# APPENDIX B PLOTS OF THE SAR MEASUREMENTS

Plots of the measured SAR distributions inside the phantom are given in this Appendix for the "Lap Arm Held" and "Tablet" tested configurations. The spatial peak SAR values were assessed with the procedure described in this report.

**NOTE on SAR Plots:** The measured SAR levels in the Tablet position were < 0.1mW/g and consequently the "hotspot" was not always clearly defined. The measurement results are only just above the noise floor and the measurement sensitivity of the SAR system. The plots and graphs for these positions were included for information.

**NOTE on SAR Graphs:** The Z-axis scans listed in this appendix do not always show a consistent decay over distance. This is not due to an incorrect liquid level but is due to the very steep field gradients in the 5-6 GHz band. At distances of greater than 20mm, the SAR levels are in the noise floor, and the calculated levels should be ignored. This is an artefact caused by the DASY4 SEMCAD software algorithms.
According to the DASY4 manufacturer the artifact is "…due to the very rapid decay of the fields within the liquid at this frequency, the values far away from the phantom's surface are so low, that SEMCAD currently identifies them as noise." SPEAG has advised that this problem will be rectified in the next build of the software.

**Table 21: 5800 MHz Band SAR Measurement Plot Numbers**

| | | |
|---|---|---|
| **Plot 1** | Lap Arm Held Position – Ant Aux -- Prescan | CH#157 |
| **Plot 2** | Lap Arm Held Position – Ant Aux | CH#149 |
| **Plot 3** | Lap Arm Held Position – Ant Aux | CH#157 |
| **Plot 4** | Lap Arm Held Position – Ant Aux | CH#165 |
| **Z-Axis graphs** | Z-Axis graphs for Plots 3 to 5 | |
| **Plot 5** | Lap Arm Held Position – Ant Main | CH#157 |
| **Z-axis graphs** | Z-Axis graphs for Plots 6 to 8 | |
| **Plot 6** | Tablet Position – Ant A -- Prescan | CH#157 |

**Table 22: 5800 MHz Band SAR Measurement Plot Numbers**

| | | |
|---|---|---|
| **Plot 7** | Lap Arm Held Position – Ant Aux | CH#36 |
| **Plot 8** | Lap Arm Held Position – Ant Aux | CH#48 |
| **Plot 9** | Lap Arm Held Position – Ant Aux | CH#64 |
| **Z-axis graphs** | Z-Axis graphs for Plots 13 to 15 | |
| **Plot 10** | Lap Arm Held Position – Ant Main | CH#36 |
| **Plot 11** | Lap Arm Held Position – Ant Main | CH#48 |
| **Plot 12** | Lap Arm Held Position – Ant Main | CH#64 |
| **Z-axis graphs** | Z-Axis graphs for Plots 16 to 18 | |

**Table 23: 5200/5800MHz Validation Plot**

| | |
|---|---|
| **Plot 13** | Validation 5800 MHz 19th Aug 2004 |
| **Plot 14** | Validation 5200 MHz 19th Aug 2004 |
| **Plot 15** | Validation 5200 MHz 20th Aug 2004 |
| **Plot 16** | Validation 5800 MHz 21st Aug 2004 |
| **Z-Axis Graphs** | Z-Axis graphs for Plots 22 & 23 |

Test Date: 21 August 2004

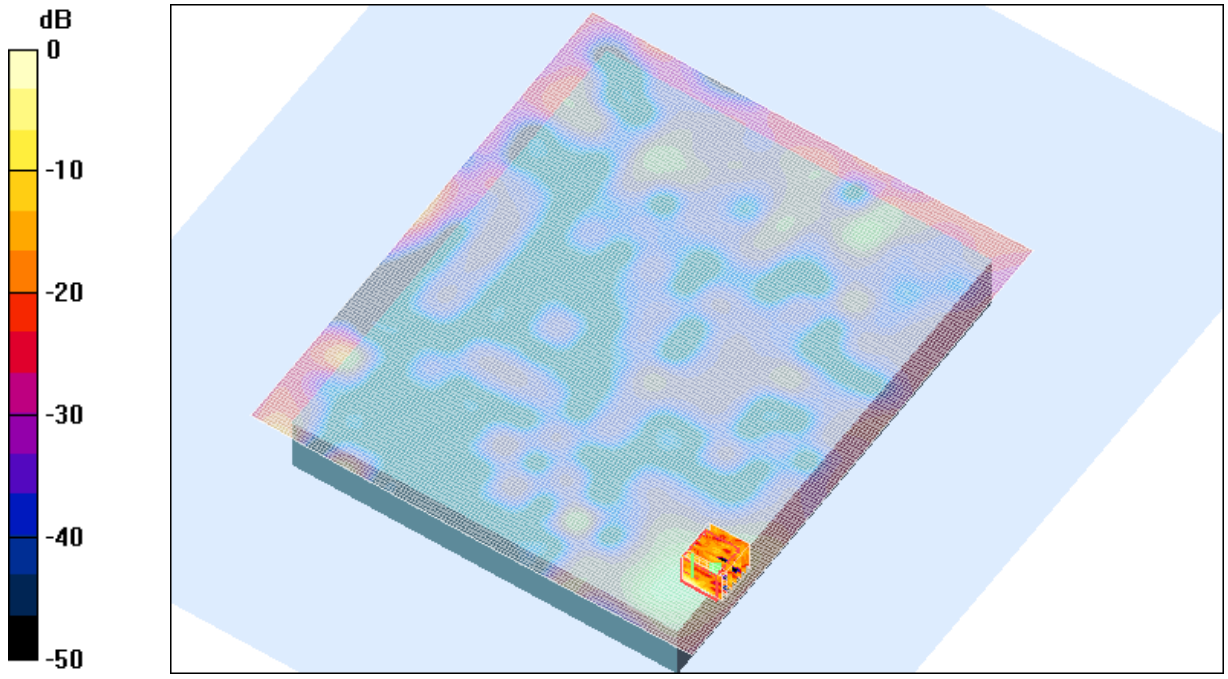
File Name: Arm Held OFDM 5.77 GHz Soriel Antenna Aux Bluetooth Off Prescan 21-08-04.da4

**DUT: Fujitsu Tablet Soriel with Calexico 11abg and Bluetooth; Type: 2915ABG; Serial: 344EE5244ABC51962012**

* Communication System: OFDM 5770 MHz; Frequency: 5785 MHz; Duty Cycle: 1:1
* Medium parameters used: σ = 6.04712; mho/m, $\varepsilon_r$ = 43.7967; ρ = 1000 kg/$m^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(1.8, 1.8, 1.8)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

**Channel 157 Test/Area Scan (141x161x1):** Measurement grid: dx=20mm, dy=20mm
Reference Value = 12.8 V/m; Power Drift = 0.3 dB
Maximum value of SAR (interpolated) = 0.195 mW/g

**Channel 157 Test/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 12.8 V/m; Power Drift = 0.3 dB
Maximum value of SAR (measured) = 0.891 mW/g
Peak SAR (extrapolated) = 3.18 W/kg
**SAR(1 g) = 0.550 mW/g; SAR(10 g) = 0.136 mW/g**




0 dB = 0.891mW/g

SAR MEASUREMENT PLOT 1

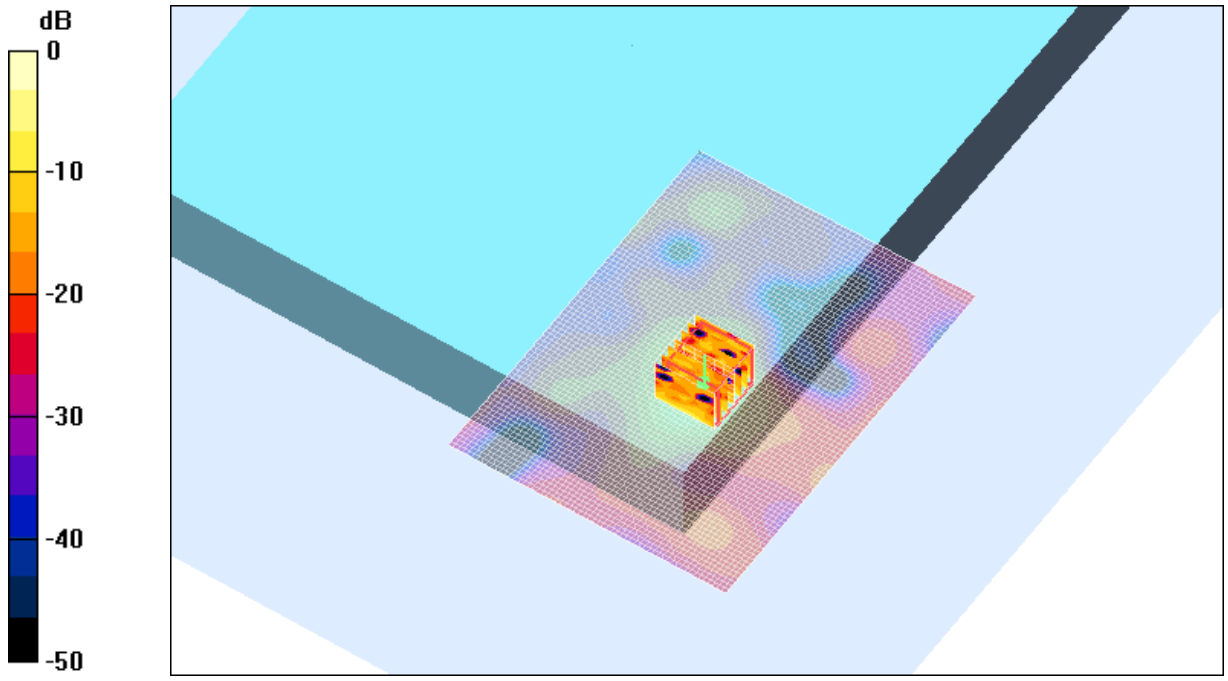
| | |
|---|---|
| **Ambient Temperature** | **20.7 Degrees Celsius** |
| **Liquid Temperature** | **20.2 Degrees Celsius** |
| **Humidity** | **38.0 %** |

Test Date: 21 August 2004
File Name: Arm Held OFDM 5.77 GHz Soriel Antenna Aux Bluetooth Off 21-08-04.da4
**DUT: Fujitsu Tablet Soriel with Calexico 11abg and Bluetooth; Type: 2915ABG; Serial: 344EE5244ABC51962012**

