

	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 1(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW

APPENDIX B2: VOLUME SCANS AND MULTI-BAND AVERAGE SAR DISTRIBUTION PLOTS FOR HEAD CONFIGURATION

	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 2(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW

Date/Time: 3/13/2012 10:12:16 AM

Test Laboratory: RIM Testing Services

Volume-

Scan_RightHandSide_CDMA1700_high_chan_amb_temp_22.6C_liq_temper_21.1C_Single_Layered

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 331CEAA2

Communication System: CDMA AWS 1700; Frequency: 1753.75 MHz
Medium parameters used (interpolated): $f = 1753.75$ MHz; $\sigma = 1.416$ mho/m; $\epsilon_r = 40.889$; $\rho = 1000$ kg/m³
Phantom section: Right Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ET3DV6 - SN1644; ConvF(5.1, 5.1, 5.1); Calibrated: 11/15/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 32.7$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position - Volume Scan/Volume Scan

(13x15x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 13.266 V/m; Power Drift = -0.006 dB

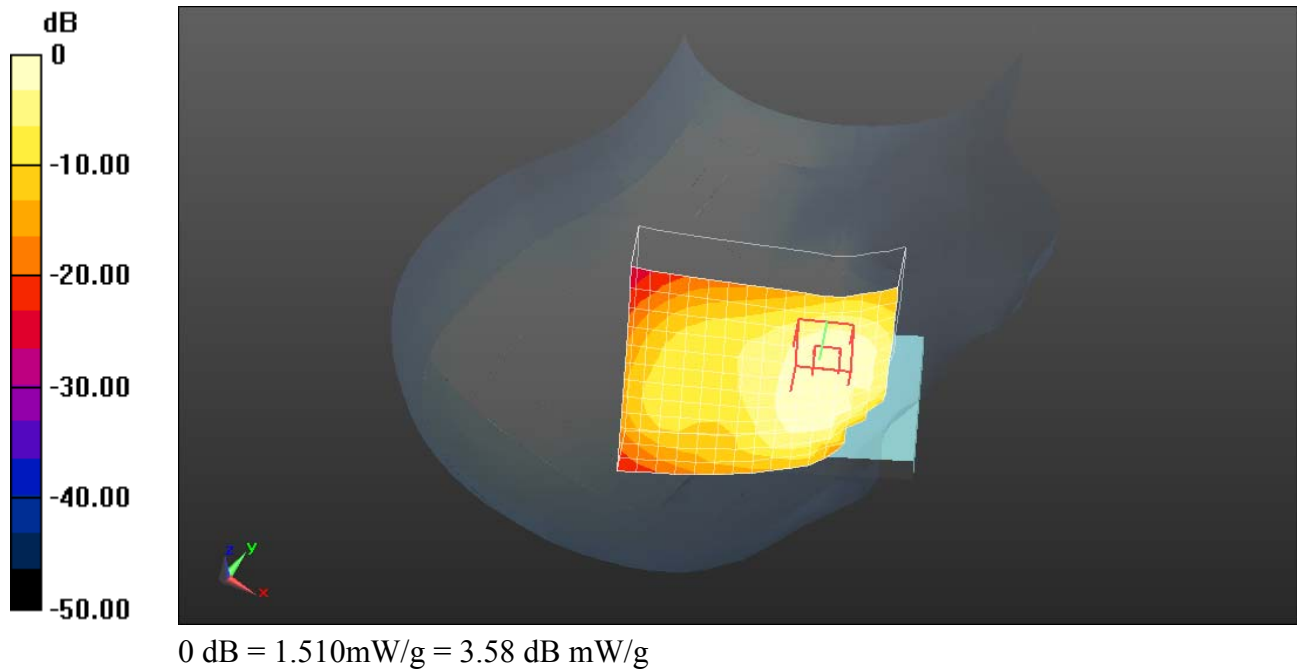
Peak SAR (extrapolated) = 1.9790

SAR(1 g) = 1.44 mW/g; SAR(10 g) = 0.887 mW/g

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

Maximum value of SAR (measured) = 1.507 mW/g

	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 3(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW



