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APPENDIX A: SAR DISTRIBUTION COMPARISON FOR ACCURACY VERIFICATION

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Date/Time: 4/22/2010 10:04:22 PM

Test Laboratory: RIM TESTING SERVICES

File Name:

[DipoleValidation 835MHz Amb Tem 23.1 Liq Tem 21.8C 04 22 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: $f = 835 \text{ MHz}$; $\sigma = 0.931 \text{ mho/m}$; $\epsilon_r = 39.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.12, 6.12, 6.12); Calibrated: 12/11/2009
- 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 = 107.9 V/m ; Power Drift = 0.003 dB

Peak SAR (extrapolated) = 14.5 W/kg

SAR(1 g) = 9.84 mW/g ; SAR(10 g) = 6.46 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) = 10.7 mW/g

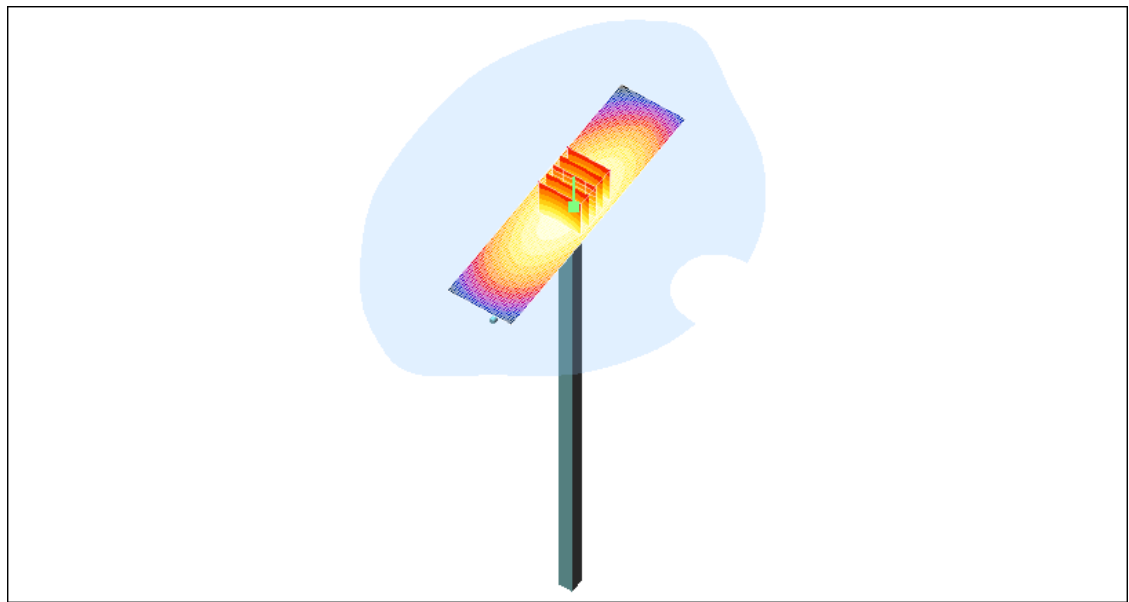
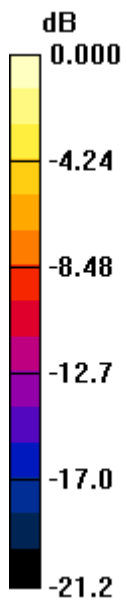
Author Data
Andrew Becker

Dates of Test
Mar 15 – Apr 26, 2010

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0 dB = 10.7mW/g

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Date/Time: 4/26/2010 8:05:12 PM

Test Laboratory: RIM TESTING SERVICES

File Name:

[DipoleValidation 835MHz Amb Tem 22.9 Liq Tem 22.4C 04 26 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: $f = 835 \text{ MHz}$; $\sigma = 0.903 \text{ mho/m}$; $\epsilon_r = 42.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.12, 6.12, 6.12); Calibrated: 12/11/2009
- 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 = 106.0 V/m ; Power Drift = -0.043 dB

