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APPENDIX A: SAR DISTRIBUTION COMPARISON FOR ACCURACY VERIFICATION

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Date/Time: 08/02/2010 6:15:47 PM

Test Laboratory: RIM TESTING SERVICES

File Name:

[DipoleValidation_835MHz_Amb_Tem_22.2_Liq_Tem_21.3_C_02_08_10.da4](#)

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446

Program Name: System Performance Check at 835 MHz

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.867 \text{ mho/m}$; $\epsilon_r = 39.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(6.08, 6.08, 6.08); Calibrated: 11/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement

grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 112.9 V/m ; Power Drift = 0.020 dB

Peak SAR (extrapolated) = 13.9 W/kg

SAR(1 g) = 9.57 mW/g ; SAR(10 g) = 6.3 mW/g

Maximum value of SAR (measured) = 10.3 mW/g

d=15mm, Pin=1000mW/Area Scan (31x121x1): Measurement grid: $dx=15\text{mm}$,

$dy=15\text{mm}$

Maximum value of SAR (interpolated) = 10.3 mW/g

Author Data

Andrew Becker

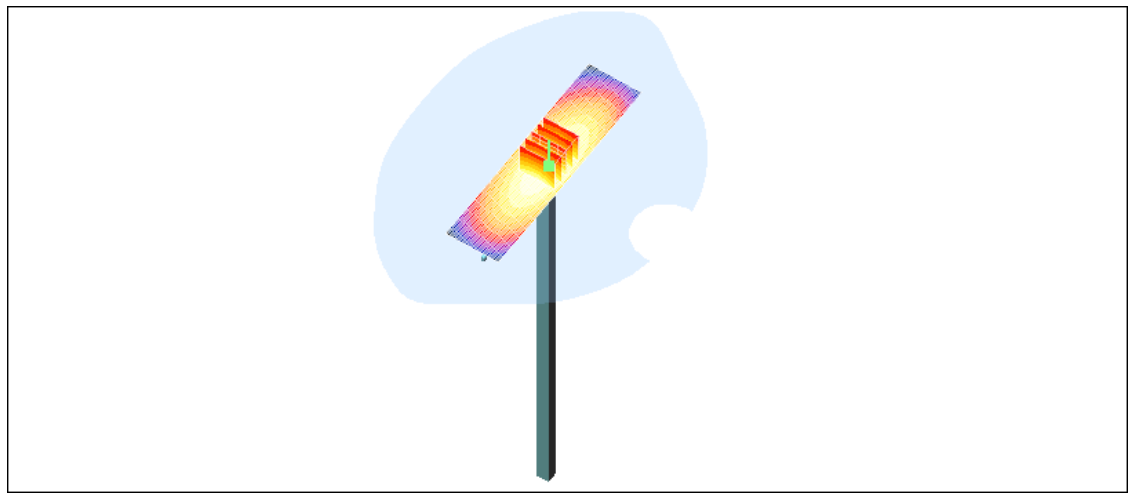
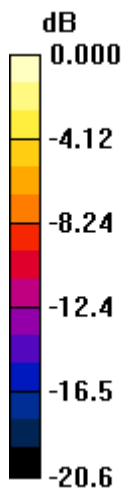
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0 dB = 10.3mW/g

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Date/Time: 16/02/2010 2:25:40 PM

Test Laboratory: RIM TESTING SERVICES

DipoleValidation_835MHz_Amb_Tem_22.5_Liq_Tem_20.4C_02_16_10

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.874 \text{ mho/m}$; $\epsilon_r = 40.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(6.08, 6.08, 6.08); Calibrated: 11/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement

grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 112.8 V/m ; Power Drift = 0.047 dB

