

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: 5200 MHz Band SAR Measurement Plot Numbers

Test Position	Plot No.	Ant	Bit rate Mode (Mbps)	Channel Bandwidth (MHz)	Test Channel
Tablet	1	Aux	HT0	40	54
Table	2	Main	HT0	40	54
Edge On Side	3	Aux	HT0	40	54
Z-Axis graphs for Plots 1 to 3					

Table: 5600 MHz Band SAR Measurement Plot Numbers

Test Position	Plot No.	Ant	Bit rate Mode (Mbps)	Channel Bandwidth (MHz)	Test Channel
Tablet	4	Aux	HT0	40	118
Tablet	5	Main	HT0	40	118
Edge On Side	6	Aux	HT0	40	118
Z-Axis graphs for Plots 4 to 6					

Table: 5800 MHz Band SAR Measurement Plot Numbers

Test Position	Plot No.	Ant	Bit rate Mode (Mbps)	Channel Bandwidth (MHz)	Test Channel
Tablet	7	Aux	HT0	40	159
Tablet	8	Main	HT0	40	159
Edge On Side	9	Aux	HT0	40	159
Z-Axis graphs for Plots 7 to 9					

Table: Validation Plots

Plot 10	Validation 5200 MHz 12 th April 2008
Plot 11	Validation 5200 MHz 17 th April 2008
Z-Axis graphs for Plots 10 to 11	
Plot 12	Validation 5500 MHz 18 th April 2008
Plot 13	Validation 5800 MHz 21 st April 2008
Z-Axis graphs for Plots 12 to 13	



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Test Date: 17 April 2008

File Name: Tablet OFDM HT0 (40MHz) 5.2 GHz Ant Aux 17-04-08.da4

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

* Communication System: OFDM 5250 MHz; Frequency: 5270 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 5.34282$ mho/m, $\epsilon_r = 48.3576$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: EX3DV4 - SN3563; ConvF(3.79, 3.79, 3.79)

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

Channel 054 Test/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.147 mW/g

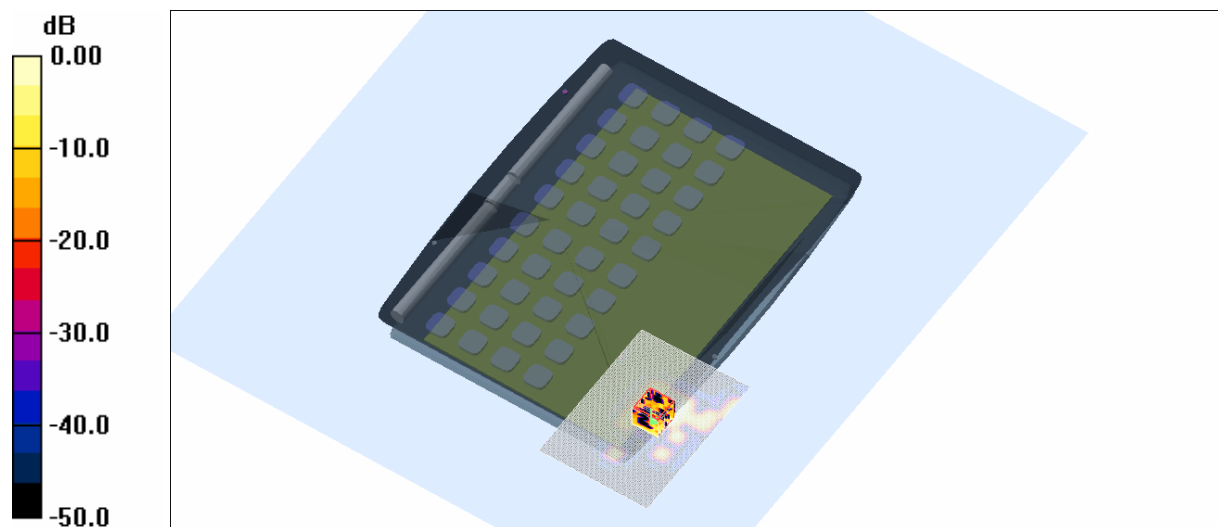
Channel 054 Test/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 3.20 V/m; Power Drift = -0.107 dB

Peak SAR (extrapolated) = 0.351 W/kg

SAR(1 g) = 0.034 mW/g; SAR(10 g) = 0.014 mW/g

Maximum value of SAR (measured) = 0.069 mW/g



0 dB = 0.069mW/g

SAR MEASUREMENT PLOT 1

Ambient Temperature
Liquid Temperature
Humidity

20.5 Degrees Celsius
20.2 Degrees Celsius
53.0 %



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Test Date: 17 April 2008

File Name: Tablet OFDM HT0 (40MHz) 5.2 GHz Ant Main 17-04-08.da4

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

* Communication System: OFDM 5250 MHz; Frequency: 5270 MHz; Duty Cycle: 1:1

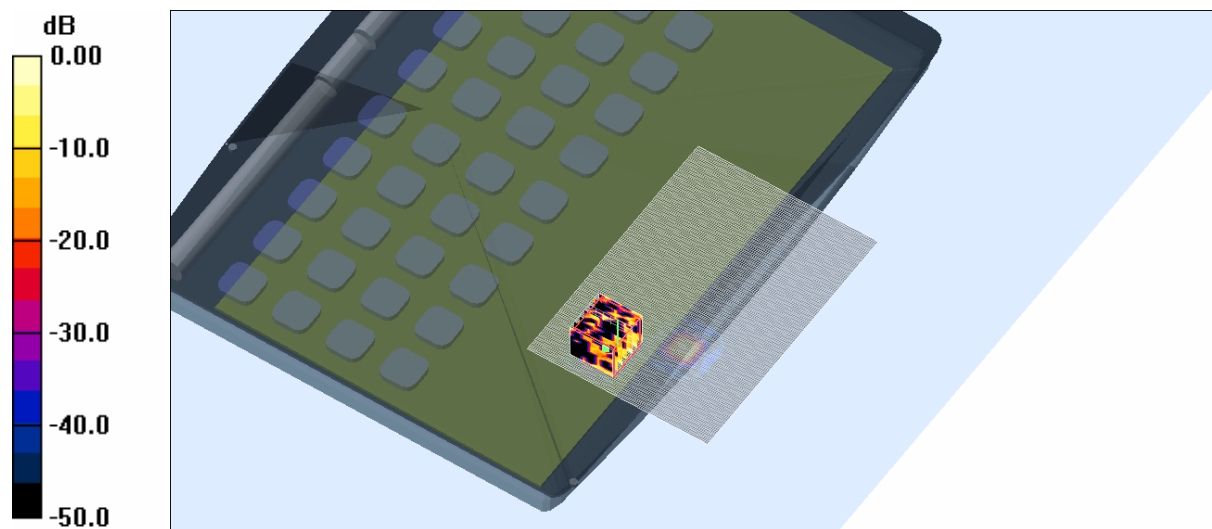
* Medium parameters used: $\sigma = 5.34282$ mho/m, $\epsilon_r = 48.3576$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: EX3DV4 - SN3563; ConvF(3.79, 3.79, 3.79)

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

Channel 054 Test/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.039 mW/g

Channel 054 Test/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 1.68 V/m; Power Drift = 0.180 dB
Peak SAR (extrapolated) = 0.149 W/kg
SAR(1 g) = 0.00897 mW/g; SAR(10 g) = 0.00206 mW/g
Maximum value of SAR (measured) = 0.037 mW/g