Peak SAR (extrapolated) = 13.4 W/kg

SAR(1 g) = 9.16 mW/g ; SAR(10 g) = 6.02 mW/g

Maximum value of SAR (measured) = 9.92 mW/g

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

$dy=15\text{mm}$

Maximum value of SAR (interpolated) = 9.91 mW/g

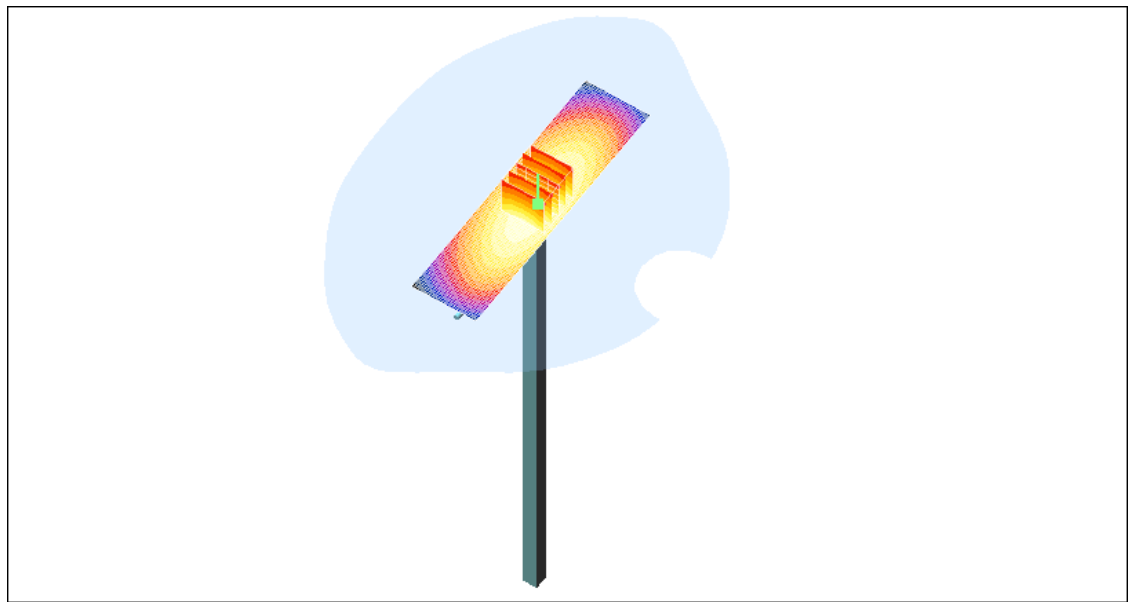
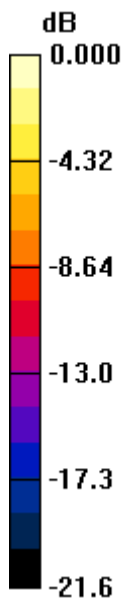
Author Data
Andrew Becker

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0 dB = 9.91mW/g

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Date/Time: 3/24/2010 8:39:21 PM

Test Laboratory: RIM TESTING SERVICES

File Name:

[DipoleValidation 1900MHz Amb Tem 22.7 Liq Tem 22.3 C 03 24 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: $f = 1900 \text{ MHz}$; $\sigma = 1.43 \text{ mho/m}$; $\epsilon_r = 38.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.14, 5.14, 5.14); Calibrated: 12/11/2009
- 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 = 180.3 V/m ; Power Drift = -0.036 dB

