Document Appendix A for the BlackBerry® Smartphone Model RCN72UW SAR Report					Page 1(13)
Author Data	Dates of Test		Test Report No	FCC ID:	IC ID
<b>Andrew Becker</b>	June 10– June 24 & July 15, 2010		RTS-1689-1007-38	L6ARCN70UW	2503A-RCN70UW

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

	Testing Services™	Appendix A for the BlackBerry® Smartphone Model RCN72UW SAR Report			
Author Data	Dates of Test		Test Report No	FCC ID:	IC ID
Andrew Becker	June 10-	June 24 & July 15, 2010	RTS-1689-1007-38	L6ARCN70UW	2503A-RCN70UW

Date/Time: 6/21/2010 3:11:01 PM

Test Laboratory: RIM Testing Services

# DipoleValidation\_835MHz\_Amb\_Tem\_22.8\_Liq\_Tem\_22.0C\_06\_21\_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 MHz;  $\sigma = 0.888$  mho/m;  $\epsilon_r = 42.6$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section Measurement Standard: DASY4 (High Precision Assessment)

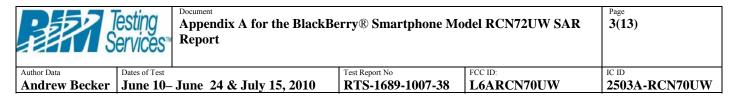
DASY4 Configuration:

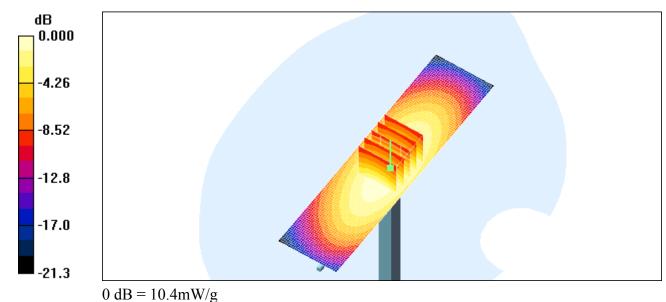
- Probe: ES3DV3 SN3225; ConvF(6.12, 6.12, 6.12); Calibrated: 12/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 109.1 V/m; Power Drift = -0.024 dB Peak SAR (extrapolated) = 14.3 W/kg SAR(1 g) = 9.63 mW/g; SAR(10 g) = 6.32 mW/g Maximum value of SAR (measured) = 10.4 mW/g

**d=15mm, Pin=1000mW/Area Scan (31x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 10.4 mW/g





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Test Laboratory: RIM Testing Services

### DipoleValidation\_835MHz\_Amb\_Tem\_23.1\_Liq\_Tem\_22.5C\_06\_22\_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 MHz;  $\sigma = 0.857$  mho/m;  $\epsilon_r = 41$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

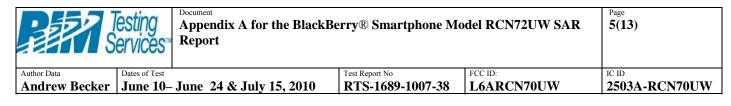
- Probe: ES3DV3 SN3225; ConvF(6.12, 6.12, 6.12); Calibrated: 12/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

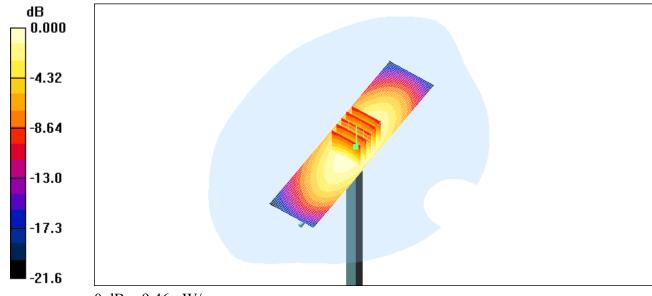
#### d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement

grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 106.1 V/m; Power Drift = 0.003 dB Peak SAR (extrapolated) = 13.1 W/kg SAR(1 g) = 8.83 mW/g; SAR(10 g) = 5.77 mW/gMaximum value of SAR (measured) = 9.52 mW/g

#### d=15mm, Pin=1000mW/Area Scan (31x121x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 9.46 mW/g





0 dB = 9.46 mW/g



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Test Laboratory: RIM Testing Services

# DipoleValidation\_1710MHz\_Amb\_Tem\_23.0\_Liq\_Tem\_22.2\_C

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

Communication System: CW; Frequency: 1710 MHz;Duty Cycle: 1:1 Medium parameters used: f = 1710 MHz;  $\sigma = 1.3$  mho/m;  $\epsilon_r = 41.8$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

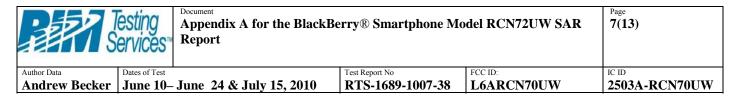
- Probe: ES3DV3 SN3225; ConvF(5.14, 5.14, 5.14); Calibrated: 12/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