	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 4(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW

Date/Time: 3/13/2012 10:12:16 AM

Test Laboratory: RIM Testing Services

Volume-

Scan_RightHandSide_CDMA1700_high_chan_amb_temp_22.6C_liq_temp_21.1C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 331CEAA2

Communication System: CDMA AWS 1700; Frequency: 1753.75 MHz

Medium parameters used (interpolated): $f = 1753.75$ MHz; $\sigma = 1.416$ mho/m; $\epsilon_r = 40.889$; $\rho = 1000$ kg/m³

Phantom section: Right Section

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

DASY Configuration:

- Probe: ET3DV6 - SN1644; ConvF(5.1, 5.1, 5.1); Calibrated: 11/15/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 32.7$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position - Volume Scan/Volume Scan

(13x15x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 13.266 V/m; Power Drift = -0.006 dB

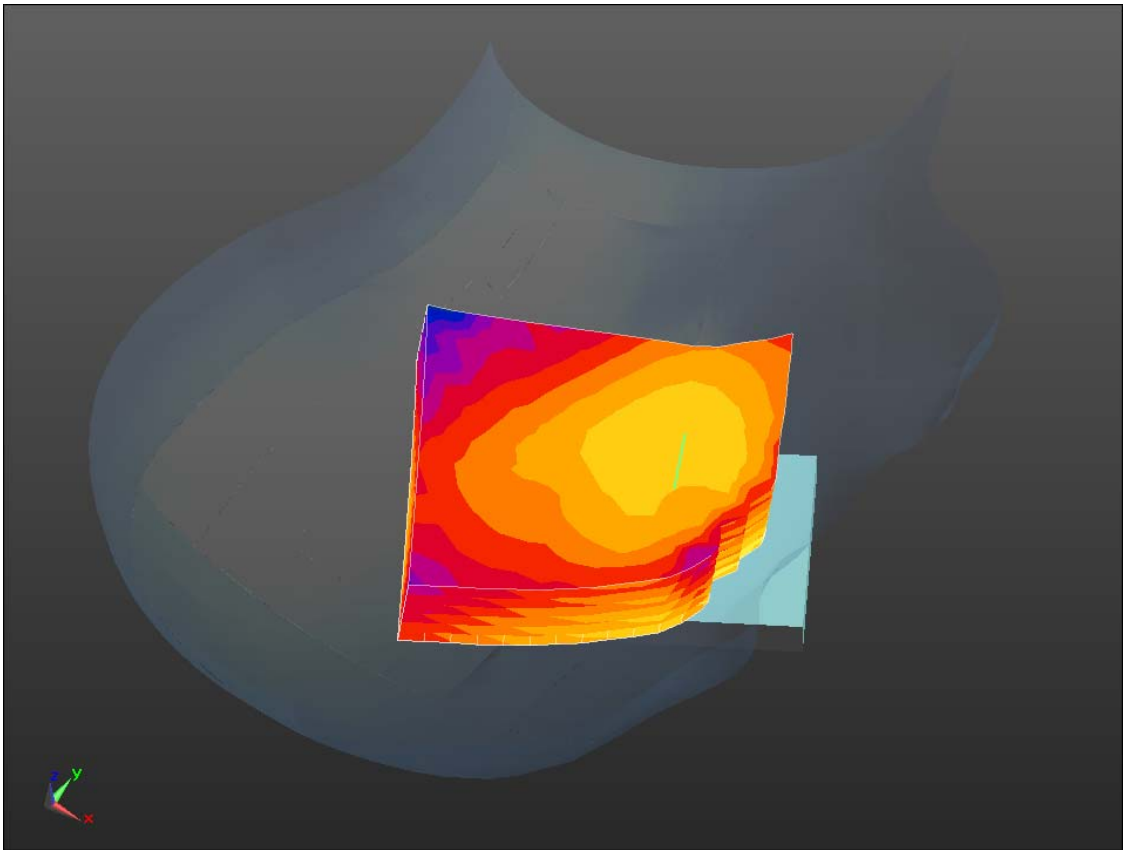
Peak SAR (extrapolated) = 1.9790

SAR(1 g) = 1.44 mW/g; SAR(10 g) = 0.887 mW/g

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

Maximum value of SAR (measured) = 1.507 mW/g

	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 5(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW



0 dB = 1.510mW/g = 3.58 dB mW/g

	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 6(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW

Date/Time: 3/6/2012 4:26:56 PM

Test Laboratory: RIM Testing Services

**Volume_Scan_RightHandSide_802.11b_low_chan_amb_temp_22.4C_li
q_temp_20.6C_Single_Layered**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: 802.11 b (2450); Frequency: 2412 MHz

Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.812$ mho/m; $\epsilon_r = 37.761$; $\rho = 1000$ kg/m³

Phantom section: Right Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.5, 4.5, 4.5); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position - Volume Scan/Volume Scan

(13x15x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 5.331 V/m; Power Drift = 0.20 dB

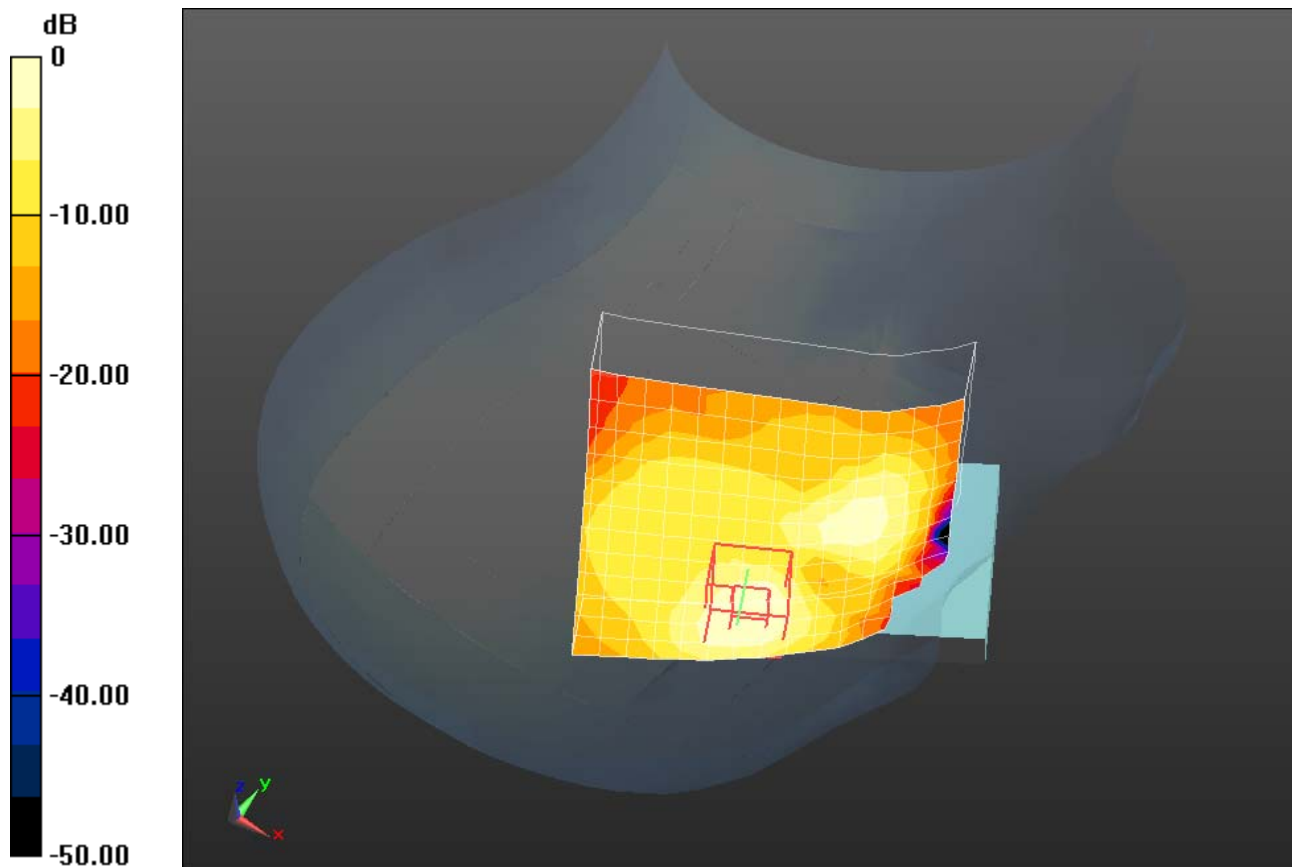
Peak SAR (extrapolated) = 0.3930

SAR(1 g) = 0.194 mW/g; SAR(10 g) = 0.091 mW/g

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

Maximum value of SAR (measured) = 0.229 mW/g

	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 7(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW



0 dB = 0.230mW/g = -12.77 dB mW/g

	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 8(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW

Date/Time: 3/6/2012 4:26:56 PM

Test Laboratory: RIM Testing Services

**Volume_Scan_RightHandSide_802.11b_low_chan_amb_temp_22.4C_li
q_temp_20.6C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: 802.11 b (2450); Frequency: 2412 MHz

Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.812$ mho/m; $\epsilon_r = 37.761$; $\rho = 1000$ kg/m³

Phantom section: Right Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.5, 4.5, 4.5); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position - Volume Scan/Volume Scan

(13x15x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 5.331 V/m; Power Drift = 0.20 dB

