SAR(1 g) = 13.7 mW/g; SAR(10 g) = 6.47 mW/g

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



0 dB = 15.5mW/g

SAR MEASUREMENT PLOT 11

Ambient Temperature
Liquid Temperature
Humidity

21.5 Degrees Celsius
21.2 Degrees Celsius
35.0 %