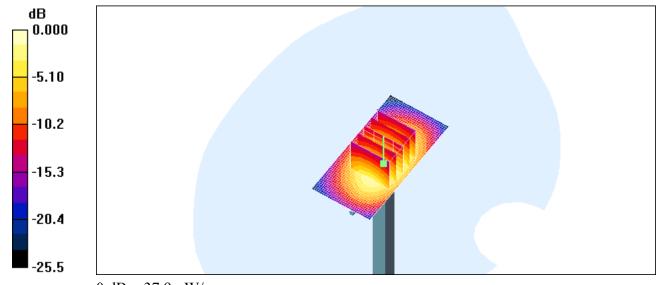
#### d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement

grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 171.2 V/m; Power Drift = -0.029 dBPeak SAR (extrapolated) = 58.0 W/kg**SAR(1 g) = 33.3 \text{ mW/g}; SAR(10 g) = 18 \text{ mW/g}** Maximum value of SAR (measured) = 37.6 mW/g

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

dy=15mmMaximum value of SAR (interpolated) = 37.9 mW/g





0 dB = 37.9 mW/g

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Andrew Becker	June 10-	June 24 & July 15, 2010	RTS-1689-1007-38	L6ARCN70UW	2503A-RCN70UW

Date/Time: 6/14/2010 10:15:49 PM

Test Laboratory: RIM Testing Services

# DipoleValidation\_1800MHz\_Amb\_Tem\_23.0\_Liq\_Tem\_22.0\_C\_06\_14\_1

0

#### 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 MHz;  $\sigma = 1.37$  mho/m;  $\epsilon_r = 41.5$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section

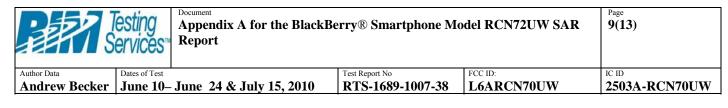
DASY4 Configuration:

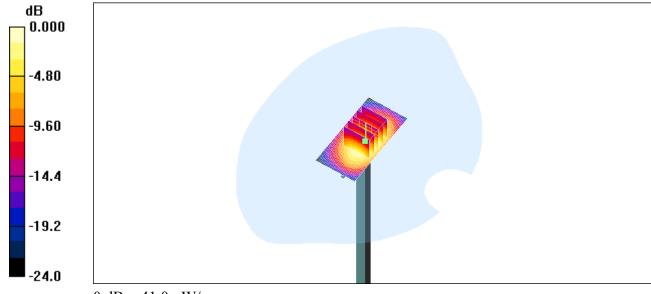
- Probe: ES3DV3 SN3225; ConvF(5.14, 5.14, 5.14); Calibrated: 12/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 172.7 V/m; Power Drift = -0.031 dB Peak SAR (extrapolated) = 64.6 W/kg SAR(1 g) = 36.2 mW/g; SAR(10 g) = 19.2 mW/gMaximum value of SAR (measured) = 40.7 mW/g

**d=15mm, Pin=1000mW/Area Scan (31x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 41.0 mW/g





0 dB = 41.0 mW/g



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Test Laboratory: RIM Testing Services

# DipoleValidation\_1900MHz\_Amb\_Tem\_23.4\_Liq\_Tem\_22.0C\_06\_14\_10

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

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1 Medium parameters used: f = 1900 MHz;  $\sigma = 1.41$  mho/m;  $\epsilon_r = 40.2$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section Measurement Standard: DASY4 (High Precision Assessment)

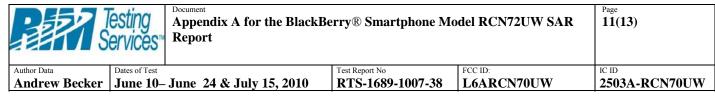
#### DASY4 Configuration:

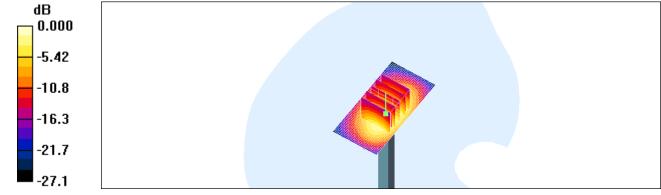
- Probe: ES3DV3 SN3225; ConvF(5.14, 5.14, 5.14); Calibrated: 12/11/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 179.5 V/m; Power Drift = -0.049 dB Peak SAR (extrapolated) = 74.4 W/kg SAR(1 g) = 40.5 mW/g; SAR(10 g) = 21 mW/g Maximum value of SAR (measured) = 45.0 mW/g

**d=15mm, Pin=1000mW/Area Scan (31x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 46.5 mW/g





0 dB = 46.5 mW/g



Date/Time: 6/16/2010 11:46:25 PM

Test Laboratory: RIM Testing Services

# DipoleValidation\_2450MHz\_Amb\_Tem\_23.2\_Liq\_Tem\_22.6\_C\_06\_16\_1

#### 0

#### DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:xxx

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1 Medium parameters used: f = 2450 MHz;  $\sigma = 1.86$  mho/m;  $\epsilon_r = 40.7$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 SN3225; ConvF(4.53, 4.53, 4.53); 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=7.5mm, dy=7.5mm, dz=5mm Reference Value = 184.6 V/m; Power Drift = -0.015 dB Peak SAR (extrapolated) = 112.4 W/kg SAR(1 g) = 54 mW/g; SAR(10 g) = 24.8 mW/g Maximum value of SAR (measured) = 61.9 mW/g

# **d=15mm, Pin=1000mW/Area Scan (31x51x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 65.9 mW/g

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