Peak SAR (extrapolated) = 14.2 W/kg

SAR(1 g) = 9.82 mW/g ; SAR(10 g) = 6.47 mW/g

Maximum value of SAR (measured) = 10.6 mW/g

d=15mm, Pin=1000mW/Area Scan (31x121x1): Measurement grid: $dx=15\text{mm}$,

$dy=15\text{mm}$

Maximum value of SAR (interpolated) = 10.6 mW/g

Author Data

Andrew Becker

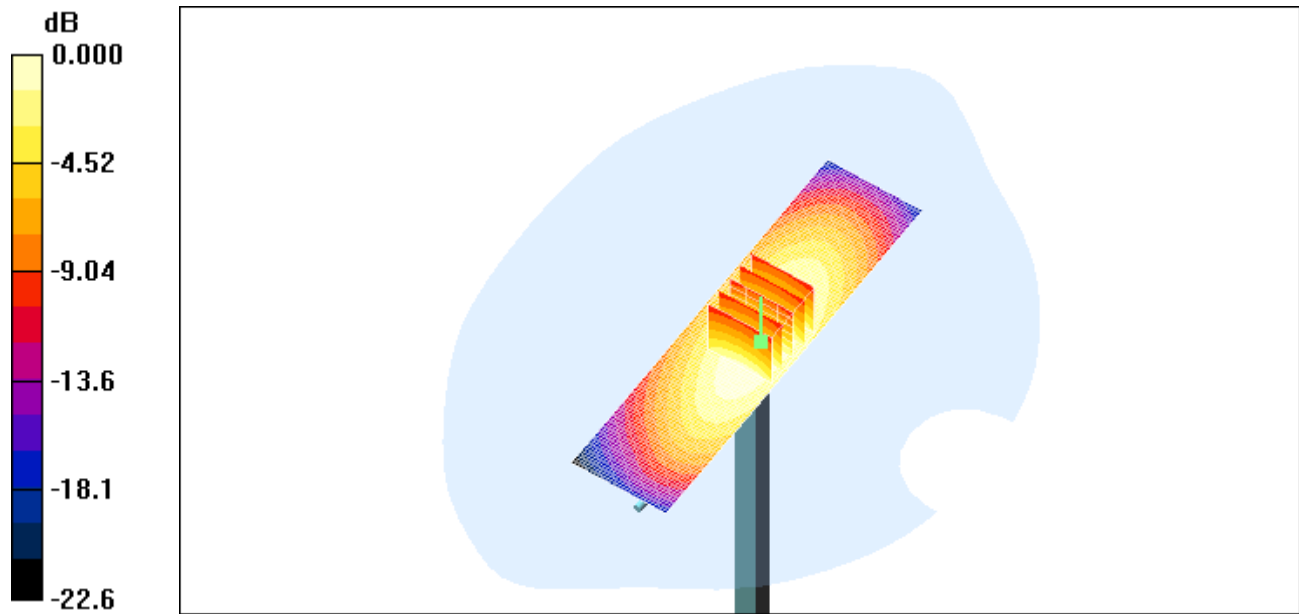
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0 dB = 10.6mW/g

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Date/Time: 10/02/2010 2:23:10 PM

Test Laboratory: RIM TESTING SERVICES

DipoleValidation_1800MHz_Amb_Tem_23.4_Liq_Tem_22.0C

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:2d020

Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.36 \text{ mho/m}$; $\epsilon_r = 38.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(5.17, 5.17, 5.17); Calibrated: 11/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DAS4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement

grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 177.9 V/m ; Power Drift = 0.018 dB