* Communication System: OFDM 5770 MHz; Frequency: 5745 MHz; Duty Cycle: 1:1
* Medium parameters used: $\sigma$ = 5.99465; mho/m, $\varepsilon_r$ = 43.8612; $\rho$ = 1000 kg/m$^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(1.8, 1.8, 1.8)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

**Channel 149 Test/Area Scan (61x81x1):** Measurement grid: dx=20mm, dy=20mm
Reference Value = 13 V/m; Power Drift = -0.2 dB
Maximum value of SAR (interpolated) = 0.501 mW/g

**Channel 149 Test/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 13 V/m; Power Drift = -0.2 dB
Maximum value of SAR (measured) = 0.819 mW/g
Peak SAR (extrapolated) = 2.79 W/kg
**SAR(1 g) = 0.510 mW/g; SAR(10 g) = 0.148 mW/g**




0 dB = 0.819mW/g

SAR MEASUREMENT PLOT 2

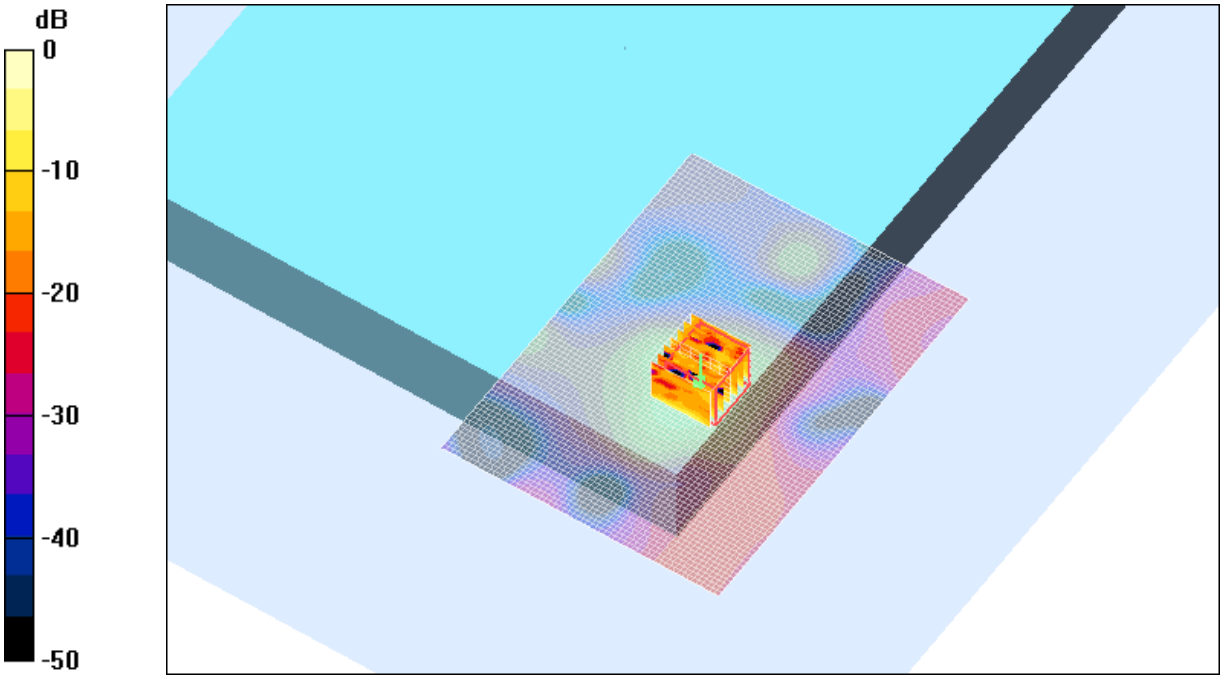
| | |
|---|---|
| **Ambient Temperature** | **20.7 Degrees Celsius** |
| **Liquid Temperature** | **20.2 Degrees Celsius** |
| **Humidity** | **38.0 %** |

Test Date: 21 August 2004
File Name: Arm Held OFDM 5.77 GHz Soriel Antenna Aux Bluetooth Off 21-08-04.da4
**DUT: Fujitsu Tablet Soriel with Calexico 11abg and Bluetooth; Type: 2915ABG; Serial: 344EE5244ABC51962012**

* Communication System: OFDM 5770 MHz; Frequency: 5785 MHz; Duty Cycle: 1:1
* Medium parameters used: $\sigma$ = 6.04712; mho/m, $\varepsilon_r$ = 43.7967; $\rho$ = 1000 kg/m$^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(1.8, 1.8, 1.8)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

**Channel 157 Test/Area Scan (61x81x1):** Measurement grid: dx=20mm, dy=20mm
Reference Value = 12.8 V/m; Power Drift = -0.1 dB
Maximum value of SAR (interpolated) = 0.453 mW/g

**Channel 157 Test/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 12.8 V/m; Power Drift = -0.1 dB
Maximum value of SAR (measured) = 0.796 mW/g
Peak SAR (extrapolated) = 3.43 W/kg
**SAR(1 g) = 0.561 mW/g; SAR(10 g) = 0.159 mW/g**




0 dB = 0.796mW/g

SAR MEASUREMENT PLOT 3

| | |
|---|---|
| **Ambient Temperature** | **20.7 Degrees Celsius** |
| **Liquid Temperature** | **20.2 Degrees Celsius** |
| **Humidity** | **38.0 %** |

Test Date: 21 August 2004

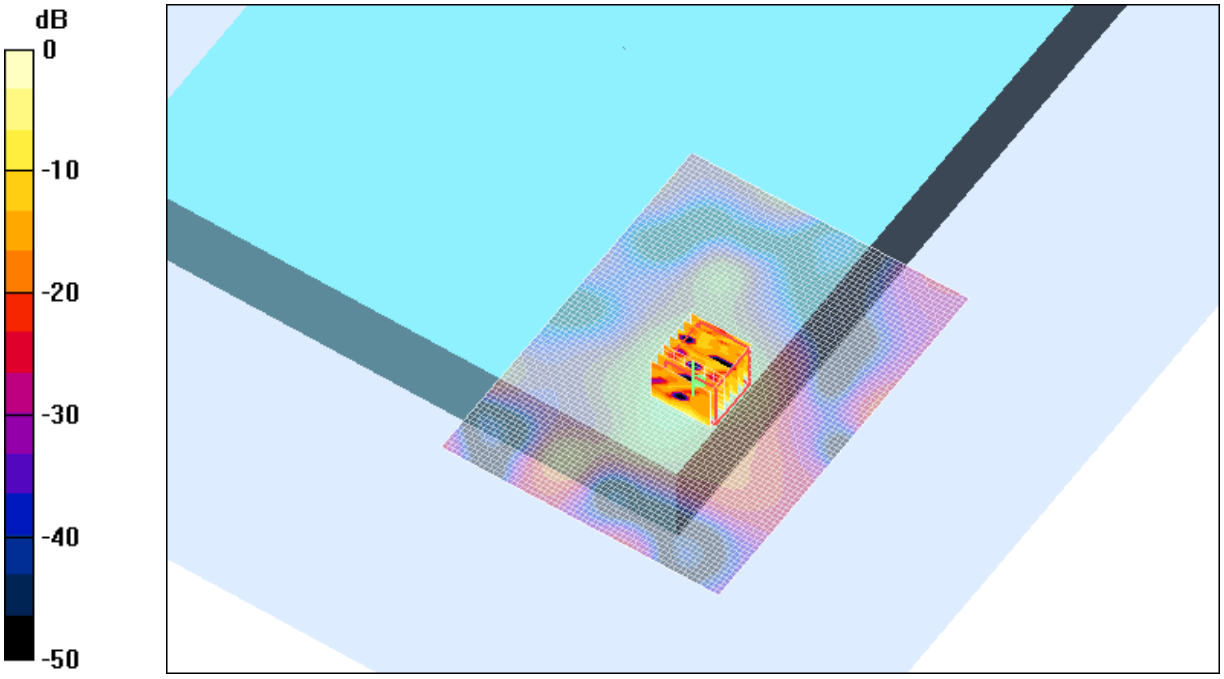
File Name: Arm Held OFDM 5.77 GHz Soriel Antenna Aux Bluetooth Off 21-08-04.da4

**DUT: Fujitsu Tablet Soriel with Calexico 11abg and Bluetooth; Type: 2915ABG; Serial: 344EE5244ABC51962012**

* Communication System: OFDM 5770 MHz; Frequency: 5825 MHz; Duty Cycle: 1:1
* Medium parameters used: σ = 6.11136; mho/m, $\varepsilon_r$ = 43.6541; ρ = 1000 kg/$m^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(1.8, 1.8, 1.8)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

**Channel 165 Test/Area Scan (61x81x1):** Measurement grid: dx=20mm, dy=20mm
Reference Value = 12.7 V/m; Power Drift = -0.1 dB
Maximum value of SAR (interpolated) = 0.414 mW/g

**Channel 165 Test/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 12.7 V/m; Power Drift = -0.1 dB
Maximum value of SAR (measured) = 0.773 mW/g
Peak SAR (extrapolated) = 3.31 W/kg
**SAR(1 g) = 0.543 mW/g; SAR(10 g) = 0.163 mW/g**