0 dB = 0.037mW/g

SAR MEASUREMENT PLOT 2

Ambient Temperature
Liquid Temperature
Humidity

20.5 Degrees Celsius
20.2 Degrees Celsius
53.0 %

Test Date: 17 April 2008



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File Name: Edge On Side OFDM HT0 (40MHz) 5.2 GHz Ant Aux 17-04-08.da4

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

* Communication System: OFDM 5250 MHz; Frequency: 5270 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 5.34282$ mho/m, $\epsilon_r = 48.3576$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: EX3DV4 - SN3563; ConvF(3.79, 3.79, 3.79)

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

Channel 054 Test/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.070 mW/g

Channel 054 Test/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 1.66 V/m; Power Drift = 0.055 dB

Peak SAR (extrapolated) = 0.180 W/kg

SAR(1 g) = 0.019 mW/g; SAR(10 g) = 0.00521 mW/g

Maximum value of SAR (measured) = 0.046 mW/g



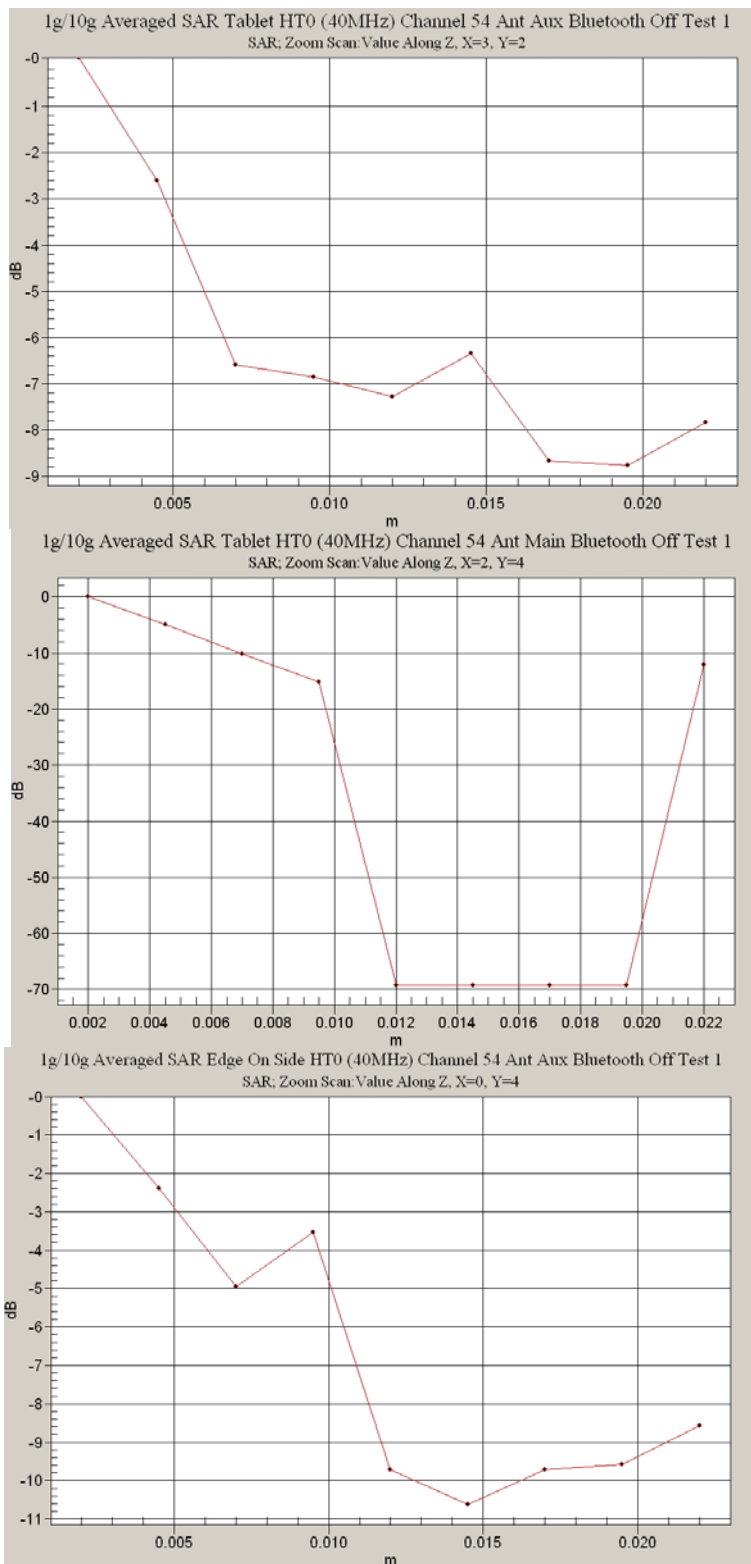
SAR MEASUREMENT PLOT 3

Ambient Temperature
Liquid Temperature
Humidity

20.5 Degrees Celsius
20.2 Degrees Celsius
53.0 %



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Test Date: 18 April 2008

File Name: Tablet OFDM HT0(40MHz) 5.6 GHz Ant Aux 18-04-08.da4

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

* Communication System: OFDM 5590 MHz; Frequency: 5590 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 5.97991$ mho/m, $\epsilon_r = 45.9583$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: EX3DV4 - SN3563; ConvF(3.68, 3.68, 3.68)

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

Channel 118 Test/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.055 mW/g

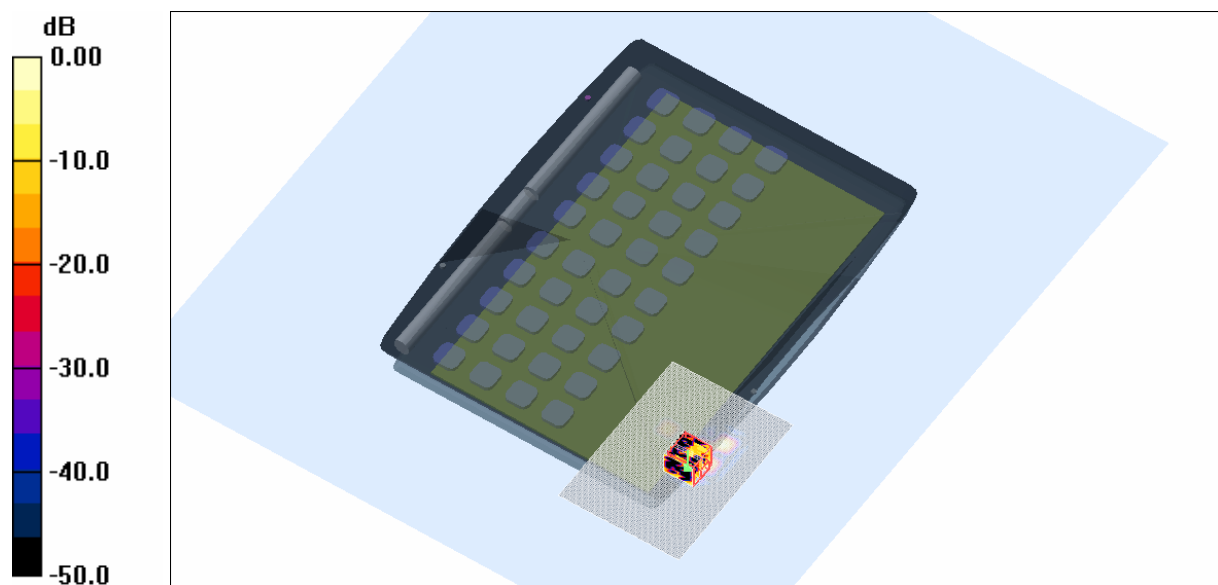
Channel 118 Test/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 1.56 V/m; Power Drift = 0.408 dB