Peak SAR (extrapolated) = 61.2 W/kg

SAR(1 g) = 35.6 mW/g ; SAR(10 g) = 19 mW/g

Maximum value of SAR (measured) = 40.1 mW/g

d=10mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: $dx=15\text{mm}$,

$dy=15\text{mm}$

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

Author Data

Andrew Becker

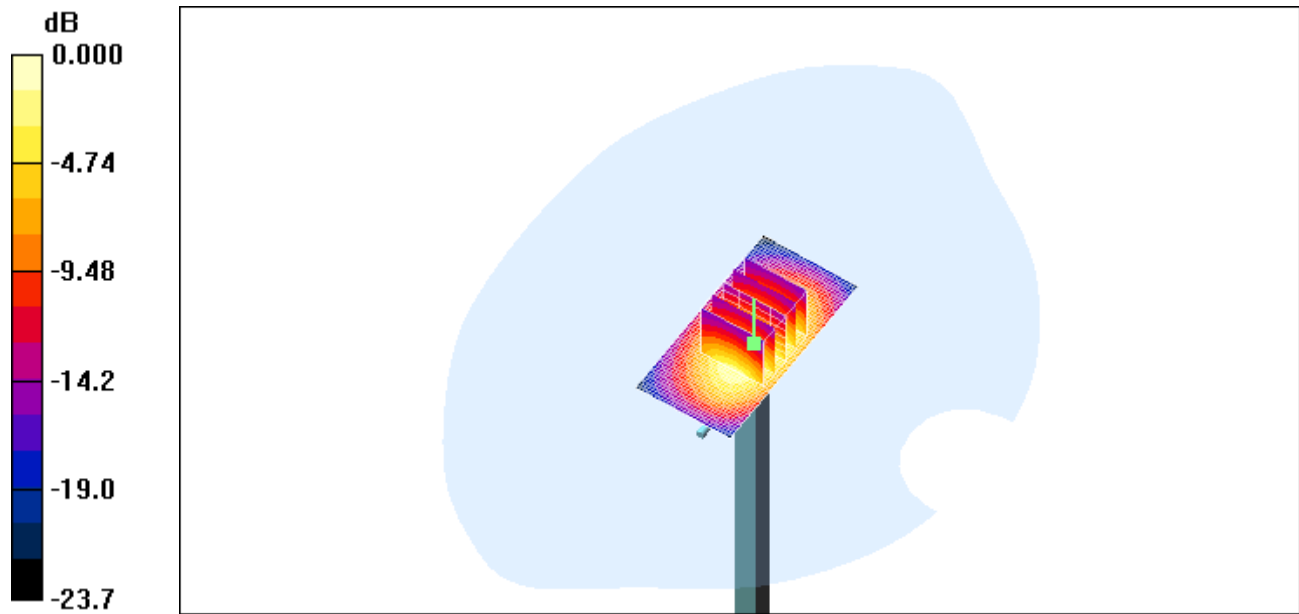
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L6ARCX70UW


0 dB = 40.8mW/g

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Date/Time: 11/02/2010 7:03:04 PM

Test Laboratory: RIM TESTING SERVICES

File Name:

[DipoleValidation 1900MHz Amb Tem 23.0 Liq Tem 21.6 C 02_11_10.da4](#)

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:545

Program Name: System Performance Check at 1900 MHz

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

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.44 \text{ mho/m}$; $\epsilon_r = 40.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(5.17, 5.17, 5.17); Calibrated: 11/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement

grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 179.5 V/m ; Power Drift = 0.049 dB

