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<b>Andrew Becker</b>	<b>Nov 22 2012 – Feb 28 2013</b>	<b>RTS-6026-1302-13</b>	<b>L6ARFL110LW</b>	<b>2503A-RFL110LW</b>

**APPENDIX A: SAR DISTRIBUTION COMPARISON FOR ACCURACY VERIFICATION**

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Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 12/14/2012 4:04:03 PM

Test Laboratory: RIM Testing Services

## DipoleValidation\_750MHz\_12\_14\_12\_Amb\_Tem\_24.7\_Liq\_Tem\_22.5C

**DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1021**

Communication System: CW; Frequency: 750 MHz

Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.924$  mho/m;  $\epsilon_r = 42.172$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.42, 6.42, 6.42); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.0(692); SEMCAD X 14.6.4(4989)

**Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1):** Measurement

grid:  $dx=15$ mm,  $dy=15$ mm

Reference Value = 103.1 V/m; Power Drift = -0.05 dB

**Fast SAR: SAR(1 g) = 7.97 mW/g; SAR(10 g) = 5.47 mW/g**

Maximum value of SAR (interpolated) = 9.067 mW/g

**Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 2**

**(5x5x7)/Cube 0:** Measurement grid:  $dx=7.5$ mm,  $dy=7.5$ mm,  $dz=5$ mm

Reference Value = 103.1 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 11.8720

**SAR(1 g) = 7.98 mW/g; SAR(10 g) = 5.2 mW/g**

Maximum value of SAR (measured) = 9.324 mW/g

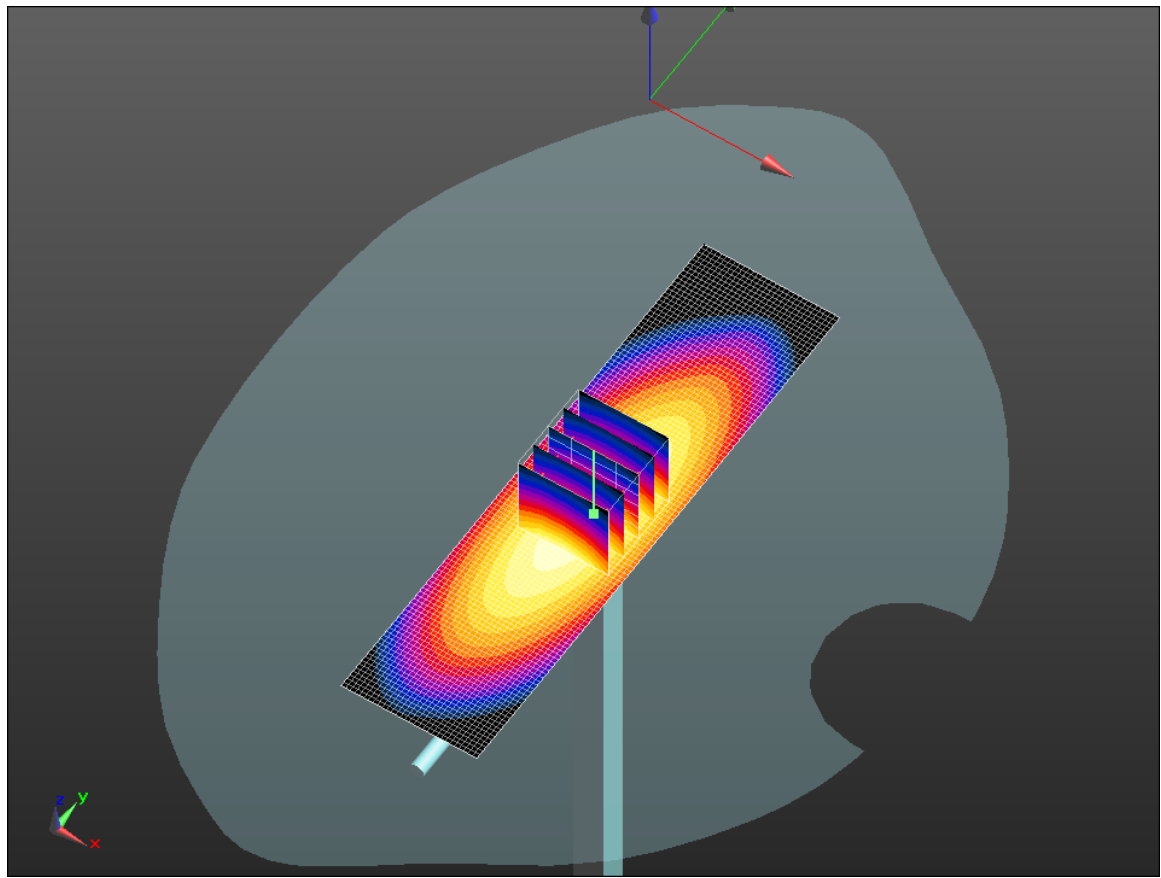
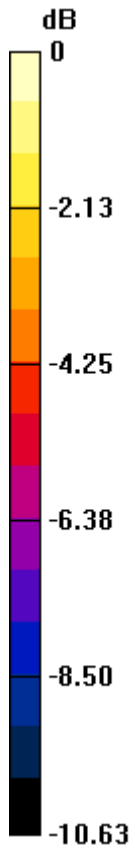
Author Data  
**Andrew Becker**

Dates of Test  
**Nov 22 2012 – Feb 28 2013**


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**RTS-6026-1302-13**

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0 dB = 9.320mW/g = 19.39 dB mW/g

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Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 12/17/2012 12:04:11 PM

Test Laboratory: RIM Testing Services

## DipoleValidation\_750MHz\_12\_17\_12\_Amb\_Tem\_23.6\_Liq\_Tem\_22.0C

**DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1021**

Communication System: CW; Frequency: 750 MHz

Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.914$  mho/m;  $\epsilon_r = 42.065$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.42, 6.42, 6.42); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.0(692); SEMCAD X 14.6.4(4989)

**Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1):** Measurement

grid:  $dx=15$ mm,  $dy=15$ mm

Reference Value = 103.9 V/m; Power Drift = 0.0034 dB

**Fast SAR: SAR(1 g) = 7.98 mW/g; SAR(10 g) = 5.47 mW/g**

Maximum value of SAR (interpolated) = 9.089 mW/g

**Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 2**

**(5x5x7)/Cube 0:** Measurement grid:  $dx=7.5$ mm,  $dy=7.5$ mm,  $dz=5$ mm

Reference Value = 103.9 V/m; Power Drift = 0.0034 dB

Peak SAR (extrapolated) = 11.6560

**SAR(1 g) = 7.87 mW/g; SAR(10 g) = 5.14 mW/g**

Maximum value of SAR (measured) = 9.171 mW/g

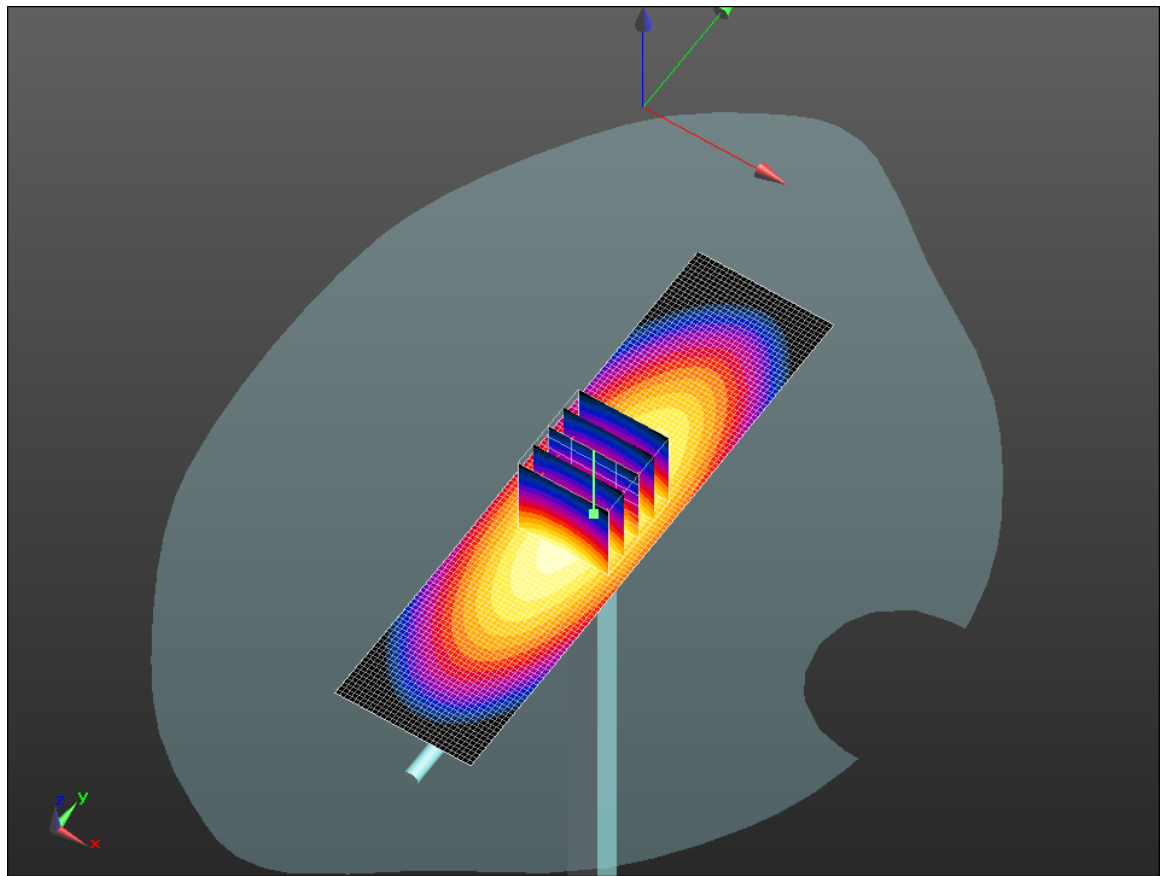
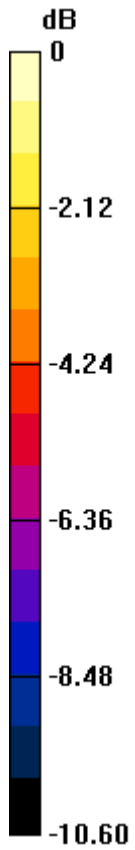
Author Data  
**Andrew Becker**

Dates of Test  
**Nov 22 2012 – Feb 28 2013**


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**L6ARFL110LW**

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0 dB = 9.170mW/g = 19.25 dB mW/g

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Date/Time: 12/9/2012 8:52:57 PM

Test Laboratory: RIM Testing Services

## DipoleValidation\_835MHz\_12\_09\_12\_Amb\_Tem\_24.5\_Liq\_Tem\_22.5C

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

Communication System: CW; Frequency: 835 MHz; Communication System PAR: 0 dB;  
PMF: 1

Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.887 \text{ mho/m}$ ;  $\epsilon_r = 40.135$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.06, 6.06, 6.06); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.0(692); SEMCAD X 14.6.4(4989)

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

Reference Value = 113.9 V/m; Power Drift = -0.04 dB

**Fast SAR: SAR(1 g) = 9.44 mW/g; SAR(10 g) = 6.4 mW/g**

Maximum value of SAR (interpolated) = 10.803 mW/g

**Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 2 (5x5x7)/Cube 0:** Measurement grid:  $dx=7.5\text{mm}$ ,  $dy=7.5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 113.9 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 13.7780

