
	Document <b>Appendix C2 for the BlackBerry® Smartphone Model RFD31CW SAR Report</b>			Page <b>1(20)</b>
	Author Data <b>Andrew Becker</b>	Dates of Test <b>February 23 – March 19, 2012</b>	Test Report No <b>RTS-5994-1203-78</b>	FCC ID: <b>L6ARFD30CW</b>

**APPENDIX C2: SAR DISTRIBUTION PLOTS FOR MOBILE HOT SPOT**

	Document <b>Appendix C2 for the BlackBerry® Smartphone Model RFD31CW SAR Report</b>			Page <b>2(20)</b>
	Author Data <b>Andrew Becker</b>	Dates of Test <b>February 23 – March 19, 2012</b>	Test Report No <b>RTS-5994-1203-78</b>	FCC ID: <b>L6ARFD30CW</b>

Date/Time: 3/19/2012 11:24:09 AM

Test Laboratory: RIM Testing Services

## MHS\_Back\_CDMA800\_low\_chan\_amb\_temp\_22.3C\_liq\_temp\_21.4C

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297ECFF9**

Communication System: CDMA 800; Frequency: 817.9 MHz

Medium parameters used (interpolated):  $f = 817.9$  MHz;  $\sigma = 0.959$  mho/m;  $\epsilon_r = 55.425$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS2 52.8.0(692); SEMCAD X 14.6.4(4989)

**Configuration/Touch position -/Area Scan (61x91x1):** Measurement grid:  
 $dx=15$ mm,  $dy=15$ mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.374 mW/g

**Configuration/Touch position -/Zoom Scan (5x5x7) (6x7x7)/Cube 0:**

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

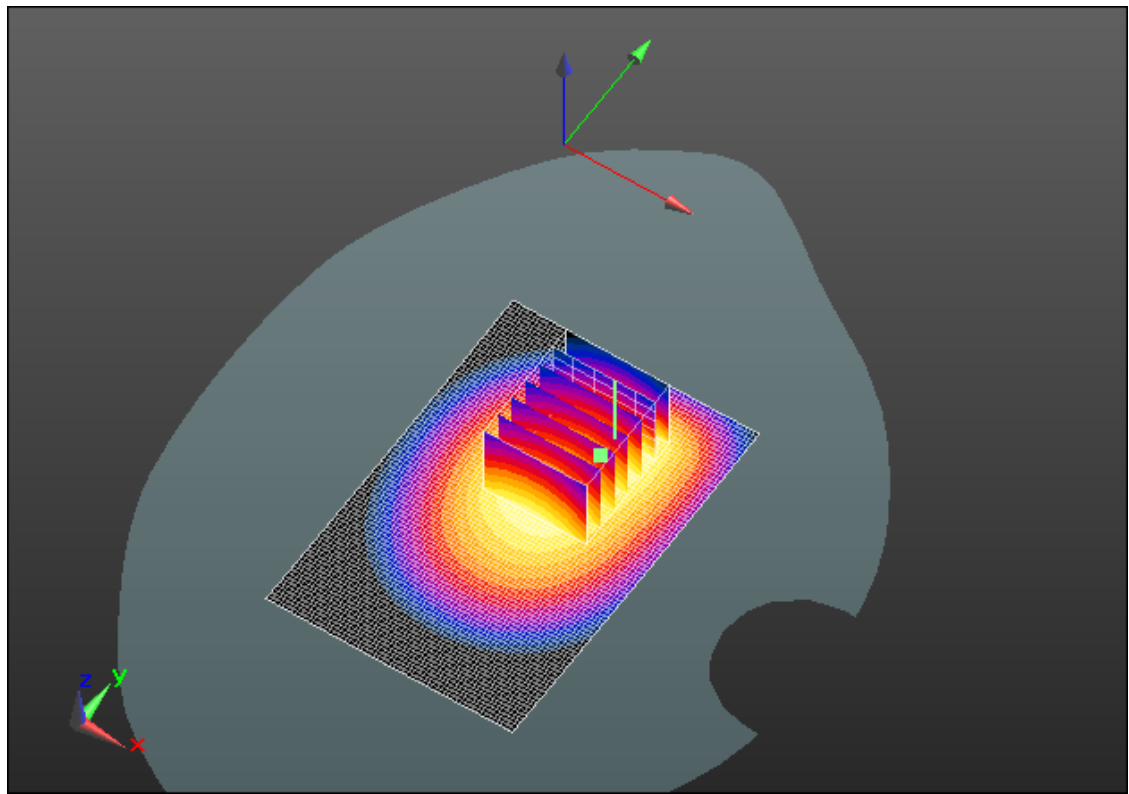
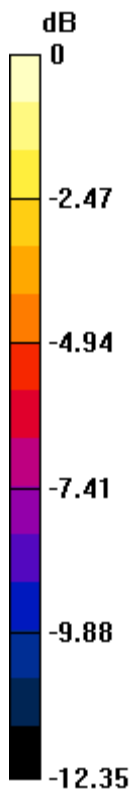
Reference Value = 34.507 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.7710


**SAR(1 g) = 1.2 mW/g; SAR(10 g) = 0.869 mW/g**

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.419 mW/g



0 dB = 1.420mW/g = 3.05 dB mW/g

	Document <b>Appendix C2 for the BlackBerry® Smartphone Model RFD31CW SAR Report</b>			Page <b>4(20)</b>
	Author Data <b>Andrew Becker</b>	Dates of Test <b>February 23 – March 19, 2012</b>	Test Report No <b>RTS-5994-1203-78</b>	FCC ID: <b>L6ARFD30CW</b>