Peak SAR (extrapolated) = 0.338 W/kg

SAR(1 g) = 0.035 mW/g; SAR(10 g) = 0.013 mW/g

Maximum value of SAR (measured) = 0.075 mW/g



SAR MEASUREMENT PLOT 4

Ambient Temperature
Liquid Temperature
Humidity

21.0 Degrees Celsius
20.9 Degrees Celsius
53.0 %



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Test Date: 18 April 2008

File Name: Tablet OFDM HT0(40MHz) 5.6 GHz Ant Main 18-04-08.da4

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

* Communication System: OFDM 5590 MHz; Frequency: 5590 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 5.97991$ mho/m, $\epsilon_r = 45.9583$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: EX3DV4 - SN3563; ConvF(3.68, 3.68, 3.68)

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

Channel 118 Test/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.044 mW/g

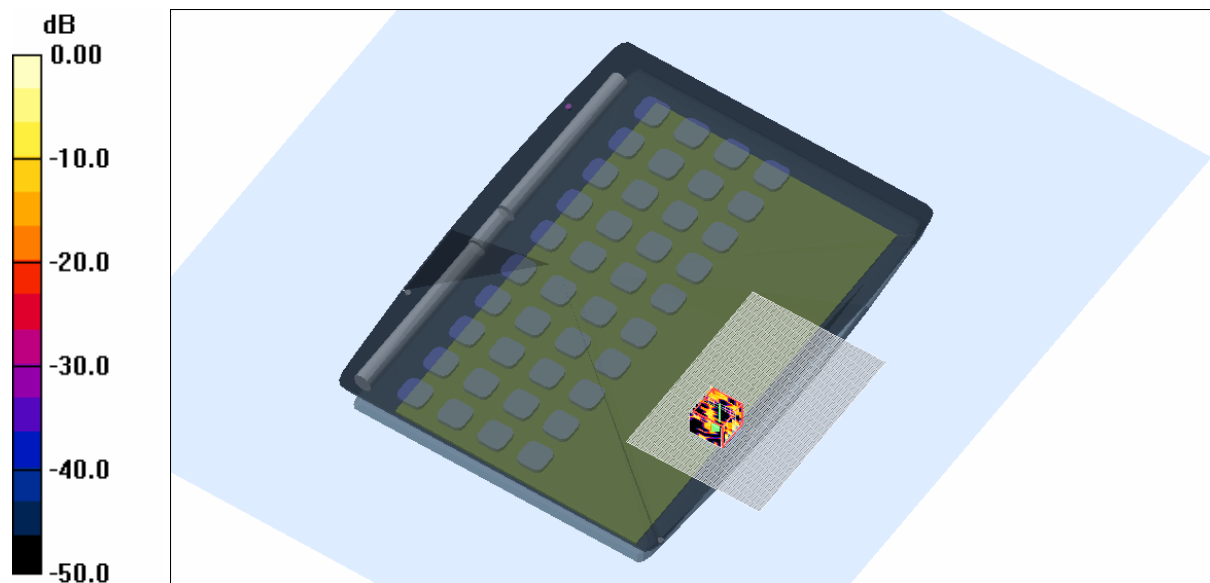
Channel 118 Test/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 1.19 V/m; Power Drift = 0.209 dB

Peak SAR (extrapolated) = 0.237 W/kg

SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00139 mW/g

Maximum value of SAR (measured) = 0.053 mW/g



SAR MEASUREMENT PLOT 5

Ambient Temperature
Liquid Temperature
Humidity

21.0 Degrees Celsius
20.9 Degrees Celsius
53.0 %

Test Date: 18 April 2008



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File Name: Edge On Side OFDM HT0(40MHz) 5.6 GHz Ant Aux 18-04-08.da4

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

* Communication System: OFDM 5590 MHz; Frequency: 5590 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 5.97991$ mho/m, $\epsilon_r = 45.9583$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: EX3DV4 - SN3563; ConvF(3.68, 3.68, 3.68)

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

Channel 118 Test/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.184 mW/g

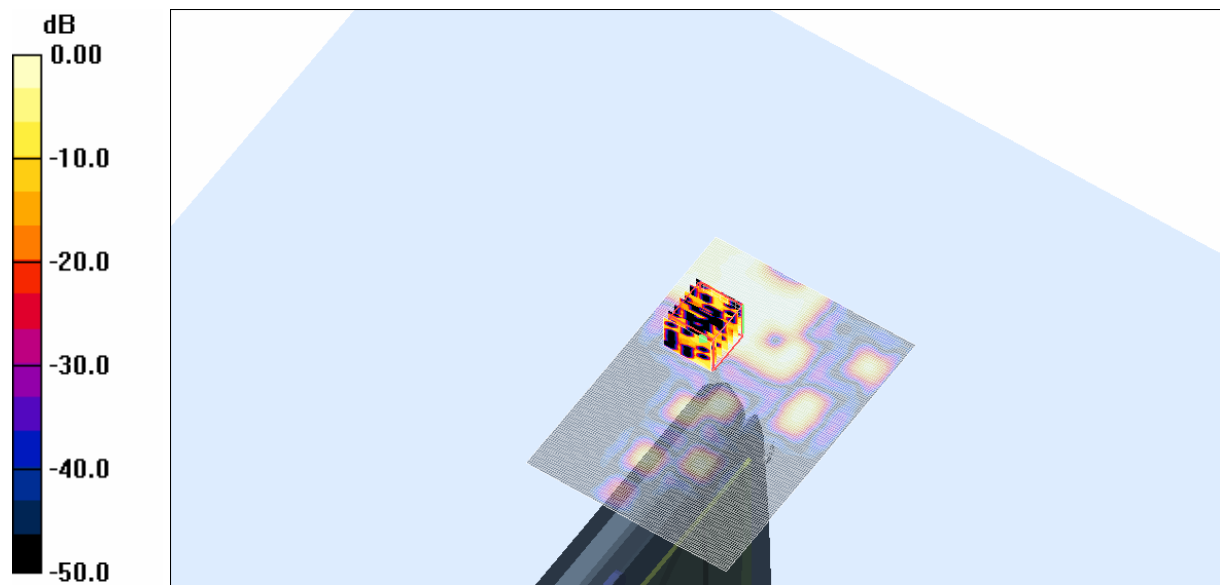
Channel 118 Test/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 1.90 V/m; Power Drift = -0.304 dB