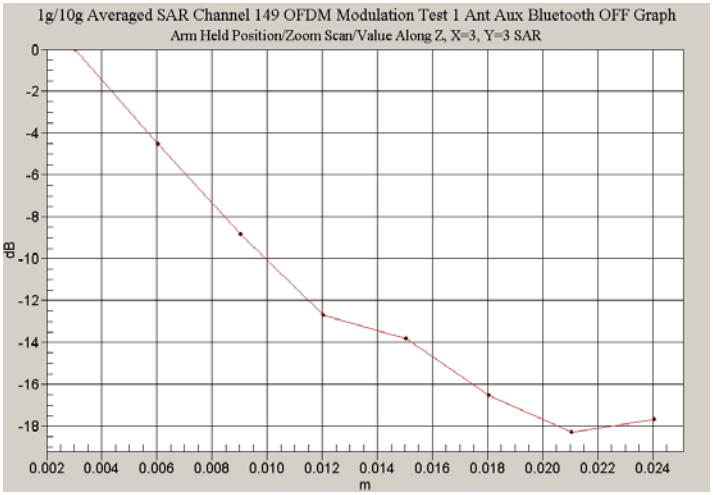



0 dB = 0.773mW/g

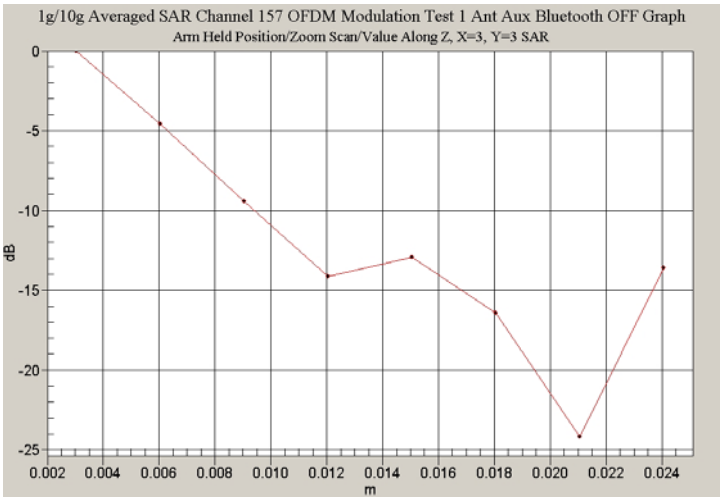
SAR MEASUREMENT PLOT 4

| | |
|---|---|
| **Ambient Temperature** | **20.7 Degrees Celsius** |
| **Liquid Temperature** | **20.2 Degrees Celsius** |
| **Humidity** | **38.0 %** |

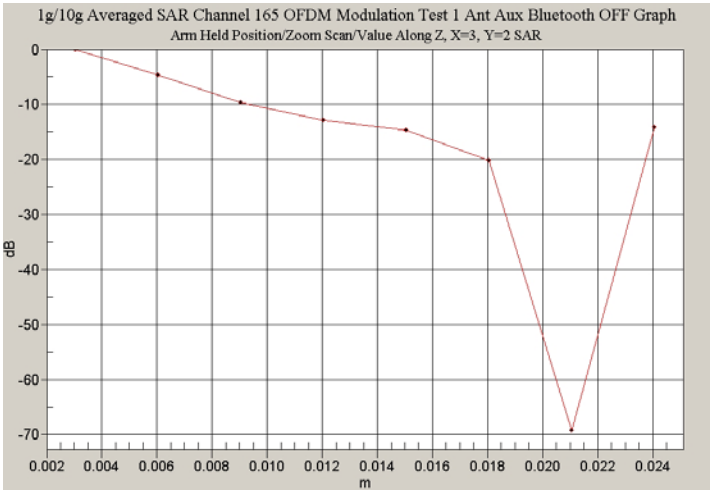
Z-Axis scan for Plot 2




Z-Axis scan for Plot 3




Z-Axis scan for Plot 4



Test Date: 21 August 2004

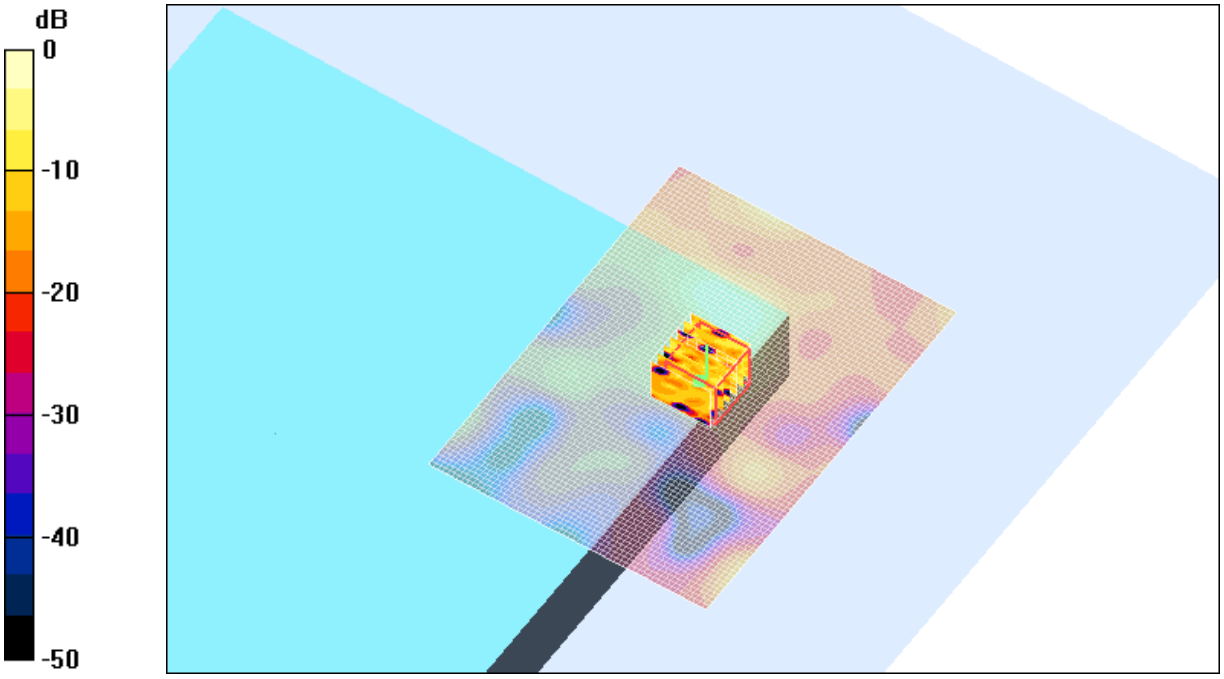
File Name: Arm Held OFDM 5.77 GHz Soriel Antenna Main Bluetooth Off 21-08-04.da4

**DUT: Fujitsu Tablet Soriel with Calexico 11abg and Bluetooth; Type: 2915ABG; Serial: 344EE5244ABC51962012**

* Communication System: OFDM 5770 MHz; Frequency: 5785 MHz; Duty Cycle: 1:1
* Medium parameters used: σ = 6.04712; mho/m, $\varepsilon_r$ = 43.7967; ρ = 1000 kg/$m^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(1.8, 1.8, 1.8)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

**Channel 157 Test/Area Scan (61x81x1):** Measurement grid: dx=20mm, dy=20mm
Reference Value = 7.88 V/m; Power Drift = -0.1 dB
Maximum value of SAR (interpolated) = 0.201 mW/g

**Channel 157 Test/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 7.88 V/m; Power Drift = -0.1 dB
Maximum value of SAR (measured) = 0.345 mW/g
Peak SAR (extrapolated) = 0.865 W/kg
**SAR(1 g) = 0.210 mW/g; SAR(10 g) = 0.053 mW/g**

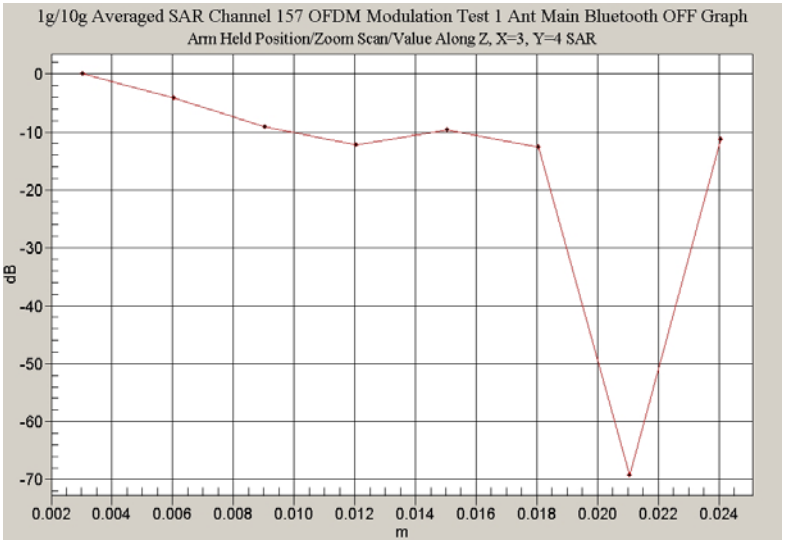



0 dB = 0.345mW/g

SAR MEASUREMENT PLOT 5

| | |
|---|---|
| **Ambient Temperature** | **20.7 Degrees Celsius** |
| **Liquid Temperature** | **20.2 Degrees Celsius** |
| **Humidity** | **38.0 %** |

Z-Axis scan for Plot 5

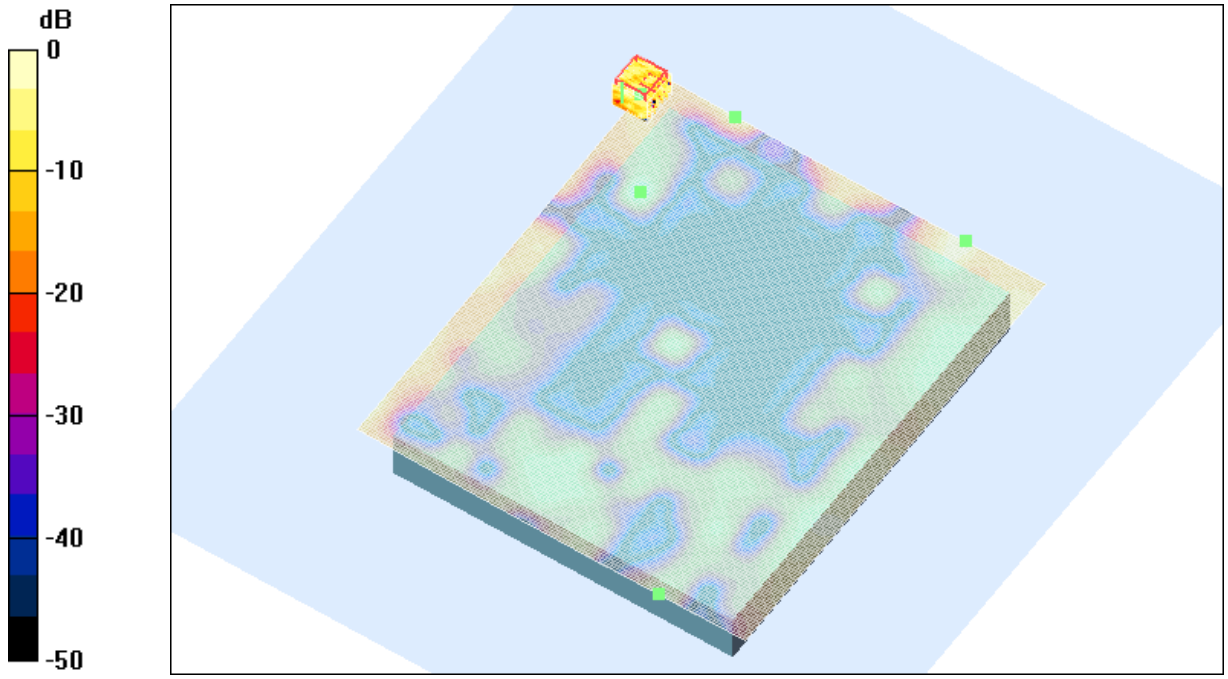


Test Date: 21 August 2004
File Name: Tablet OFDM 5.77 GHz Soriel Antenna Aux Bluetooth On Prescan 21-08-04.da4
**DUT: Fujitsu Tablet Soriel with Calexico 11abg and Bluetooth; Type: 2915ABG; Serial: 344EE5244ABC51962012**