**SAR(1 g) = 9.37 mW/g; SAR(10 g) = 6.15 mW/g**

Maximum value of SAR (measured) = 10.977 mW/g

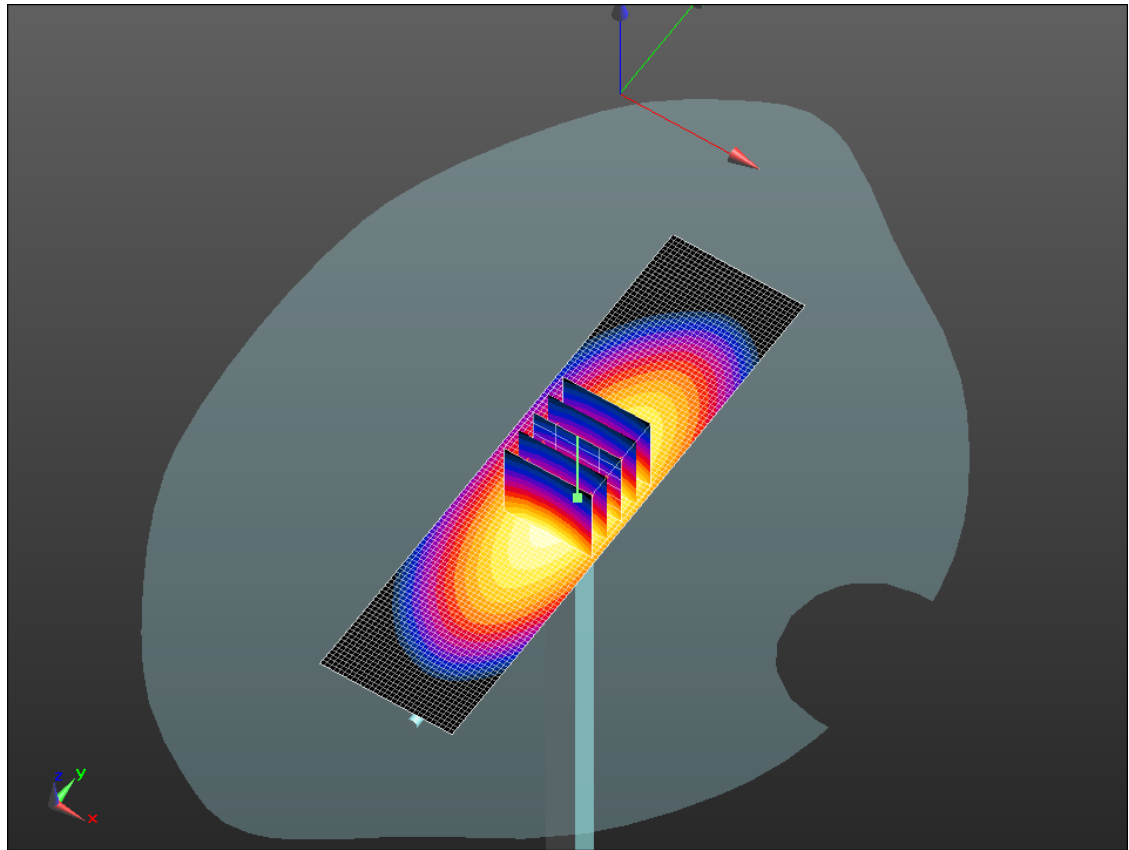
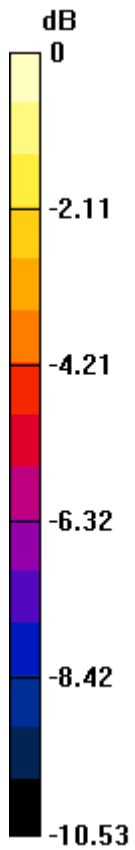
Author Data  
**Andrew Becker**

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**Nov 22 2012 – Feb 28 2013**


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0 dB = 10.980mW/g = 20.81 dB mW/g

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Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 2/4/2013 12:35:58 PM

Test Laboratory: RIM Testing Services

## DipoleValidation\_835MHz\_02\_04\_13

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d043**

Communication System: CW; Frequency: 835 MHz; Communication System PAR: 0 dB;

PMF: 1

Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.897 \text{ S/m}$ ;  $\epsilon_r = 40.049$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ET3DV6 - SN1644; ConvF(6.24, 6.24, 6.24); Calibrated: 11/13/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 2.7, 32.7$
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.4(1052); SEMCAD X 14.6.8(7028)

**Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1):** Interpolated

grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Reference Value = 108.5 V/m; Power Drift = -0.04 dB

**Fast SAR: SAR(1 g) = 9.15 W/kg; SAR(10 g) = 6.24 W/kg**

Maximum value of SAR (interpolated) = 9.77 W/kg

**Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube**

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

Reference Value = 108.5 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 13.2 W/kg

**SAR(1 g) = 9.2 W/kg; SAR(10 g) = 6.05 W/kg**

Maximum value of SAR (measured) = 9.95 W/kg



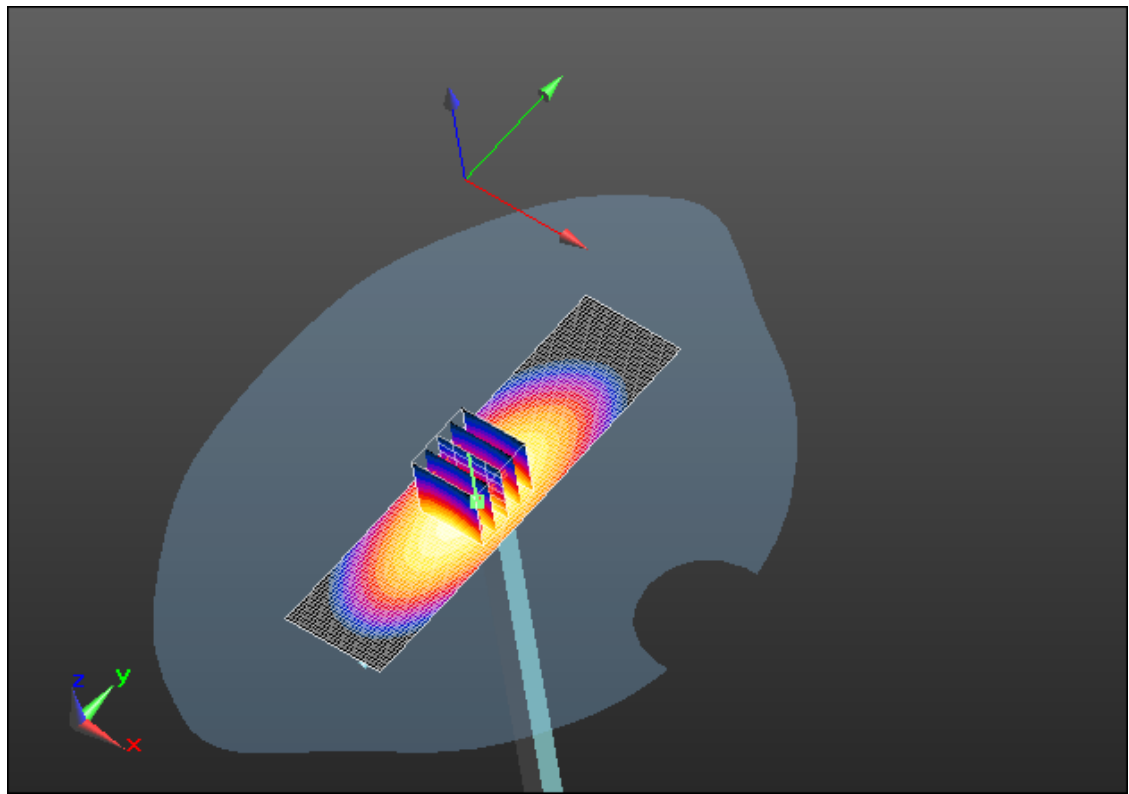
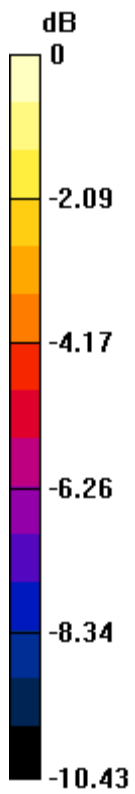
Author Data  
**Andrew Becker**

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0 dB = 9.95 W/kg = 9.98 dBW/kg

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Date/Time: 12/4/2012 11:56:30 AM

Test Laboratory: RIM Testing Services

## DipoleValidation\_1800MHz\_12\_04\_12\_Amb\_Tem\_23.7\_Liq\_Tem\_22.8C

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

Communication System: CW; Frequency: 1800 MHz

Medium parameters used:  $f = 1800$  MHz;  $\sigma = 1.431$  S/m;  $\epsilon_r = 38.656$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.23, 5.23, 5.23); Calibrated: 1/11/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.0(692); SEMCAD X 14.6.8(7028)

**Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1):** Interpolated

grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 185.2 V/m; Power Drift = 0.00 dB

**Fast SAR: SAR(1 g) = 37.2 W/kg; SAR(10 g) = 20.2 W/kg**

Maximum value of SAR (interpolated) = 45.8 W/kg

**Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube**

**0:** Measurement grid:  $dx=7.5$ mm,  $dy=7.5$ mm,  $dz=5$ mm

Reference Value = 185.2 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 67.5 W/kg

**SAR(1 g) = 36.6 W/kg; SAR(10 g) = 19 W/kg**

Maximum value of SAR (measured) = 47.0 W/kg

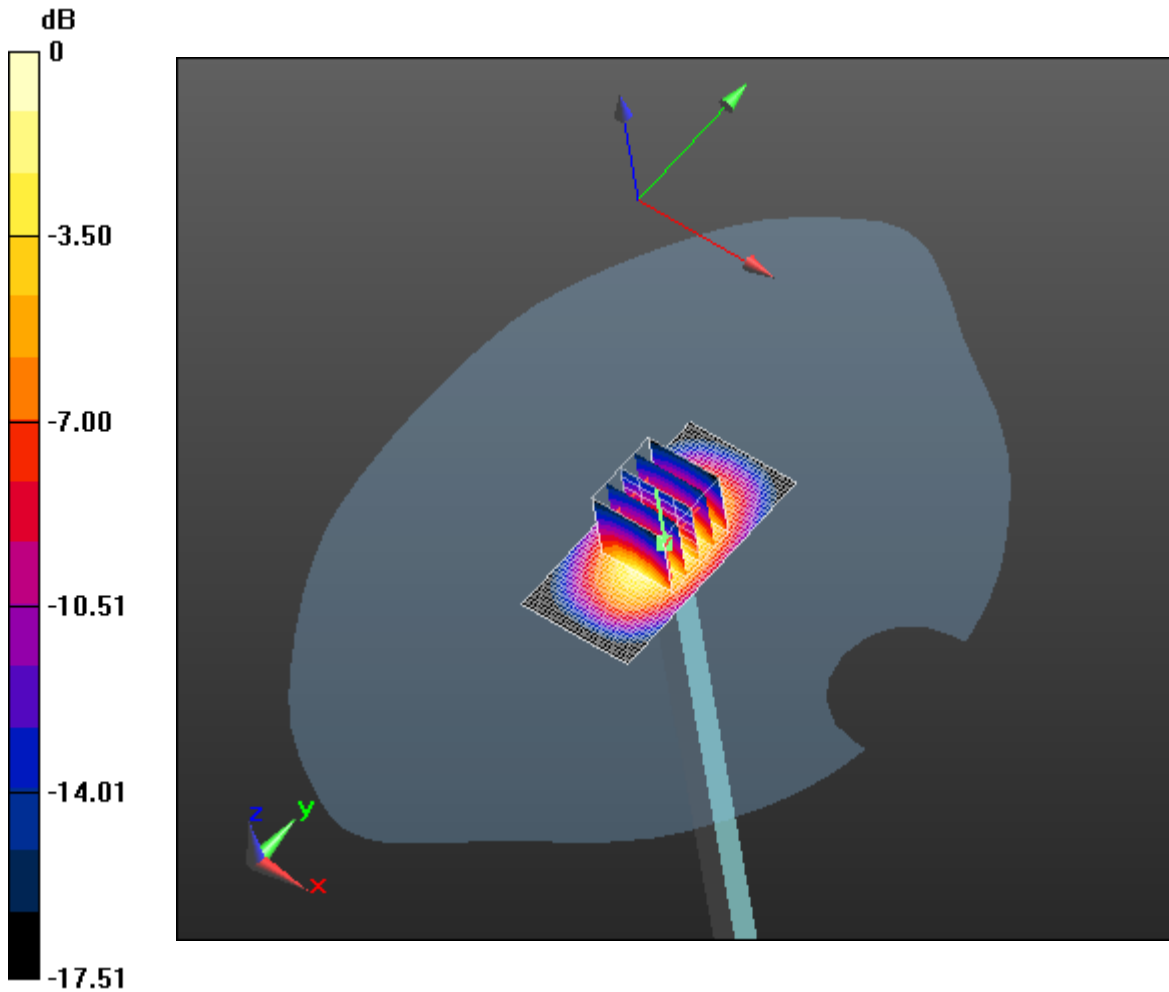
Author Data  
**Andrew Becker**

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0 dB = 47.0 W/kg = 16.72 dBW/kg

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Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 12/6/2012 7:04:11 PM

Test Laboratory: RIM Testing Services

## DipoleValidation\_1800MHz\_12\_06\_12\_Amb\_Tem\_24.1\_Liq\_Tem\_22.4C

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

Communication System: CW; Frequency: 1800 MHz

Medium parameters used:  $f = 1800$  MHz;  $\sigma = 1.445$  mho/m;  $\epsilon_r = 40.361$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.23, 5.23, 5.23); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.0(692); SEMCAD X 14.6.4(4989)

**Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1):** Measurement

grid:  $dx=15$ mm,  $dy=15$ mm

Reference Value = 186.7 V/m; Power Drift = -0.0052 dB

**Fast SAR: SAR(1 g) = 38.1 mW/g; SAR(10 g) = 20.7 mW/g**

Maximum value of SAR (interpolated) = 46.962 mW/g

**Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube**

**0:** Measurement grid:  $dx=7.5$ mm,  $dy=7.5$ mm,  $dz=5$ mm

Reference Value = 186.7 V/m; Power Drift = -0.0052 dB

Peak SAR (extrapolated) = 68.4310

**SAR(1 g) = 37.4 mW/g; SAR(10 g) = 19.5 mW/g**

Maximum value of SAR (measured) = 47.538 mW/g

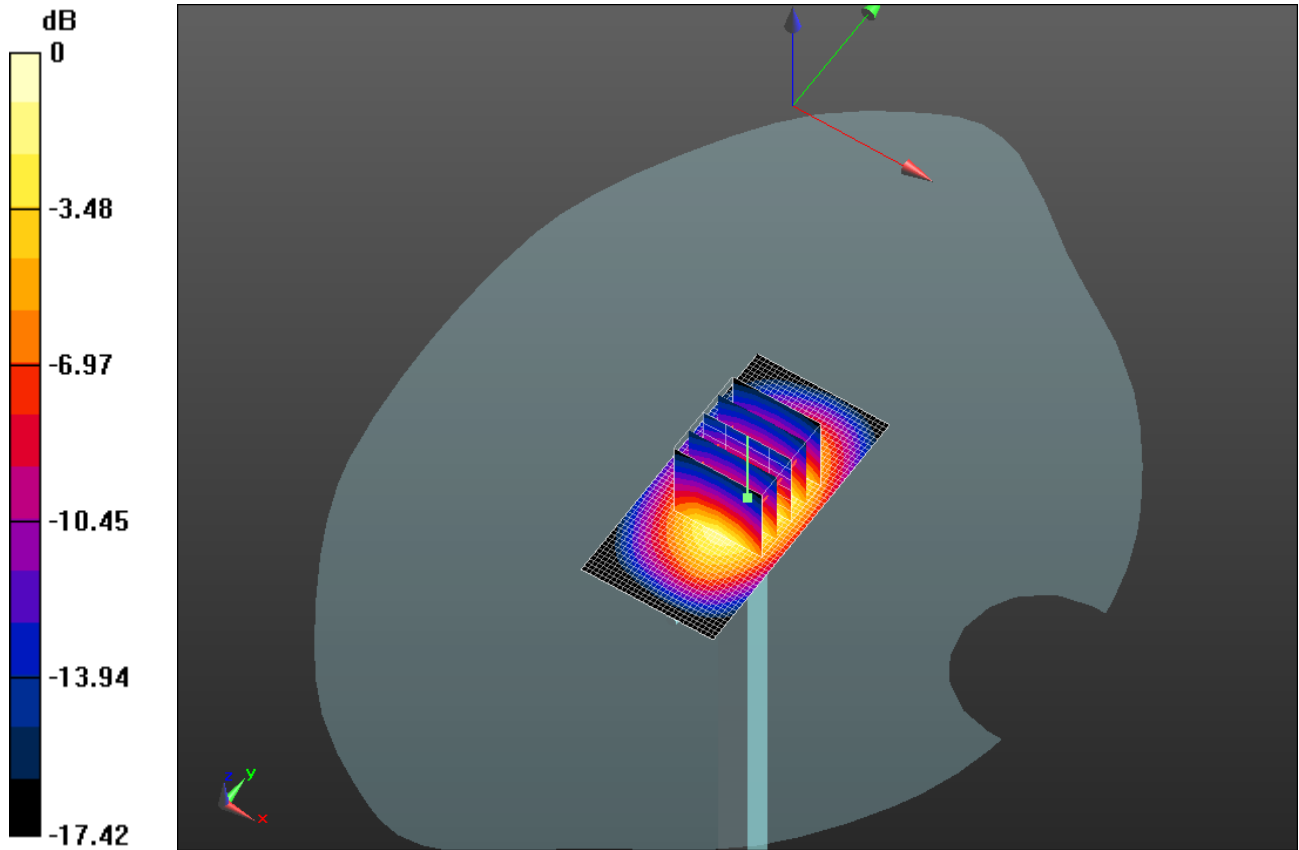
Author Data  
**Andrew Becker**

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0 dB = 47.540mW/g = 33.54 dB mW/g

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Date/Time: 1/31/2013 10:54:11 AM

Test Laboratory: RIM Testing Services

## DipoleValidation\_1800MHz\_01\_31\_13

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

Communication System: CW; Frequency: 1800 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used:  $f = 1800 \text{ MHz}$ ;  $\sigma = 1.467 \text{ S/m}$ ;  $\epsilon_r = 38.22$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ET3DV6 - SN1644; ConvF(5.21, 5.21, 5.21); Calibrated: 11/13/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 2.7, 32.7$
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.4(1052); SEMCAD X 14.6.8(7028)

**Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Reference Value = 175.9 V/m; Power Drift = -0.00 dB

**Fast SAR: SAR(1 g) = 36.8 W/kg; SAR(10 g) = 20.1 W/kg**

Maximum value of SAR (interpolated) = 41.1 W/kg

**Configuration/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 = 175.9 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 60.8 W/kg

**SAR(1 g) = 35.9 W/kg; SAR(10 g) = 19.1 W/kg**

Maximum value of SAR (measured) = 40.6 W/kg

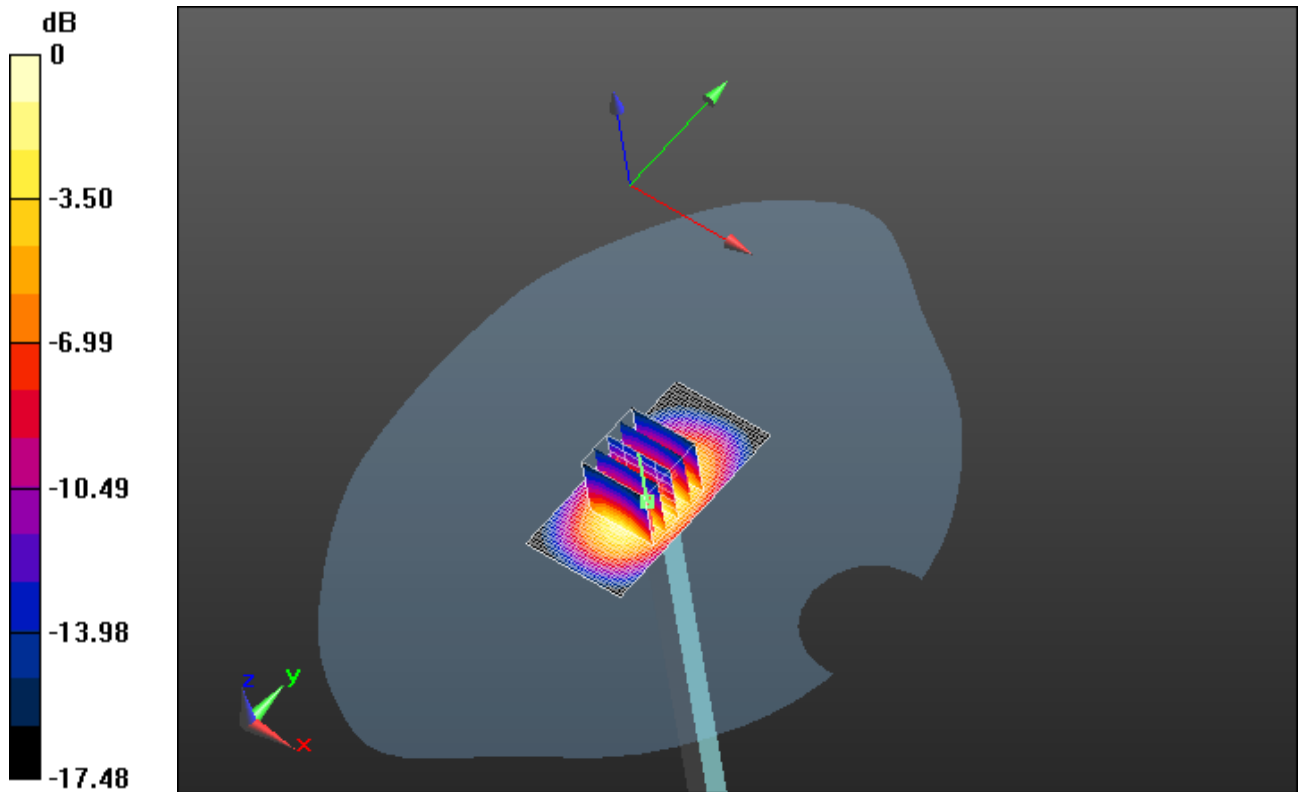
Author Data  
**Andrew Becker**

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0 dB = 40.6 W/kg = 16.09 dBW/kg

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Date/Time: 11/22/2012 11:24:28 AM

Test Laboratory: RIM Testing Services

## DipoleValidation\_1900MHz\_11\_22\_12\_Amb\_Tem\_23.9\_Liq\_Tem\_22.8C

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

Communication System: CW; Frequency: 1900 MHz

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.379$  S/m;  $\epsilon_r = 38.453$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.23, 5.23, 5.23); Calibrated: 1/11/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.0(692); SEMCAD X 14.6.8(7028)

**Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1):** Interpolated

grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 194.5 V/m; Power Drift = -0.02 dB

**Fast SAR: SAR(1 g) = 38.9 W/kg; SAR(10 g) = 20.6 W/kg**

Maximum value of SAR (interpolated) = 48.8 W/kg

**Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube**

**0:** Measurement grid:  $dx=7.5$ mm,  $dy=7.5$ mm,  $dz=5$ mm

Reference Value = 194.5 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 70.1 W/kg

**SAR(1 g) = 38.5 W/kg; SAR(10 g) = 20.1 W/kg**

Maximum value of SAR (measured) = 49.1 W/kg



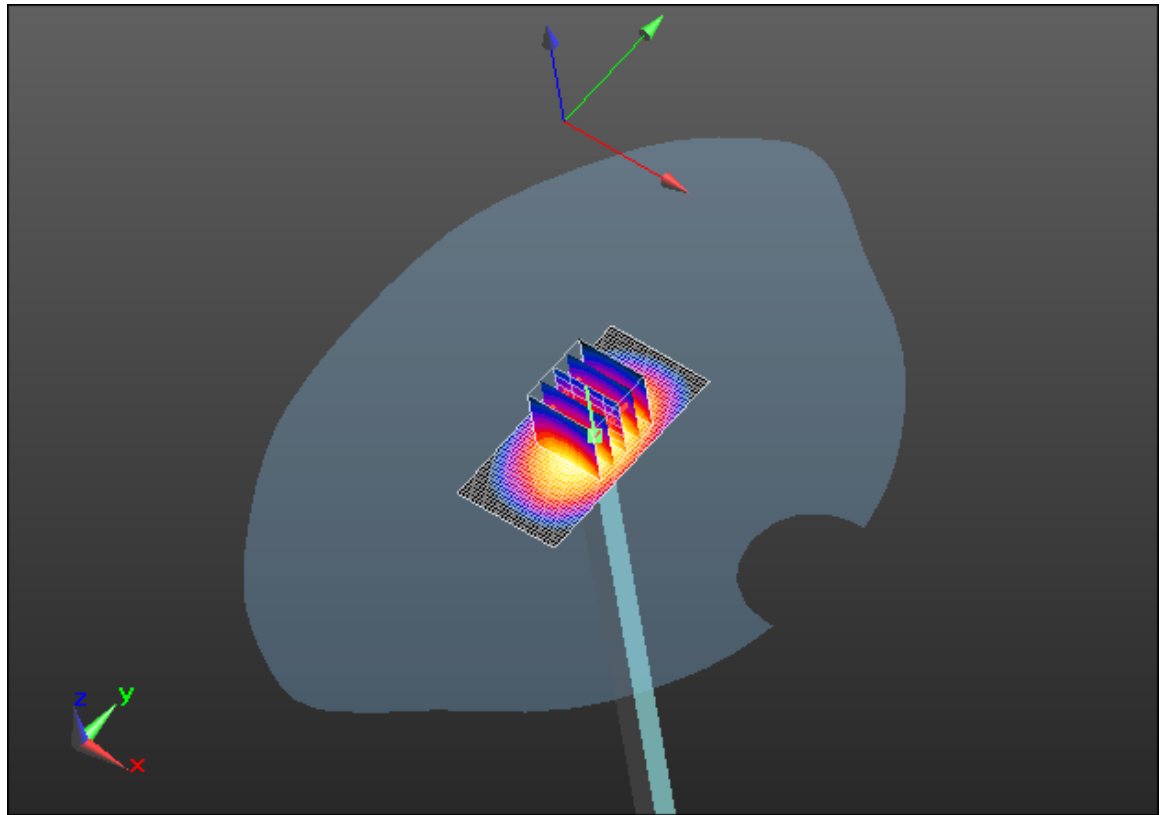
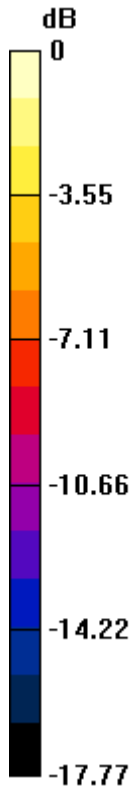
Author Data  
**Andrew Becker**

