

	Document Appendix A for the BlackBerry® Smartphone Model REA71UW SAR Report			Page 1(21)
Author Data Andrew Becker	Dates of Test August 4 – September 29, 2011	Test Report No RTS-5316-1109-53	FCC ID: L6AREA70UW	IC ID 2503A-REA70UW

APPENDIX A: SAR DISTRIBUTION COMPARISON FOR ACCURACY VERIFICATION

	Document				Page
	Appendix A for the BlackBerry® Smartphone Model REA71UW SAR Report				2(21)
Author Data Andrew Becker	Dates of Test August 4 – September 29, 2011	Test Report No RTS-5316-1109-53	FCC ID: L6AREA70UW	IC ID 2503A-REA70UW	

Date/Time: 8/4/2011 8:56:41 PM, Date/Time: 8/4/2011 9:01:25 PM

Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_Amb_Tem_23.1_Liq_Tem_22.3C_08_04_11

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

Communication System: CW; Frequency: 835 MHz; Communication System PAR: 0 dB
Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.906 \text{ mho/m}$; $\epsilon_r = 41.129$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.47, 6.47, 6.47); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Measurement
grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 10.757 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube
0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 111.4 V/m; Power Drift = -0.0069 dB
Peak SAR (extrapolated) = 13.984 W/kg
SAR(1 g) = 9.17 mW/g; SAR(10 g) = 6 mW/g
Maximum value of SAR (measured) = 10.733 mW/g

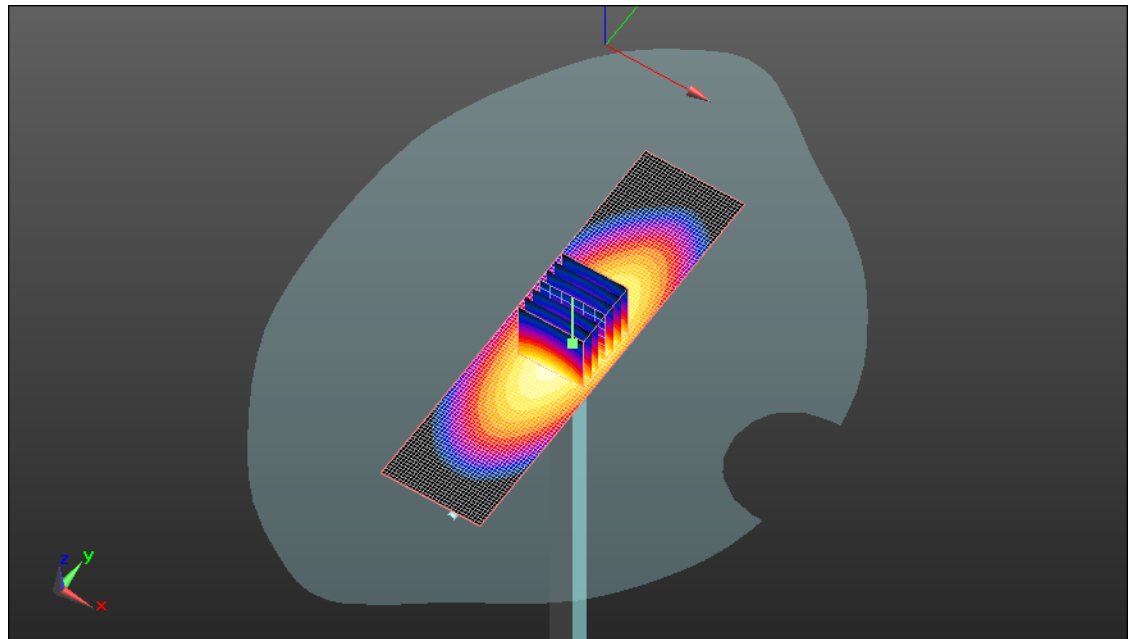
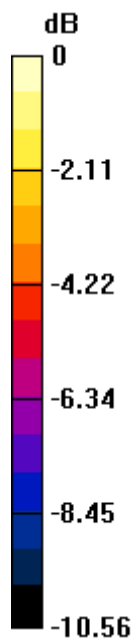
Author Data
Andrew Becker

Dates of Test
August 4 – September 29, 2011

Test Report No
RTS-5316-1109-53

FCC ID:
L6AREA70UW

IC ID
2503A-REA70UW



0 dB = 10.730mW/g

	Document				Page
	Appendix A for the BlackBerry® Smartphone Model REA71UW SAR Report				4(21)
Author Data Andrew Becker	Dates of Test August 4 – September 29, 2011	Test Report No RTS-5316-1109-53	FCC ID: L6AREA70UW	IC ID 2503A-REA70UW	

Date/Time: 9/15/2011 12:25:11 PM, Date/Time: 9/15/2011 12:29:54 PM

Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_09_15_11_Amb_Tem_24.5_Liq_Tem_22.6C

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

Communication System: CW; Frequency: 835 MHz

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.938 \text{ mho/m}$; $\epsilon_r = 39.894$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.11, 6.11, 6.11); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.452 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube

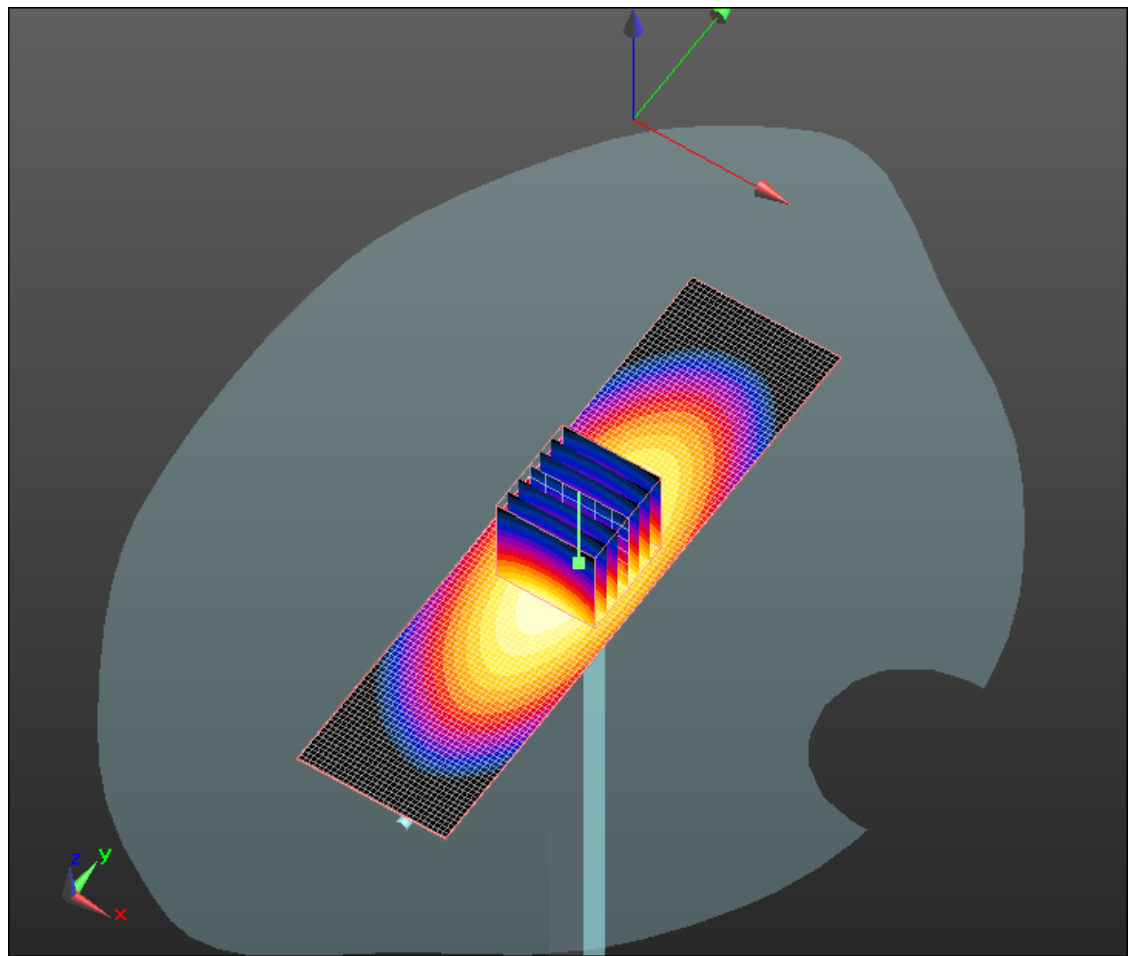
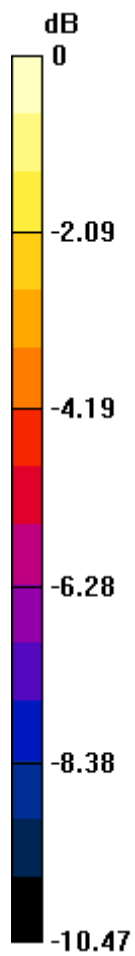
0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 114.5 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 14.819 W/kg

SAR(1 g) = 9.85 mW/g; SAR(10 g) = 6.43 mW/g

Maximum value of SAR (measured) = 10.611 mW/g



0 dB = 10.610mW/g

	Document				Page
	Appendix A for the BlackBerry® Smartphone Model REA71UW SAR Report				6(21)
Author Data	Dates of Test	Test Report No	FCC ID:	IC ID	
Andrew Becker	August 4 – September 29, 2011	RTS-5316-1109-53	L6AREA70UW	2503A-REA70UW	

Date/Time: 8/23/2011 10:00:51 AM, Date/Time: 8/23/2011 10:03:26 AM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_08_15_11_Amb_Tem_23.8_Liq_Tem_23.0C

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

Communication System: CW; Frequency: 1900 MHz; Communication System PAR: 0 dB
Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.34 \text{ mho/m}$; $\epsilon_r = 40.036$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.26, 5.26, 5.26); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 44.040 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 181.4 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 69.948 W/kg
SAR(1 g) = 38.5 mW/g; SAR(10 g) = 20.3 mW/g
Maximum value of SAR (measured) = 43.306 mW/g

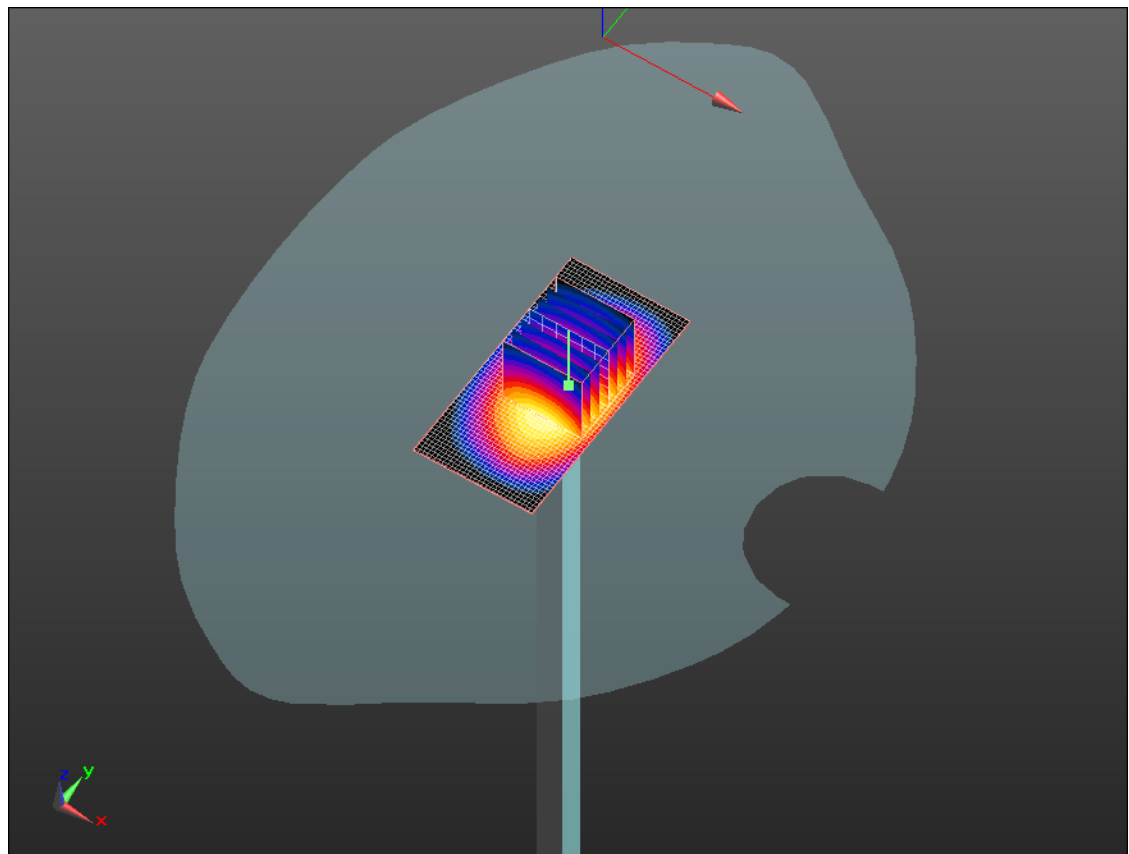
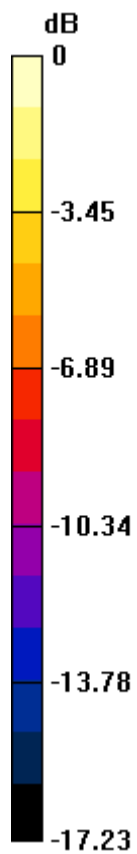
Author Data
Andrew Becker