* Communication System: OFDM 5770 MHz; Frequency: 5785 MHz; Duty Cycle: 1:1
* Medium parameters used: σ = 6.04712; mho/m, $\varepsilon_r$ = 43.7967; ρ = 1000 kg/m$^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(1.8, 1.8, 1.8)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

**Channel 157 Bluetooth at 2441 MHz Test/Area Scan (141x161x1):** Measurement grid: dx=20mm, dy=20mm
Reference Value = 0 V/m; Power Drift = 999.0 dB
Maximum value of SAR (interpolated) = 0.038 mW/g

**Channel 157 Bluetooth at 2441 MHz Test/Zoom Scan (7x7x8)/Cube 0:**
Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 0 V/m; Power Drift = 999.0 dB
Maximum value of SAR (measured) = 0.075 mW/g
Peak SAR (extrapolated) = 0.280 W/kg
**SAR(1 g) = 0.020 mW/g; SAR(10 g) = 0.013 mW/g**




0 dB = 0.075mW/g

SAR MEASUREMENT PLOT 6

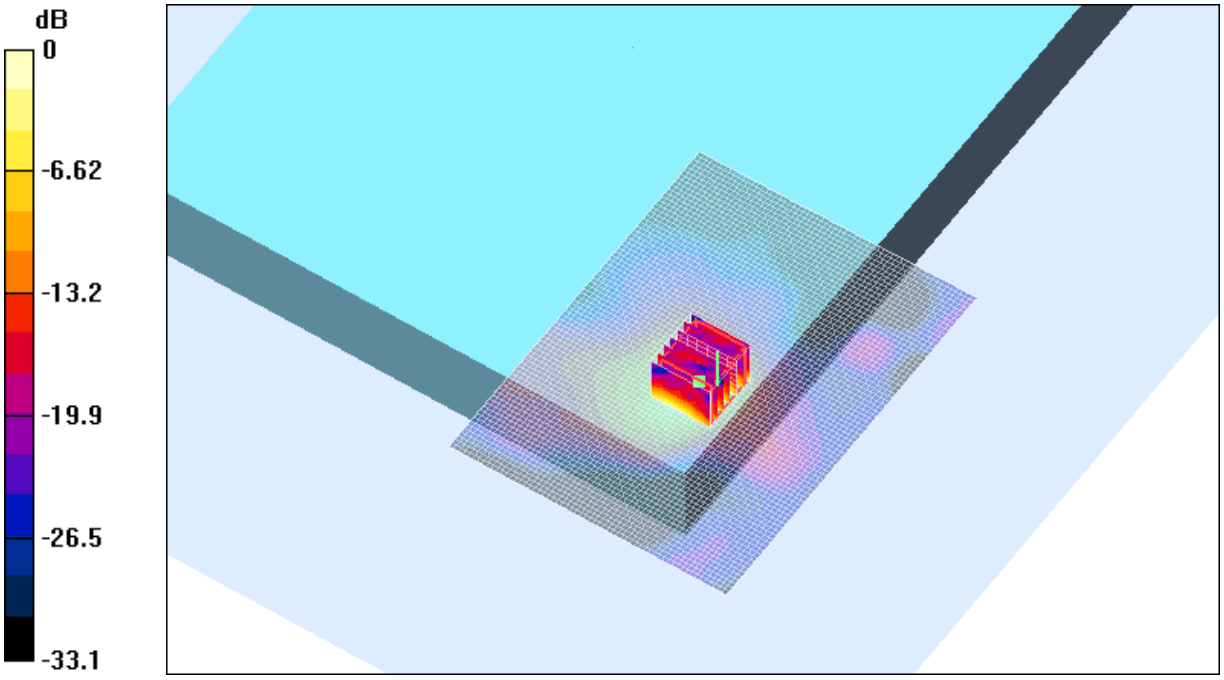
| | |
|---|---|
| **Ambient Temperature** | **20.7 Degrees Celsius** |
| **Liquid Temperature** | **20.2 Degrees Celsius** |
| **Humidity** | **38.0 %** |

Test Date: 19 August 2004
File Name: Arm Held OFDM 5.25 GHz Soriel Antenna Aux Bluetooth Off 19-08-04.da4
**DUT: Fujitsu Tablet Soriel with Calexico 11abg and Bluetooth; Type: 2915ABG; Serial: 344EE5244ABC51962012**

* Communication System: OFDM 5250 MHz; Frequency: 5180 MHz; Duty Cycle: 1:1
* Medium parameters used: $\sigma$ = 5.0319; mho/m, $\varepsilon_r$ = 45.304; $\rho$ = 1000 kg/m$^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(2.05, 2.05, 2.05)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

**Channel 36 Test/Area Scan (61x81x1):** Measurement grid: dx=20mm, dy=20mm
Reference Value = 18.1 V/m; Power Drift = -0.2 dB
Maximum value of SAR (interpolated) = 1.66 mW/g

**Channel 36 Test/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 18.1 V/m; Power Drift = -0.2 dB
Maximum value of SAR (measured) = 1.73 mW/g
Peak SAR (extrapolated) = 5.17 W/kg
**SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.305 mW/g**




0 dB = 1.73mW/g

SAR MEASUREMENT PLOT 7

| | |
|---|---|
| **Ambient Temperature** | **20.6 Degrees Celsius** |
| **Liquid Temperature** | **20.0 Degrees Celsius** |
| **Humidity** | **35.0 %** |

Test Date: 19 August 2004

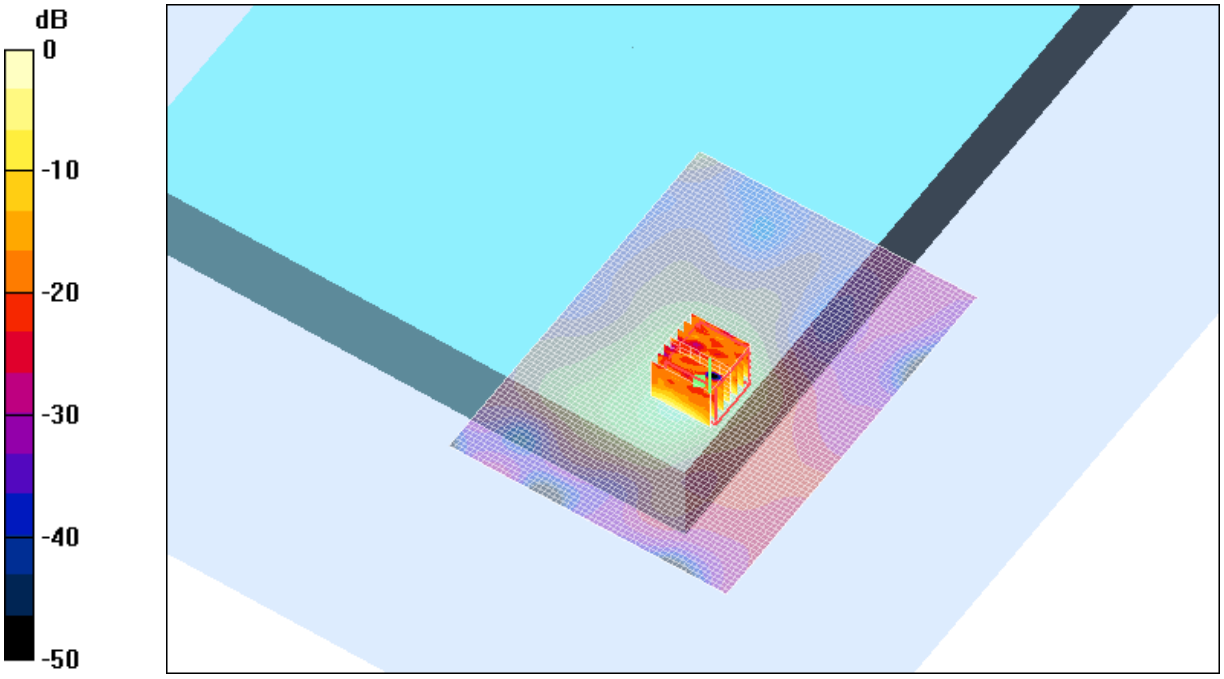
File Name: Arm Held OFDM 5.25 GHz Soriel Antenna Aux Bluetooth Off 19-08-04.da4

**DUT: Fujitsu Tablet Soriel with Calexico 11abg and Bluetooth; Type: 2915ABG; Serial: 344EE5244ABC51962012**

* Communication System: OFDM 5250 MHz; Frequency: 5260 MHz; Duty Cycle: 1:1
* Medium parameters used: σ = 5.18305; mho/m, $\varepsilon_r$ = 45.0937; ρ = 1000 kg/$m^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(2.05, 2.05, 2.05)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

**Channel 52 Test/Area Scan (61x81x1):** Measurement grid: dx=20mm, dy=20mm
Reference Value = 19.9 V/m; Power Drift = -0.3 dB
Maximum value of SAR (interpolated) = 1.45 mW/g

