
	Document Appendix B for the BlackBerry® Smartphone Model RFD31CW SAR Report			Page 1(18)
	Author Data Andrew Becker	Dates of Test February 23 – March 19, 2012	Test Report No RTS-5994-1203-78	FCC ID: L6ARFD30CW

APPENDIX B: SAR DISTRIBUTION PLOTS FOR HEAD CONFIGURATION

	Document Appendix B for the BlackBerry® Smartphone Model RFD31CW SAR Report			Page 2(18)
	Author Data Andrew Becker	Dates of Test February 23 – March 19, 2012	Test Report No RTS-5994-1203-78	FCC ID: L6ARFD30CW

Date/Time: 3/16/2012 12:24:37 PM

Test Laboratory: RIM Testing Services

RightHandSide_CDMA800_low_chan_amb_temp_23.4C_liq_temp_21.2

C

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

Communication System: CDMA 800; Frequency: 817.9 MHz

Medium parameters used (interpolated): $f = 817.9$ MHz; $\sigma = 0.869$ mho/m; $\epsilon_r = 40.103$; $\rho = 1000$ kg/m³

Phantom section: Right 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/Touch position -/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (interpolated) = 1.434 mW/g

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

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

Reference Value = 15.510 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.6530

SAR(1 g) = 1.28 mW/g; SAR(10 g) = 0.930 mW/g

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