Dates of Test
August 4 – September 29, 2011

Test Report No
RTS-5316-1109-53

FCC ID:
L6AREA70UW

IC ID
2503A-REA70UW



0 dB = 43.310mW/g

	Document			Page
	Appendix A for the BlackBerry® Smartphone Model REA71UW SAR Report			8(21)
Author Data	Dates of Test	Test Report No	FCC ID:	IC ID
Andrew Becker	August 4 – September 29, 2011	RTS-5316-1109-53	L6AREA70UW	2503A-REA70UW

Date/Time: 9/1/2011 8:26:53 PM, Date/Time: 9/1/2011 8:29:24 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_09_01_11_Amb_Tem_23.2_Liq_Tem_23.2C

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

Communication System: CW; Frequency: 1900 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.428 \text{ mho/m}$; $\epsilon_r = 38.512$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.26, 5.26, 5.26); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 51.806 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube

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

Reference Value = 196.6 V/m; Power Drift = -0.0057 dB

Peak SAR (extrapolated) = 75.346 W/kg

SAR(1 g) = 40.9 mW/g; SAR(10 g) = 21.4 mW/g

Maximum value of SAR (measured) = 51.909 mW/g

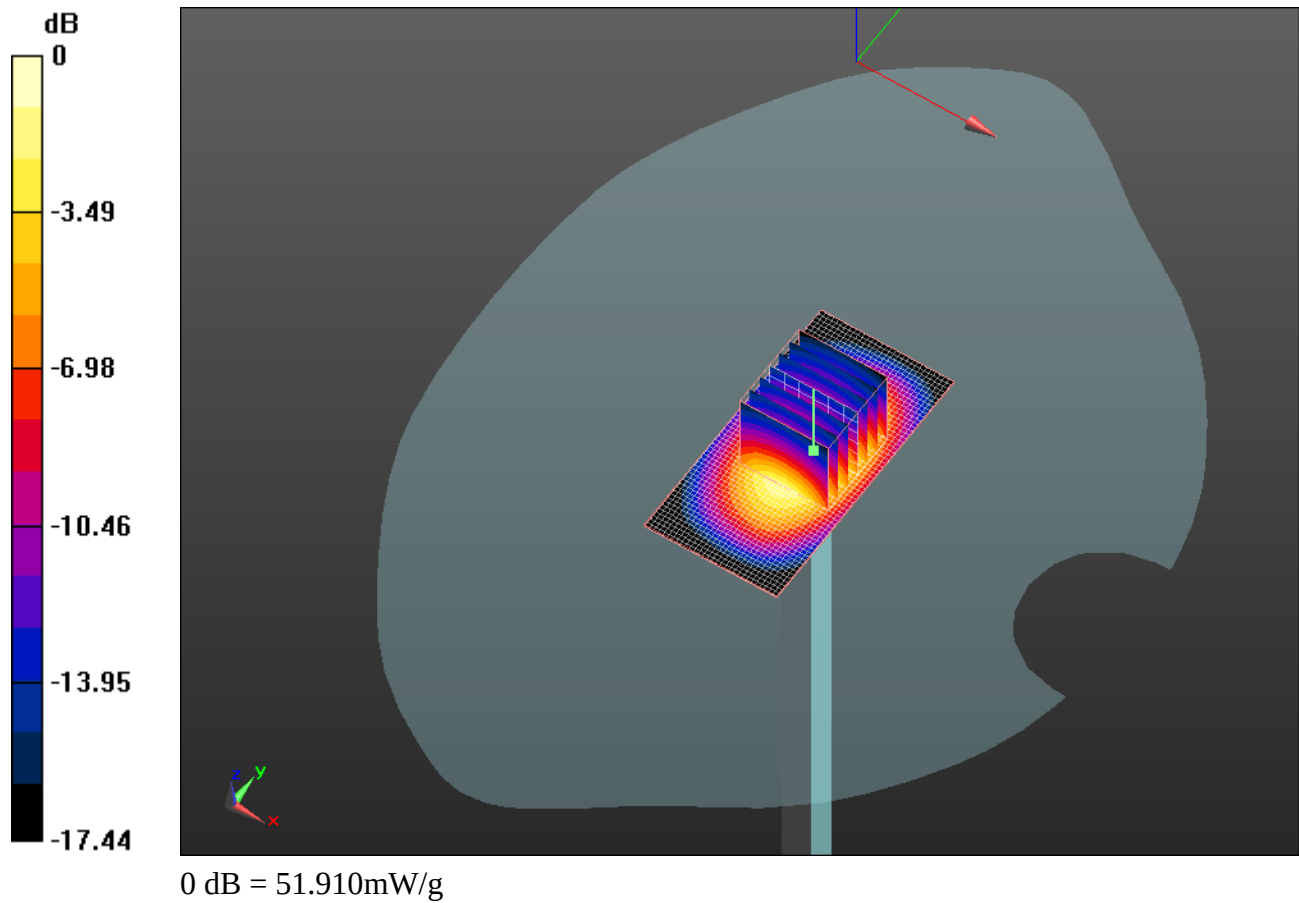
Author Data
Andrew Becker

Dates of Test
August 4 – September 29, 2011

Test Report No
RTS-5316-1109-53

FCC ID:
L6AREA70UW

IC ID
2503A-REA70UW



	Document				Page