**Channel 52 Test/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 19.9 V/m; Power Drift = -0.3 dB
Maximum value of SAR (measured) = 2.11 mW/g
Peak SAR (extrapolated) = 5.91 W/kg
**SAR(1 g) = 1.24 mW/g; SAR(10 g) = 0.338 mW/g**




0 dB = 2.11mW/g

SAR MEASUREMENT PLOT 8

| | |
|---|---|
| **Ambient Temperature** | **20.6 Degrees Celsius** |
| **Liquid Temperature** | **20.0 Degrees Celsius** |
| **Humidity** | **35.0 %** |

Test Date: 19 August 2004

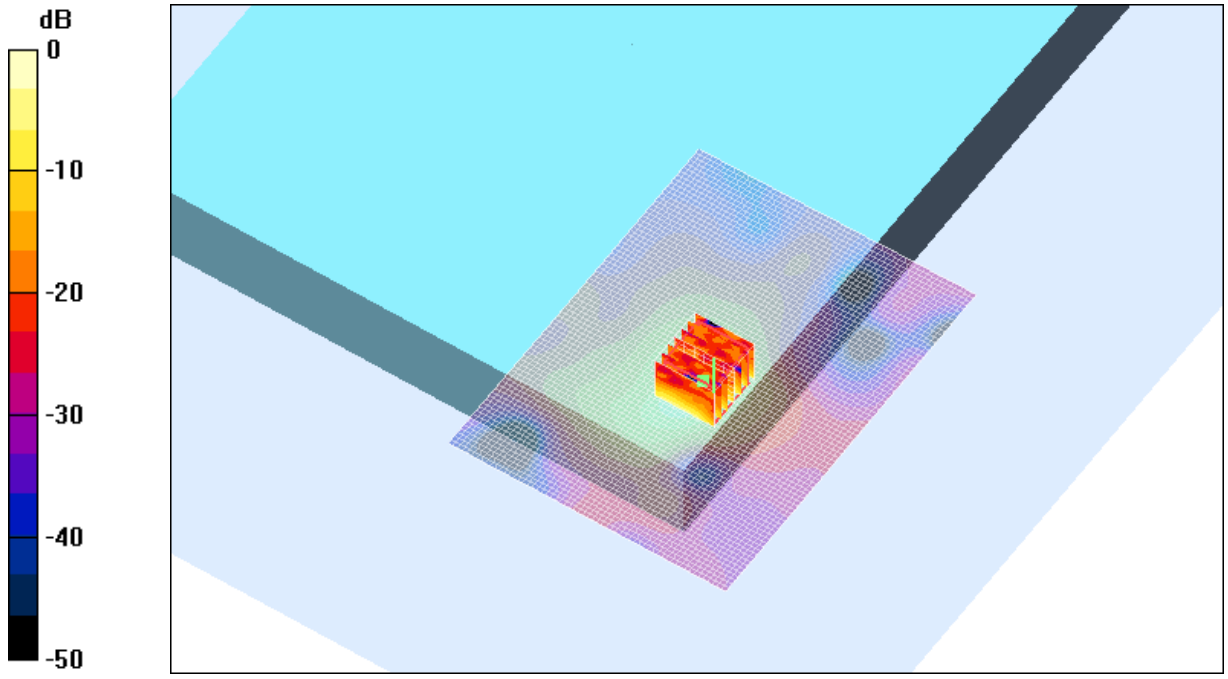
File Name: Arm Held OFDM 5.25 GHz Soriel Antenna Aux Bluetooth Off 19-08-04.da4

**DUT: Fujitsu Tablet Soriel with Calexico 11abg and Bluetooth; Type: 2915ABG; Serial: 344EE5244ABC51962012**

* Communication System: OFDM 5250 MHz; Frequency: 5320 MHz; Duty Cycle: 1:1
* Medium parameters used (interpolated): f = 5320 MHz; $\sigma$ = 5.29 mho/m; $\varepsilon_r$ = 45; $\rho$ = 1000 kg/m$^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(2.05, 2.05, 2.05)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

**Channel 64 Test/Area Scan (61x81x1):** Measurement grid: dx=20mm, dy=20mm
Reference Value = 23 V/m; Power Drift = 0.3 dB
Maximum value of SAR (interpolated) = 1.5 mW/g

**Channel 64 Test/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 23 V/m; Power Drift = 0.3 dB
Maximum value of SAR (measured) = 2.42 mW/g
Peak SAR (extrapolated) = 6.91 W/kg
**SAR(1 g) = 1.55 mW/g; SAR(10 g) = 0.421 mW/g**

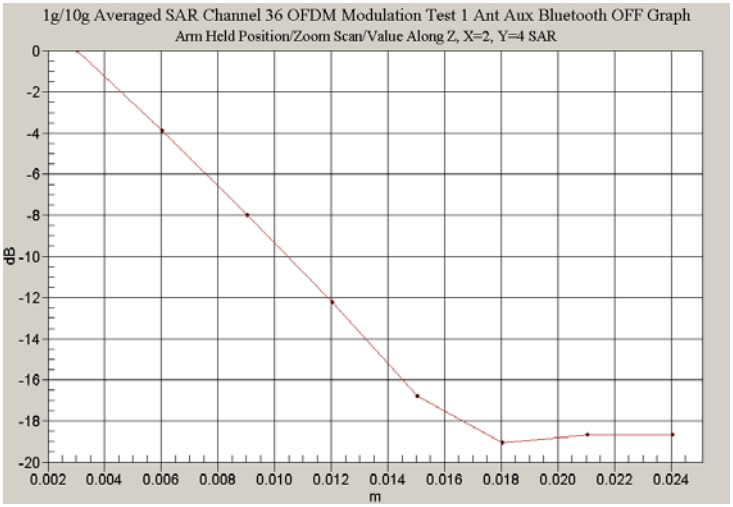



0 dB = 2.42mW/g

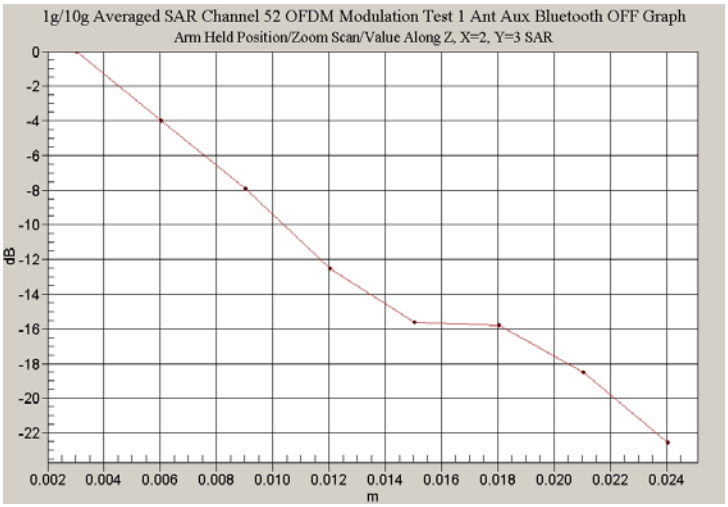
SAR MEASUREMENT PLOT 9

| | |
|---|---|
| **Ambient Temperature** | **20.6 Degrees Celsius** |
| **Liquid Temperature** | **20.0 Degrees Celsius** |
| **Humidity** | **35.0 %** |

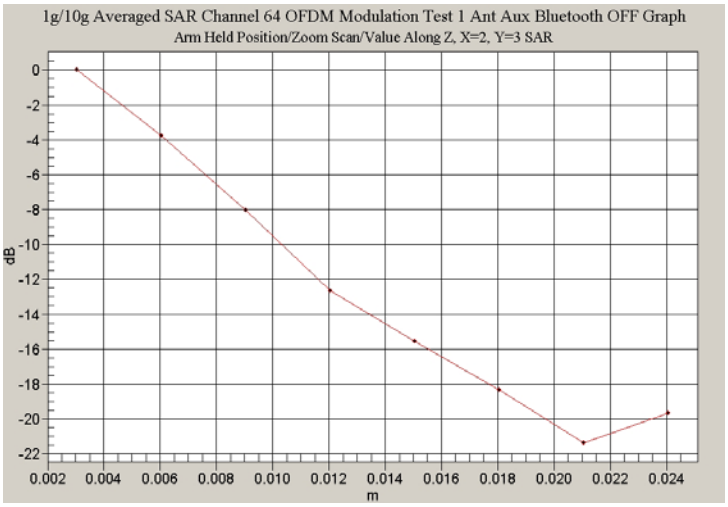
Z-Axis scan for Plot 7




Z-Axis scan for Plot 8




Z-Axis scan for Plot 9



Test Date: 20 August 2004

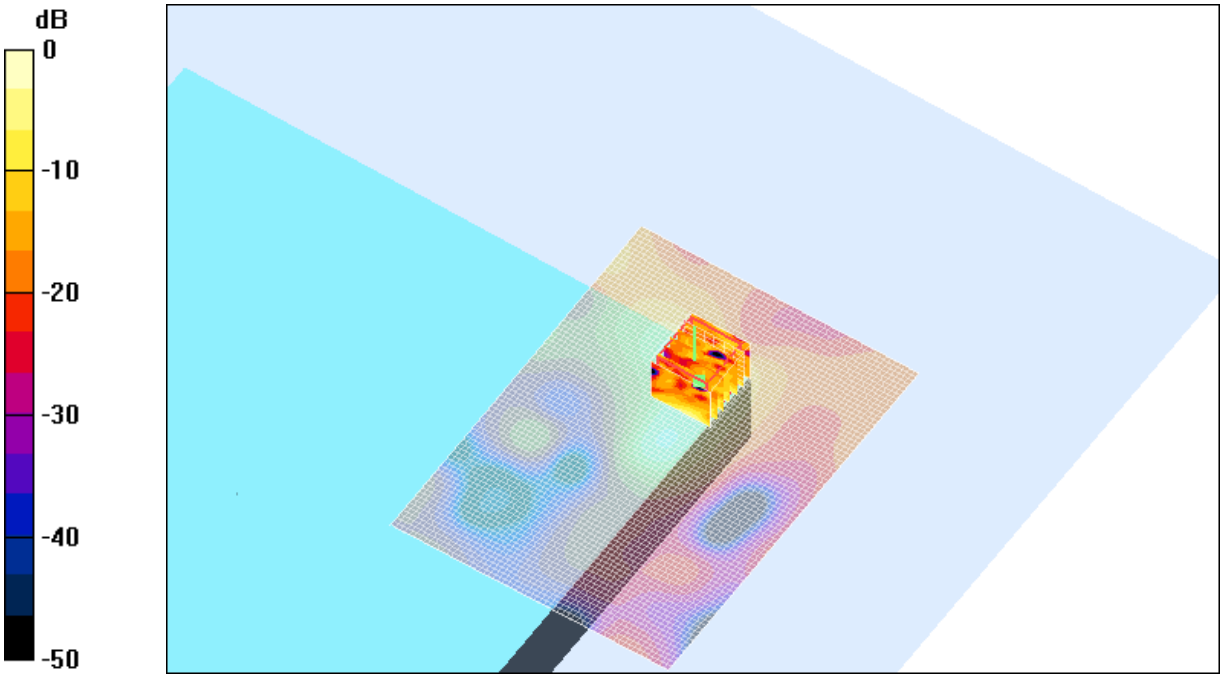
File Name: Arm Held OFDM 5.25 GHz Soriel Antenna Main Bluetooth Off 20-08-04.da4