Maximum value of SAR (measured) = 1.415 mW/g

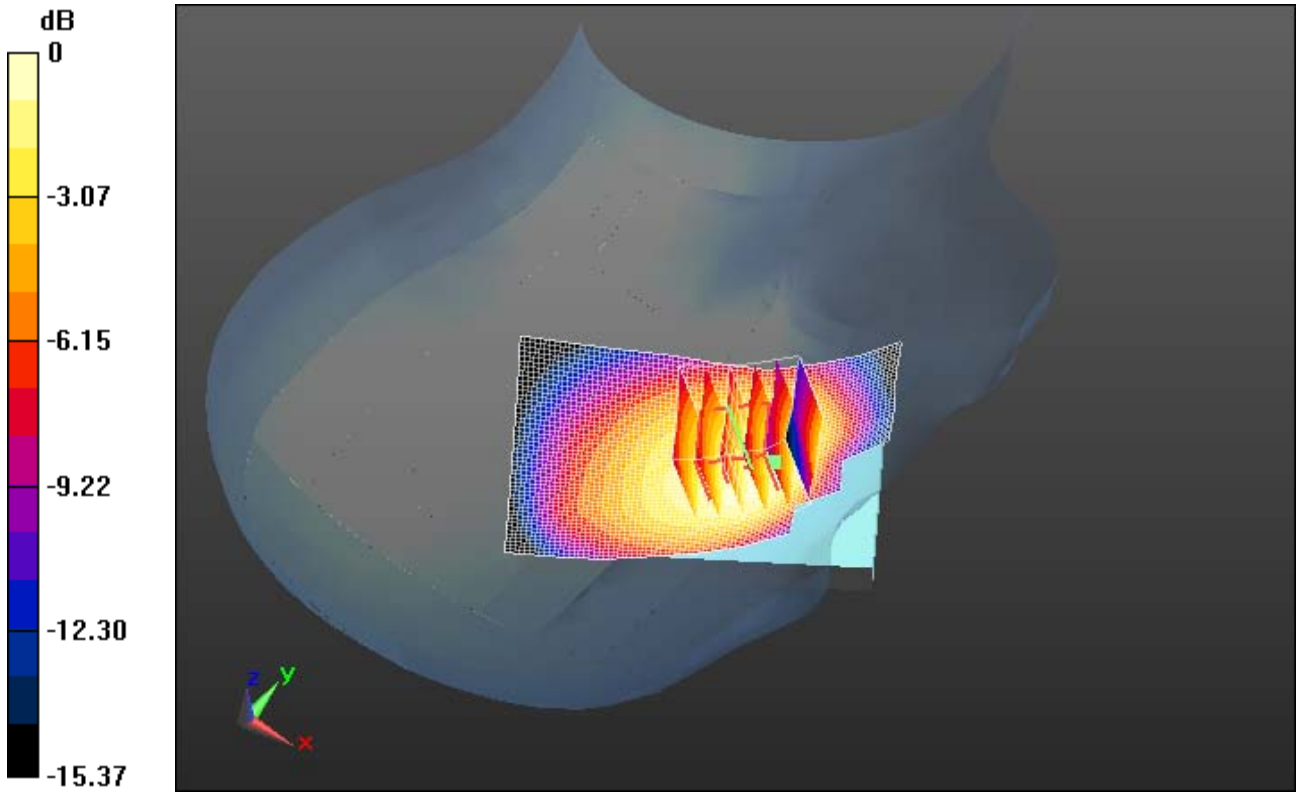
Author Data
Andrew Becker

Dates of Test
February 23 – March 19, 2012


Test Report No
RTS-5994-1203-78

FCC ID:
L6ARFD30CW

IC ID
2503A-RFD30CW



0 dB = 1.410mW/g = 2.98 dB mW/g

	Document Appendix B for the BlackBerry® Smartphone Model RFD31CW SAR Report			Page 4(18)
	Author Data Andrew Becker	Dates of Test February 23 – March 19, 2012	Test Report No RTS-5994-1203-78	FCC ID: L6ARFD30CW

Date/Time: 3/16/2012 12:01:22 PM

Test Laboratory: RIM Testing Services

RightHandSide_CDMA800_mid_chan_amb_temp_23.1C_liq_temp_21.2 C

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

Communication System: CDMA 800; Frequency: 820.5 MHz

Medium parameters used (interpolated): $f = 820.5$ MHz; $\sigma = 0.871$ mho/m; $\epsilon_r = 40.065$; $\rho = 1000$ kg/m³

Phantom section: Right 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/Touch position -/Area Scan (51x81x1): Measurement grid:
dx=15mm, dy=15mm

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

Maximum value of SAR (interpolated) = 1.333 mW/g

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

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

Reference Value = 15.347 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 1.5630