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0 dB = 49.1 W/kg = 16.91 dBW/kg

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Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 11/26/2012 10:01:06 AM

Test Laboratory: RIM Testing Services

## DipoleValidation\_1900MHz\_11\_26\_12\_Amb\_Tem\_24.3\_Liq\_Tem\_22.6C

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

Communication System: CW; Frequency: 1900 MHz

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.364$  S/m;  $\epsilon_r = 38.889$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.23, 5.23, 5.23); Calibrated: 1/11/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.0(692); SEMCAD X 14.6.8(7028)

**Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1):** Interpolated

grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 193.8 V/m; Power Drift = 0.04 dB

**Fast SAR: SAR(1 g) = 38.8 W/kg; SAR(10 g) = 20.5 W/kg**

Maximum value of SAR (interpolated) = 48.6 W/kg

**Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube**

**0:** Measurement grid:  $dx=7.5$ mm,  $dy=7.5$ mm,  $dz=5$ mm

Reference Value = 193.8 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 69.0 W/kg

**SAR(1 g) = 38.3 W/kg; SAR(10 g) = 20 W/kg**

Maximum value of SAR (measured) = 48.6 W/kg

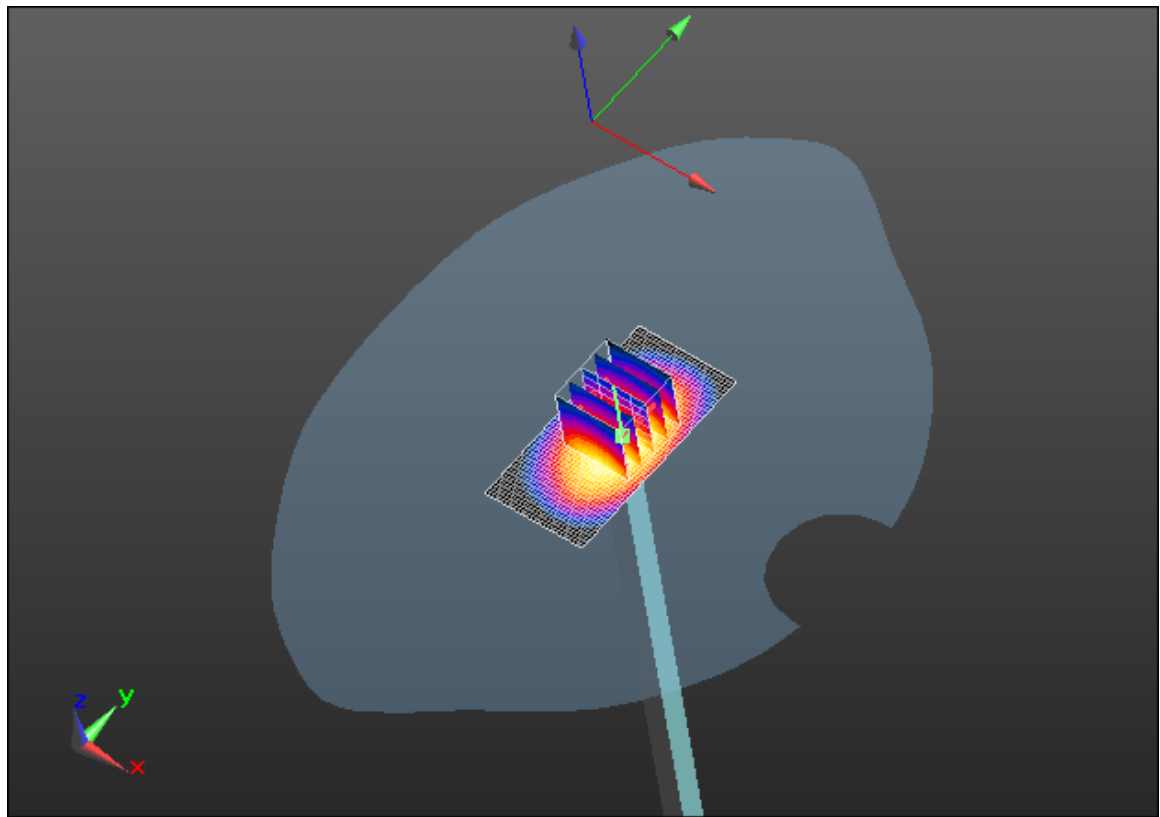
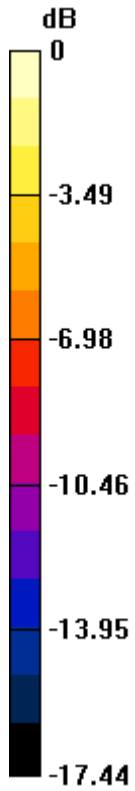
Author Data  
**Andrew Becker**

Dates of Test  
**Nov 22 2012 – Feb 28 2013**


Test Report No  
**RTS-6026-1302-13**

FCC ID:  
**L6ARFL110LW**

IC  
**2503A-RFL110LW**



0 dB = 48.6 W/kg = 16.87 dBW/kg

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Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 1/24/2013 9:17:21 PM

Test Laboratory: RIM Testing Services

## DipoleValidation\_1900MHz\_01\_24\_13\_R2

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d075**

Communication System: CW; Communication System Band: CW; Frequency: 1900 MHz; Communication System PAR: 0 dB; PMF: 1  
Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.389$  S/m;  $\epsilon_r = 38.653$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ET3DV6 - SN1644; ConvF(5.21, 5.21, 5.21); Calibrated: 11/13/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 2.7, 32.7$
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.4(1052); SEMCAD X 14.6.8(7028)

**Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
Reference Value = 184.4 V/m; Power Drift = -0.11 dB  
**Fast SAR: SAR(1 g) = 38.3 W/kg; SAR(10 g) = 20.3 W/kg**  
Maximum value of SAR (interpolated) = 43.3 W/kg

**Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0:** Measurement grid:  $dx=7.5$ mm,  $dy=7.5$ mm,  $dz=5$ mm  
Reference Value = 184.4 V/m; Power Drift = -0.11 dB  
Peak SAR (extrapolated) = 62.1 W/kg  
**SAR(1 g) = 36.9 W/kg; SAR(10 g) = 19.6 W/kg**  
Maximum value of SAR (measured) = 42.0 W/kg

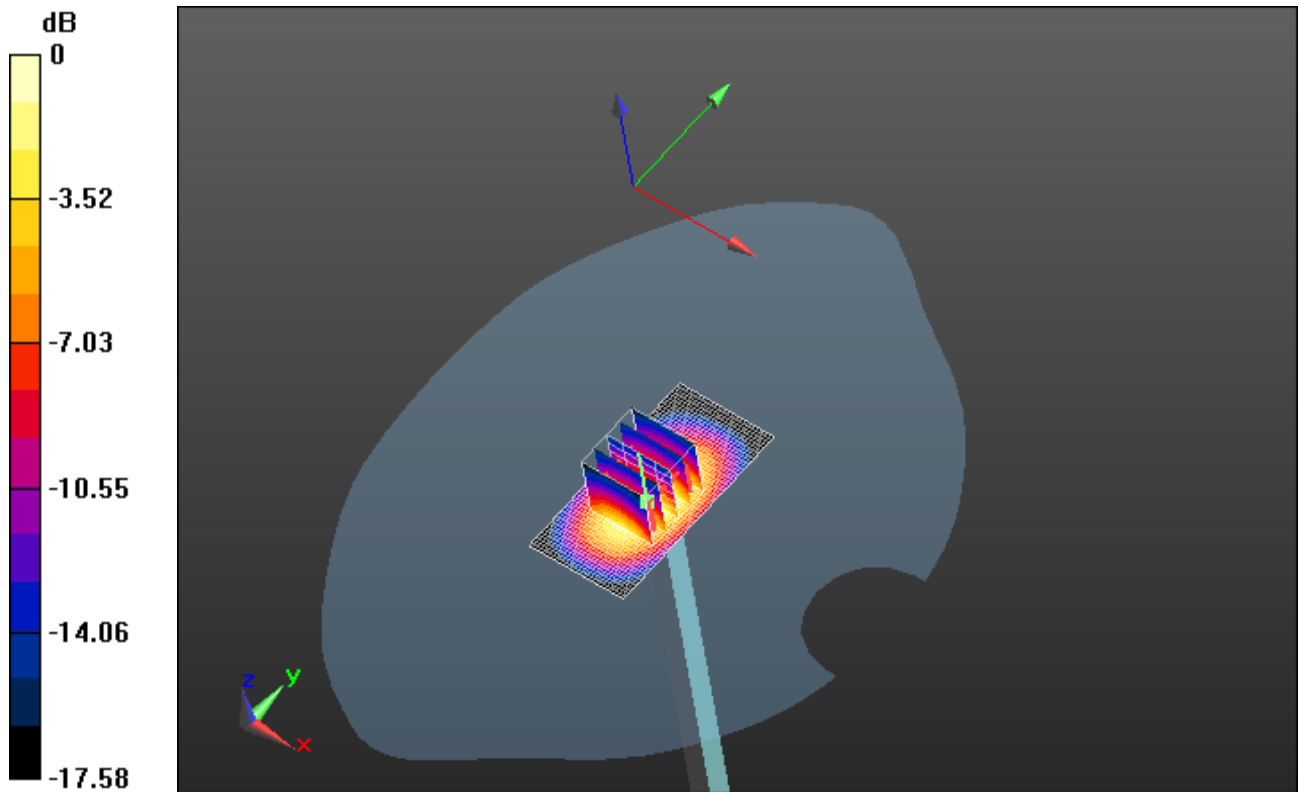
Author Data  
**Andrew Becker**

Dates of Test  
**Nov 22 2012 – Feb 28 2013**


Test Report No  
**RTS-6026-1302-13**

FCC ID:  
**L6ARFL110LW**

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0 dB = 42.0 W/kg = 16.23 dBW/kg

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Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 1/28/2013 9:36:48 AM

Test Laboratory: RIM Testing Services

## DipoleValidation\_1900MHz\_01\_28\_13

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d075**

Communication System: CW; Communication System Band: CW; Frequency: 1900 MHz; Communication System PAR: 0 dB; PMF: 1  
Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.38$  S/m;  $\epsilon_r = 38.322$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ET3DV6 - SN1644; ConvF(5.21, 5.21, 5.21); Calibrated: 11/13/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 2.7, 32.7$
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.4(1052); SEMCAD X 14.6.8(7028)

**Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
Reference Value = 185.6 V/m; Power Drift = -0.04 dB  
**Fast SAR: SAR(1 g) = 38.2 W/kg; SAR(10 g) = 20.4 W/kg**  
Maximum value of SAR (interpolated) = 43.0 W/kg

**Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0:** Measurement grid:  $dx=7.5$ mm,  $dy=7.5$ mm,  $dz=5$ mm  
Reference Value = 185.6 V/m; Power Drift = -0.04 dB  
Peak SAR (extrapolated) = 60.5 W/kg  
**SAR(1 g) = 36.9 W/kg; SAR(10 g) = 19.9 W/kg**  
Maximum value of SAR (measured) = 41.7 W/kg

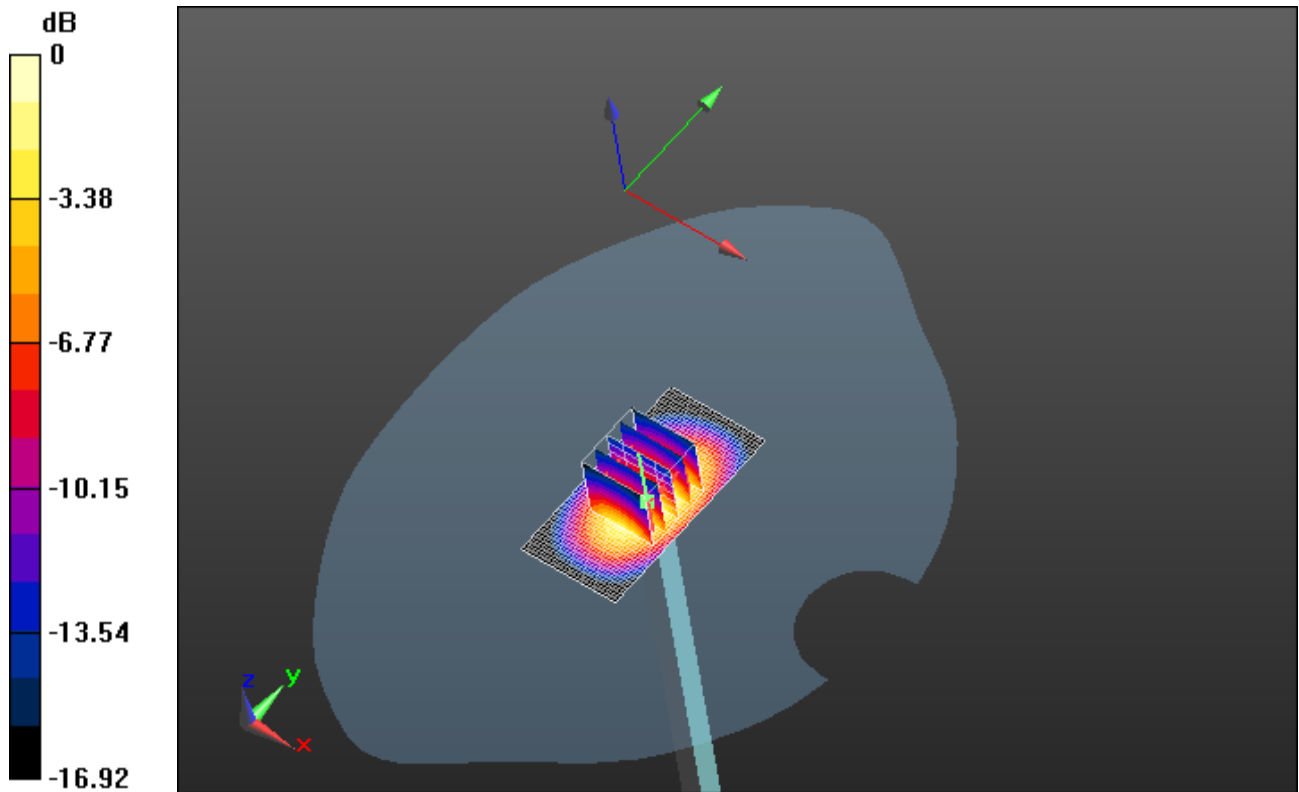
Author Data  
**Andrew Becker**

Dates of Test  
**Nov 22 2012 – Feb 28 2013**


Test Report No  
**RTS-6026-1302-13**

FCC ID:  
**L6ARFL110LW**

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0 dB = 41.7 W/kg = 16.20 dBW/kg

