

APPENDIX C: DIPOLE VALIDATION

PCTEST ENGINEERING LABORATORY, INC.

DUT: D835V2 - SN4d047; Type: 835MHz SAR Validation Dipole ; Serial: 4d047

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: 835 Brain ($\sigma = 0.89$ mho/m, $\epsilon_r = 41.36$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 03-03-2008; Ambient Temp: 23.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN3561; ConvF(8.38, 8.38, 8.38); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

835MHz Dipole Validation

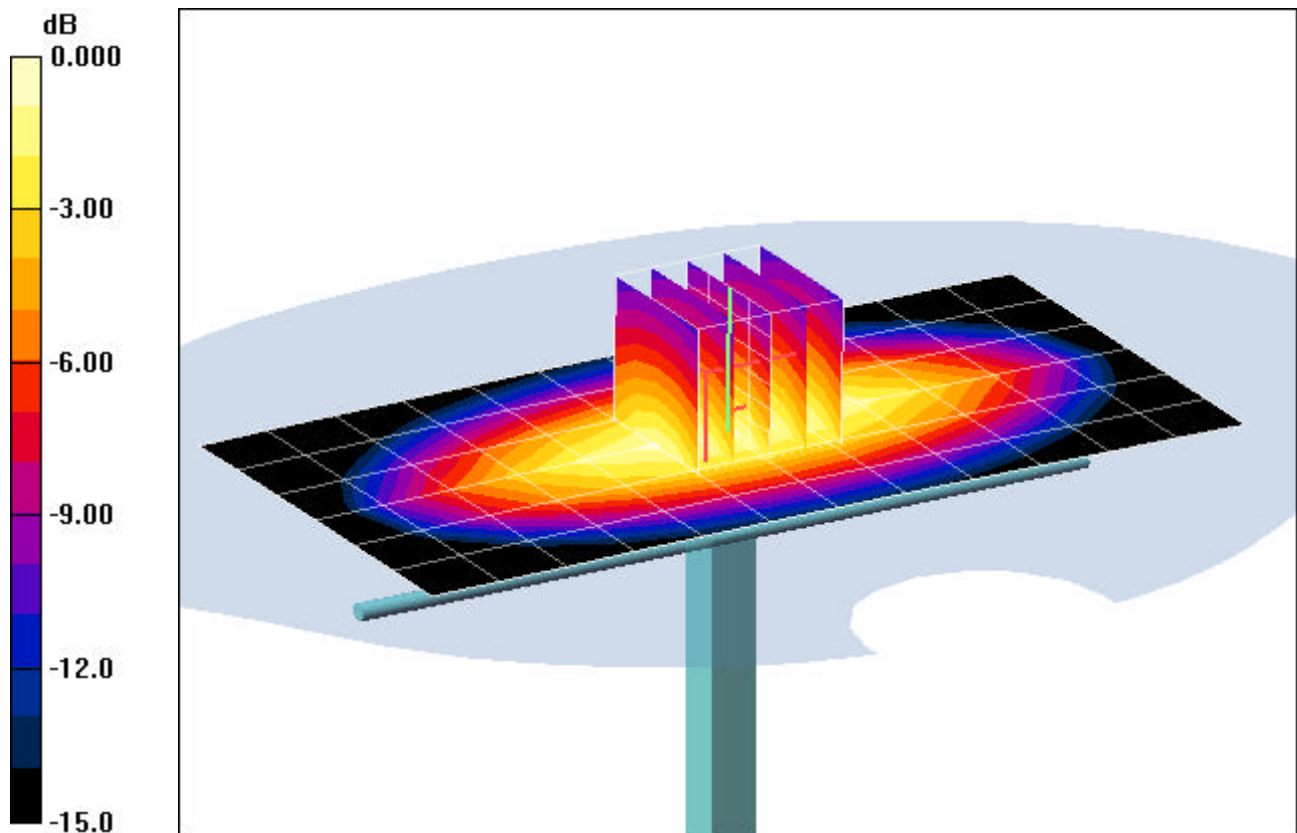
Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Input Power = 24.0 dBm (250 mW)