Date/Time: 3/19/2012 11:05:01 AM

Test Laboratory: RIM Testing Services

## MHS\_Back\_CDMA800\_mid\_chan\_amb\_temp\_22.7C\_liq\_temp\_21.4C

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297ECFF9**

Communication System: CDMA 800; Frequency: 820.5 MHz

Medium parameters used (interpolated):  $f = 820.5$  MHz;  $\sigma = 0.963$  mho/m;  $\epsilon_r = 55.404$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS2 52.8.0(692); SEMCAD X 14.6.4(4989)

**Configuration/Touch position -/Area Scan (61x91x1):** Measurement grid:  
 $dx=15$ mm,  $dy=15$ mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.403 mW/g

**Configuration/Touch position -/Zoom Scan (5x5x7) (6x7x7)/Cube 0:**

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

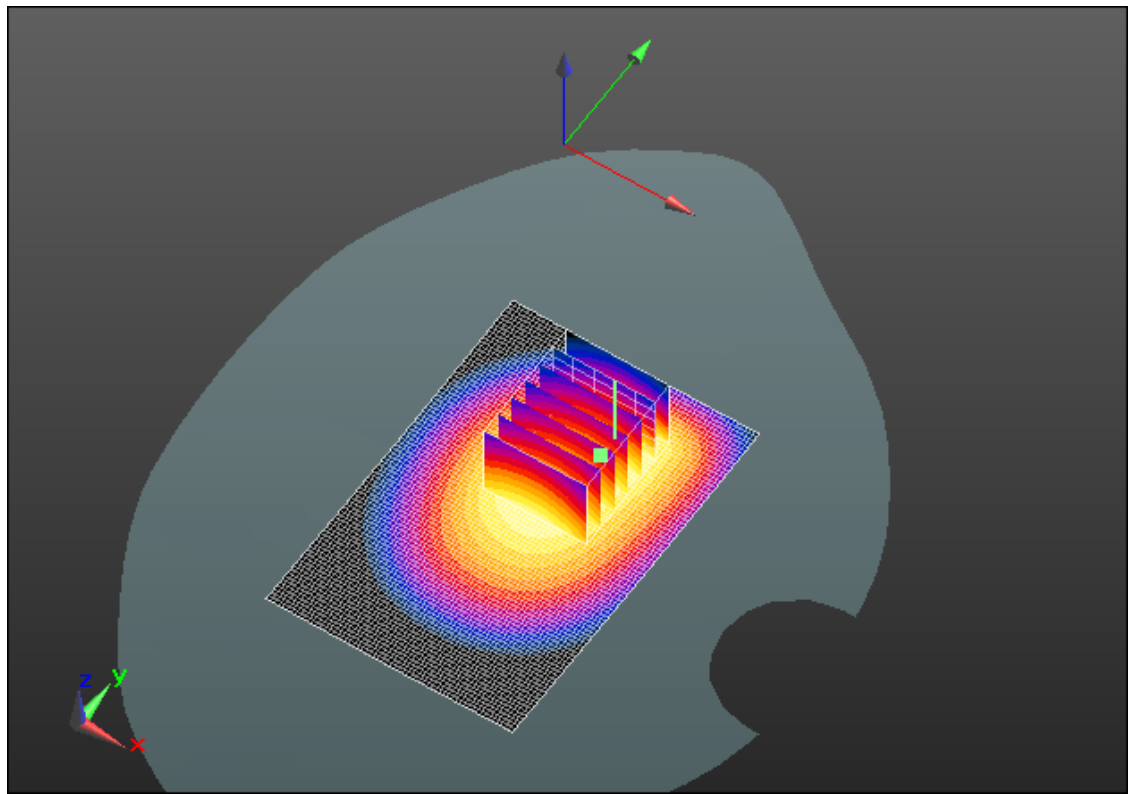
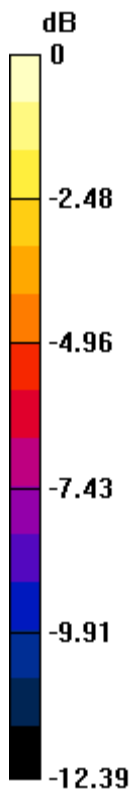
Reference Value = 34.695 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.7860


**SAR(1 g) = 1.21 mW/g; SAR(10 g) = 0.880 mW/g**

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.418 mW/g



0 dB = 1.420mW/g = 3.05 dB mW/g

	Document <b>Appendix C2 for the BlackBerry® Smartphone Model RFD31CW SAR Report</b>			Page <b>6(20)</b>
	Author Data <b>Andrew Becker</b>	Dates of Test <b>February 23 – March 19, 2012</b>	Test Report No <b>RTS-5994-1203-78</b>	FCC ID: <b>L6ARFD30CW</b>

Date/Time: 3/19/2012 11:44:33 AM

Test Laboratory: RIM Testing Services

## MHS\_Back\_CDMA800\_high\_chan\_amb\_temp\_22.5C\_liq\_temp\_21.4C

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297ECFF9**

Communication System: CDMA 800; Frequency: 823.1 MHz

Medium parameters used (interpolated):  $f = 823.1$  MHz;  $\sigma = 0.967$  mho/m;  $\epsilon_r = 55.37$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS2 52.8.0(692); SEMCAD X 14.6.4(4989)

**Configuration/Touch position -/Area Scan (61x91x1):** Measurement grid:  
 $dx=15$ mm,  $dy=15$ mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.360 mW/g

**Configuration/Touch position -/Zoom Scan (5x5x7) (6x7x7)/Cube 0:**

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

Reference Value = 34.276 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.7280