Peak SAR (extrapolated) = 67.8 W/kg

SAR(1 g) = 38.4 mW/g ; SAR(10 g) = 20.1 mW/g

Maximum value of SAR (measured) = 43.1 mW/g

d=10mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: $dx=15\text{mm}$,

$dy=15\text{mm}$

Maximum value of SAR (interpolated) = 44.8 mW/g

Author Data

Andrew Becker

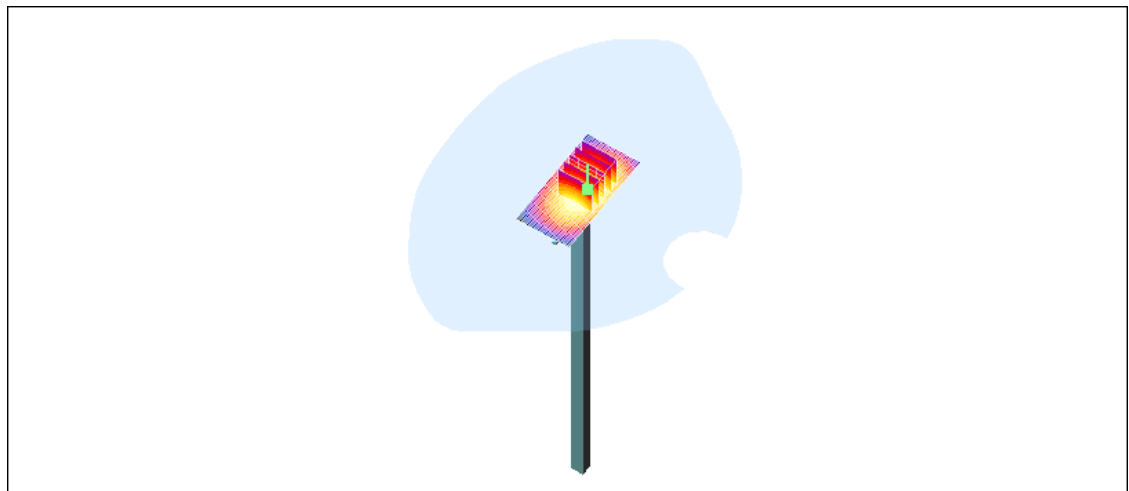
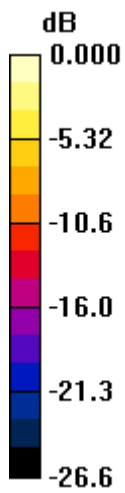
Dates of Test

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Test Report No

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FCC ID:

L6ARCX70UW


0 dB = 44.8mW/g

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Date/Time: 2/2/2010 7:18:47 PM

Test Laboratory: RIM TESTING SERVICES

File Name:

[DipoleValidation 2450MHz Amb Tem 23.3 Liq Tem 21.6 C 02_02_10.da4](#)

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:747

Program Name: System Performance Check at 1900 MHz

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

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.88 \text{ mho/m}$; $\epsilon_r = 39.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(4.5, 4.5, 4.5); Calibrated: 11/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/3/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement

grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 188.1 V/m ; Power Drift = -0.011 dB

Peak SAR (extrapolated) = 134.6 W/kg

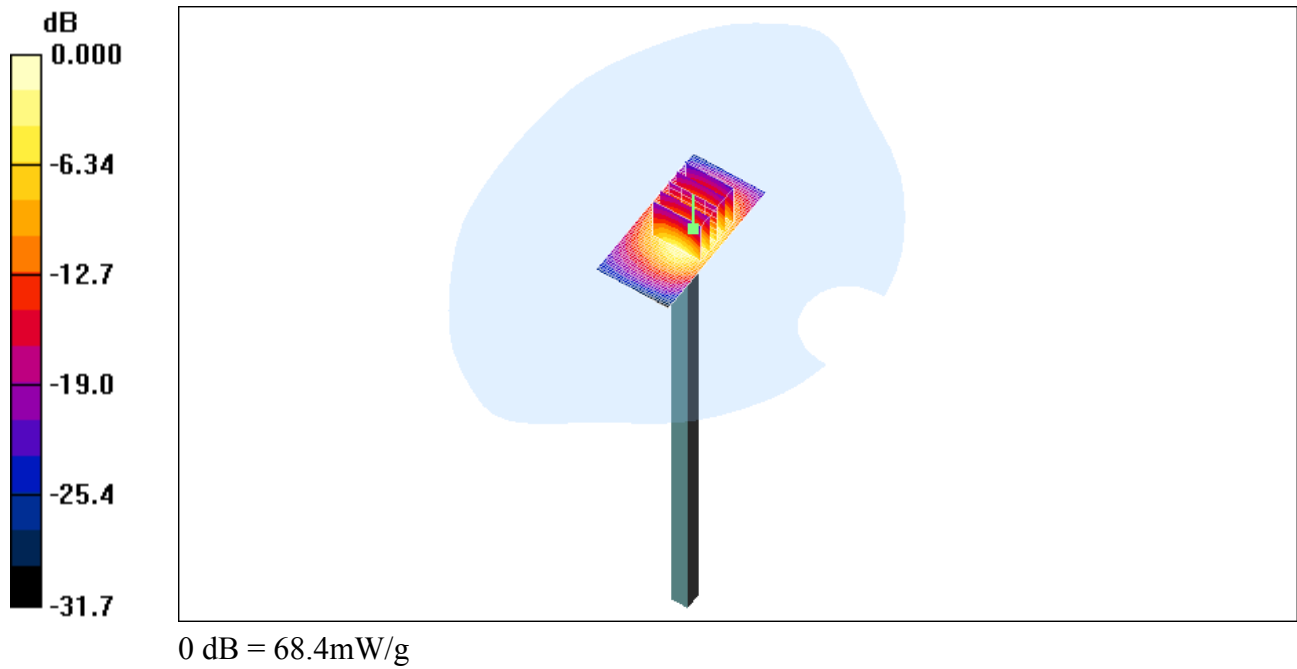
SAR(1 g) = 57.8 mW/g ; SAR(10 g) = 26.2 mW/g