SAR(1 g) = 2.4 mW/g; SAR(10 g) = 1.57 mW/g

Target SAR(1g) = 2.29 mW/g; Deviation = +4.80 %



0 dB = 3.00mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: D835V2 - SN4d047; Type: 835MHz SAR Validation Dipole ; Serial: 4d047

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: 835 Brain ($\sigma = 0.89$ mho/m, $\epsilon_r = 41.36$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 03-06-2008; Ambient Temp: 23.5°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN3561; ConvF(8.38, 8.38, 8.38); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

835MHz Dipole Validation

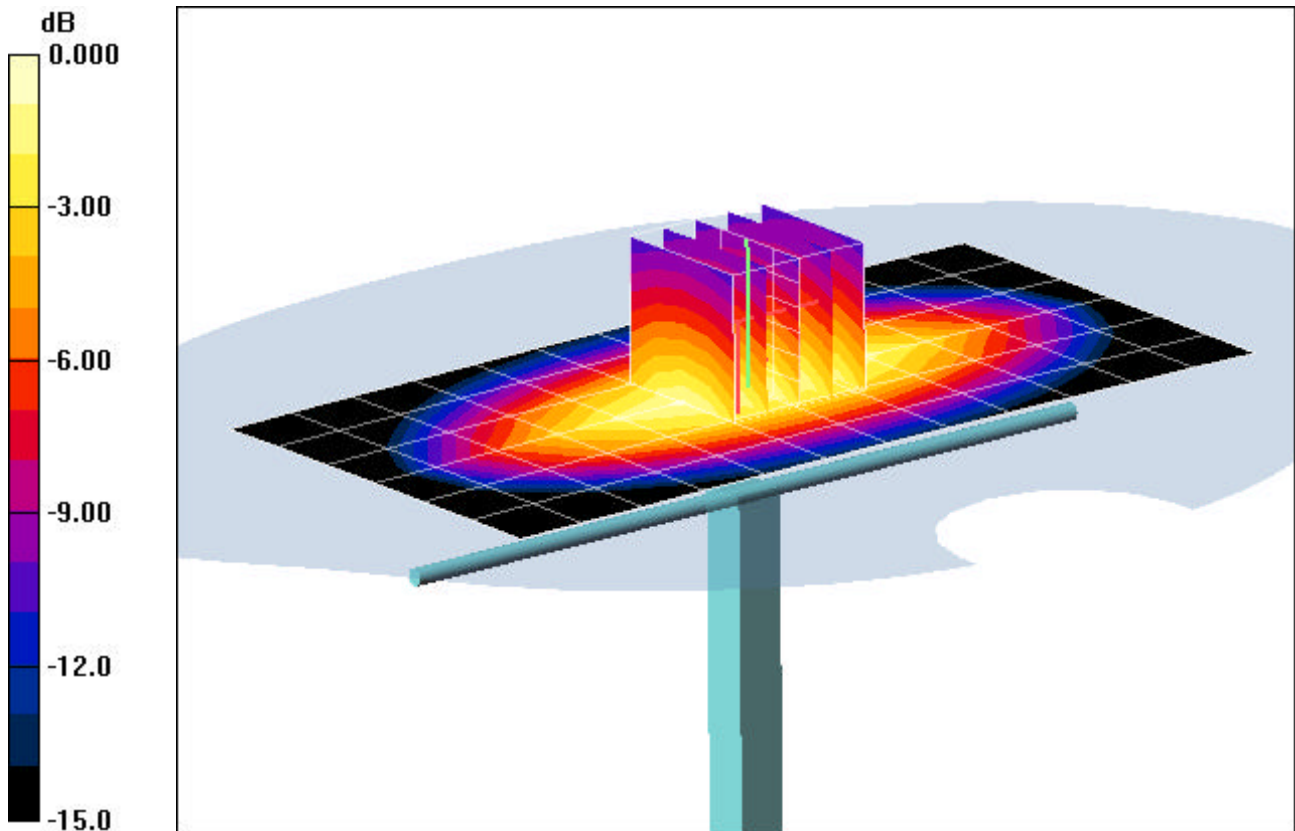
Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Input Power = 24.0 dBm (250 mW)

SAR(1 g) = 2.35 mW/g; SAR(10 g) = 1.54 mW/g

Target SAR(1g) = 2.29 mW/g; Deviation = +2.62 %



PCTEST ENGINEERING LABORATORY, INC.