**DUT: Fujitsu Tablet Soriel with Calexico 11abg and Bluetooth; Type: 2915ABG; Serial: 344EE5244ABC51962012**

* Communication System: OFDM 5250 MHz; Frequency: 5180 MHz; Duty Cycle: 1:1
* Medium parameters used: σ = 5.40537; mho/m, $\varepsilon_r$ = 45.6528; ρ = 1000 kg/$m^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(2.05, 2.05, 2.05)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

**Channel 36 Test/Area Scan (61x81x1):** Measurement grid: dx=20mm, dy=20mm
Reference Value = 12.4 V/m; Power Drift = -0.1 dB
Maximum value of SAR (interpolated) = 0.439 mW/g

**Channel 36 Test/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 12.4 V/m; Power Drift = -0.1 dB
Maximum value of SAR (measured) = 0.537 mW/g
Peak SAR (extrapolated) = 1.43 W/kg
**SAR(1 g) = 0.343 mW/g; SAR(10 g) = 0.121 mW/g**




0 dB = 0.537mW/g

SAR MEASUREMENT PLOT 10

| | |
|---|---|
| **Ambient Temperature** | **20.6 Degrees Celsius** |
| **Liquid Temperature** | **20.1 Degrees Celsius** |
| **Humidity** | **33.0 %** |

Test Date: 20 August 2004

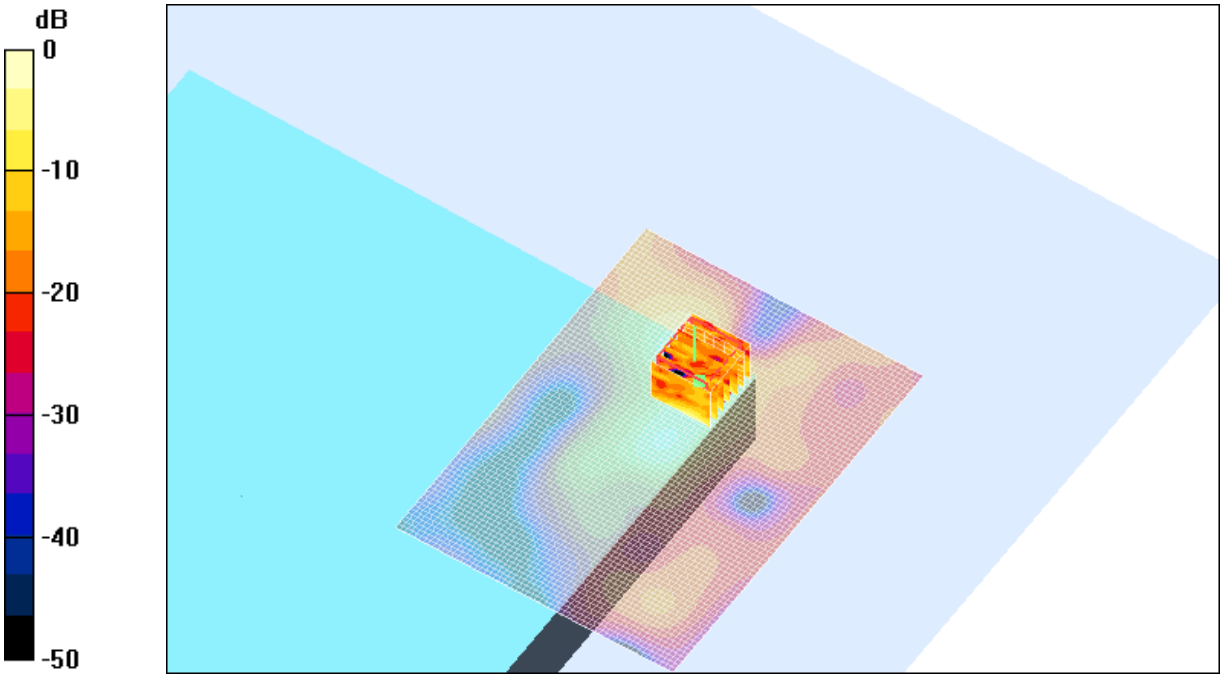
File Name: Arm Held OFDM 5.25 GHz Soriel Antenna Main Bluetooth Off 20-08-04.da4

**DUT: Fujitsu Tablet Soriel with Calexico 11abg and Bluetooth; Type: 2915ABG; Serial: 344EE5244ABC51962012**

* Communication System: OFDM 5250 MHz; Frequency: 5260 MHz; Duty Cycle: 1:1
* Medium parameters used: $\sigma$ = 5.5466; mho/m, $\varepsilon_r$ = 45.3992; $\rho$ = 1000 kg/m$^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(2.05, 2.05, 2.05)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

**Channel 52 Test/Area Scan (61x81x1):** Measurement grid: dx=20mm, dy=20mm
Reference Value = 11 V/m; Power Drift = 0.5 dB
Maximum value of SAR (interpolated) = 0.539 mW/g

**Channel 52 Test/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 11 V/m; Power Drift = 0.5 dB
Maximum value of SAR (measured) = 0.636 mW/g
Peak SAR (extrapolated) = 1.37 W/kg
**SAR(1 g) = 0.393 mW/g; SAR(10 g) = 0.132 mW/g**




SAR MEASUREMENT PLOT 11

| | |
|---|---|
| **Ambient Temperature** | **20.6 Degrees Celsius** |
| **Liquid Temperature** | **20.1 Degrees Celsius** |
| **Humidity** | **33.0 %** |

Test Date: 19 August 2004

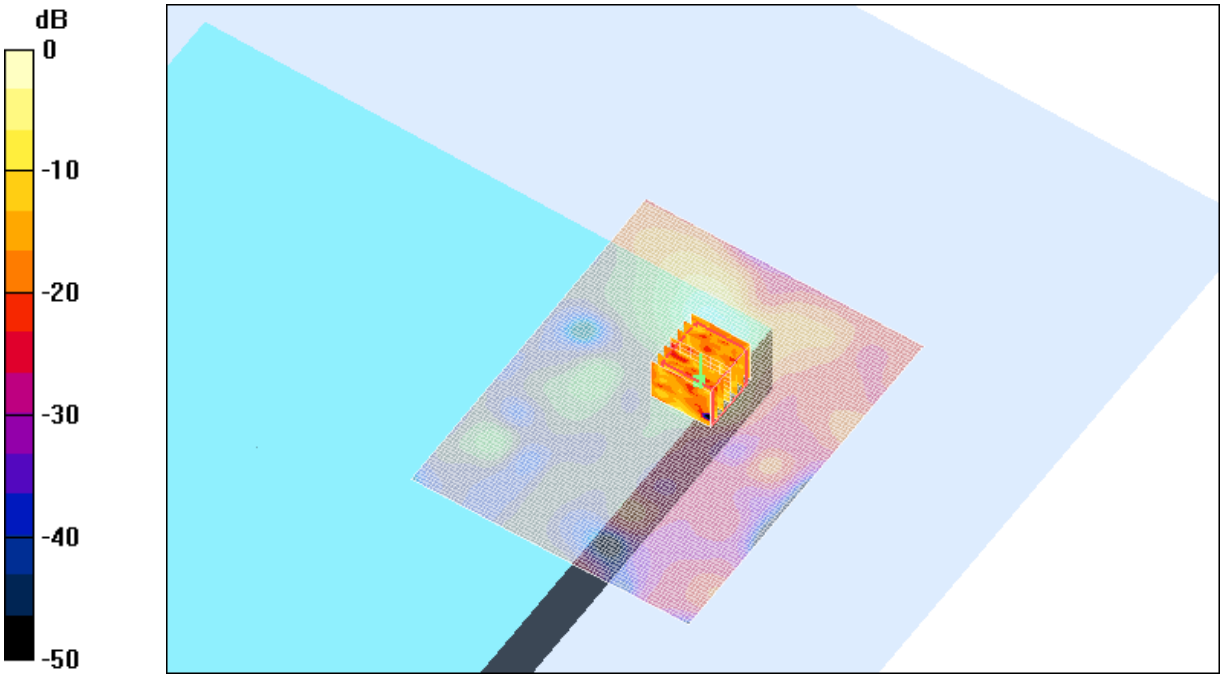
File Name: Arm Held OFDM 5.25 GHz Soriel Antenna Main Bluetooth Off 19-08-04.da4

**DUT: Fujitsu Tablet Soriel with Calexico 11abg and Bluetooth; Type: 2915ABG; Serial: 344EE5244ABC51962012**

* Communication System: OFDM 5250 MHz; Frequency: 5320 MHz; Duty Cycle: 1:1
* Medium parameters used: $\sigma$ = 5.26999; mho/m, $\varepsilon_r$ = 44.978; $\rho$ = 1000 kg/m$^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(2.05, 2.05, 2.05)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

**Channel 64 Test 2/Area Scan (81x101x1):** Measurement grid: dx=15mm, dy=15mm
Reference Value = 13 V/m; Power Drift = 0.0 dB
Maximum value of SAR (interpolated) = 0.674 mW/g