Peak SAR (extrapolated) = 0.223 W/kg

SAR(1 g) = 0.021 mW/g; SAR(10 g) = 0.00586 mW/g

Maximum value of SAR (measured) = 0.069 mW/g



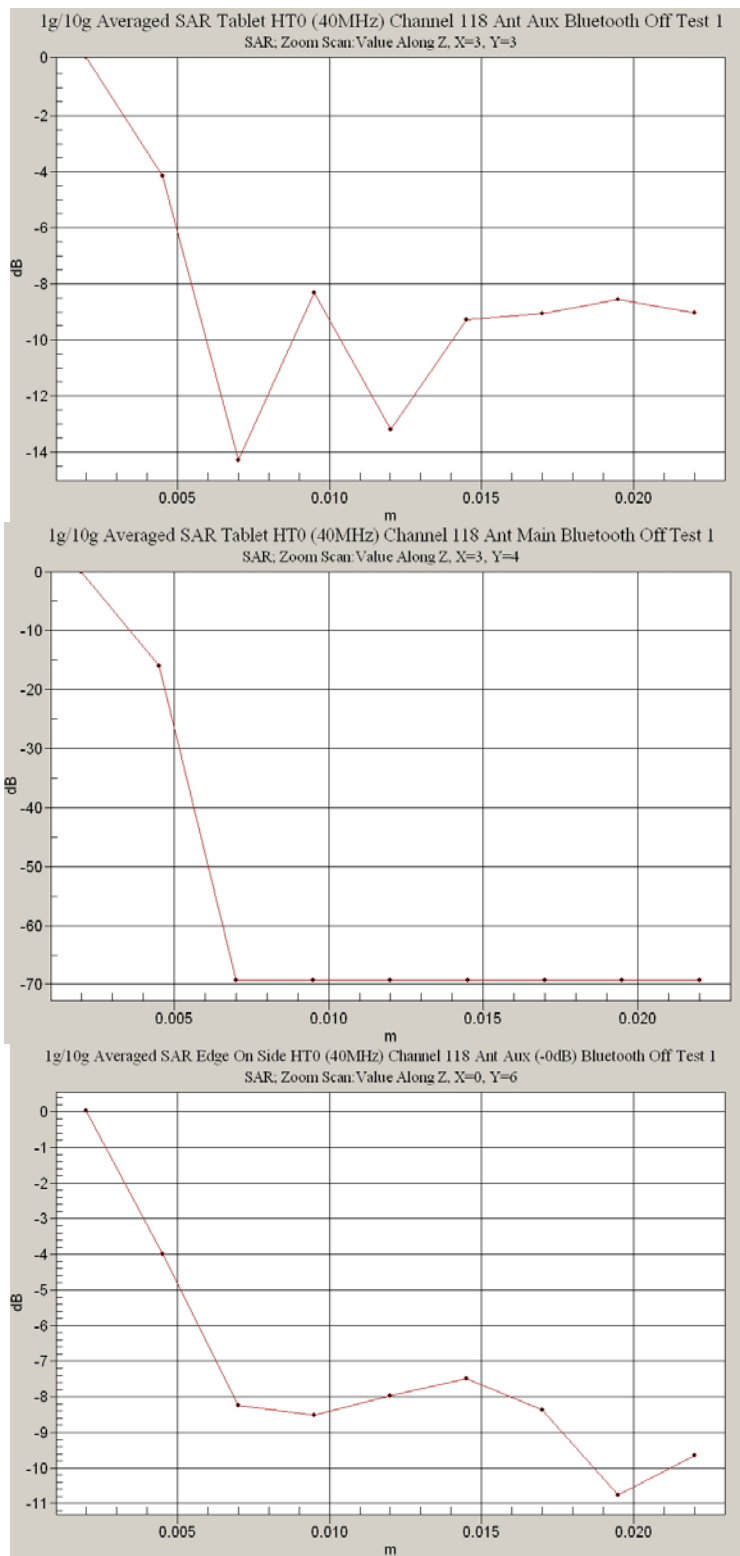
SAR MEASUREMENT PLOT 6

Ambient Temperature
Liquid Temperature
Humidity

21.0 Degrees Celsius
20.9 Degrees Celsius
53.0 %



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Test Date: 21 April 2008

File Name: Tablet OFDM HT0(40MHz) 5.8 GHz Ant Aux 21-04-08.da4

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

* Communication System: OFDM 5775 MHz; Frequency: 5795 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 6.17405$ mho/m, $\epsilon_r = 45.296$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: EX3DV4 - SN3563; ConvF(3.72, 3.72, 3.72)

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

Channel 159 Test/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.037 mW/g

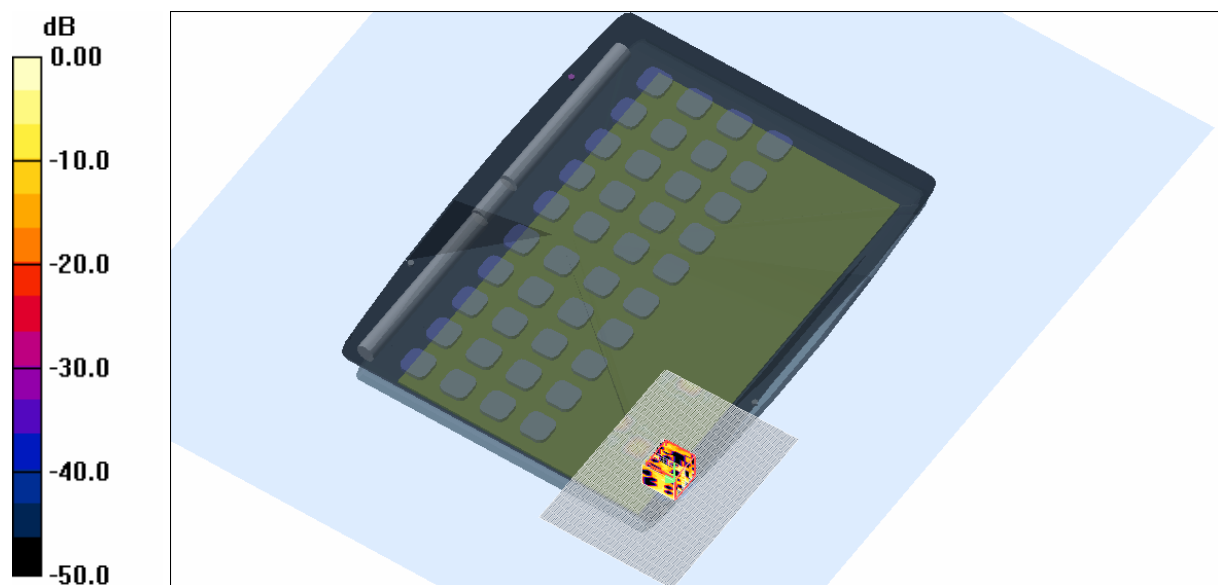
Channel 159 Test/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 2.59 V/m; Power Drift = 0.360 dB

Peak SAR (extrapolated) = 0.319 W/kg

SAR(1 g) = 0.030 mW/g; SAR(10 g) = 0.00781 mW/g

Maximum value of SAR (measured) = 0.055 mW/g



SAR MEASUREMENT PLOT 7

Ambient Temperature
Liquid Temperature
Humidity

20.8 Degrees Celsius
20.7 Degrees Celsius
51.0 %



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Test Date: 21 April 2008

File Name: Tablet OFDM HT0(40MHz) 5.8 GHz Ant Main 21-04-08.da4

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

* Communication System: OFDM 5775 MHz; Frequency: 5795 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 6.17405$ mho/m, $\epsilon_r = 45.296$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: EX3DV4 - SN3563; ConvF(3.72, 3.72, 3.72)