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Author Data	Dates of Test	Test Report No	FCC ID:	IC
Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 1/4/2013 4:53:05 PM

Test Laboratory: RIM Testing Services

## DipoleValidation\_2450MHz\_01\_04\_13\_Amb\_Tem\_24.1C\_Liq\_Tem\_21.5 C

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

Communication System: CW; Frequency: 2450 MHz

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.863$  S/m;  $\epsilon_r = 38.402$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ET3DV6 - SN1644; ConvF(4.6, 4.6, 4.6); Calibrated: 11/13/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 2.7, 32.7$
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.4(1052); SEMCAD X 14.6.8(7028)

**System Performance Check at Frequencies above 1 GHz/d=10mm,  
Pin=1000 mW, dist=4.0mm (ET-Probe)/Area Scan (51x61x1):** Interpolated  
grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
Reference Value = 134.8 V/m; Power Drift = -0.03 dB  
**Fast SAR: SAR(1 g) = 54.3 W/kg; SAR(10 g) = 24.5 W/kg**  
Maximum value of SAR (interpolated) = 63.7 W/kg

**System Performance Check at Frequencies above 1 GHz/d=10mm,  
Pin=1000 mW, dist=4.0mm (ET-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube  
0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm  
Reference Value = 134.8 V/m; Power Drift = -0.03 dB  
Peak SAR (extrapolated) = 120 W/kg  
**SAR(1 g) = 55.5 W/kg; SAR(10 g) = 25.9 W/kg**  
Maximum value of SAR (measured) = 61.6 W/kg



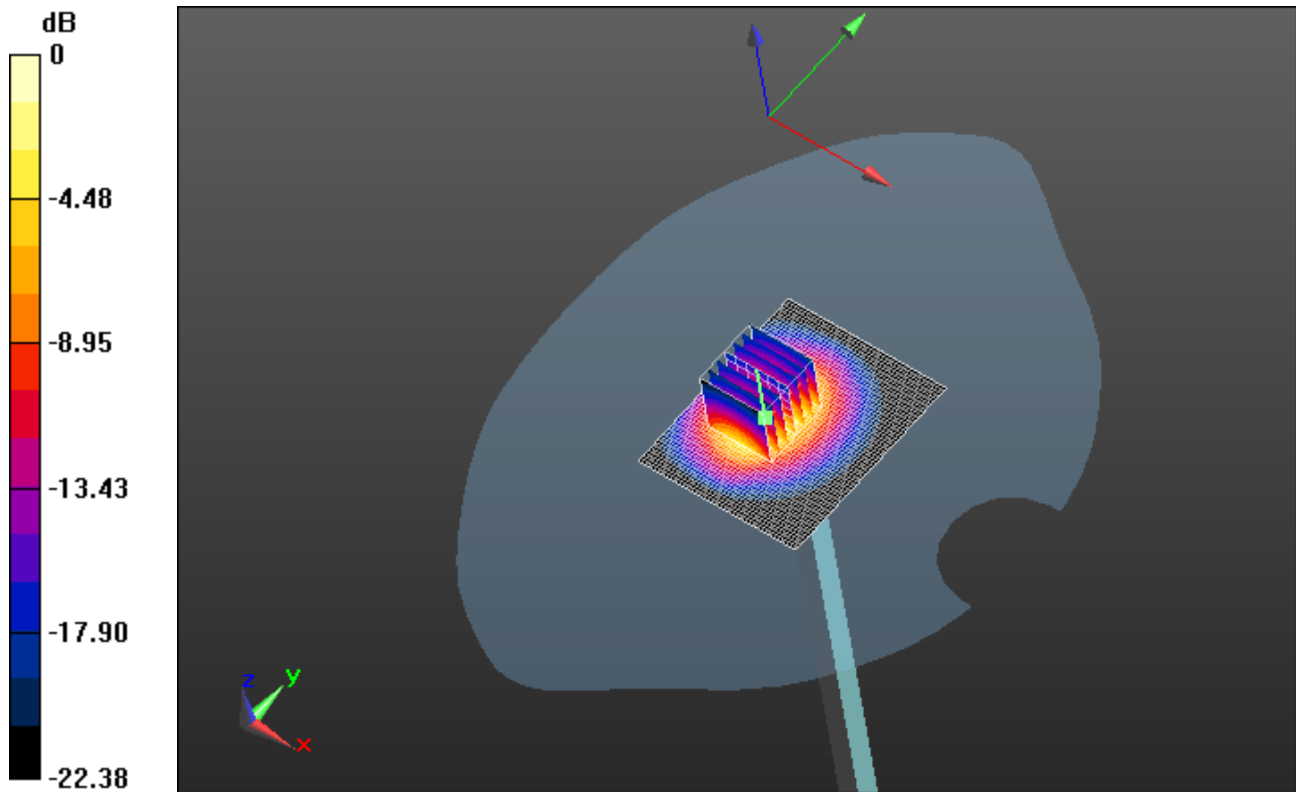
Author Data  
**Andrew Becker**

Dates of Test  
**Nov 22 2012 – Feb 28 2013**


Test Report No  
**RTS-6026-1302-13**

FCC ID:  
**L6ARFL110LW**

IC  
**2503A-RFL110LW**



0 dB = 63.7 W/kg = 18.04 dBW/kg

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Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 1/7/2013 9:59:30 AM

Test Laboratory: RIM Testing Services

## DipoleValidation\_2450MHz\_01\_07\_13\_Amb\_Tem\_23.7C\_Liq\_Tem\_22.3 C

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

Communication System: CW; Frequency: 2450 MHz

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.757$  S/m;  $\epsilon_r = 37.766$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ET3DV6 - SN1644; ConvF(4.6, 4.6, 4.6); Calibrated: 11/13/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 2.7, 32.7$
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.4(1052); SEMCAD X 14.6.8(7028)

**System Performance Check at Frequencies above 1 GHz/d=10mm,  
Pin=1000 mW, dist=4.0mm (ET-Probe)/Area Scan (51x61x1):** Interpolated  
grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 194.2 V/m; Power Drift = 0.01 dB

**Fast SAR: SAR(1 g) = 56.5 W/kg; SAR(10 g) = 25.5 W/kg**

Maximum value of SAR (interpolated) = 73.6 W/kg

**System Performance Check at Frequencies above 1 GHz/d=10mm,  
Pin=1000 mW, dist=4.0mm (ET-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube**

**0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 194.2 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 117 W/kg

**SAR(1 g) = 54.9 W/kg; SAR(10 g) = 25.9 W/kg**

Maximum value of SAR (measured) = 60.7 W/kg

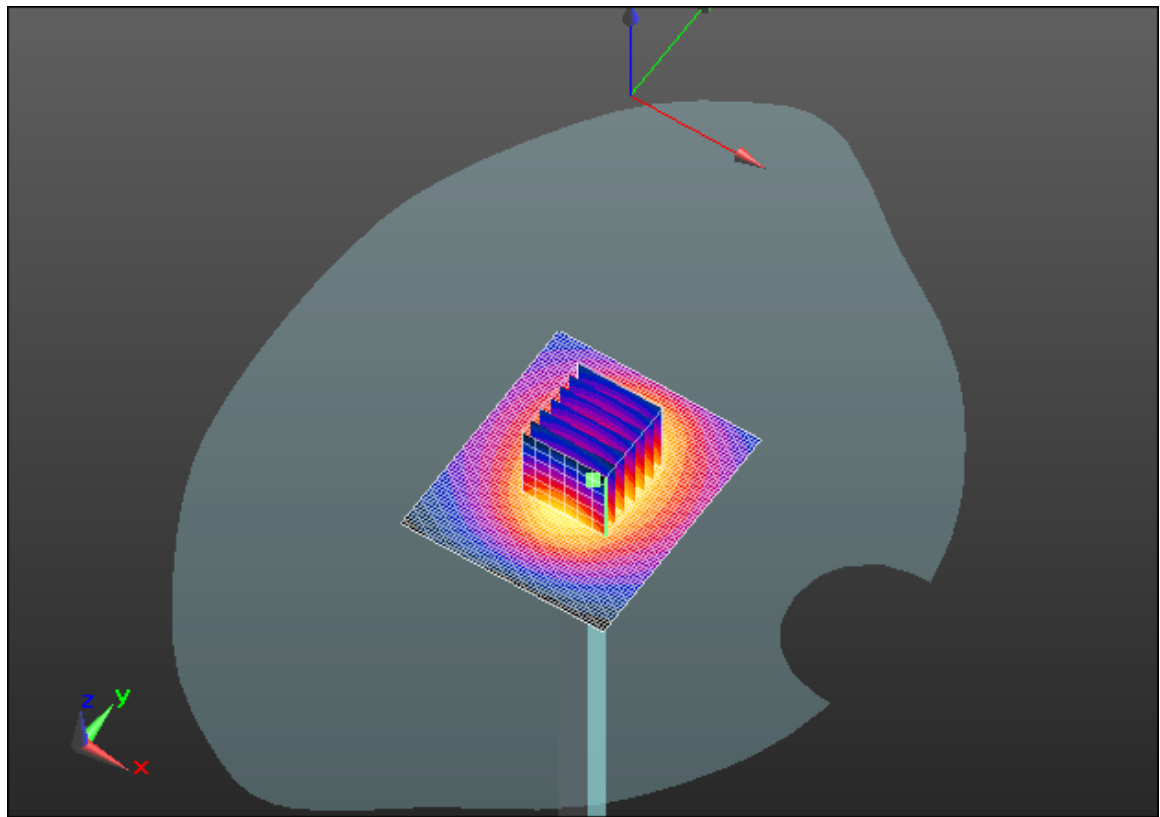
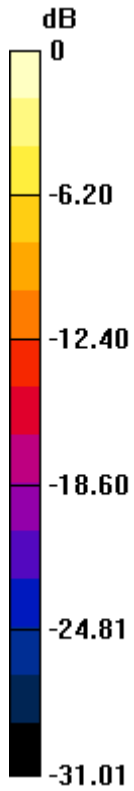
Author Data  
**Andrew Becker**

Dates of Test  
**Nov 22 2012 – Feb 28 2013**


Test Report No  
**RTS-6026-1302-13**

FCC ID:  
**L6ARFL110LW**

IC  
**2503A-RFL110LW**



0 dB = 73.6 W/kg = 18.67 dBW/kg

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Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 1/21/2013 9:29:55 AM

Test Laboratory: RIM Testing Services

## DipoleValidation\_2450MHz\_01\_21\_13

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

Communication System: CW; Communication System Band: D2450 (2450.0 MHz);  
Frequency: 2450 MHz; Communication System PAR: 0 dB; PMF: 1  
Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.761$  S/m;  $\epsilon_r = 37.375$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ET3DV6 - SN1644; ConvF(4.6, 4.6, 4.6); Calibrated: 11/13/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 2.7, 32.7$
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.4(1052); SEMCAD X 14.6.8(7028)

**System Performance Check at Frequencies above 1 GHz/d=10mm,  
Pin=1000 mW, dist=4.0mm (ET-Probe)/Area Scan (51x61x1):** Interpolated  
grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
Reference Value = 188.5 V/m; Power Drift = -0.11 dB  
**Fast SAR: SAR(1 g) = 52.1 W/kg; SAR(10 g) = 24.7 W/kg**  
Maximum value of SAR (interpolated) = 67.7 W/kg