Maximum value of SAR (measured) = 63.7 mW/g

d=10mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: $dx=15\text{mm}$,

$dy=15\text{mm}$

Maximum value of SAR (interpolated) = 68.4 mW/g



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Date/Time: 2/25/2010 7:48:57 PM

Test Laboratory: RIM TESTING SERVICES

File Name:

[DipoleValidation 2450MHz Amb Tem 23.9 Liq Tem 20.6 C 02 25 10.da4](#)

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:747

Program Name: System Performance Check at 1900 MHz

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

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.87 \text{ mho/m}$; $\epsilon_r = 39.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(4.5, 4.5, 4.5); Calibrated: 11/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement

grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 183.0 V/m ; Power Drift = 0.039 dB

Peak SAR (extrapolated) = 123.4 W/kg

SAR(1 g) = 53.3 mW/g ; SAR(10 g) = 24.3 mW/g

Maximum value of SAR (measured) = 57.8 mW/g

d=10mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: $dx=15\text{mm}$,

$dy=15\text{mm}$

Maximum value of SAR (interpolated) = 61.8 mW/g

Author Data

Andrew Becker

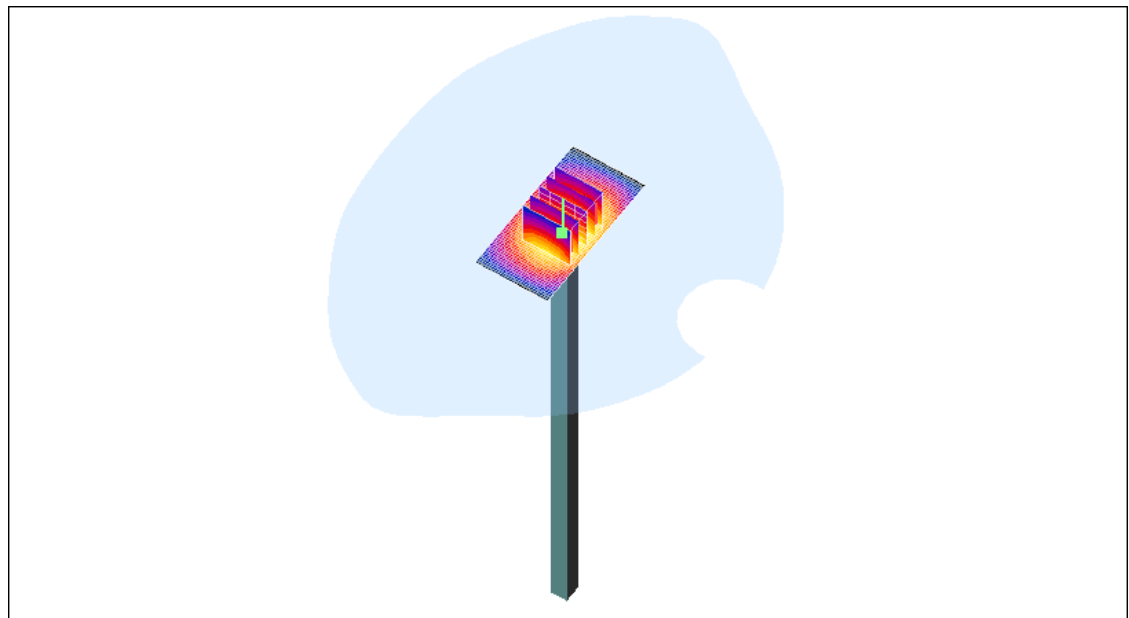
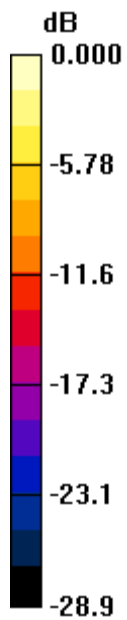
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0 dB = 61.8mW/g