	Appendix A for the BlackBerry® Smartphone Model REA71UW SAR Report				10(21)
Author Data Andrew Becker	Dates of Test August 4 – September 29, 2011	Test Report No RTS-5316-1109-53	FCC ID: L6AREA70UW	IC ID 2503A-REA70UW	

Date/Time: 9/6/2011 3:49:40 PM, Date/Time: 9/6/2011 3:53:15 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_09_06_11_Amb_Tem_24.5_Liq_Tem_23.6C

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

Communication System: CW; Frequency: 1900 MHz

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.373 \text{ mho/m}$; $\epsilon_r = 38.159$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.26, 5.26, 5.26); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x61x1): Measurement

grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 50.061 mW/g

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

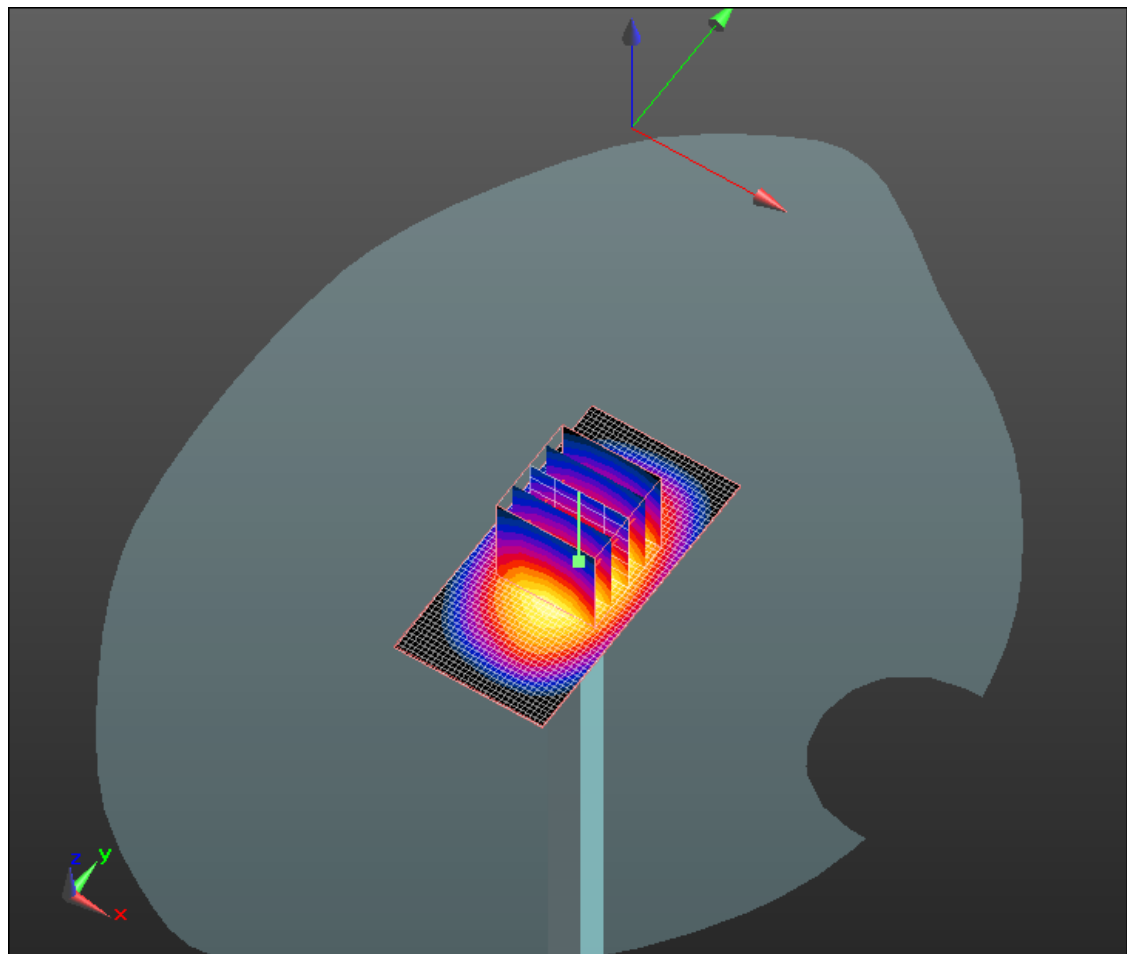
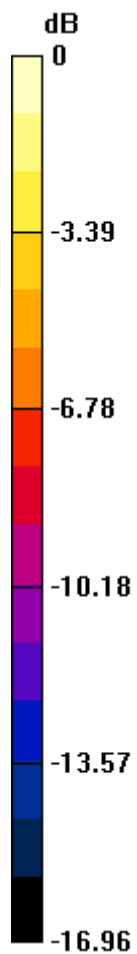
0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 196.1 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 69.794 W/kg

SAR(1 g) = 39.2 mW/g; SAR(10 g) = 20.8 mW/g

Maximum value of SAR (measured) = 49.313 mW/g



0 dB = 49.310mW/g

	Document			Page
	Appendix A for the BlackBerry® Smartphone Model REA71UW SAR Report			12(21)
Author Data	Dates of Test	Test Report No	FCC ID:	IC ID
Andrew Becker	August 4 – September 29, 2011	RTS-5316-1109-53	L6AREA70UW	2503A-REA70UW