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

Channel 159 Test/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.022 mW/g

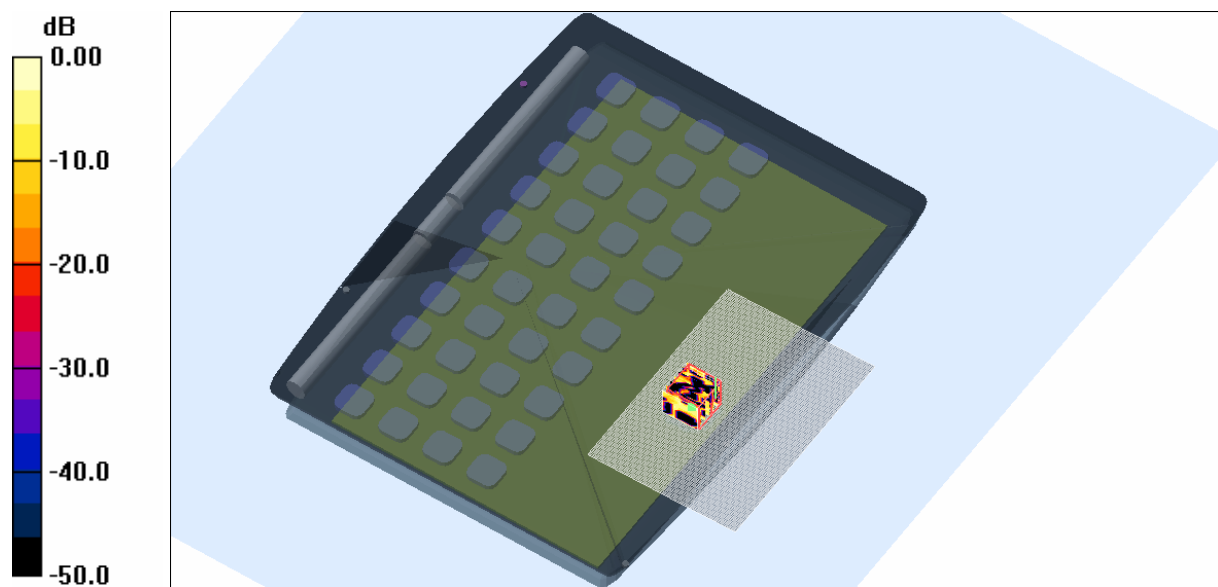
Channel 159 Test/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 0.777 V/m; Power Drift = 0.477 dB

Peak SAR (extrapolated) = 0.129 W/kg

SAR(1 g) = 0.00548 mW/g; SAR(10 g) = 0.000785 mW/g

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



SAR MEASUREMENT PLOT 8

Ambient Temperature
Liquid Temperature
Humidity

20.8 Degrees Celsius
20.7 Degrees Celsius
51.0 %



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Test Date: 21 April 2008

File Name: Edge On Side OFDM HT0(40MHz) 5.8 GHz Ant Aux 21-04-08.da4

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

* Communication System: OFDM 5775 MHz; Frequency: 5795 MHz; Duty Cycle: 1:1

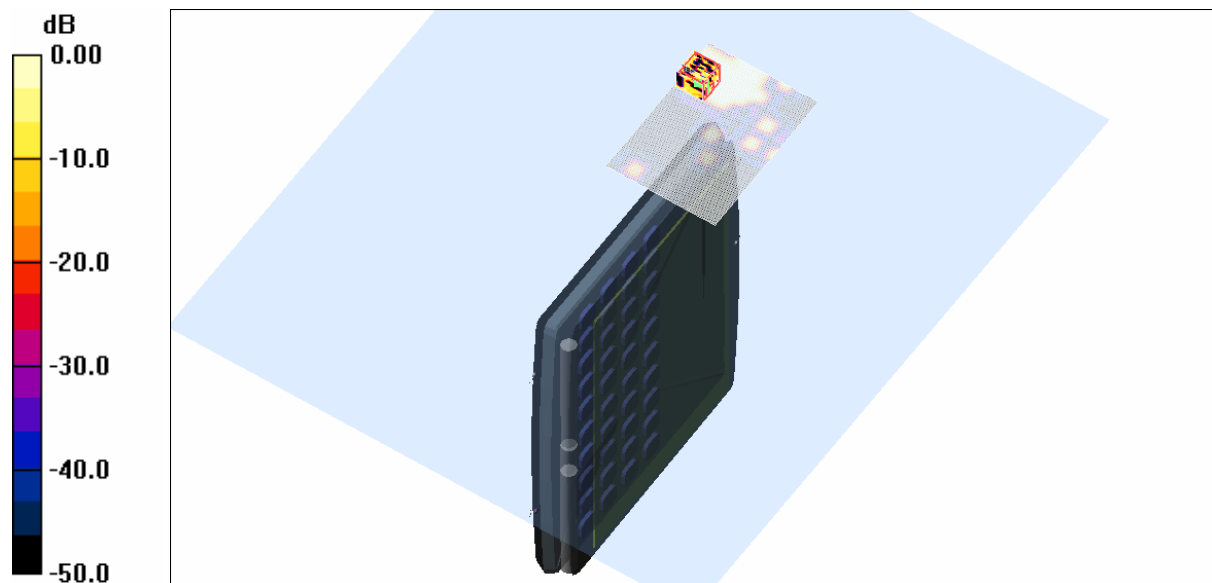
* Medium parameters used: $\sigma = 6.17405$ mho/m, $\epsilon_r = 45.296$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: EX3DV4 - SN3563; ConvF(3.72, 3.72, 3.72)

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

Channel 159 Test/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.084 mW/g

Channel 159 Test/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 1.26 V/m; Power Drift = -0.105 dB
Peak SAR (extrapolated) = 0.108 W/kg
SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00329 mW/g
Maximum value of SAR (measured) = 0.035 mW/g