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Date/Time: 3/3/2010 5:25:20 PM

Test Laboratory: RIM TESTING SERVICES

File Name:

[DipoleValidation 2450MHz Amb Tem 23.4 Liq Tem 22.2 C 03 03 10.da4](#)

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:747

Program Name: System Performance Check at 1900 MHz

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

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.88 \text{ mho/m}$; $\epsilon_r = 37.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(4.5, 4.5, 4.5); Calibrated: 11/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement

grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 183.4 V/m ; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 125.2 W/kg

SAR(1 g) = 54.9 mW/g ; SAR(10 g) = 25.2 mW/g

Maximum value of SAR (measured) = 59.1 mW/g

d=15mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: $dx=15\text{mm}$,

$dy=15\text{mm}$

Maximum value of SAR (interpolated) = 64.7 mW/g

Author Data

Andrew Becker

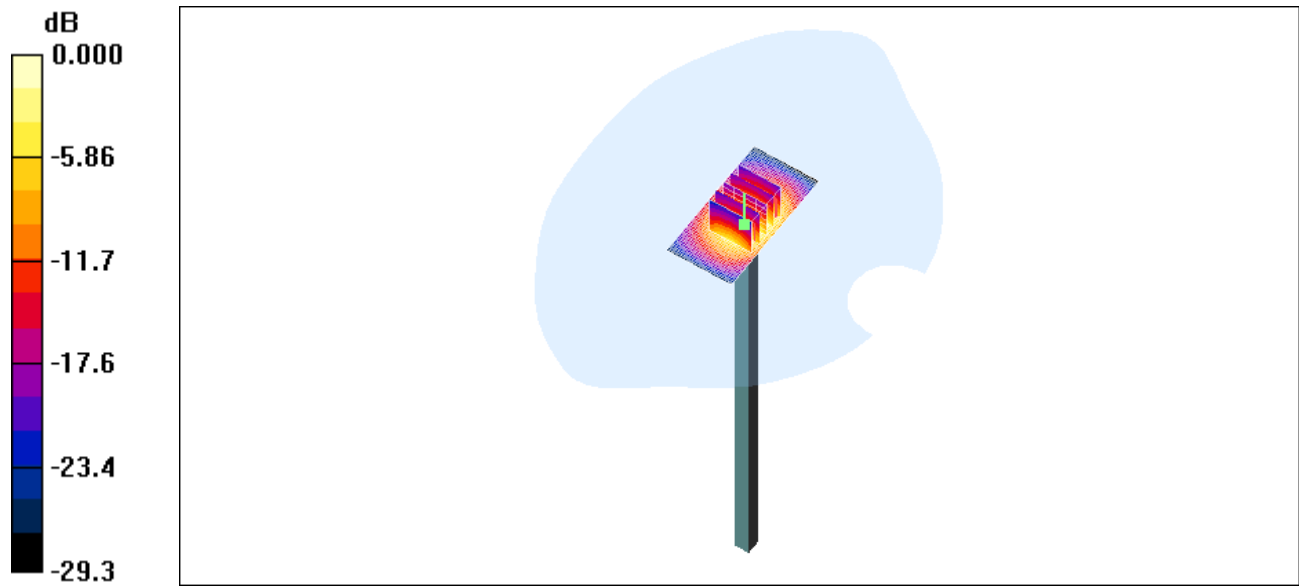
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FCC ID:

L6ARCX70UW


0 dB = 64.7mW/g