Date/Time: 9/9/2011 5:38:40 PM, Date/Time: 9/9/2011 5:41:12 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_09_09_11_Amb_Tem_23.8_Liq_Tem_23.1C

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

Communication System: CW; Frequency: 1900 MHz; Communication System PAR: 0 dB
Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.383 \text{ mho/m}$; $\epsilon_r = 38.263$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.26, 5.26, 5.26); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 51.885 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 199.8 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 74.906 W/kg
SAR(1 g) = 40.7 mW/g; SAR(10 g) = 21.3 mW/g
Maximum value of SAR (measured) = 52.144 mW/g

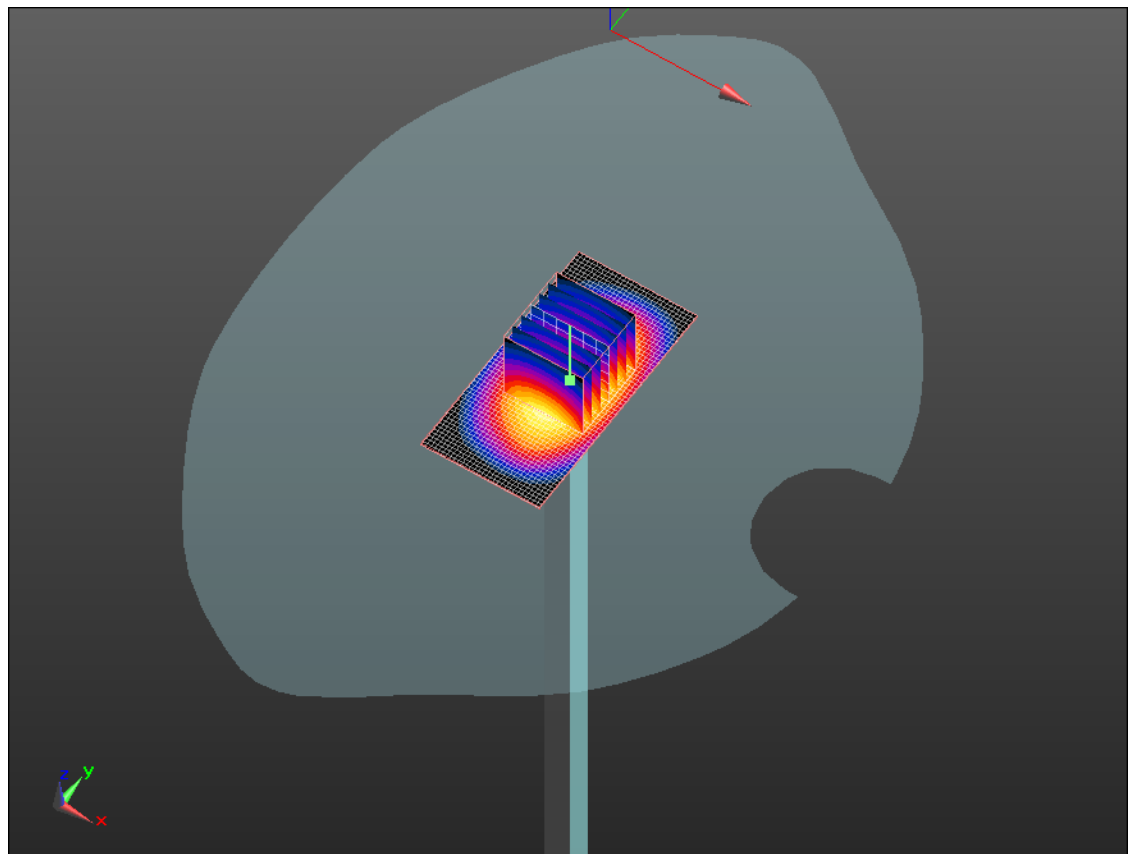
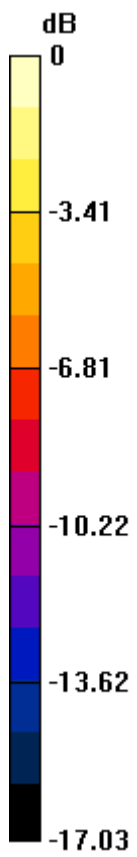
Author Data
Andrew Becker

Dates of Test
August 4 – September 29, 2011

Test Report No
RTS-5316-1109-53

FCC ID:
L6AREA70UW

IC ID
2503A-REA70UW



0 dB = 52.140mW/g

	Document			Page
	Appendix A for the BlackBerry® Smartphone Model REA71UW SAR Report			14(21)
Author Data	Dates of Test	Test Report No	FCC ID:	IC ID
Andrew Becker	August 4 – September 29, 2011	RTS-5316-1109-53	L6AREA70UW	2503A-REA70UW

Date/Time: 8/22/2011 1:52:28 PM, Date/Time: 8/22/2011 1:54:22 PM

Test Laboratory: RIM Testing Services

DipoleValidation_2450MHz_Amb_Tem_23.8_Liq_Tem_23.0C_08_22_11

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

Communication System: CW; Frequency: 2450 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.88 \text{ mho/m}$; $\epsilon_r = 37.515$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.6, 4.6, 4.6); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x41x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 63.601 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube

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

Reference Value = 192.5 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 114.5 W/kg