0 dB = 0.035mW/g

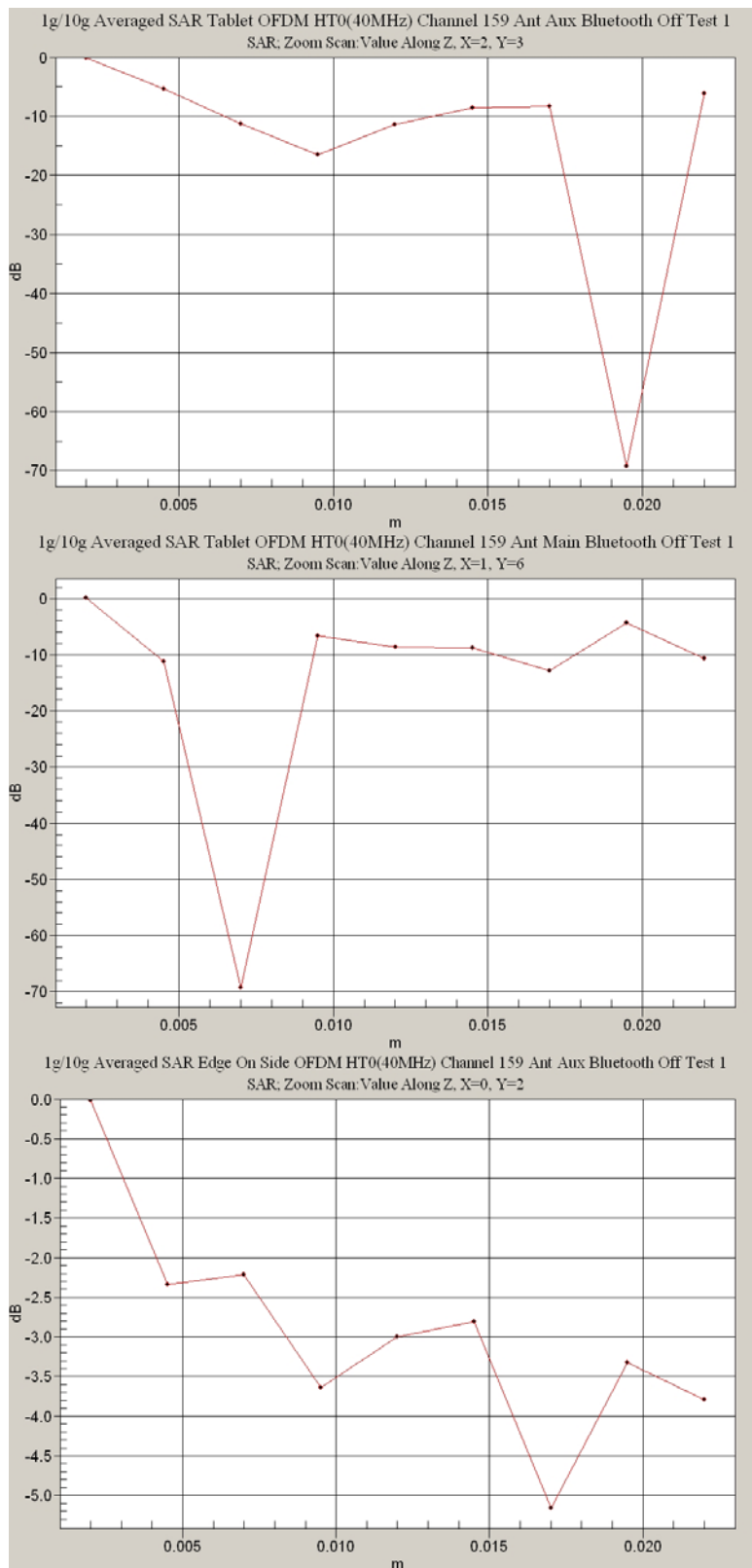
SAR MEASUREMENT PLOT 9

Ambient Temperature
Liquid Temperature
Humidity

20.8 Degrees Celsius
20.7 Degrees Celsius
51.0 %



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Test Date: 12 April 2008

File Name: Validation 5200MHz (DAE 442 Probe EX3DV4) 12-04-08.da4

DUT: Dipole 5200_5800 MHz; Type: D5GHzV2; Serial: 1008

* Communication System: CW 5200 MHz; Frequency: 5200 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 4.56962$ mho/m, $\epsilon_r = 35.8508$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: EX3DV4 - SN3563; ConvF(4.25, 4.25, 4.25)

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

Channel 1 Test/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 42.4 mW/g

Channel 1 Test/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm,

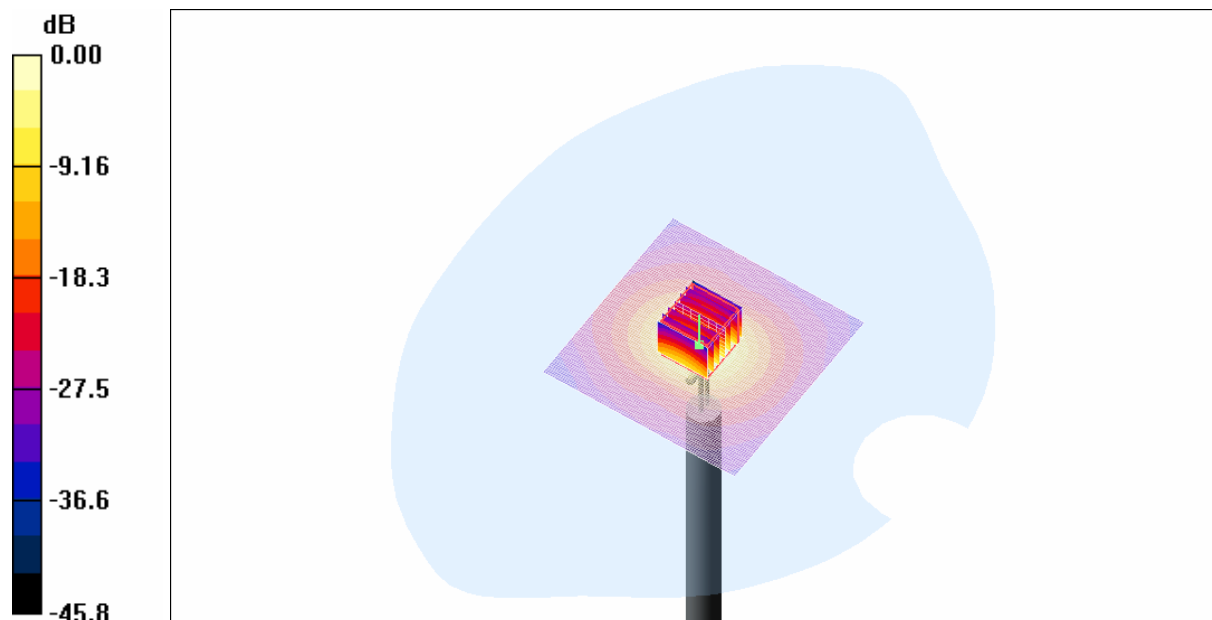
dz=2.5mm

Reference Value = 99.0 V/m; Power Drift = -0.062 dB

Peak SAR (extrapolated) = 74.5 W/kg

SAR(1 g) = 19.5 mW/g; SAR(10 g) = 5.53 mW/g

Maximum value of SAR (measured) = 40.4 mW/g



SAR MEASUREMENT PLOT 10

Ambient Temperature
Liquid Temperature
Humidity

21.4 Degrees Celsius
21.1 Degrees Celsius
54.0 %



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Test Date: 17 April 2008

File Name: Validation 5200MHz (DAE 442 Probe EX3DV4) 17-04-08.da4

DUT: **Dipole 5200_5800 MHz; Type: D5GHzV2; Serial: 1008**

* Communication System: CW 5200 MHz; Frequency: 5200 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 4.59793$ mho/m, $\epsilon_r = 35.749$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: EX3DV4 - SN3563; ConvF(4.25, 4.25, 4.25)

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

Channel 1 Test/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 41.5 mW/g

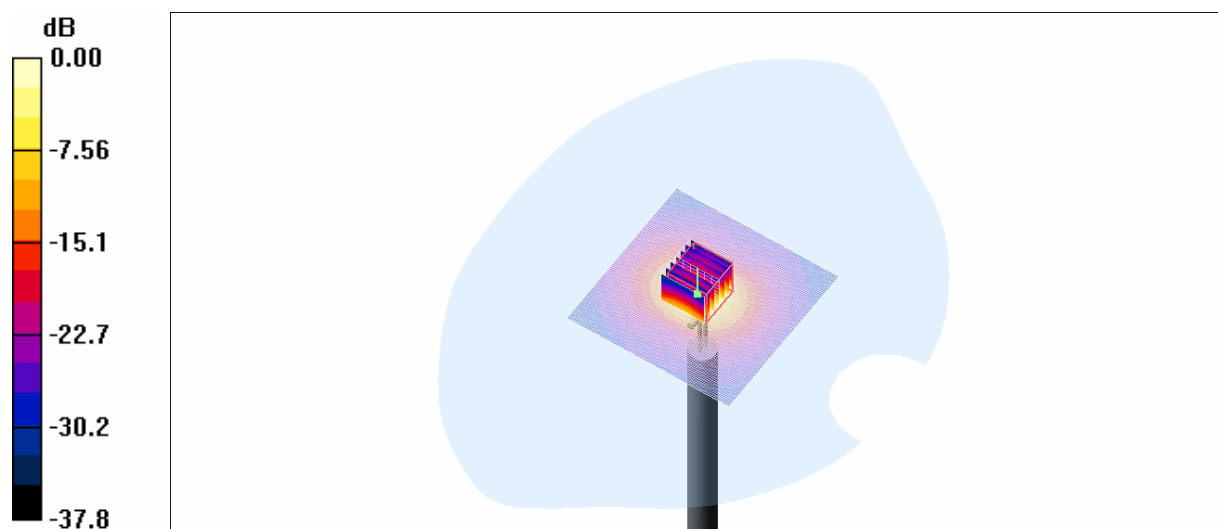
Channel 1 Test/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 96.0 V/m; Power Drift = 0.190 dB