**System Performance Check at Frequencies above 1 GHz/d=10mm,  
Pin=1000 mW, dist=4.0mm (ET-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube  
0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm  
Reference Value = 188.5 V/m; Power Drift = -0.11 dB  
Peak SAR (extrapolated) = 108 W/kg  
**SAR(1 g) = 50.9 W/kg; SAR(10 g) = 24.1 W/kg**  
Maximum value of SAR (measured) = 56.7 W/kg

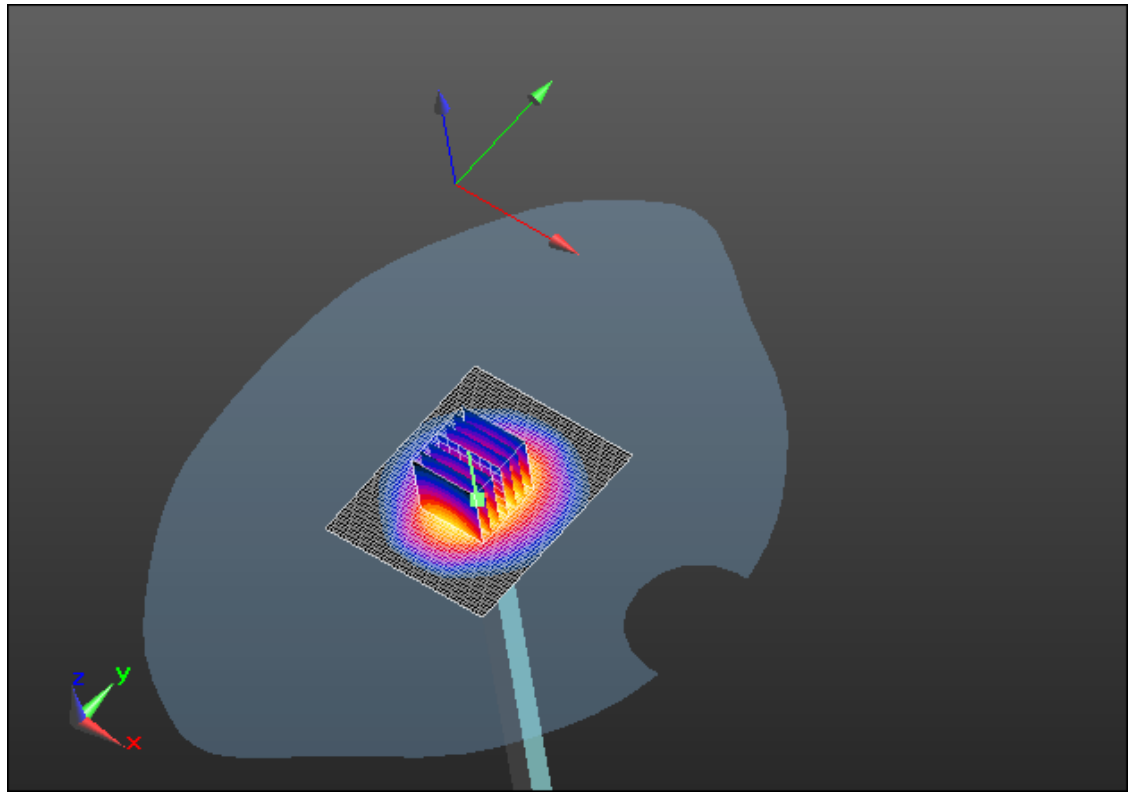
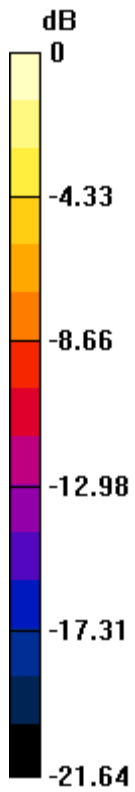
Author Data  
**Andrew Becker**

Dates of Test  
**Nov 22 2012 – Feb 28 2013**


Test Report No  
**RTS-6026-1302-13**

FCC ID:  
**L6ARFL110LW**

IC  
**2503A-RFL110LW**



0 dB = 56.7 W/kg = 17.54 dBW/kg

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Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 2/27/2013 7:27:44 PM

Test Laboratory: RIM Testing Services

DipoleValidation\_2450MHz\_02\_27\_13\_Amb\_Tem\_24.0C\_Liq\_Tem\_20.5

C

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

Communication System: CW; Frequency: 2450 MHz

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.783$  S/m;  $\epsilon_r = 37.687$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.65, 4.65, 4.65); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.4(1052); SEMCAD X 14.6.8(7028)

**System Performance Check at Frequencies above 1 GHz/d=10mm,  
Pin=1000 mW, dist=3.0mm (ES-Probe)/Area Scan (61x71x1):** Interpolated  
grid: dx=1.200 mm, dy=1.200 mm

Reference Value = 201.8 V/m; Power Drift = 0.03 dB

**Fast SAR: SAR(1 g) = 50.4 W/kg; SAR(10 g) = 22.4 W/kg**

Maximum value of SAR (interpolated) = 69.3 W/kg

**System Performance Check at Frequencies above 1 GHz/d=10mm,  
Pin=1000 mW, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube**

**0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 201.8 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 98.9 W/kg

**SAR(1 g) = 49.6 W/kg; SAR(10 g) = 23.2 W/kg**

Maximum value of SAR (measured) = 64.7 W/kg

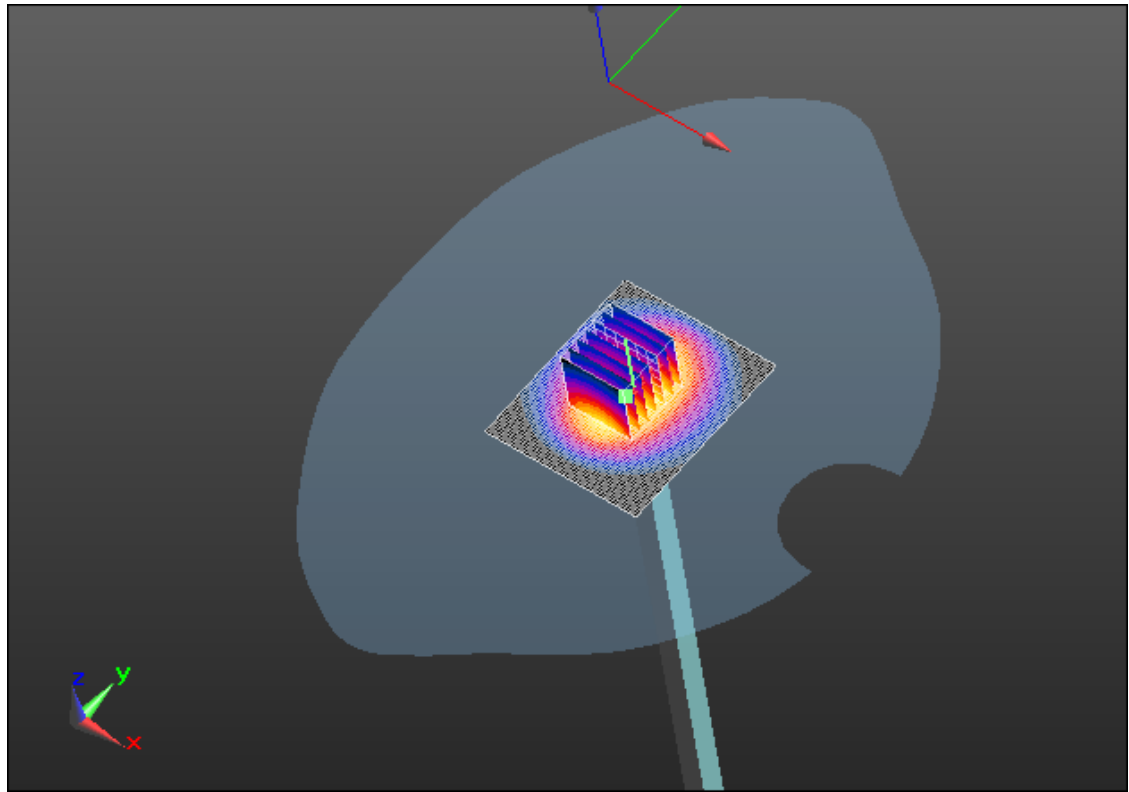
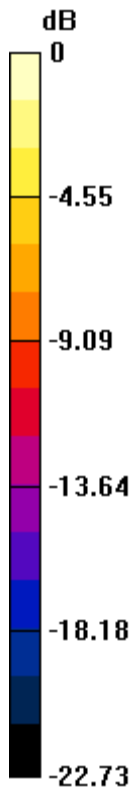
Author Data  
**Andrew Becker**

Dates of Test  
**Nov 22 2012 – Feb 28 2013**


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0 dB = 64.7 W/kg = 18.11 dBW/kg

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Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 1/14/2013 3:37:52 PM

Test Laboratory: RIM Testing Services

## Dipole Validation\_5200 MHz\_01\_14\_13

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1033**

Communication System: CW; Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5200 MHz; Communication

Medium parameters used:  $f = 5200$  MHz;  $\sigma = 4.66$  S/m;  $\epsilon_r = 34.349$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF(4.73, 4.73, 4.73); Calibrated: 11/14/2012;
- Sensor-Surface: 2mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.4(1052); SEMCAD X 14.6.8(7028)

**System Performance Check with D5GHzV2 Dipole/d=10mm, Pin=1000 mW, f=5200 MHz/Area Scan (41x51x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 199.9 V/m; Power Drift = -0.00 dB

**Fast SAR: SAR(1 g) = 80.9 W/kg; SAR(10 g) = 22.5 W/kg**

Maximum value of SAR (interpolated) = 191 W/kg

**System Performance Check with D5GHzV2 Dipole/d=10mm, Pin=1000 mW, f=5200 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 199.9 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 327 W/kg

**SAR(1 g) = 83.5 W/kg; SAR(10 g) = 24.2 W/kg**

Maximum value of SAR (measured) = 172 W/kg



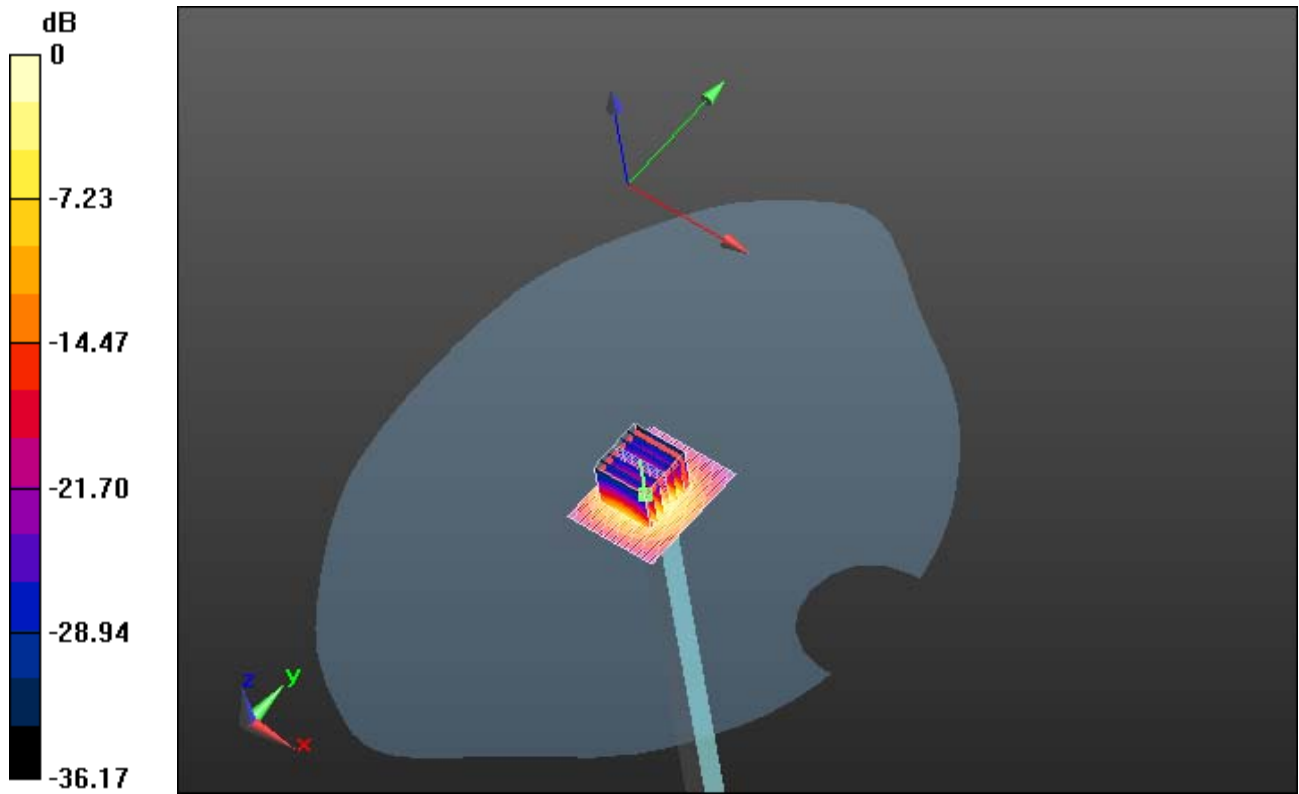
Author Data  
**Andrew Becker**

Dates of Test  
**Nov 22 2012 – Feb 28 2013**


Test Report No  
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FCC ID:  
**L6ARFL110LW**