**SAR(1 g) = 1.18 mW/g; SAR(10 g) = 0.854 mW/g**

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.380 mW/g

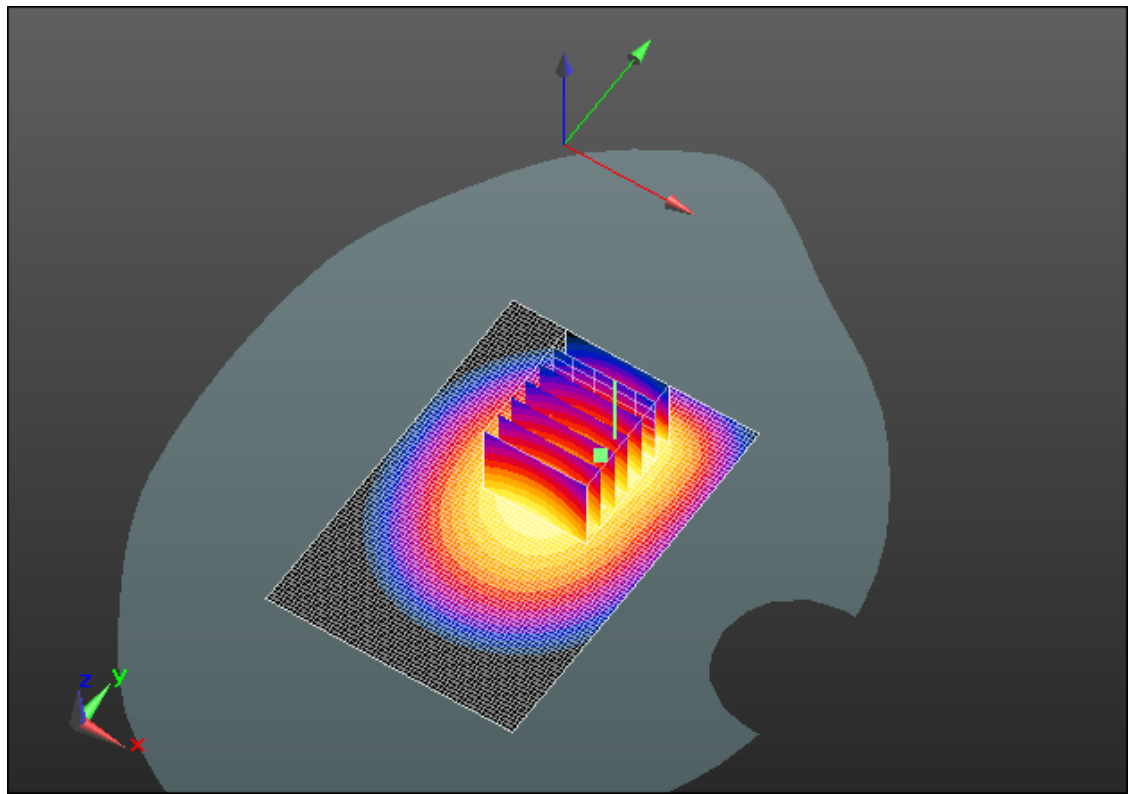
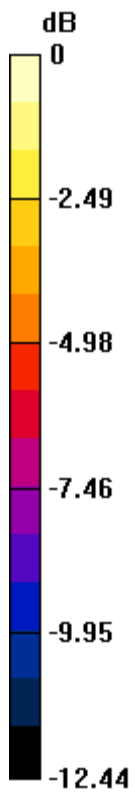
Author Data  
**Andrew Becker**

Dates of Test  
**February 23 – March 19, 2012**


Test Report No  
**RTS-5994-1203-78**

FCC ID:  
**L6ARFD30CW**

IC ID  
**2503A-RFD30CW**



0 dB = 1.380mW/g = 2.80 dB mW/g

	Document <b>Appendix C2 for the BlackBerry® Smartphone Model RFD31CW SAR Report</b>			Page <b>8(20)</b>
	Author Data <b>Andrew Becker</b>	Dates of Test <b>February 23 – March 19, 2012</b>	Test Report No <b>RTS-5994-1203-78</b>	FCC ID: <b>L6ARFD30CW</b>

Date/Time: 3/19/2012 12:23:23 PM

Test Laboratory: RIM Testing Services

## MHS\_Front\_CDMA800\_low\_chan\_amb\_temp\_22.2C\_liq\_temp\_21.3C

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297ECFF9**

Communication System: CDMA 800; Frequency: 817.9 MHz

Medium parameters used (interpolated):  $f = 817.9$  MHz;  $\sigma = 0.959$  mho/m;  $\epsilon_r = 55.425$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

**Configuration/Touch position -/Area Scan (61x91x1):** Measurement grid:  
 $dx=15$ mm,  $dy=15$ mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.067 mW/g