SAR(1 g) = 1.22 mW/g; SAR(10 g) = 0.889 mW/g

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

Maximum value of SAR (measured) = 1.345 mW/g

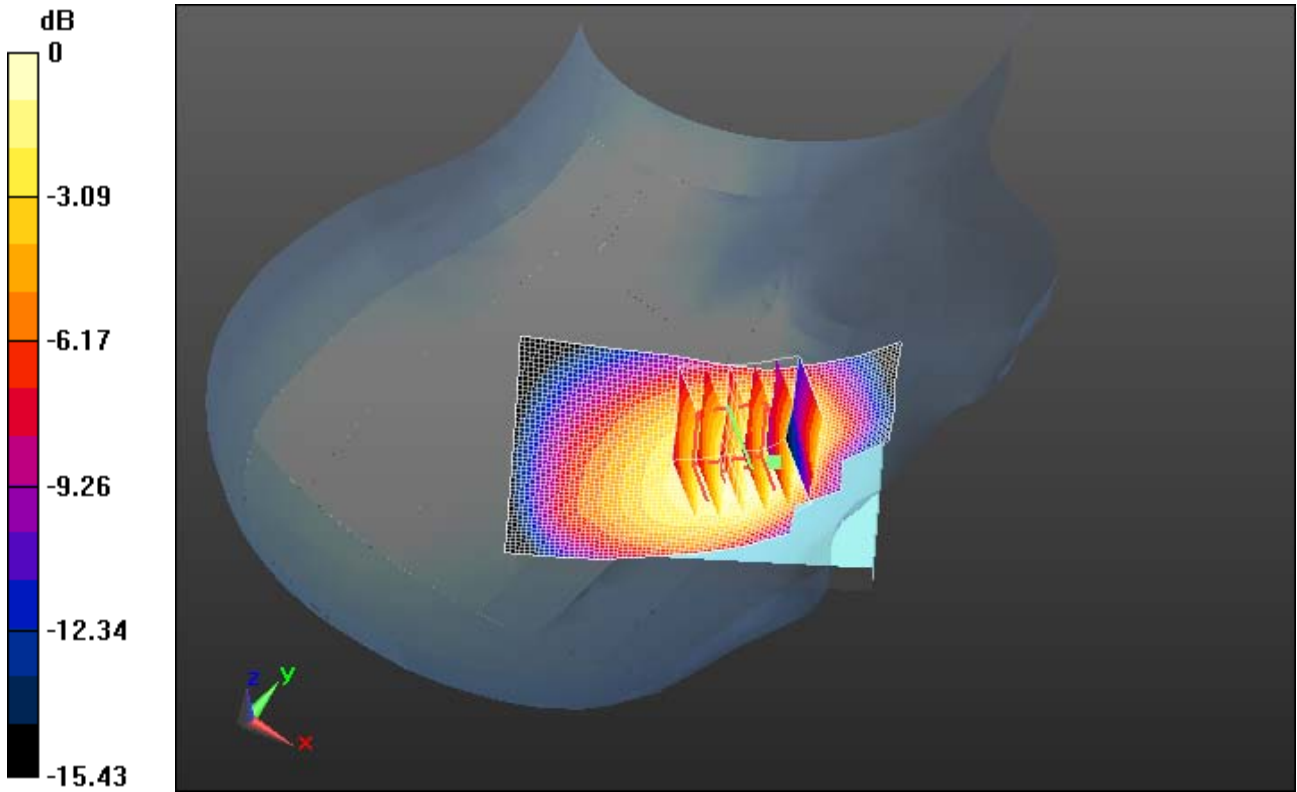
Author Data
Andrew Becker

Dates of Test
February 23 – March 19, 2012


Test Report No
RTS-5994-1203-78

FCC ID:
L6ARFD30CW

IC ID
2503A-RFD30CW



0 dB = 1.340mW/g = 2.54 dB mW/g

	Document Appendix B for the BlackBerry® Smartphone Model RFD31CW SAR Report			Page 6(18)
	Author Data Andrew Becker	Dates of Test February 23 – March 19, 2012	Test Report No RTS-5994-1203-78	FCC ID: L6ARFD30CW

Date/Time: 3/16/2012 1:21:49 PM

Test Laboratory: RIM Testing Services

RightHandSide_CDMA800_high_chan_amb_temp_22.2C_liq_temp_21.2 C

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

Communication System: CDMA 800; Frequency: 823.1 MHz

Medium parameters used (interpolated): $f = 823.1$ MHz; $\sigma = 0.874$ mho/m; $\epsilon_r = 40.021$; $\rho = 1000$ kg/m³

Phantom section: Right 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/Touch position -/Area Scan (51x81x1): Measurement grid:
dx=15mm, dy=15mm