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**2503A-RFL110LW**



0 dB = 172 W/kg = 22.36 dBW/kg

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Author Data	Dates of Test	Test Report No	FCC ID:	IC
Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 2/25/2013 5:10:38 PM

Test Laboratory: RIM Testing Services

## Dipole

Validation\_5200MHz\_02\_25\_13\_Amb\_Tem\_24.3\_Liq\_Tem\_21.7C

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1033**

Communication System: CW; Frequency: 5200 MHz

Medium parameters used:  $f = 5200$  MHz;  $\sigma = 4.746$  S/m;  $\epsilon_r = 34.675$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF(4.73, 4.73, 4.73); Calibrated: 11/14/2012;
- Sensor-Surface: 2mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.4(1052); SEMCAD X 14.6.8(7028)

**System Performance Check with D5GHzV2 Dipole/d=10mm, Pin=1000 mW, f=5200 MHz/Area Scan (41x51x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 197.8 V/m; Power Drift = -0.05 dB

**Fast SAR: SAR(1 g) = 75.2 W/kg; SAR(10 g) = 20.6 W/kg**

Maximum value of SAR (interpolated) = 179 W/kg

**System Performance Check with D5GHzV2 Dipole/d=10mm, Pin=1000 mW, f=5200 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (9x9x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 197.8 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 301 W/kg

**SAR(1 g) = 77.5 W/kg; SAR(10 g) = 22.4 W/kg**

Maximum value of SAR (measured) = 160 W/kg

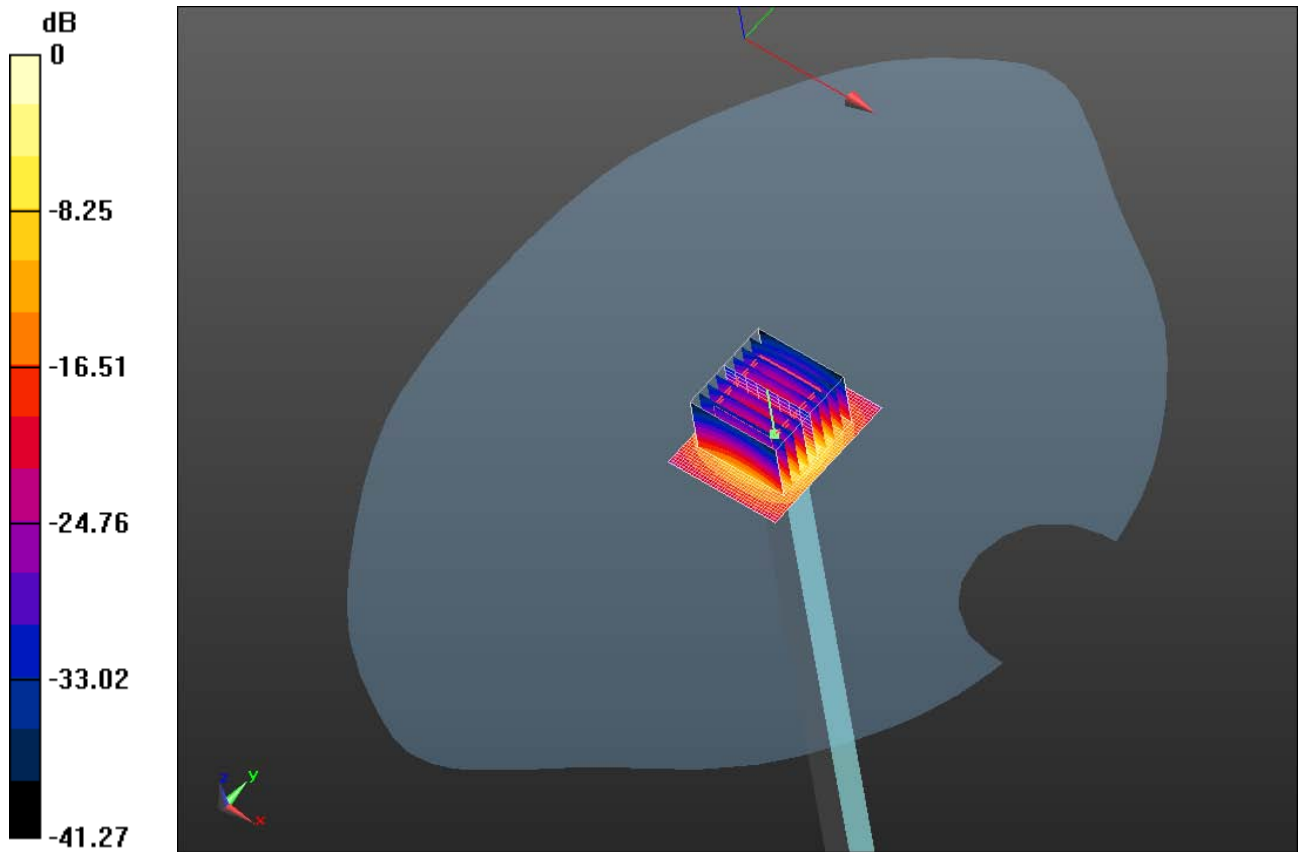
Author Data  
**Andrew Becker**

Dates of Test  
**Nov 22 2012 – Feb 28 2013**


Test Report No  
**RTS-6026-1302-13**

FCC ID:  
**L6ARFL110LW**

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**2503A-RFL110LW**



0 dB = 160 W/kg = 22.04 dBW/kg

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Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 1/14/2013 3:13:34 PM

Test Laboratory: RIM Testing Services

## Dipole Validation\_5500 MHz\_01\_14\_13

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1033**

Communication System: CW-5GHz; Frequency: 5500 MHz; Communication System

PAR: 0 dB; PMF: 1

Medium parameters used:  $f = 5500$  MHz;  $\sigma = 5.102$  S/m;  $\epsilon_r = 34.159$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF(4.28, 4.28, 4.28); Calibrated: 11/14/2012;
- Sensor-Surface: 2mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.4(1052); SEMCAD X 14.6.8(7028)

### System Performance Check with D5GHzV2 Dipole $2/d=10$ mm,

**Pin=1000mW,  $f=5500$  MHz/Area Scan (41x51x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Reference Value = 208.5 V/m; Power Drift = -0.05 dB

**Fast SAR: SAR(1 g) = 89.9 W/kg; SAR(10 g) = 24.5 W/kg**

Maximum value of SAR (interpolated) = 217 W/kg

### System Performance Check with D5GHzV2 Dipole $2/d=10$ mm,

**Pin=1000mW,  $f=5500$  MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (7x7x12)/Cube 0:** Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=2$ mm

Reference Value = 208.5 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 413 W/kg

**SAR(1 g) = 93.9 W/kg; SAR(10 g) = 26.7 W/kg**

Maximum value of SAR (measured) = 194 W/kg

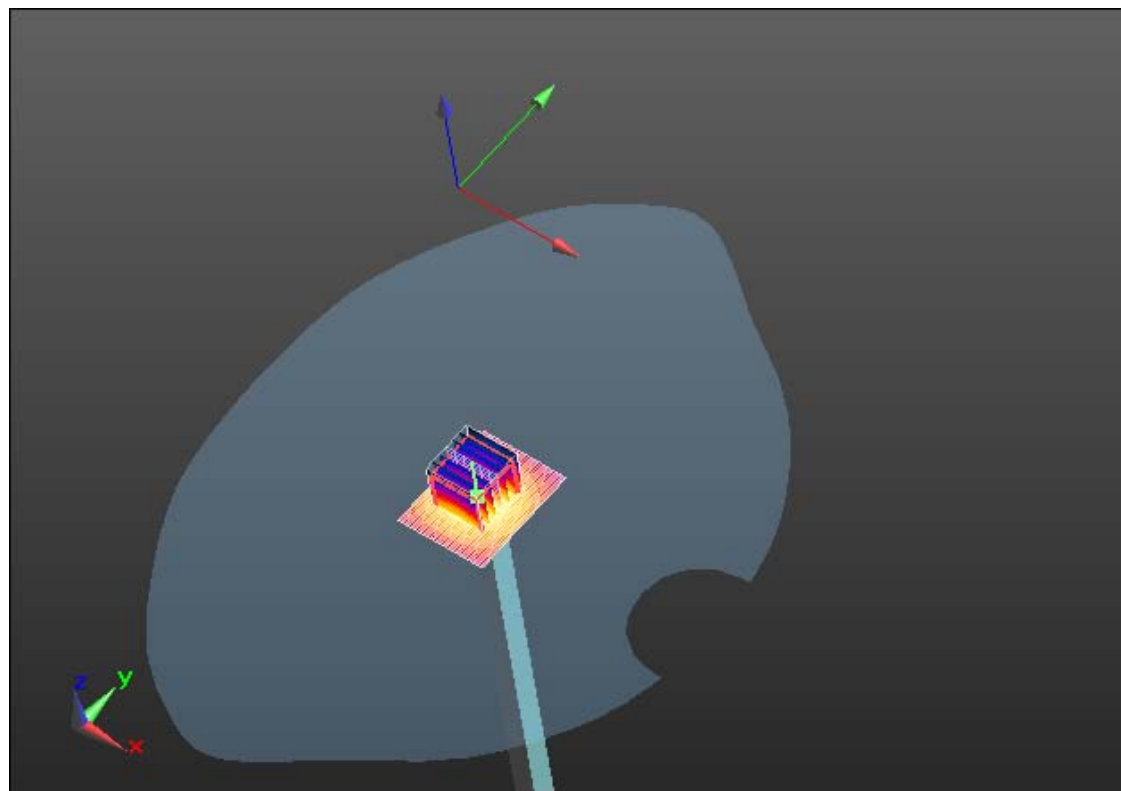
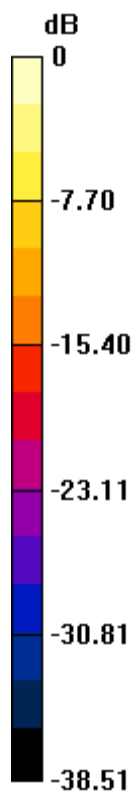
Author Data  
**Andrew Becker**

Dates of Test  
**Nov 22 2012 – Feb 28 2013**


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0 dB = 194 W/kg = 22.88 dBW/kg

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Date/Time: 2/25/2013 4:48:05 PM

Test Laboratory: RIM Testing Services

## Dipole

Validation\_5500MHz\_02\_25\_13\_Amb\_Tem\_24.3\_Liq\_Tem\_21.7C

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1033**

Communication System: CW-5GHz; Frequency: 5500 MHz

Medium parameters used:  $f = 5500$  MHz;  $\sigma = 5.128$  S/m;  $\epsilon_r = 34.559$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF(4.28, 4.28, 4.28); Calibrated: 11/14/2012;
- Sensor-Surface: 2mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.4(1052); SEMCAD X 14.6.8(7028)

### System Performance Check with D5GHzV2 Dipole 2/d=10mm,

**Pin=1000mW, f=5500 MHz/Area Scan (41x51x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 201.1 V/m; Power Drift = 0.00 dB

**Fast SAR: SAR(1 g) = 82.9 W/kg; SAR(10 g) = 22.3 W/kg**

Maximum value of SAR (interpolated) = 204 W/kg

### System Performance Check with D5GHzV2 Dipole 2/d=10mm,

**Pin=1000mW, f=5500 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 201.1 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 361 W/kg