**Configuration/Touch position -/Zoom Scan (5x5x7) (5x5x7)/Cube 0:**

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

Reference Value = 30.697 V/m; Power Drift = -0.03 dB

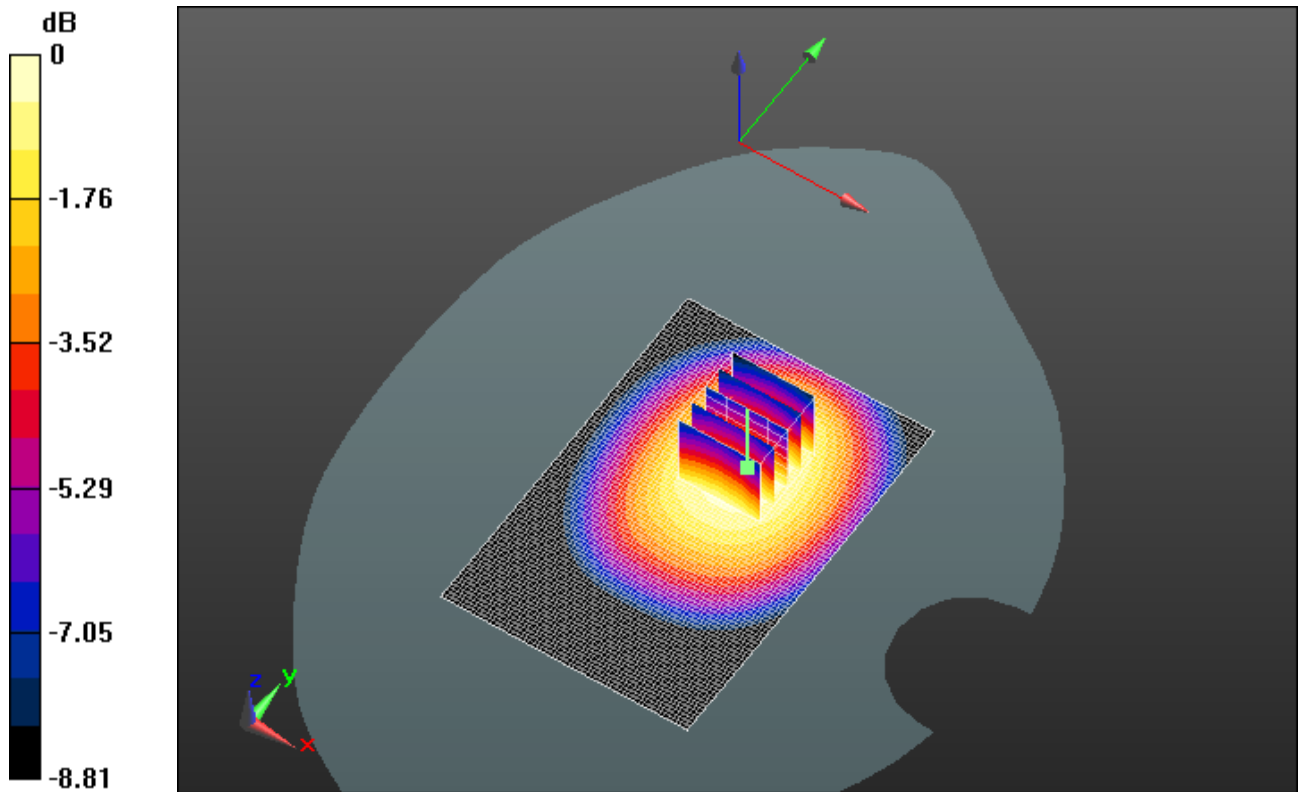
Peak SAR (extrapolated) = 1.2300

**SAR(1 g) = 0.980 mW/g; SAR(10 g) = 0.737 mW/g**


[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.078 mW/g





0 dB = 1.080mW/g = 0.67 dB mW/g

	Document <b>Appendix C2 for the BlackBerry® Smartphone Model RFD31CW SAR Report</b>			Page <b>10(20)</b>
	Author Data <b>Andrew Becker</b>	Dates of Test <b>February 23 – March 19, 2012</b>	Test Report No <b>RTS-5994-1203-78</b>	FCC ID: <b>L6ARFD30CW</b>

Date/Time: 3/19/2012 12:06:39 PM

Test Laboratory: RIM Testing Services

## MHS\_Front\_CDMA800\_middle\_chan\_amb\_temp\_22.4C\_liq\_temp\_21.3 C

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297ECFF9**

Communication System: CDMA 800; Frequency: 820.5 MHz

Medium parameters used (interpolated):  $f = 820.5$  MHz;  $\sigma = 0.963$  mho/m;  $\epsilon_r = 55.404$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS2 52.8.0(692); SEMCAD X 14.6.4(4989)

**Configuration/Touch position -/Area Scan (61x91x1):** Measurement grid:  
 $dx=15$ mm,  $dy=15$ mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.092 mW/g

**Configuration/Touch position -/Zoom Scan (5x5x7) (5x5x7)/Cube 0:**

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

Reference Value = 30.606 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.2280