DUT: D1900V2 - SN5d080; Type: 1900MHz SAR Validation Dipole; Serial: 5d080

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 Brain ($\sigma = 1.37$ mho/m, $\epsilon_r = 39.60$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 03-04-2008; Ambient Temp: 22.4°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN3561; ConvF(6.71, 6.71, 6.71); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357

Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

1900MHz Dipole Validation

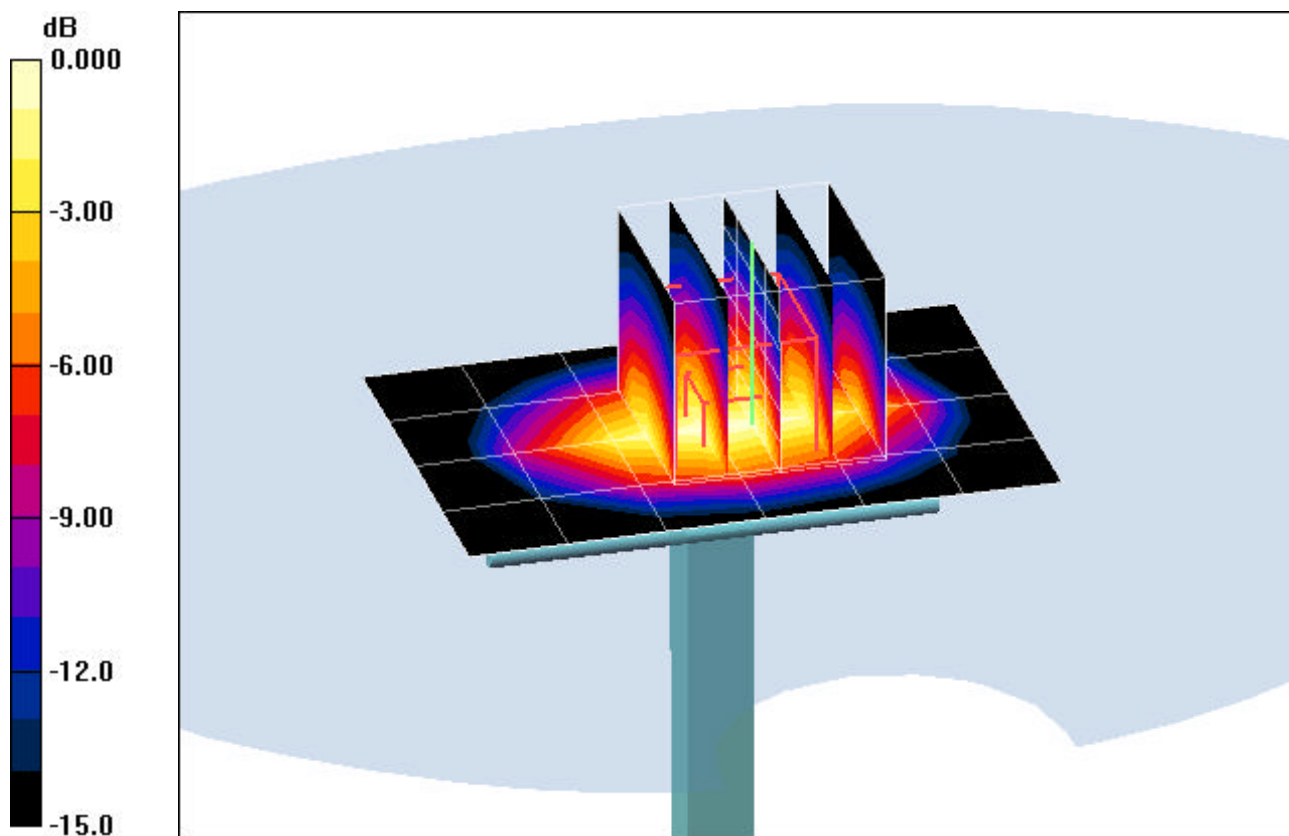
Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Input Power = 20.0 dBm (100 mW)

SAR(1 g) = 4.03 mW/g; SAR(10 g) = 2.08 mW/g

Target SAR(1g) = 3.77 mW/g; Deviation = +6.90 %



0 dB = 5.00mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: D1900V2 - SN5d080; Type: 1900MHz SAR Validation Dipole; Serial: 5d080