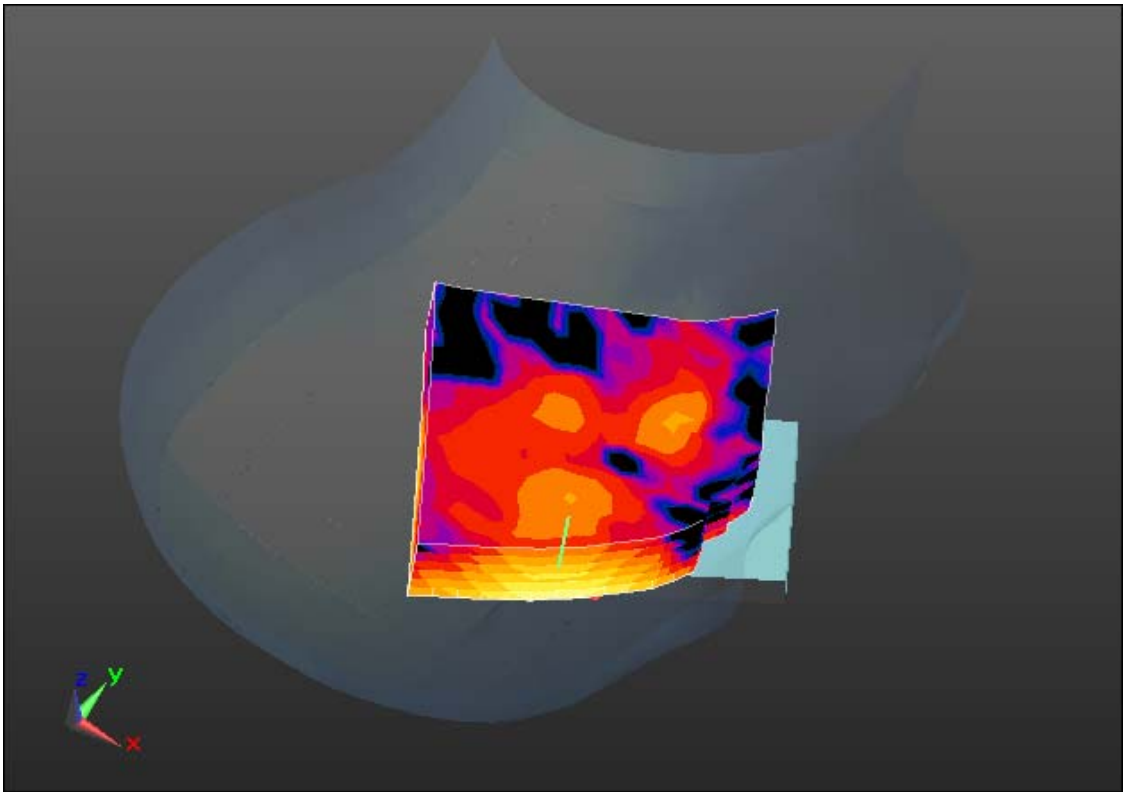
Peak SAR (extrapolated) = 0.3930

SAR(1 g) = 0.194 mW/g; SAR(10 g) = 0.091 mW/g

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

Maximum value of SAR (measured) = 0.229 mW/g

	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 9(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW



0 dB = 0.230mW/g = -12.77 dB mW/g

	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 10(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW

Multi-band SAR_WiFi_CDMA1700

Multi-Band Configurations,Single_Layered

DASY Configuration for Configuration/Touch position - Volume Scan/Volume Scan:

Date/Time: 3/6/2012 4:26:56 PM

Test Laboratory: RIM Testing Services

File Name:

[Volume_Scan_RightHandSide_802.11b_low_chan_amb_temp_22.4C_liq_temp_20.6C.da52:0](#)

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: 802.11 b (2450); Frequency: 2412 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used (interpolated): $f = 2412 \text{ MHz}$; $\sigma = 1.812 \text{ mho/m}$; $\epsilon_r = 37.761$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

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

- Probe: ES3DV3 - SN3225; ConvF(4.5, 4.5, 4.5); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.8 (0)

DASY Configuration for Configuration/Touch position - Volume Scan/Volume Scan:

Date/Time: 3/13/2012 10:12:16 AM

Test Laboratory: RIM Testing Services

File Name: [Volume-](#)

[Scan_RightHandSide_CDMA1700_high_chan_amb_temp_22.6C_liq_temp_21.1C.da52:0](#)

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 331CEAA2

Communication System: CDMA AWS 1700; Frequency: 1753.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1753.75 \text{ MHz}$; $\sigma = 1.416$

	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 11(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW

mho/m; $\epsilon_r = 40.889$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