**SAR(1 g) = 0.986 mW/g; SAR(10 g) = 0.742 mW/g**

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.083 mW/g

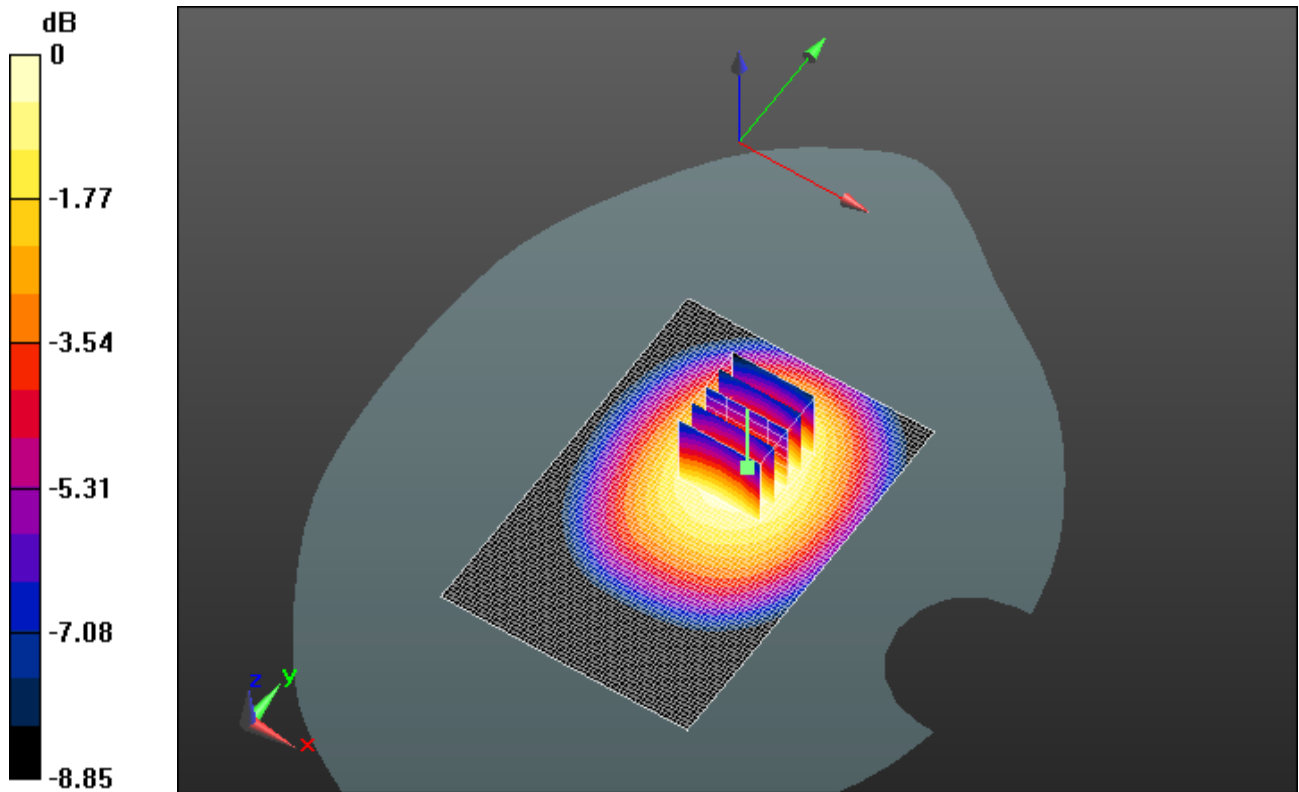
Author Data  
**Andrew Becker**

Dates of Test  
**February 23 – March 19, 2012**


Test Report No  
**RTS-5994-1203-78**

FCC ID:  
**L6ARFD30CW**

IC ID  
**2503A-RFD30CW**



0 dB = 1.080mW/g = 0.67 dB mW/g

	Document <b>Appendix C2 for the BlackBerry® Smartphone Model RFD31CW SAR Report</b>			Page <b>12(20)</b>
	Author Data <b>Andrew Becker</b>	Dates of Test <b>February 23 – March 19, 2012</b>	Test Report No <b>RTS-5994-1203-78</b>	FCC ID: <b>L6ARFD30CW</b>

Date/Time: 3/19/2012 1:34:11 PM

Test Laboratory: RIM Testing Services

## MHS\_Front\_CDMA800\_high\_chan\_amb\_temp\_22.2C\_liq\_temp\_21.3C

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297ECFF9**

Communication System: CDMA 800; Frequency: 823.1 MHz

Medium parameters used (interpolated):  $f = 823.1$  MHz;  $\sigma = 0.967$  mho/m;  $\epsilon_r = 55.37$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

**Configuration/Touch position -/Area Scan (61x91x1):** Measurement grid:  
 $dx=15$ mm,  $dy=15$ mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of Total (interpolated) = 3.948 mW/g m

**Configuration/Touch position -/Zoom Scan (5x5x7) (5x5x7)/Cube 0:**

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

Reference Value = 29.922 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 1.1570