Peak SAR (extrapolated) = 75.2 W/kg

SAR(1 g) = 19.8 mW/g; SAR(10 g) = 5.63 mW/g

Maximum value of SAR (measured) = 40.8 mW/g



0 dB = 40.8mW/g

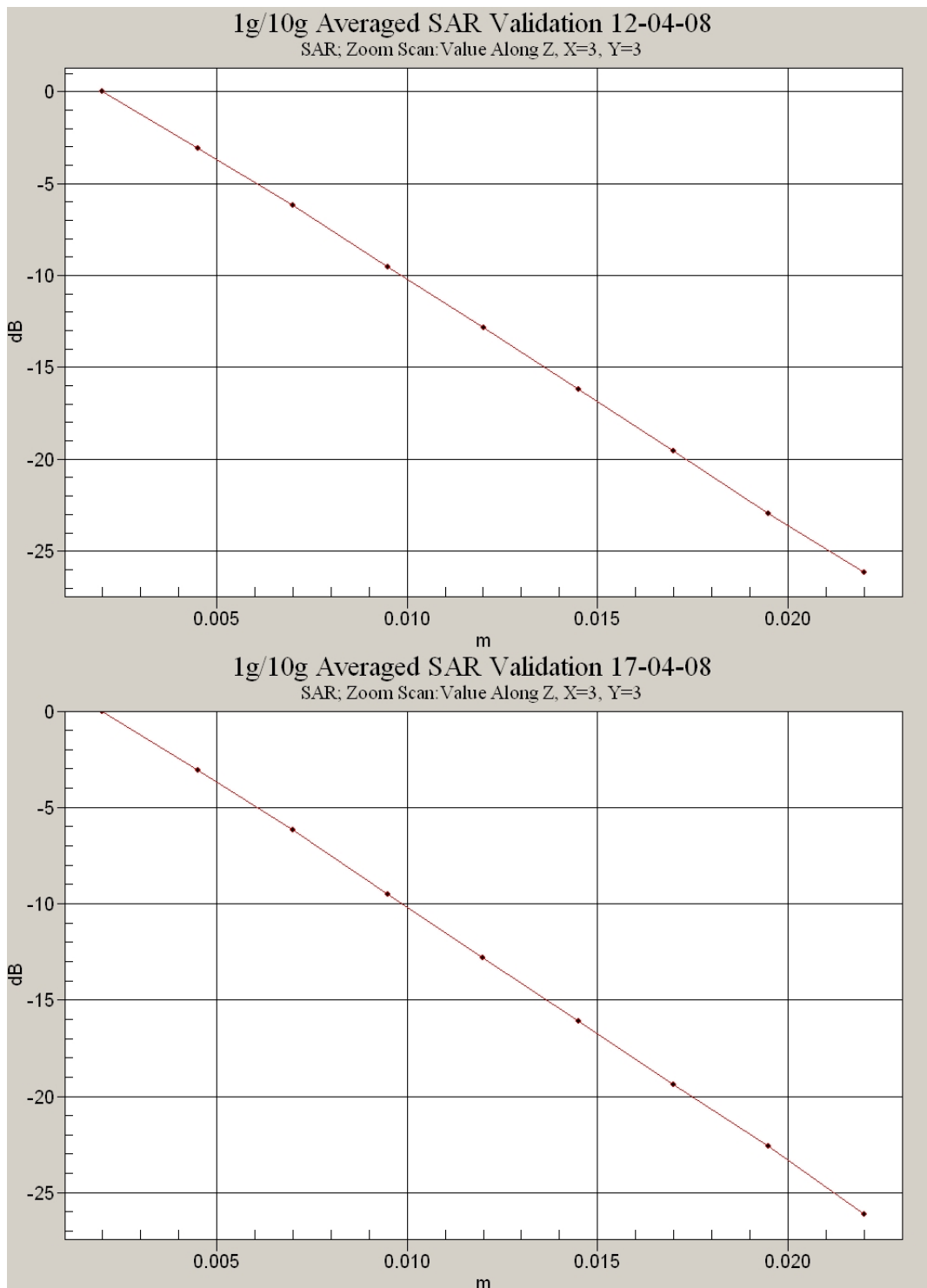
SAR MEASUREMENT PLOT 11

Ambient Temperature
Liquid Temperature
Humidity

20.5 Degrees Celsius
20.2 Degrees Celsius
53.0 %



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Test Date: 18 April 2008

File Name: Validation 5500MHz (DAE 442 Probe EX3DV4) 18-04-08.da4

DUT: **Dipole 5200_5800 MHz; Type: D5GHzV2; Serial: 1008**

* Communication System: CW 5500 MHz; Frequency: 5500 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 5.08702$ mho/m, $\epsilon_r = 35.1237$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: EX3DV4 - SN3563; ConvF(4.03, 4.03, 4.03)

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

Channel 1 Test/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 46.2 mW/g

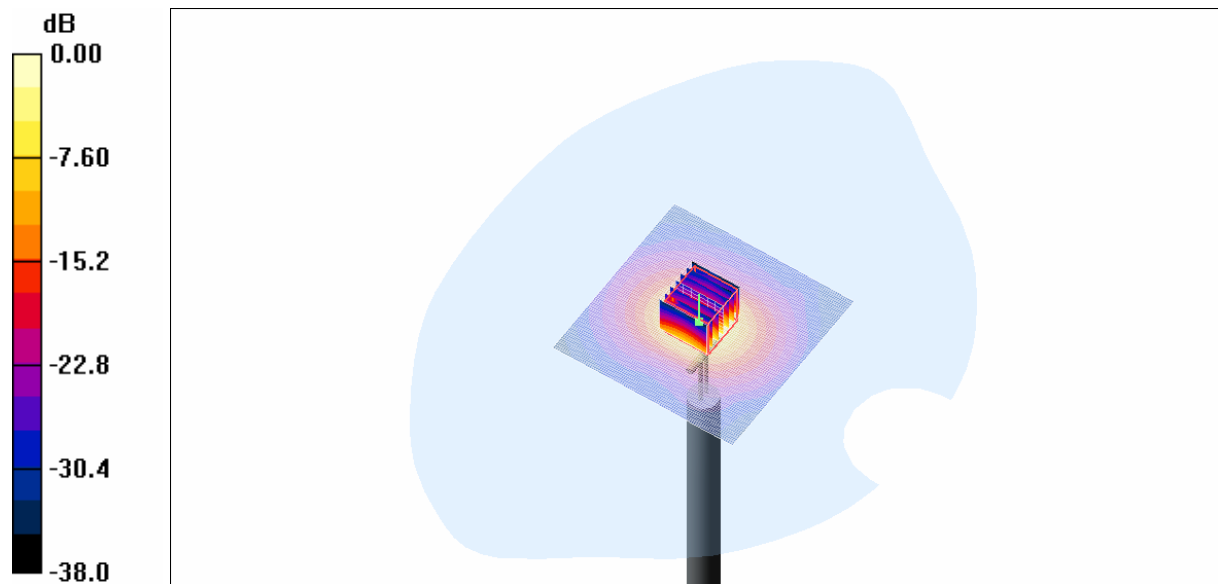
Channel 1 Test/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 98.6 V/m; Power Drift = 0.202 dB