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 Brain ($\sigma = 1.37$ mho/m, $\epsilon_r = 39.60$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 03-05-2008; Ambient Temp: 22.8°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN3561; ConvF(6.71, 6.71, 6.71); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357

Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

1900MHz Dipole Validation

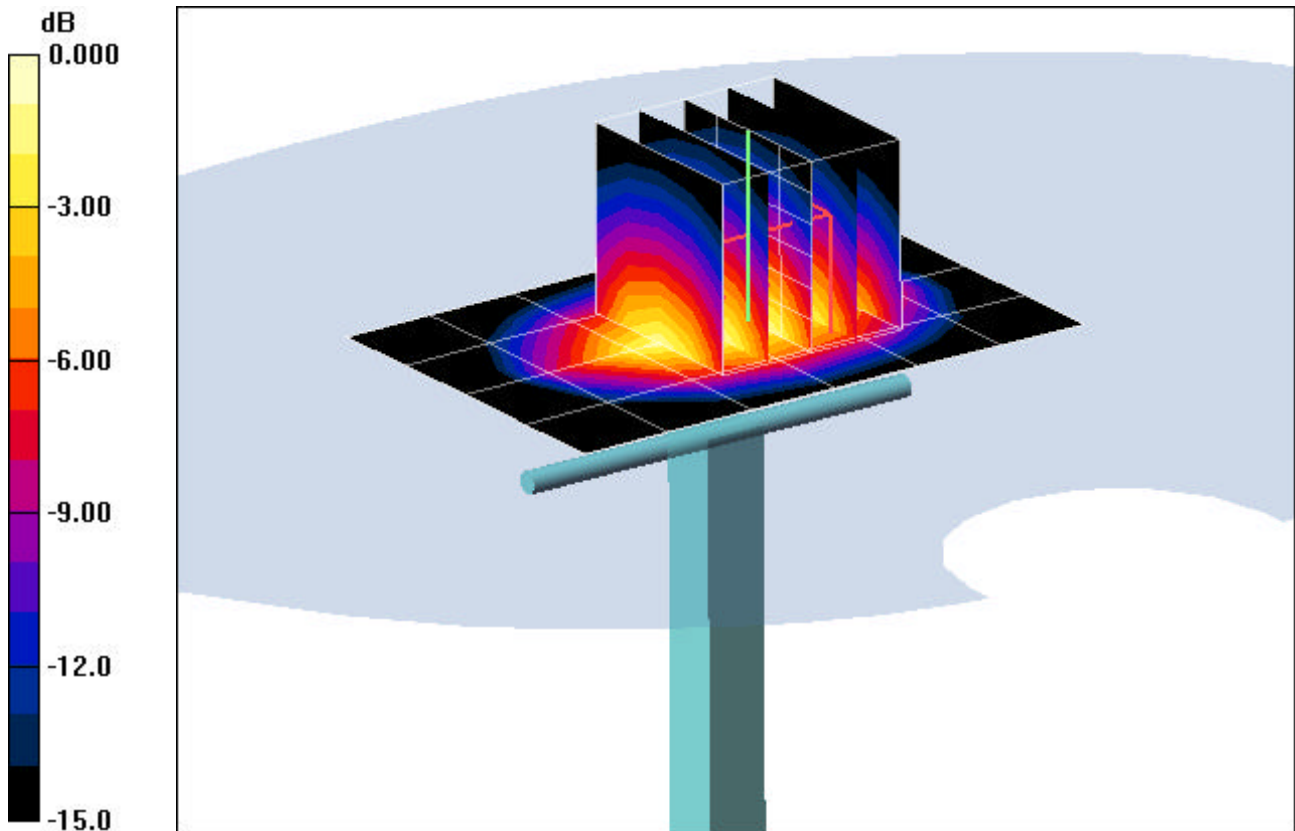
Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Input Power = 20.0 dBm (100 mW)

SAR(1 g) = 3.94 mW/g; SAR(10 g) = 2.03 mW/g

Target SAR(1g) = 3.77 mW/g; Deviation = +4.51 %



PCTEST ENGINEERING LABORATORY, INC.