**SAR(1 g) = 0.917 mW/g; SAR(10 g) = 0.688 mW/g**

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.014 mW/g

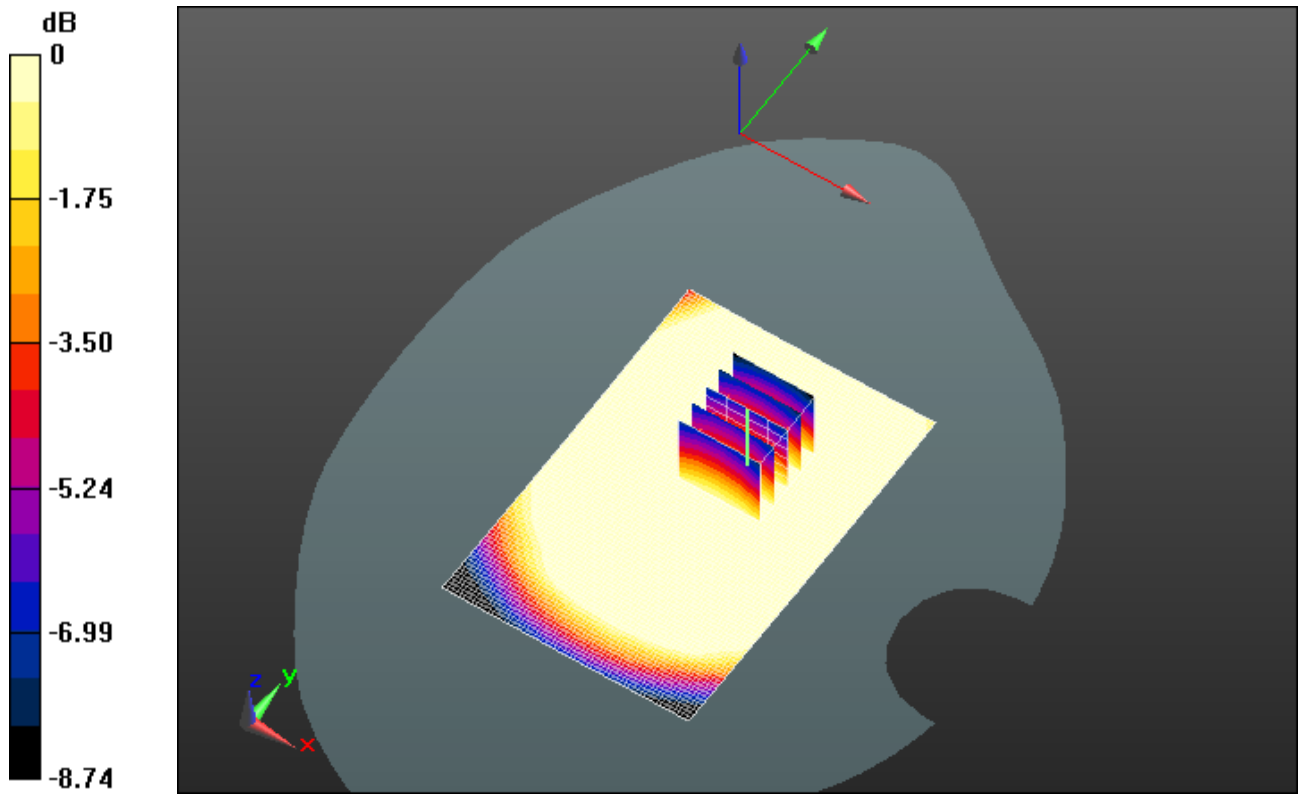
Author Data  
**Andrew Becker**

Dates of Test  
**February 23 – March 19, 2012**


Test Report No  
**RTS-5994-1203-78**

FCC ID:  
**L6ARFD30CW**

IC ID  
**2503A-RFD30CW**



0 dB = 1.010mW/g m = 0.09 dB mW/g m

	Document <b>Appendix C2 for the BlackBerry® Smartphone Model RFD31CW SAR Report</b>			Page <b>14(20)</b>
	Author Data <b>Andrew Becker</b>	Dates of Test <b>February 23 – March 19, 2012</b>	Test Report No <b>RTS-5994-1203-78</b>	FCC ID: <b>L6ARFD30CW</b>

Date/Time: 3/19/2012 2:43:23 PM

Test Laboratory: RIM Testing Services

## MHS\_Right\_CDMA800\_mid\_chan\_amb\_temp\_22.3C\_liq\_temp\_21.3C

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297ECFF9**

Communication System: CDMA 800; Frequency: 820.5 MHz

Medium parameters used (interpolated):  $f = 820.5$  MHz;  $\sigma = 0.963$  mho/m;  $\epsilon_r = 55.404$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS2 52.8.0(692); SEMCAD X 14.6.4(4989)

**Configuration/Touch position -/Area Scan (31x101x1):** Measurement grid:  
 $dx=15$ mm,  $dy=15$ mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.772 mW/g

**Configuration/Touch position -/Zoom Scan (5x5x7) (5x5x7)/Cube 0:**

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

Reference Value = 27.215 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.9590

**SAR(1 g) = 0.680 mW/g; SAR(10 g) = 0.475 mW/g**

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.776 mW/g

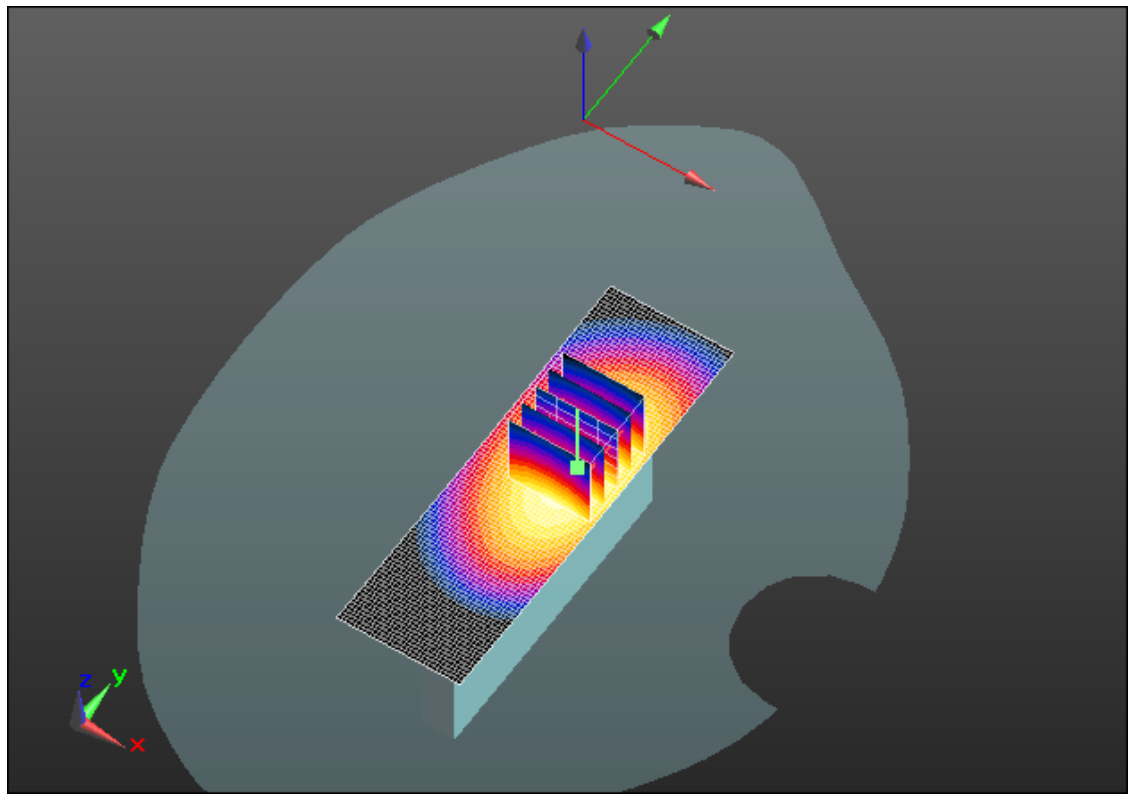
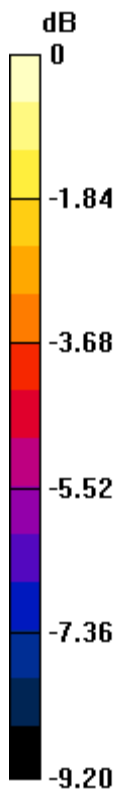
Author Data  
**Andrew Becker**