**Channel 64 Test 2/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 13 V/m; Power Drift = 0.0 dB
Maximum value of SAR (measured) = 0.772 mW/g
Peak SAR (extrapolated) = 2.92 W/kg
**SAR(1 g) = 0.498 mW/g; SAR(10 g) = 0.122 mW/g**

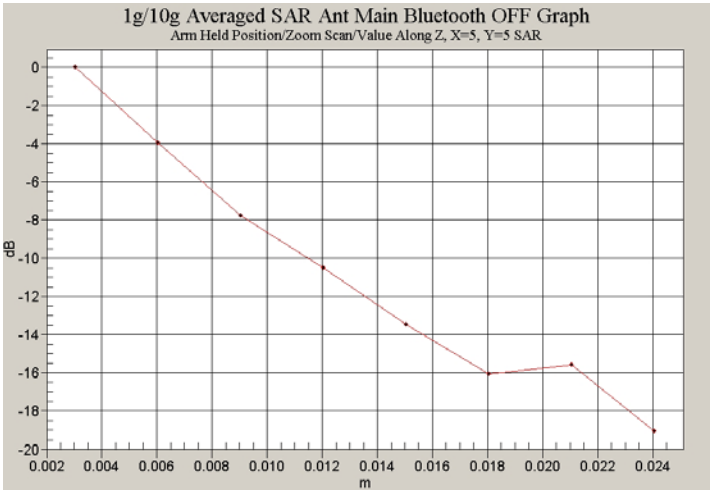



0 dB = 0.772mW/g

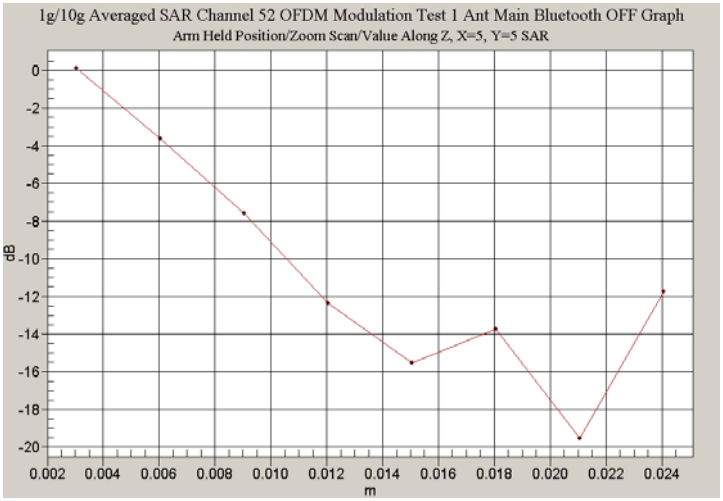
SAR MEASUREMENT PLOT 12

| | |
|---|---|
| **Ambient Temperature** | **20.6 Degrees Celsius** |
| **Liquid Temperature** | **20.0 Degrees Celsius** |
| **Humidity** | **35.0 %** |

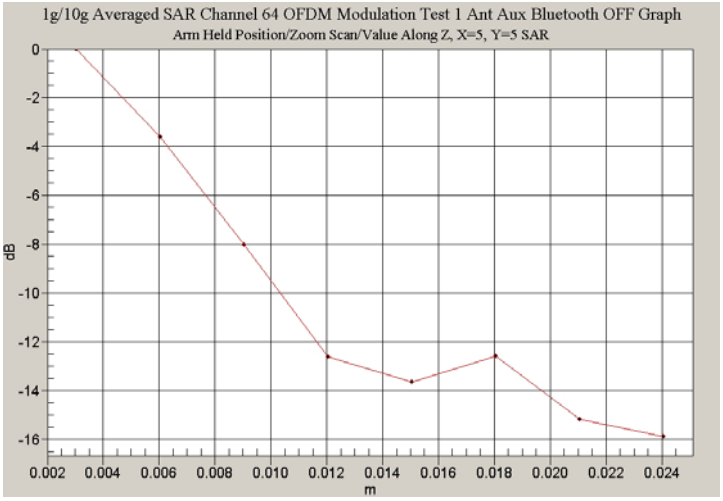
Z-Axis scan for Plot 10




Z-Axis scan for Plot 11




Z-Axis scan for Plot 12

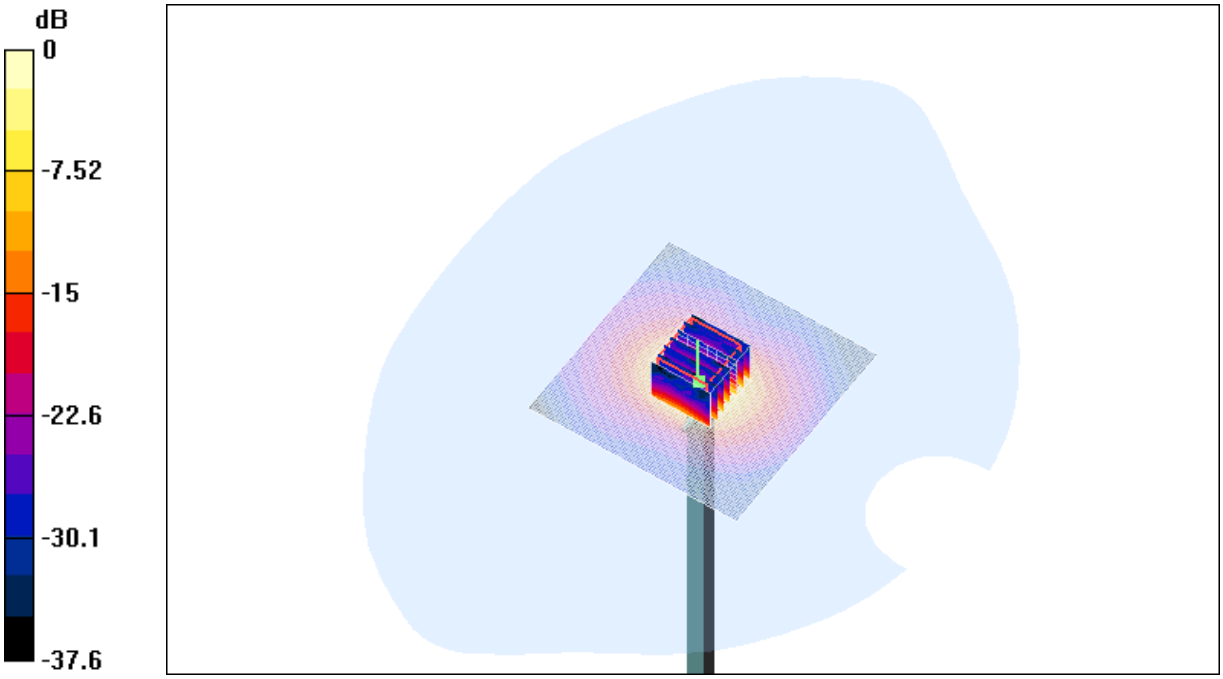


Test Date: 19 August 2004
File Name: Validation 5800MHz (DAE 442 Probe ES3DV3) 19-08-04.da4
**DUT: Dipole 5200_5800 MHz; Type: D5GHzV2; Serial: 1008**

* Communication System: CW 5800 MHz; Frequency: 5800 MHz; Duty Cycle: 1:1
* Medium parameters used: $\sigma$ = 6.06808; mho/m, $\varepsilon_r$ = 43.4499; $\rho$ = 1000 kg/m$^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(1.8, 1.8, 1.8)
- Phantom: SAM 22; Serial: 1260; Phantom section: Flat Section

**Channel 1 Test 3/Area Scan (91x91x1):** Measurement grid: dx=10mm, dy=10mm
Reference Value = 82.3 V/m; Power Drift = 0.0 dB
Maximum value of SAR (interpolated) = 33.7 mW/g

**Channel 1 Test 3/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 82.3 V/m; Power Drift = 0.0 dB
Maximum value of SAR (measured) = 31.3 mW/g
Peak SAR (extrapolated) = 89.7 W/kg
**SAR(1 g) = 21.5 mW/g; SAR(10 g) = 5.95 mW/g**




0 dB = 31.3mW/g

SAR MEASUREMENT PLOT 13

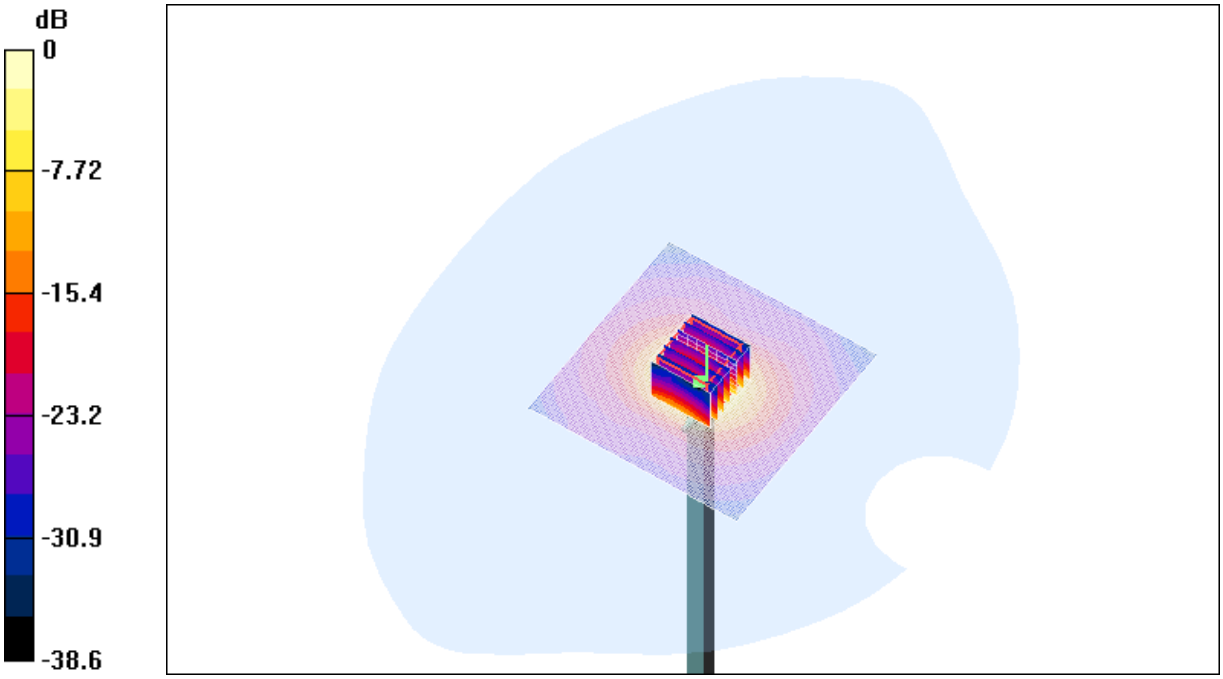
| | |
|---|---|
| **Ambient Temperature** | **20.6 Degrees Celsius** |
| **Liquid Temperature** | **20.0 Degrees Celsius** |
| **Humidity** | **35.0 %** |