SAR(1 g) = 55 mW/g; SAR(10 g) = 25.5 mW/g

Maximum value of SAR (measured) = 62.703 mW/g

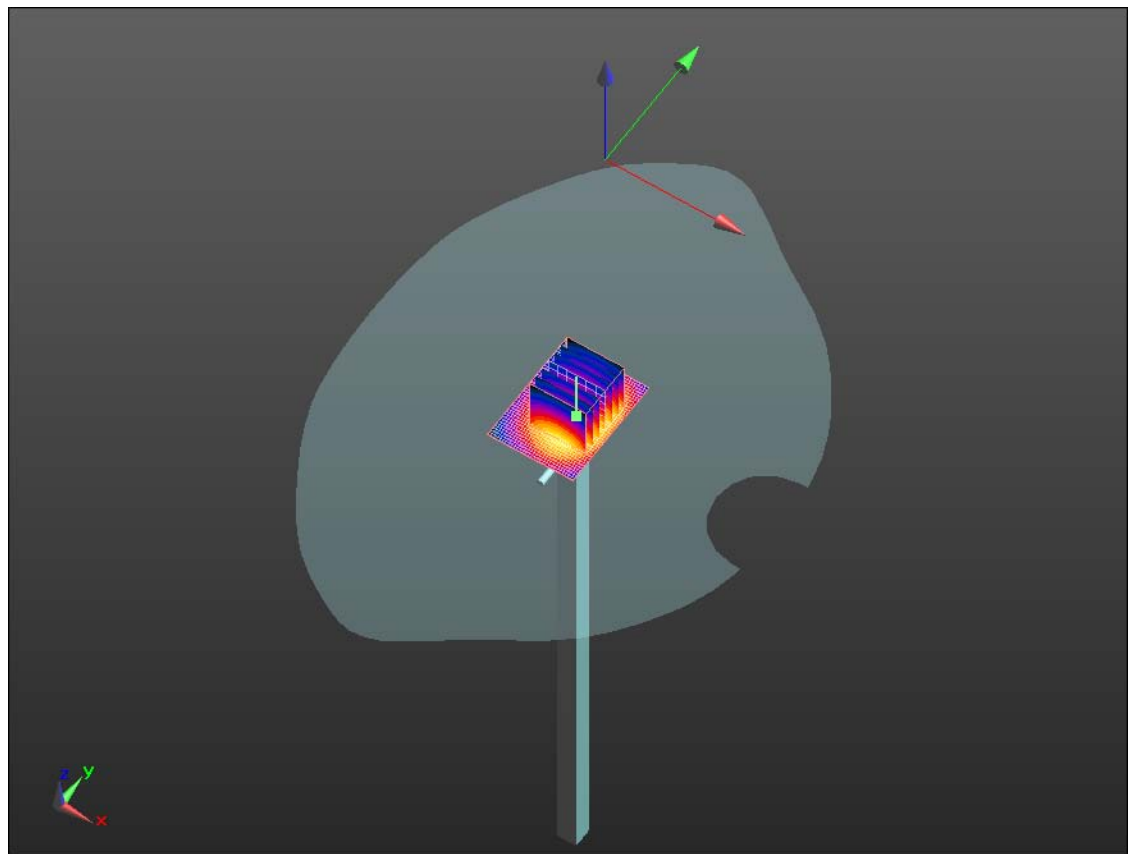
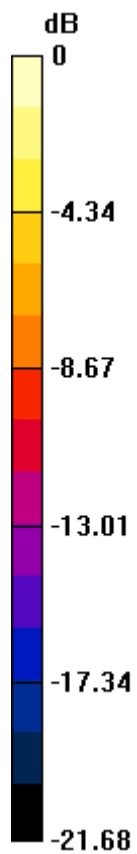
Author Data
Andrew Becker

Dates of Test
August 4 – September 29, 2011

Test Report No
RTS-5316-1109-53

FCC ID:
L6AREA70UW

IC ID
2503A-REA70UW



0 dB = 62.700mW/g

	Document			Page
	Appendix A for the BlackBerry® Smartphone Model REA71UW SAR Report			16(21)
Author Data	Dates of Test	Test Report No	FCC ID:	IC ID
Andrew Becker	August 4 – September 29, 2011	RTS-5316-1109-53	L6AREA70UW	2503A-REA70UW

Date/Time: 9/29/2011 12:44:51 PM, Date/Time: 9/29/2011 12:47:26 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_09_29_11_Amb_Tem_24.2_Liq_Tem_22.3C

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

Communication System: CW; Frequency: 1900 MHz

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.396 \text{ mho/m}$; $\epsilon_r = 38.581$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.26, 5.26, 5.26); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 50.801 mW/g

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

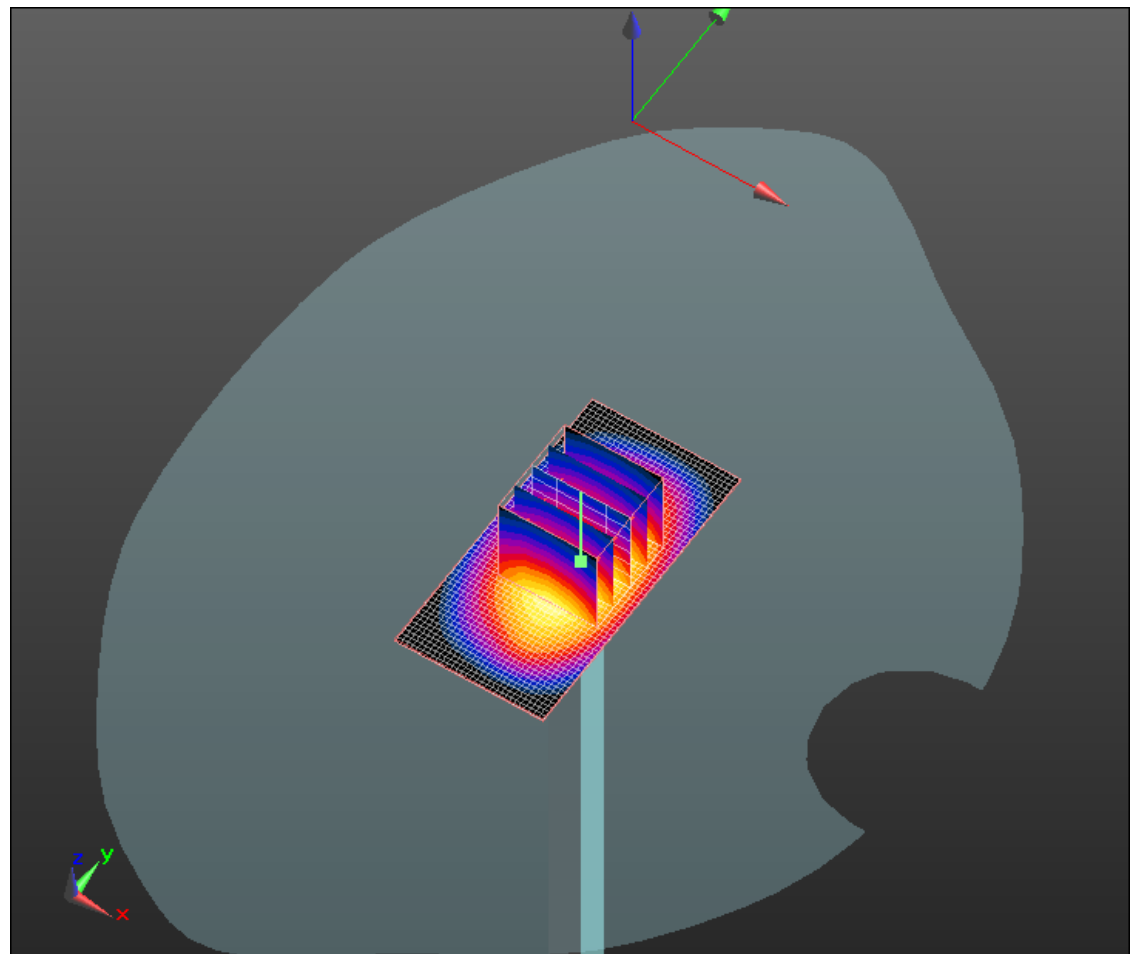
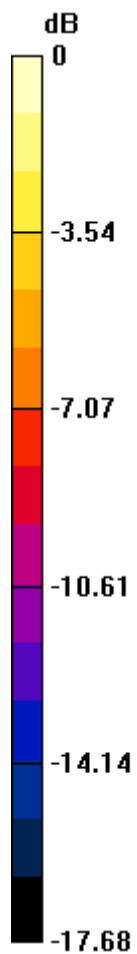
0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 197.9 V/m; Power Drift = -0.0099 dB