Dates of Test  
**February 23 – March 19, 2012**


Test Report No  
**RTS-5994-1203-78**

FCC ID:  
**L6ARFD30CW**

IC ID  
**2503A-RFD30CW**



0 dB = 0.780mW/g = -2.16 dB mW/g

	Document <b>Appendix C2 for the BlackBerry® Smartphone Model RFD31CW SAR Report</b>			Page <b>16(20)</b>
	Author Data <b>Andrew Becker</b>	Dates of Test <b>February 23 – March 19, 2012</b>	Test Report No <b>RTS-5994-1203-78</b>	FCC ID: <b>L6ARFD30CW</b>

Date/Time: 3/19/2012 2:22:26 PM

Test Laboratory: RIM Testing Services

## MHS\_Left\_CDMA800\_mid\_chan\_amb\_temp\_22.2C\_liq\_temp\_21.3C

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297ECFF9**

Communication System: CDMA 800; Frequency: 820.5 MHz

Medium parameters used (interpolated):  $f = 820.5$  MHz;  $\sigma = 0.963$  mho/m;  $\epsilon_r = 55.404$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS2 52.8.0(692); SEMCAD X 14.6.4(4989)

**Configuration/Touch position -/Area Scan (31x101x1):** Measurement grid:  
 $dx=15$ mm,  $dy=15$ mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.714 mW/g

**Configuration/Touch position -/Zoom Scan (5x5x7) (5x5x7)/Cube 0:**

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

Reference Value = 25.672 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.8700

**SAR(1 g) = 0.619 mW/g; SAR(10 g) = 0.429 mW/g**

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.708 mW/g



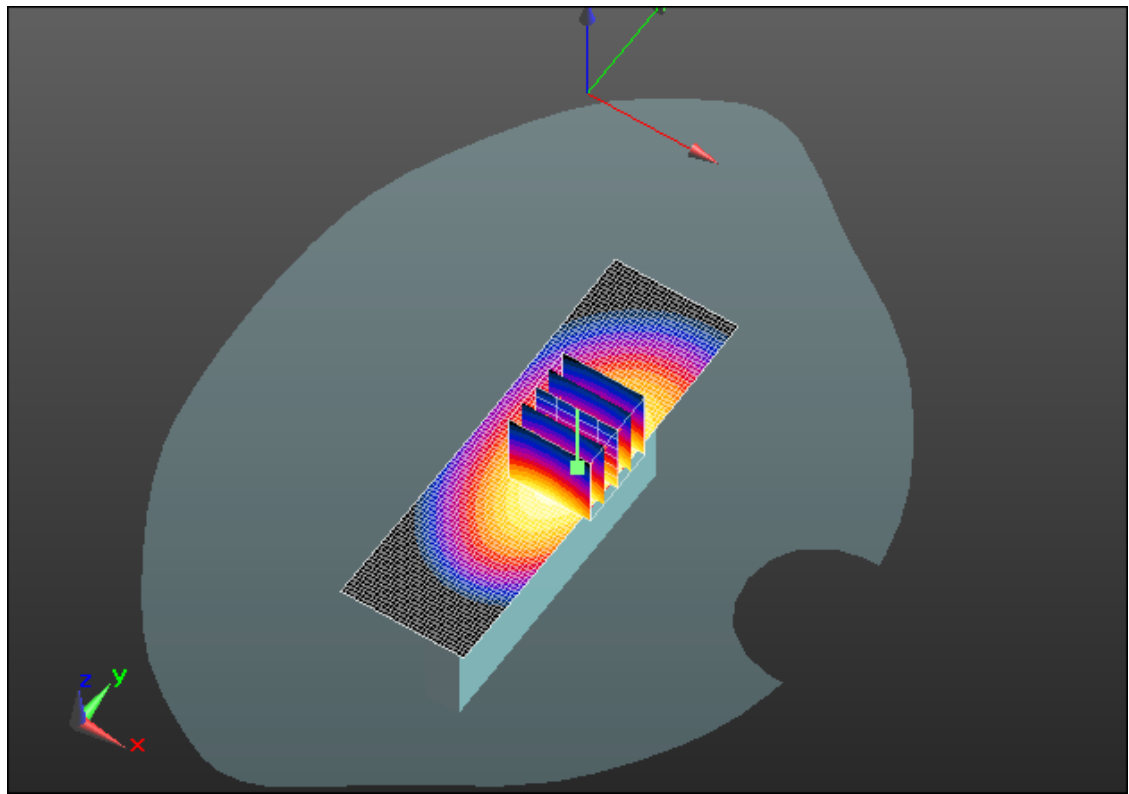
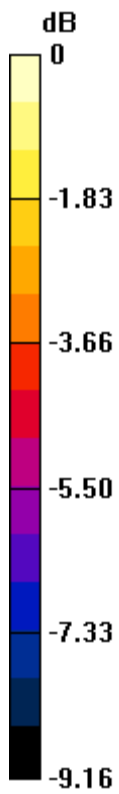
Author Data  
**Andrew Becker**