DUT: D2450V2 - SN:797; Type: 2450MHz SAR Validation Dipole; Serial: 797

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

Medium: 2450 Brain ($\sigma = 1.76$ mho/m, $\epsilon_r = 40.57$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 03-13-2008; Ambient Temp: 23.2°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN3561; ConvF(6.26, 6.26, 6.26); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357

Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

2450MHz Dipole Validation

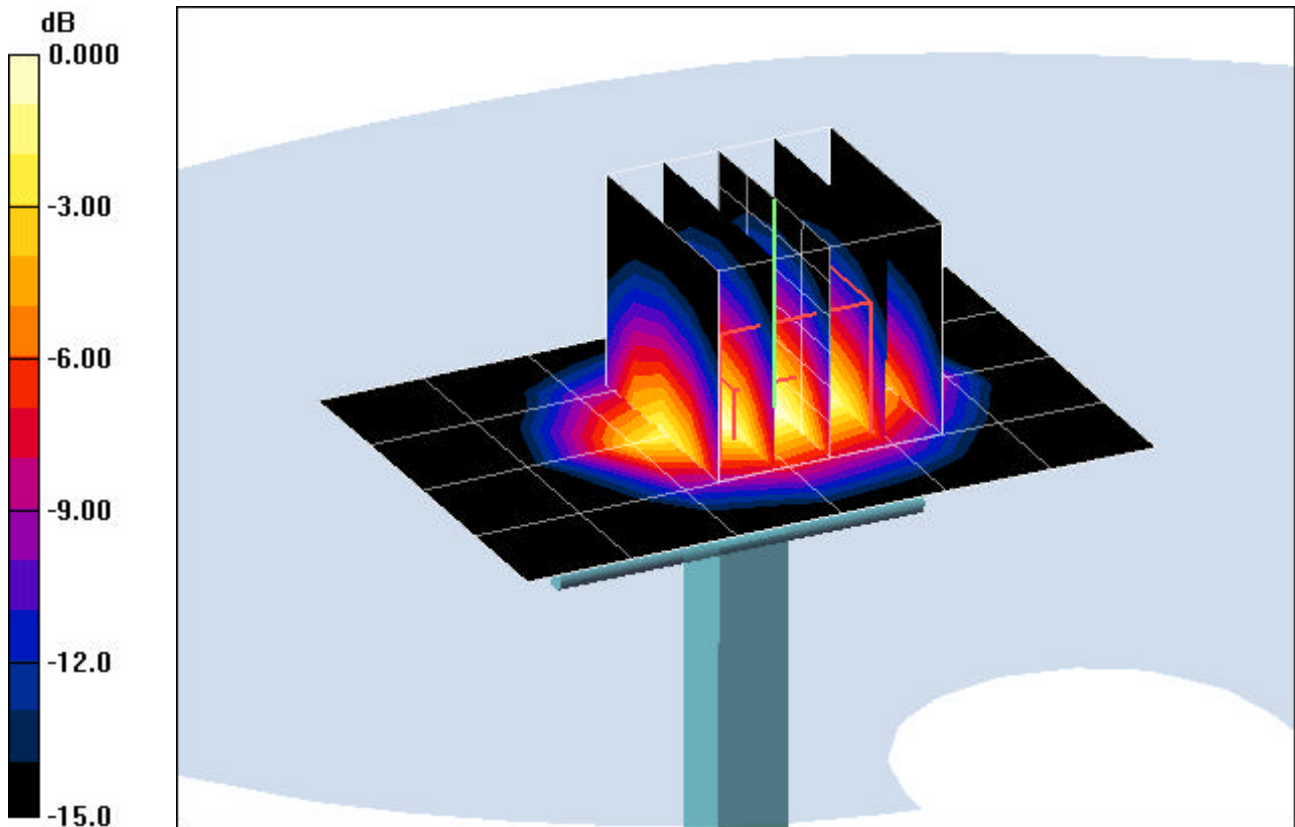
Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Input Power = 20.0 dBm (100 mW)

SAR(1 g) = 5.18 mW/g; SAR(10 g) = 2.41 mW/g

Target SAR(1g) = 5.41 mW/g; Deviation = -4.25 %



0 dB = 6.00mW/g