**SAR(1 g) = 85.8 W/kg; SAR(10 g) = 24.5 W/kg**

Maximum value of SAR (measured) = 179 W/kg

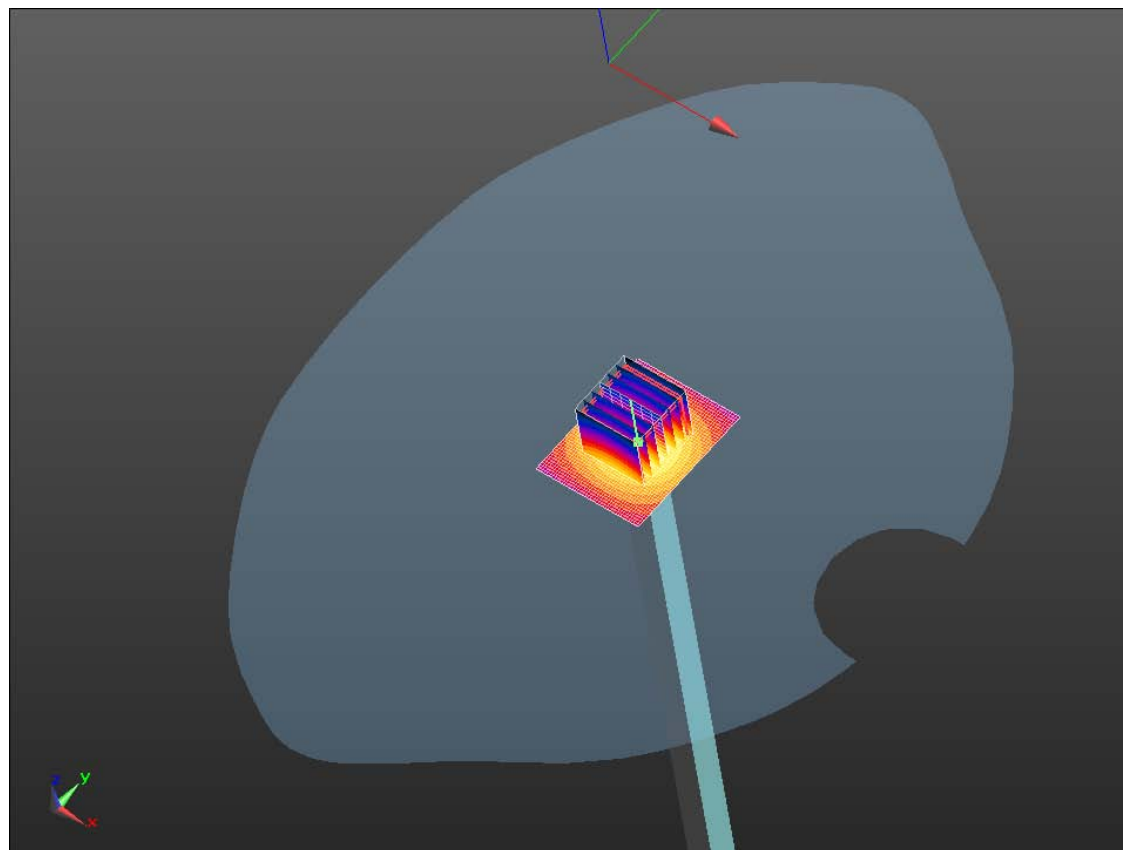
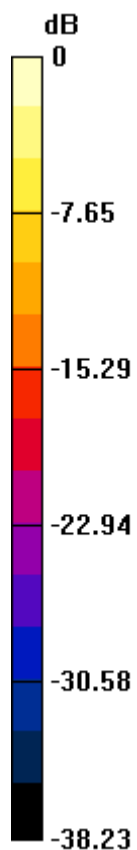
Author Data  
**Andrew Becker**

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**Nov 22 2012 – Feb 28 2013**


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0 dB = 179 W/kg = 22.53 dBW/kg

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Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 1/10/2013 7:55:51 PM

Test Laboratory: RIM Testing Services

## Dipole Validation\_5800 MHz\_01\_10\_13

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1033**

Communication System: CW-5GHz; Frequency: 5800 MHz; Communication System

PAR: 0 dB; PMF: 1

Medium parameters used:  $f = 5800$  MHz;  $\sigma = 5.504$  S/m;  $\epsilon_r = 34.728$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF(4.12, 4.12, 4.12); Calibrated: 11/14/2012;
- Sensor-Surface: 2mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.4(1052); SEMCAD X 14.6.8(7028)

### System Performance Check with D5GHzV2 Dipole/d=10mm,

**Pin=1000mW, f=5800 MHz/Area Scan (41x51x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 197.7 V/m; Power Drift = -0.01 dB

**Fast SAR: SAR(1 g) = 83 W/kg; SAR(10 g) = 22.3 W/kg**

Maximum value of SAR (interpolated) = 206 W/kg

### System Performance Check with D5GHzV2 Dipole/d=10mm,

**Pin=1000mW, f=5800 MHz/Zoom Scan -Ext(24x24x22), Step (4x4x2.0mm), dist=2mm (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 197.7 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 375 W/kg

**SAR(1 g) = 86.1 W/kg; SAR(10 g) = 24.4 W/kg**

Maximum value of SAR (measured) = 184 W/kg



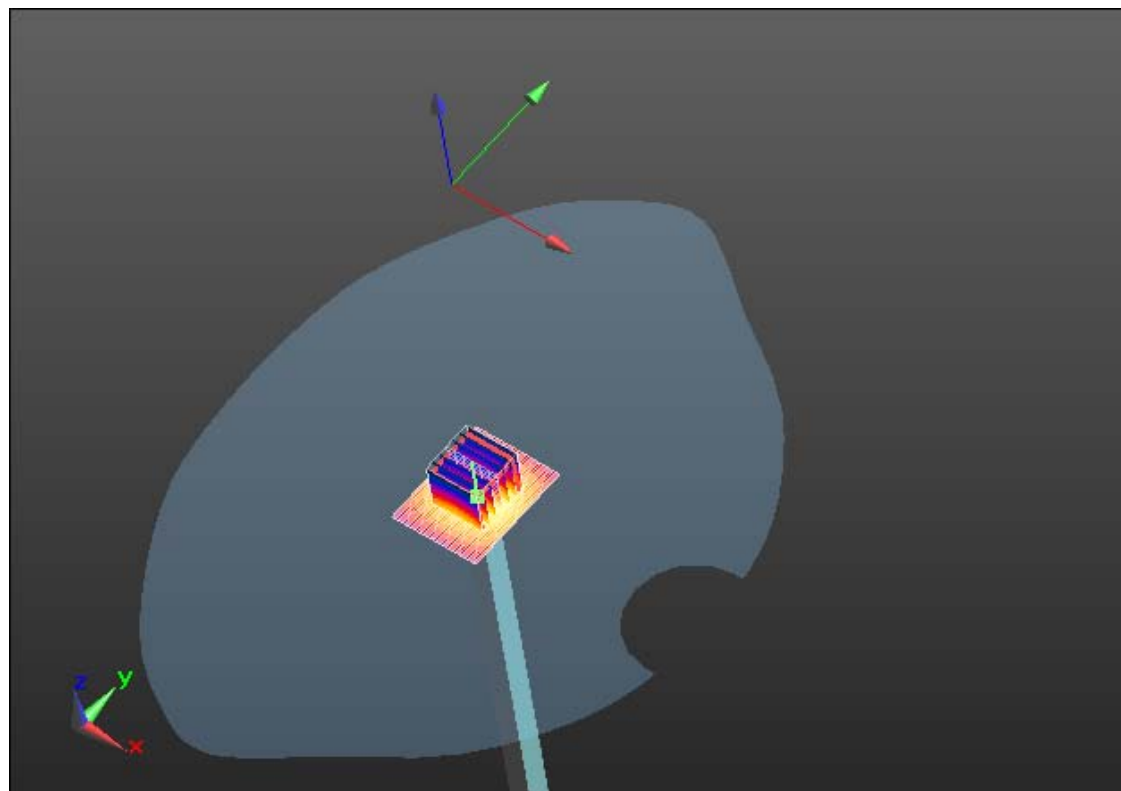
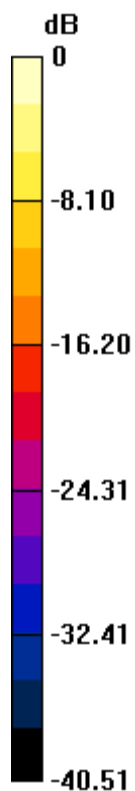
Author Data  
**Andrew Becker**

Dates of Test  
**Nov 22 2012 – Feb 28 2013**


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**RTS-6026-1302-13**

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0 dB = 184 W/kg = 22.65 dBW/kg

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Andrew Becker	Nov 22 2012 – Feb 28 2013	RTS-6026-1302-13	L6ARFL110LW	2503A-RFL110LW

Date/Time: 2/25/2013 4:26:43 PM

Test Laboratory: RIM Testing Services

## Dipole

Validation\_5800MHz\_02\_25\_13\_Amb\_Tem\_24.3\_Liq\_Tem\_21.7C

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1033**

Communication System: CW; Frequency: 5800 MHz

Medium parameters used:  $f = 5800$  MHz;  $\sigma = 5.446$  S/m;  $\epsilon_r = 33.979$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF(4.12, 4.12, 4.12); Calibrated: 11/14/2012;
- Sensor-Surface: 2mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.4(1052); SEMCAD X 14.6.8(7028)

**System Performance Check with D5GHzV2 Dipole 3/d=10mm, Pin=1000 mW, f=5800 MHz 02/19/2013/Area Scan (41x51x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 195.1 V/m; Power Drift = 0.13 dB

**Fast SAR: SAR(1 g) = 81 W/kg; SAR(10 g) = 21.8 W/kg**

Maximum value of SAR (interpolated) = 200 W/kg

**System Performance Check with D5GHzV2 Dipole 3/d=10mm, Pin=1000 mW, f=5800 MHz 02/19/2013/Zoom Scan -Ext(24x24x22), Step (4x4x2mm), dist=2mm (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 195.1 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 362 W/kg

**SAR(1 g) = 85.8 W/kg; SAR(10 g) = 24.4 W/kg**

Maximum value of SAR (measured) = 180 W/kg

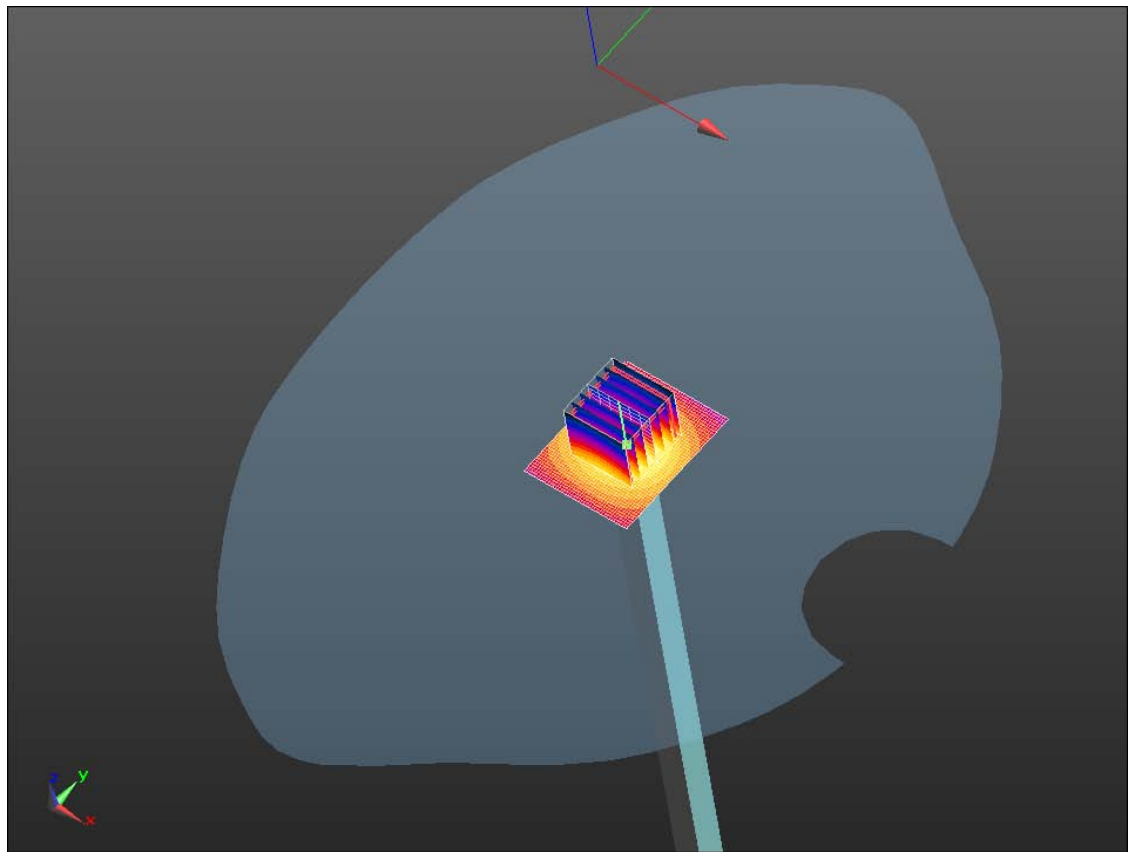
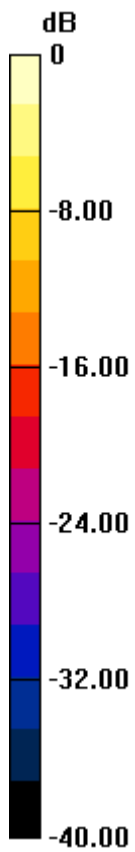
Author Data  
**Andrew Becker**

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0 dB = 180 W/kg = 22.55 dBW/kg