Dates of Test  
**February 23 – March 19, 2012**


Test Report No  
**RTS-5994-1203-78**

FCC ID:  
**L6ARFD30CW**

IC ID  
**2503A-RFD30CW**



0 dB = 0.710mW/g = -2.97 dB mW/g

	Document <b>Appendix C2 for the BlackBerry® Smartphone Model RFD31CW SAR Report</b>			Page <b>18(20)</b>
	Author Data <b>Andrew Becker</b>	Dates of Test <b>February 23 – March 19, 2012</b>	Test Report No <b>RTS-5994-1203-78</b>	FCC ID: <b>L6ARFD30CW</b>

Date/Time: 3/19/2012 2:58:38 PM

Test Laboratory: RIM Testing Services

**MHS\_Bottom\_CDMA800\_mid\_chan\_amb\_temp\_23.0C\_liq\_temp\_21.3C**

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297ECFF9**

Communication System: CDMA 800; Frequency: 820.5 MHz

Medium parameters used (interpolated):  $f = 820.5$  MHz;  $\sigma = 0.963$  mho/m;  $\epsilon_r = 55.404$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS2 52.8.0(692); SEMCAD X 14.6.4(4989)

**Configuration/Touch position -/Area Scan (31x81x1):** Measurement grid:  
 $dx=15$ mm,  $dy=15$ mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.122 mW/g

**Configuration/Touch position -/Zoom Scan (5x5x7) (6x6x7)/Cube 0:**

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

Reference Value = 11.584 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.1990

**SAR(1 g) = 0.103 mW/g; SAR(10 g) = 0.064 mW/g**

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.127 mW/g

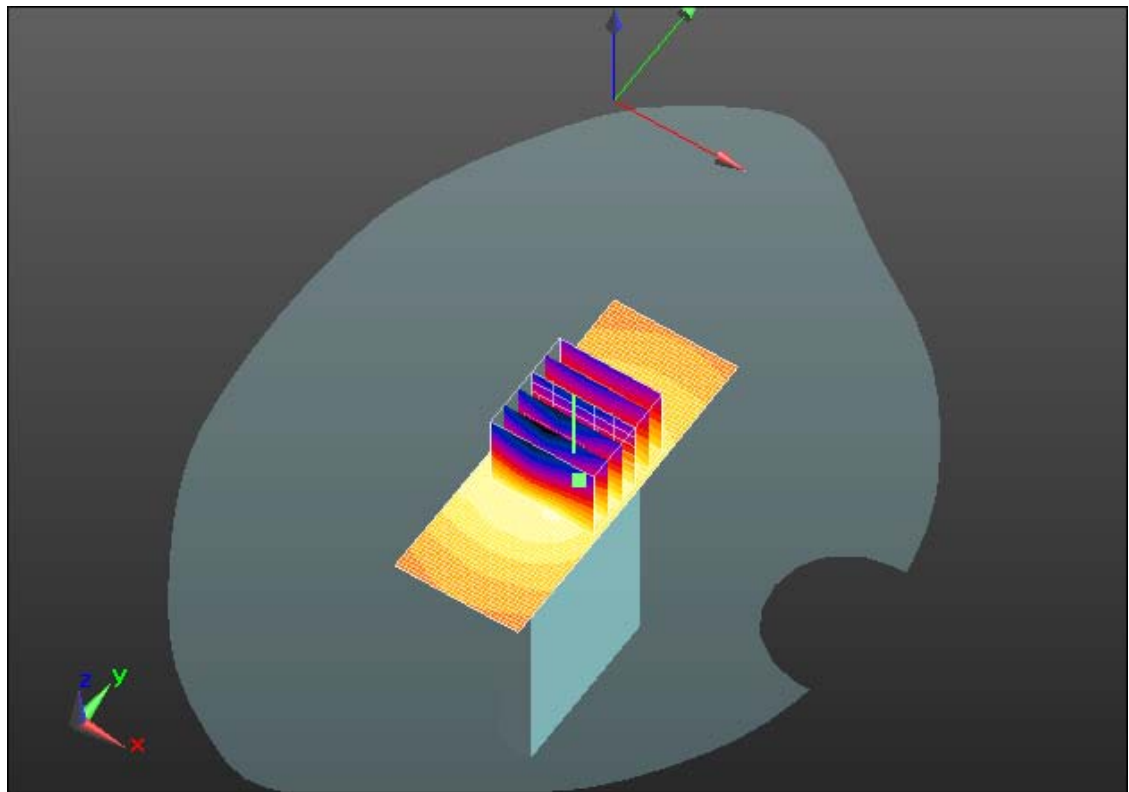
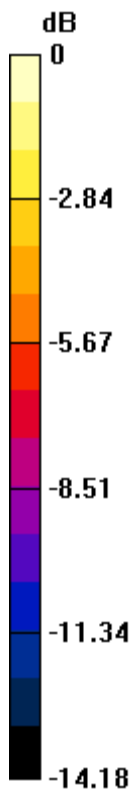
Author Data  
**Andrew Becker**

Dates of Test  
**February 23 – March 19, 2012**


Test Report No  
**RTS-5994-1203-78**

FCC ID:  
**L6ARFD30CW**

IC ID  
**2503A-RFD30CW**



0 dB = 0.130mW/g = -17.72 dB mW/g

	Document <b>Appendix C2 for the BlackBerry® Smartphone Model RFD31CW SAR Report</b>			Page <b>20(20)</b>
	Author Data <b>Andrew Becker</b>	Dates of Test <b>February 23 – March 19, 2012</b>	Test Report No <b>RTS-5994-1203-78</b>	FCC ID: <b>L6ARFD30CW</b>

### Z axis plot for the worst case body configuration