Peak SAR (extrapolated) = 73.988 W/kg

SAR(1 g) = 40.1 mW/g; SAR(10 g) = 20.7 mW/g

Maximum value of SAR (measured) = 51.561 mW/g



0 dB = 51.560mW/g

	Document			Page
	Appendix A for the BlackBerry® Smartphone Model REA71UW SAR Report			18(21)
Author Data	Dates of Test	Test Report No	FCC ID:	IC ID
Andrew Becker	August 4 – September 29, 2011	RTS-5316-1109-53	L6AREA70UW	2503A-REA70UW

Date/Time: 9/29/2011 12:44:51 PM, Date/Time: 9/29/2011 12:47:26 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_09_29_11_Amb_Tem_24.2_Liq_Tem_22.3C

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

Communication System: CW; Frequency: 1900 MHz

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.396 \text{ mho/m}$; $\epsilon_r = 38.581$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.26, 5.26, 5.26); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of SAR (interpolated) = 50.801 mW/g

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

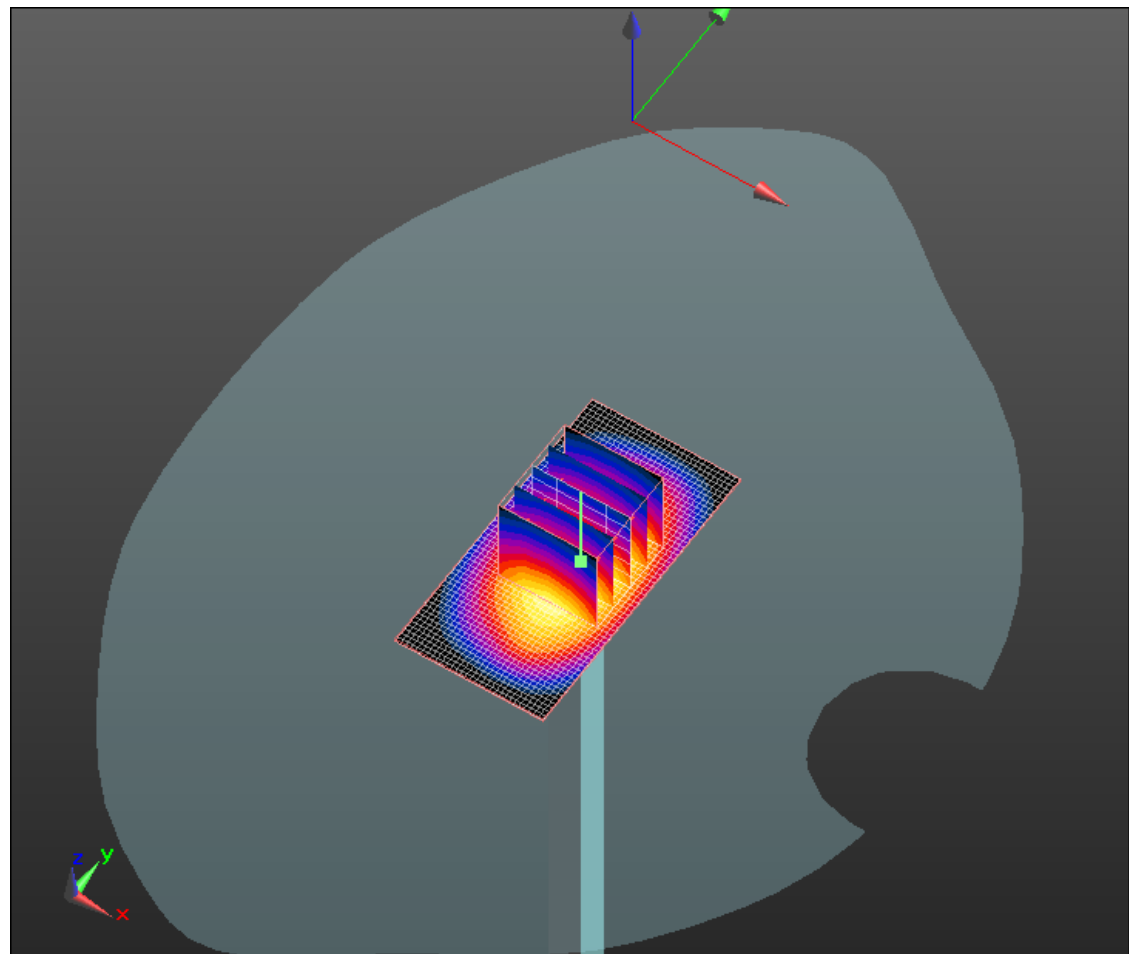
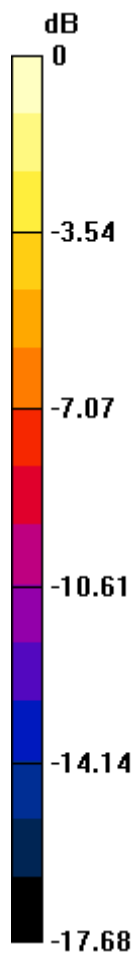
0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 197.9 V/m; Power Drift = -0.0099 dB