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

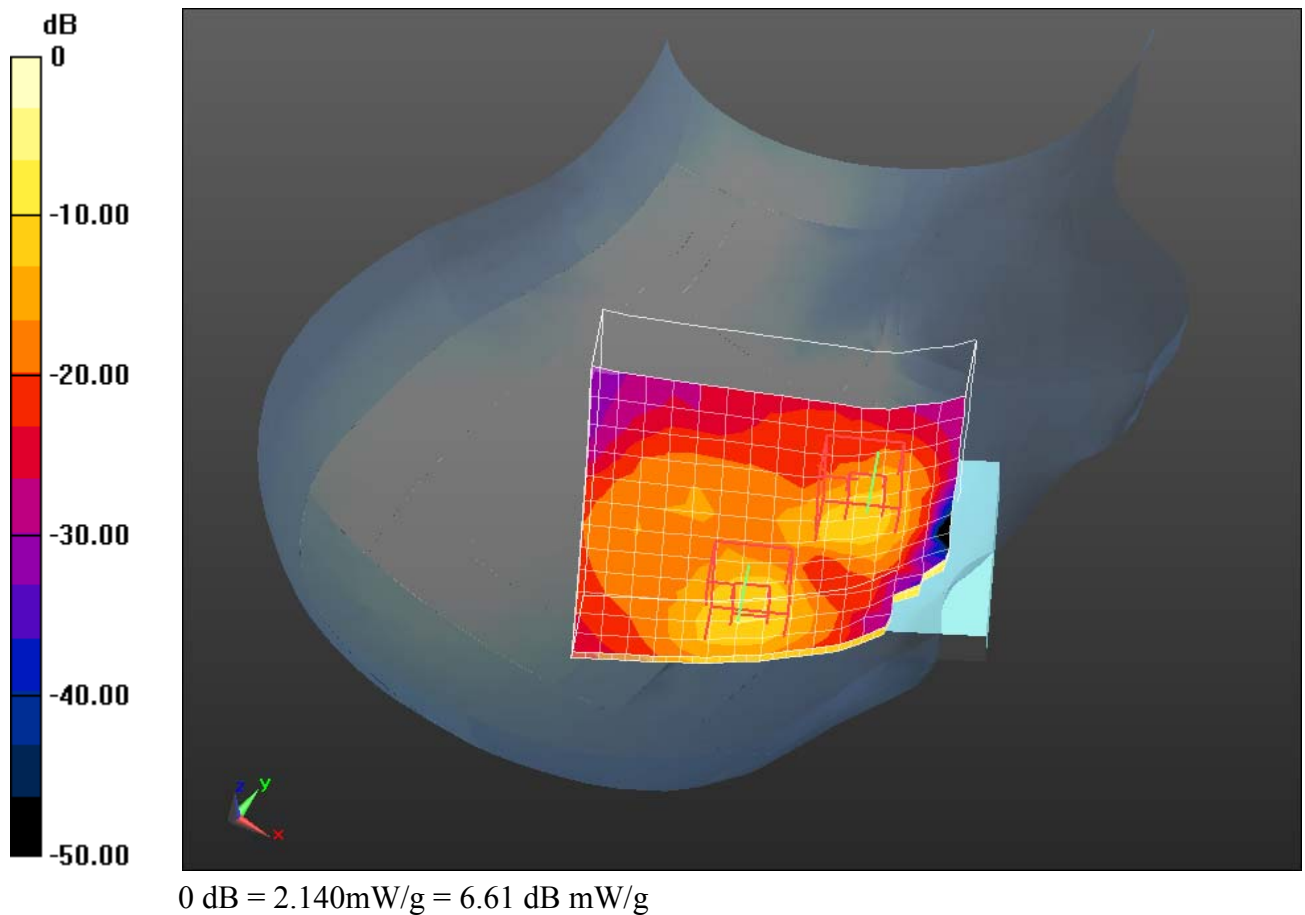
- Probe: ET3DV6 - SN1644; ConvF(5.1, 5.1, 5.1); Calibrated: 11/15/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASYS2, Version 52.8 (0)

Multi Band Result:

SAR(1 g) = 1.56 mW/g; SAR(10 g) = 0.944 mW/g

Maximum value of SAR (interpolated) = 2.136 mW/g

	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 12(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW



SEMCAD X Version 14.6.4 (4989)

	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 13(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW

Multi-Band Average SAR_CDMA1700_RightHeadSide

Multi-Band Configurations:

DASY Configuration for Configuration/Touch position - Volume Scan/Volume Scan:

Date/Time: 3/6/2012 4:26:56 PM

Test Laboratory: RIM Testing Services

File Name:

[Volume Scan_RightHandSide_802.11b_low_chan_amb_temp_22.4C_liq_temp_20.6C.d a52:0](#)

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 297DF9E4

Communication System: 802.11 b (2450); Frequency: 2412 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used (interpolated): $f = 2412 \text{ MHz}$; $\sigma = 1.812 \text{ mho/m}$; $\epsilon_r = 37.761$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

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

- Probe: ES3DV3 - SN3225; ConvF(4.5, 4.5, 4.5); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY52, Version 52.8 (0)