Test Date: 19 August 2004
File Name: Validation 5200MHz (DAE 442 Probe ES3DV3) 19-08-04.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: σ = 5.10099; mho/m, $\varepsilon_r$ = 45.1199; ρ = 1000 kg/$m^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(2.05, 2.05, 2.05)
- Phantom: SAM 22; Serial: 1260; Phantom section: Flat Section

**Channel 1 Test/Area Scan (91x91x1):** Measurement grid: dx=10mm, dy=10mm
Reference Value = 90.1 V/m; Power Drift = -0.0 dB
Maximum value of SAR (interpolated) = 35.4 mW/g

**Channel 1 Test/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 90.1 V/m; Power Drift = -0.0 dB
Maximum value of SAR (measured) = 30.3 mW/g
Peak SAR (extrapolated) = 77.7 W/kg
**SAR(1 g) = 21.2 mW/g; SAR(10 g) = 5.98 mW/g**




0 dB = 30.3mW/g

SAR MEASUREMENT PLOT 14

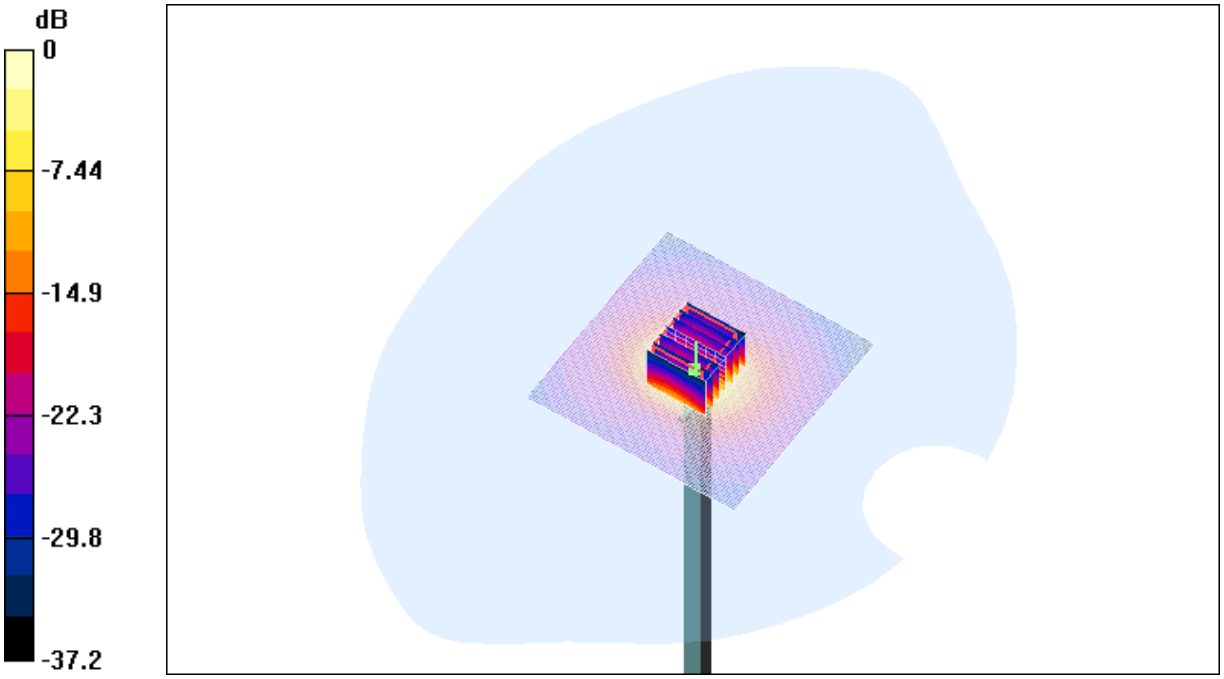
| | |
|---|---|
| **Ambient Temperature** | **20.6 Degrees Celsius** |
| **Liquid Temperature** | **20.0 Degrees Celsius** |
| **Humidity** | **35.0 %** |

Test Date: 20 August 2004
File Name: Validation 5200MHz (DAE 442 Probe ES3DV3) 20-08-04.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: σ = 5.44624; mho/m, $\varepsilon_r$ = 45.9012; ρ = 1000 kg/m$^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(2.05, 2.05, 2.05)
- Phantom: SAM 22; Serial: 1260; Phantom section: Flat Section

**Channel 1 Test 6/Area Scan (91x91x1):** Measurement grid: dx=10mm, dy=10mm
Reference Value = 85.4 V/m; Power Drift = 0.1 dB
Maximum value of SAR (interpolated) = 35.5 mW/g

**Channel 1 Test 6/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 85.4 V/m; Power Drift = 0.1 dB
Maximum value of SAR (measured) = 32.8 mW/g
Peak SAR (extrapolated) = 85.3 W/kg
**SAR(1 g) = 22.6 mW/g; SAR(10 g) = 6.3 mW/g**




0 dB = 32.8mW/g

SAR MEASUREMENT PLOT 15

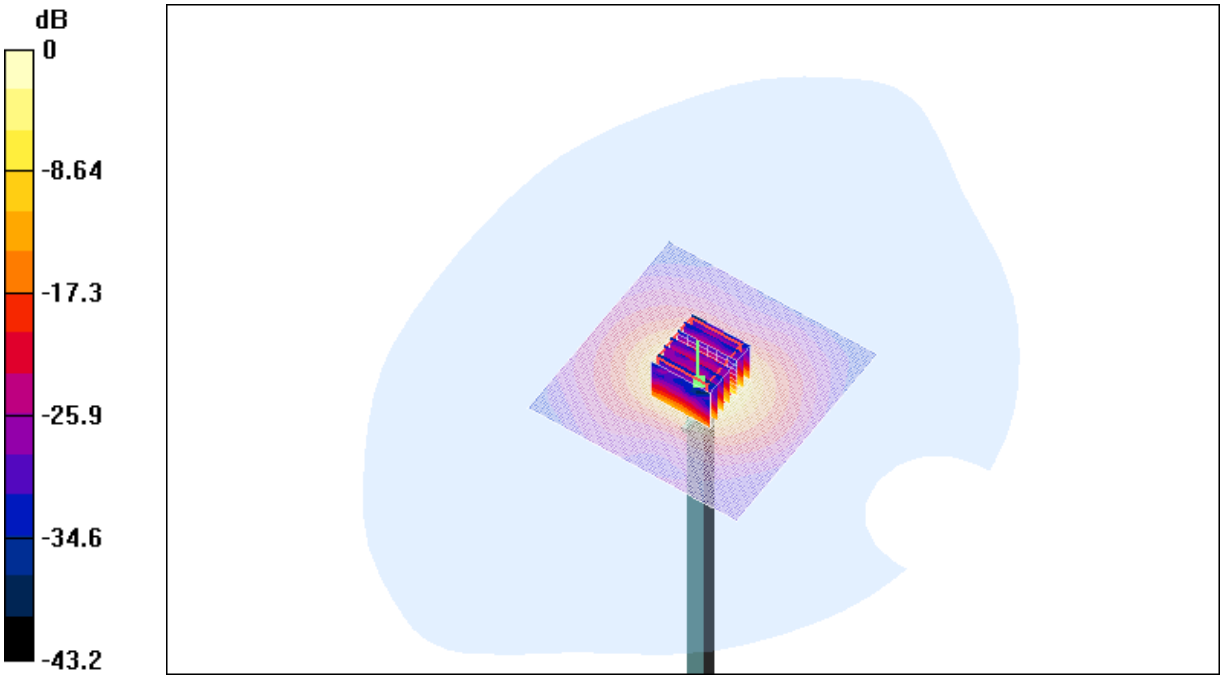
| | |
|---|---|
| **Ambient Temperature** | **20.6 Degrees Celsius** |
| **Liquid Temperature** | **20.1 Degrees Celsius** |
| **Humidity** | **33.0 %** |

Test Date: 21 August 2004
File Name: Validation 5800MHz (DAE 442 Probe ES3DV3) 21-08-04.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: $\sigma$ = 6.0587; mho/m, $\varepsilon_r$ = 43.5731; $\rho$ = 1000 kg/$m^3$
- Electronics: DAE3 Sn442; Probe: ES3DV3- SN3029; ConvF(1.8, 1.8, 1.8)
- Phantom: SAM 22; Serial: 1260; Phantom section: Flat Section

**Channel 1 Test 2/Area Scan (91x91x1):** Measurement grid: dx=10mm, dy=10mm
Reference Value = 82.1 V/m; Power Drift = 0.0 dB
Maximum value of SAR (interpolated) = 32.8 mW/g

**Channel 1 Test 2/Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm
Reference Value = 82.1 V/m; Power Drift = 0.0 dB
Maximum value of SAR (measured) = 31 mW/g
Peak SAR (extrapolated) = 95.9 W/kg
**SAR(1 g) = 21.9 mW/g; SAR(10 g) = 5.92 mW/g**




0 dB = 31mW/g

SAR MEASUREMENT PLOT 16

| | |
|---|---|
| **Ambient Temperature** | **20.7 Degrees Celsius** |
| **Liquid Temperature** | **20.2 Degrees Celsius** |
| **Humidity** | **38.0 %** |

# APPENDIX C
# SAR TESTING EQUIPMENT CALIBRATION CERTIFICATE ATTACHMENTS

**Calibration Certificate Attachments**

| | |
|---|---|
| 1. 5GHz E-Field Probe Calibration Sheet | 9 Pages |
| 2. 5200_5800MHz Dipole Calibration Sheet | 6 pages |