Peak SAR (extrapolated) = 76.9 W/kg

SAR(1 g) = 40.9 mW/g ; SAR(10 g) = 21 mW/g

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

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

$dy=15\text{mm}$

Maximum value of SAR (interpolated) = 46.4 mW/g

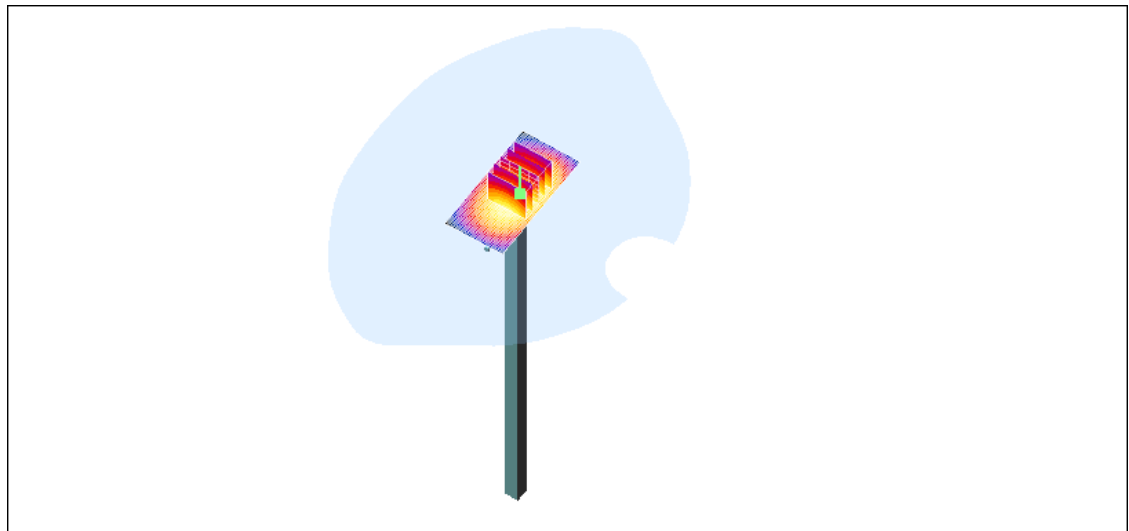
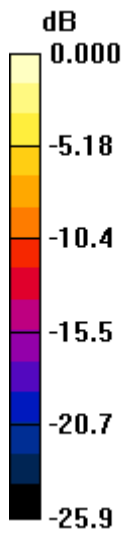
Author Data
Andrew Becker

Dates of Test
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0 dB = 46.4mW/g

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Date/Time: 3/15/2010 11:55:17 AM

File Name: [DipoleValidation 2450MHz Amb Tem 23.0 Liq Tem 21.2C.da4](#)

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:747
Program Name: System Performance Check at 2450 MHz

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.88 \text{ mho/m}$; $\epsilon_r = 37.9$; $\rho = 1000 \text{ kg/m}^3$
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 = 185.2 V/m; Power Drift = 0.023 dB
Peak SAR (extrapolated) = 130.5 W/kg
SAR(1 g) = 57.2 mW/g; SAR(10 g) = 26.1 mW/g
Maximum value of SAR (measured) = 63.7 mW/g

d=10mm, Pin=1000mW/Area Scan (31x41x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 64.2 mW/g

Author Data

Andrew Becker

Dates of Test

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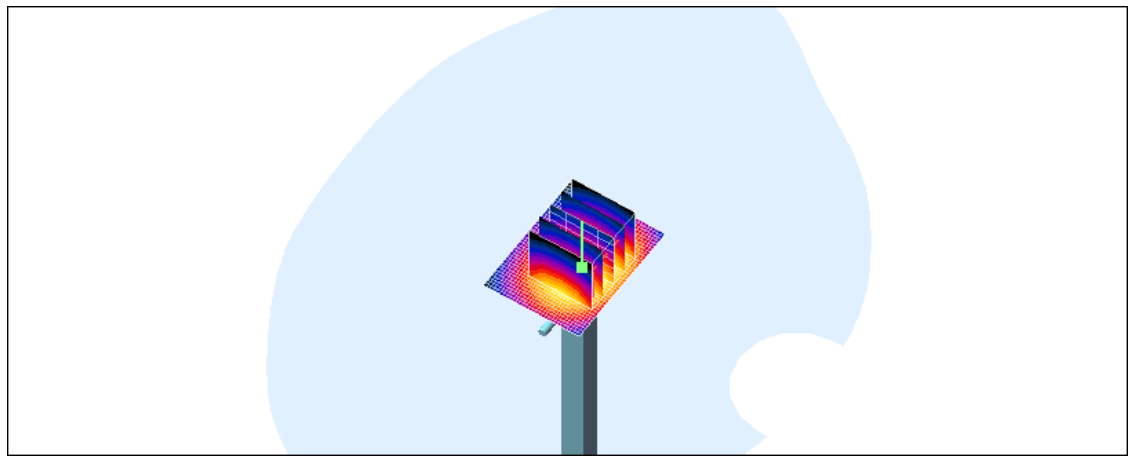
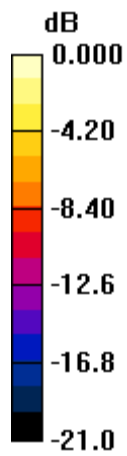
Test Report No

RTS-2341-1004-61

FCC ID:

L6ARCW40GW

IC ID:

2503A-RCW40GW


0 dB = 64.2mW/g