DASY Configuration for Configuration/Touch position - Volume Scan/Volume Scan:

Date/Time: 3/13/2012 10:12:16 AM

Test Laboratory: RIM Testing Services

	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 14(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW

File Name: [Volume-Scan RightHandSide CDMA1700 high chan amb temp 22.6C liq temp 21.1C.da52:0](#)

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 331CEAA2

Communication System: CDMA AWS 1700; Frequency: 1753.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1753.75 \text{ MHz}$; $\sigma = 1.416 \text{ mho/m}$; $\epsilon_r = 40.889$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

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

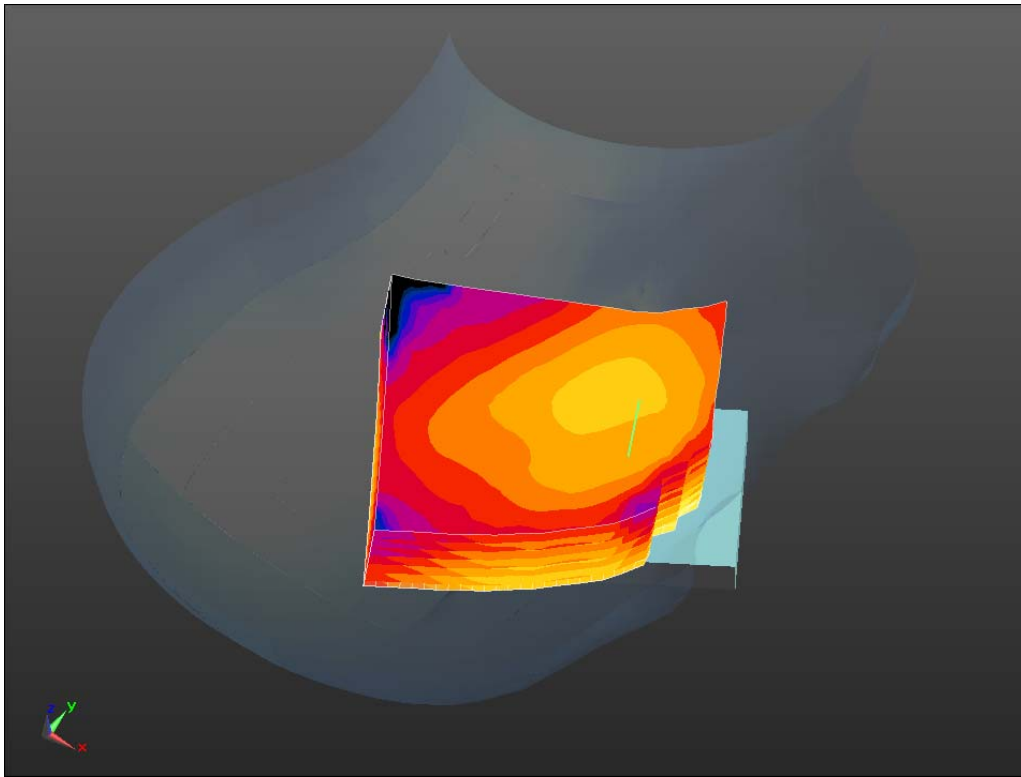
- Probe: ET3DV6 - SN1644; ConvF(5.1, 5.1, 5.1); Calibrated: 11/15/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASYS2, Version 52.8 (0)

Multi Band Result:

SAR(1 g) = 1.56 mW/g; SAR(10 g) = 0.944 mW/g

Maximum value of SAR (interpolated) = 2.136 mW/g

	Document Appendix B2 for the BlackBerry® Smartphone Model RFC31CW SAR Report			Page 15(15)
Author Data Andrew Becker	Dates of Test February 23 – March 13, 2012	Test Report No RTS-5994-1203-76	FCC ID: L6ARFC30CW	IC ID 2503A-RFC30CW



0 dB = 2.140mW/g = 6.61 dB mW/g