Peak SAR (extrapolated) = 87.5 W/kg

SAR(1 g) = 21.6 mW/g; SAR(10 g) = 6.12 mW/g

Maximum value of SAR (measured) = 44.4 mW/g



0 dB = 44.4mW/g

SAR MEASUREMENT PLOT 12

Ambient Temperature
Liquid Temperature
Humidity

21.0 Degrees Celsius
20.9 Degrees Celsius
53.0 %



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Test Date: 21 April 2008

File Name: Validation 5800MHz (DAE 442 Probe EX3DV4) 21-04-08.da4

DUT: **Dipole 5200_5800 MHz; Type: D5GHzV2; Serial: 1008**

* Communication System: CW 5800 MHz; Frequency: 5800 MHz; Duty Cycle: 1:1

* Medium parameters used: $\sigma = 5.32462$ mho/m, $\epsilon_r = 33.9092$; $\rho = 1000$ kg/m³

- Electronics: DAE3 Sn442; Probe: EX3DV4 - SN3563; ConvF(3.65, 3.65, 3.65)

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

Channel 1 Test/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 44.9 mW/g

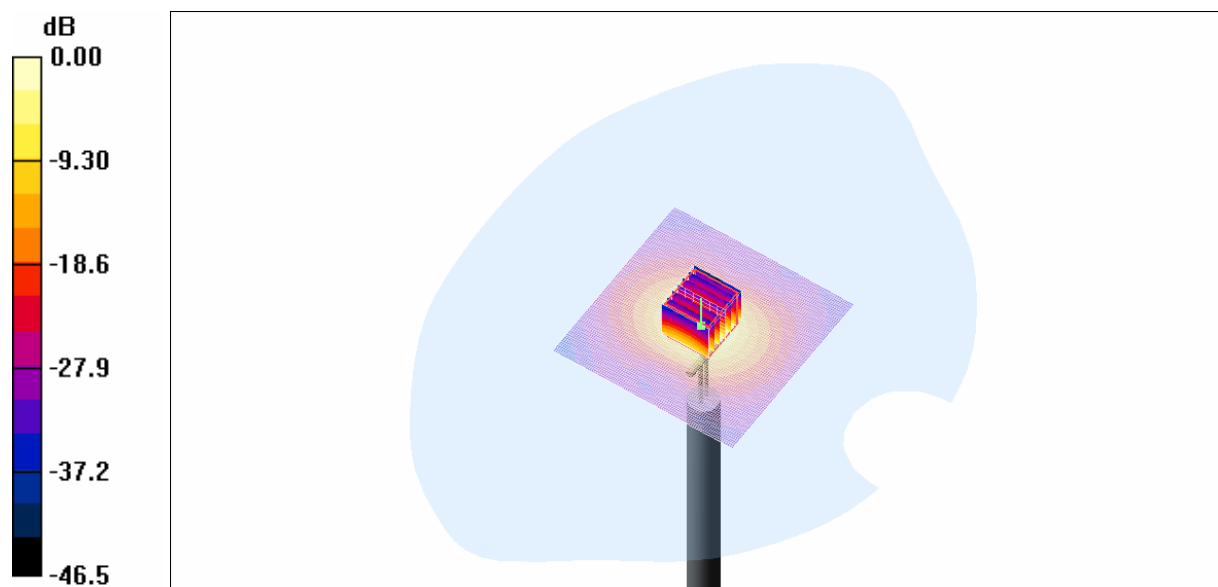
Channel 1 Test/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 95.7 V/m; Power Drift = 0.139 dB

Peak SAR (extrapolated) = 89.3 W/kg

SAR(1 g) = 20.6 mW/g; SAR(10 g) = 5.83 mW/g

Maximum value of SAR (measured) = 44.2 mW/g



0 dB = 44.2mW/g

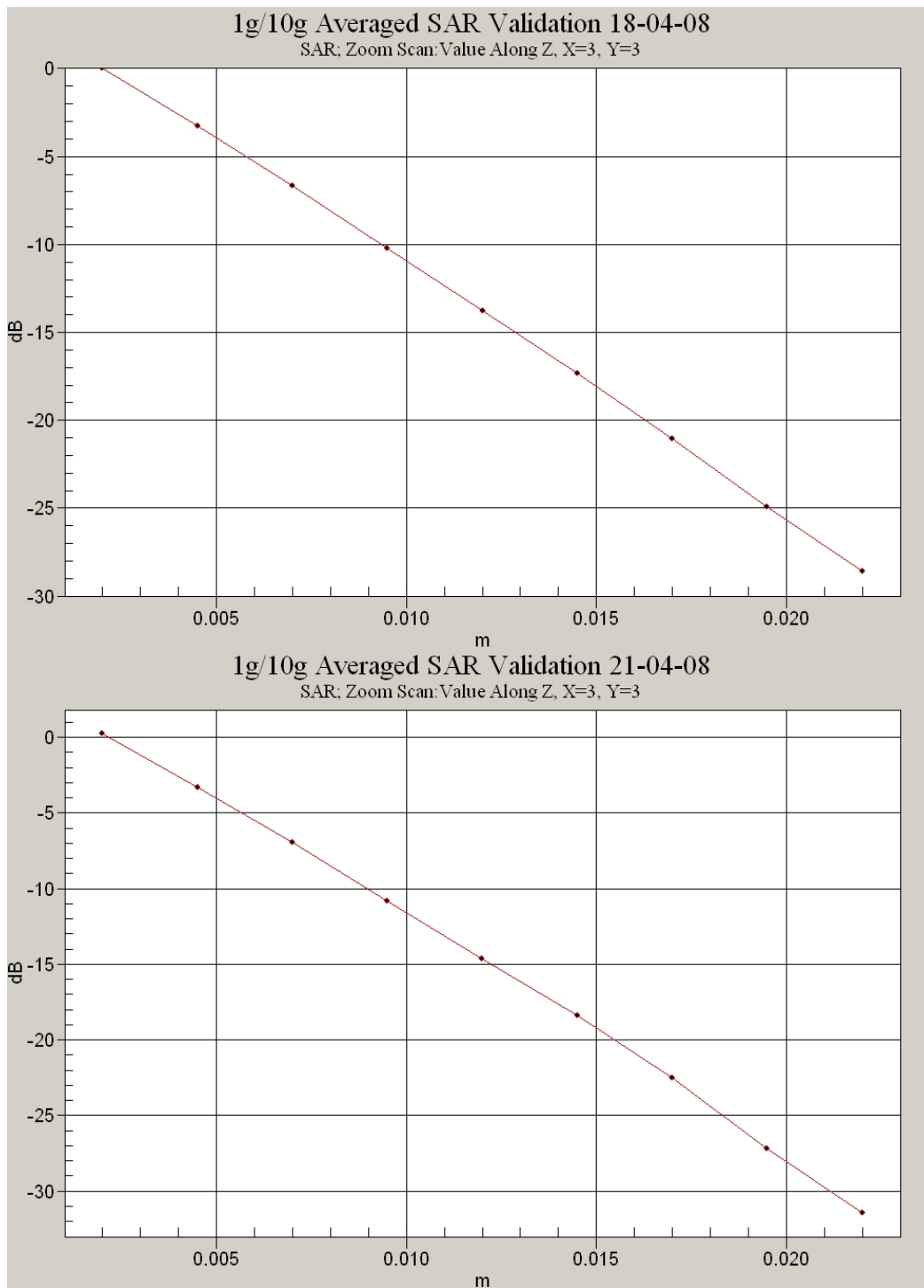
SAR MEASUREMENT PLOT 13

Ambient Temperature
Liquid Temperature
Humidity

20.8 Degrees Celsius
20.7 Degrees Celsius
51.0 %



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