Peak SAR (extrapolated) = 73.988 W/kg

SAR(1 g) = 40.1 mW/g; SAR(10 g) = 20.7 mW/g

Maximum value of SAR (measured) = 51.561 mW/g



0 dB = 51.560mW/g

	Document			Page
	Appendix A for the BlackBerry® Smartphone Model REA71UW SAR Report			20(21)
Author Data	Dates of Test	Test Report No	FCC ID:	IC ID
Andrew Becker	August 4 – September 29, 2011	RTS-5316-1109-53	L6AREA70UW	2503A-REA70UW

Date/Time: 9/6/2011 10:59:42 PM, Date/Time: 9/6/2011 11:01:32 PM

Test Laboratory: RIM Testing Services

DipoleValidation_2450MHz_09_06_11_Amb_Tem_23.9_Liq_Tem_23.7C

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

Communication System: CW; Frequency: 2450 MHz; Communication System PAR: 0 dB

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.88 \text{ mho/m}$; $\epsilon_r = 38.053$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.6, 4.6, 4.6); Calibrated: 1/13/2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x41x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 76.512 mW/g

Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (7x7x7)/Cube

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

Reference Value = 205.3 V/m; Power Drift = -0.0062 dB

Peak SAR (extrapolated) = 118.0 W/kg

SAR(1 g) = 57.2 mW/g; SAR(10 g) = 26.7 mW/g

Maximum value of SAR (measured) = 75.700 mW/g

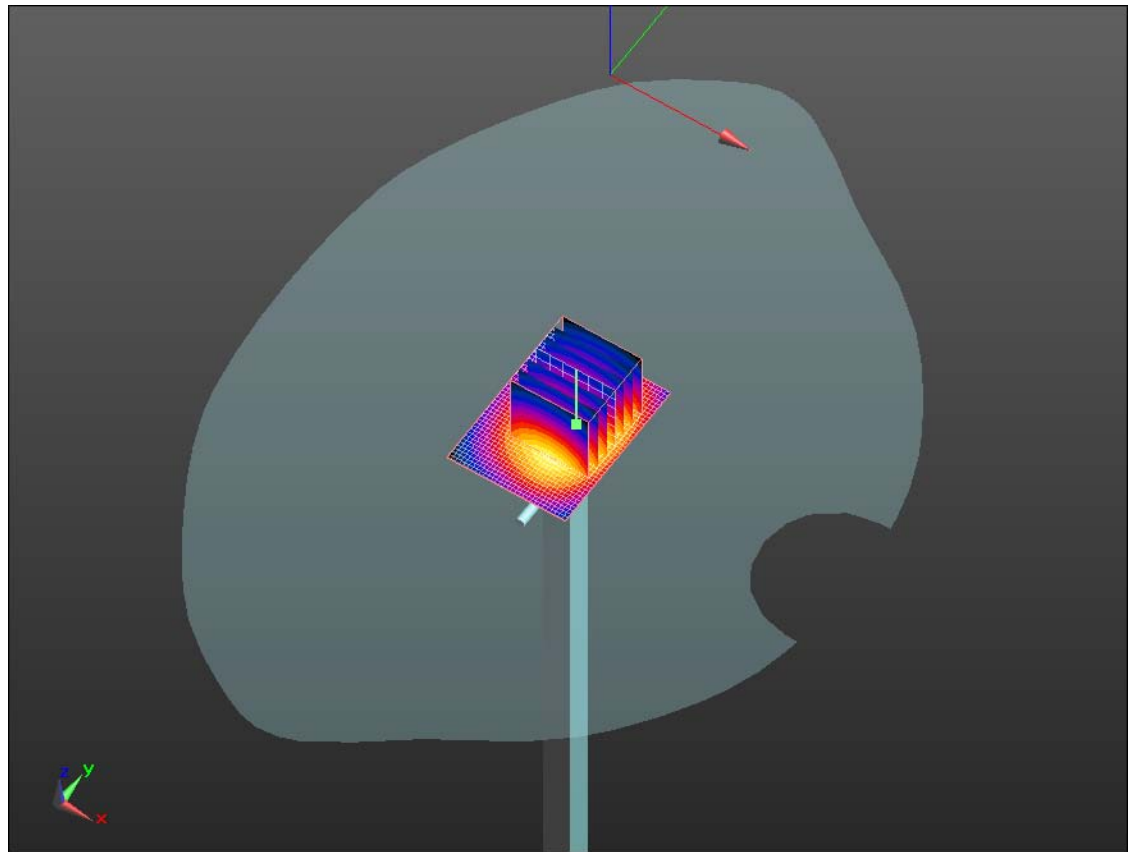
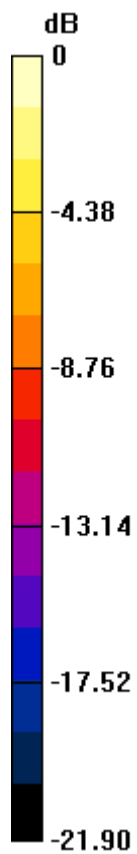
Author Data
Andrew Becker

Dates of Test
August 4 – September 29, 2011

Test Report No
RTS-5316-1109-53

FCC ID:
L6AREA70UW

IC ID
2503A-REA70UW



0 dB = 75.700mW/g