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

Maximum value of SAR (interpolated) = 1.323 mW/g

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

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


Reference Value = 14.497 V/m; Power Drift = 0.04 dB

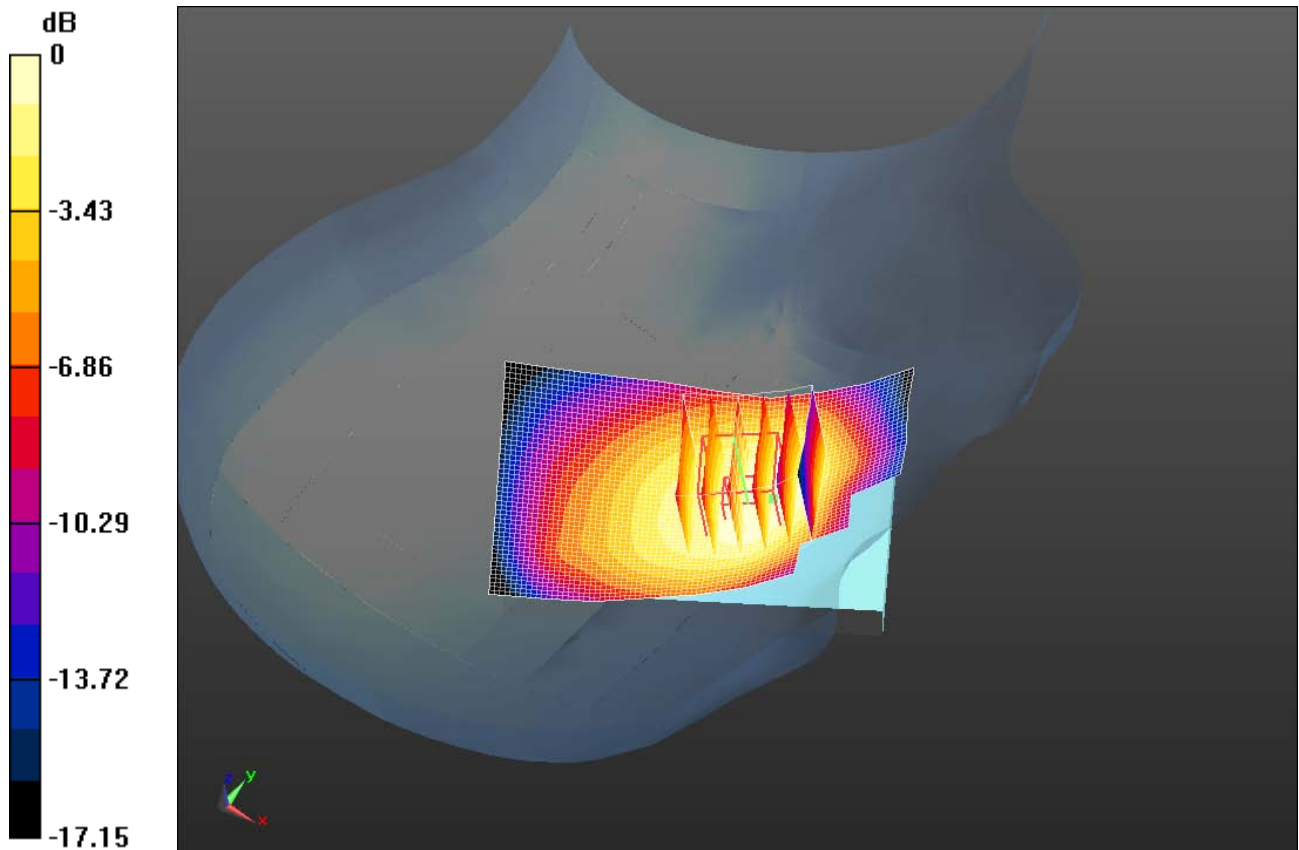
Peak SAR (extrapolated) = 1.5180

SAR(1 g) = 1.18 mW/g; SAR(10 g) = 0.859 mW/g


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

Maximum value of SAR (measured) = 1.314 mW/g

	Document Appendix B for the BlackBerry® Smartphone Model RFD31CW SAR Report			Page 7(18)
	Author Data Andrew Becker	Dates of Test February 23 – March 19, 2012	Test Report No RTS-5994-1203-78	FCC ID: L6ARFD30CW



0 dB = 1.310mW/g = 2.35 dB mW/g

	Document Appendix B for the BlackBerry® Smartphone Model RFD31CW SAR Report			Page 8(18)
	Author Data Andrew Becker	Dates of Test February 23 – March 19, 2012	Test Report No RTS-5994-1203-78	FCC ID: L6ARFD30CW

Date/Time: 3/16/2012 1:43:39 PM

Test Laboratory: RIM Testing Services

RightHandSide_Tilt_CDMA800_mid_chan_amb_temp_22.2C_liq_temp_21.1C

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

Communication System: CDMA 800; Frequency: 820.5 MHz

Medium parameters used (interpolated): $f = 820.5$ MHz; $\sigma = 0.871$ mho/m; $\epsilon_r = 40.065$; $\rho = 1000$ kg/m³

Phantom section: Right 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/Tilt position -/Area Scan (51x81x1): Measurement grid:
 $dx=15$ mm, $dy=15$ mm

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

Maximum value of SAR (interpolated) = 0.697 mW/g

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

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

Reference Value = 20.704 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.7740

SAR(1 g) = 0.621 mW/g; SAR(10 g) = 0.469 mW/g

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

Maximum value of SAR (measured) = 0.686 mW/g

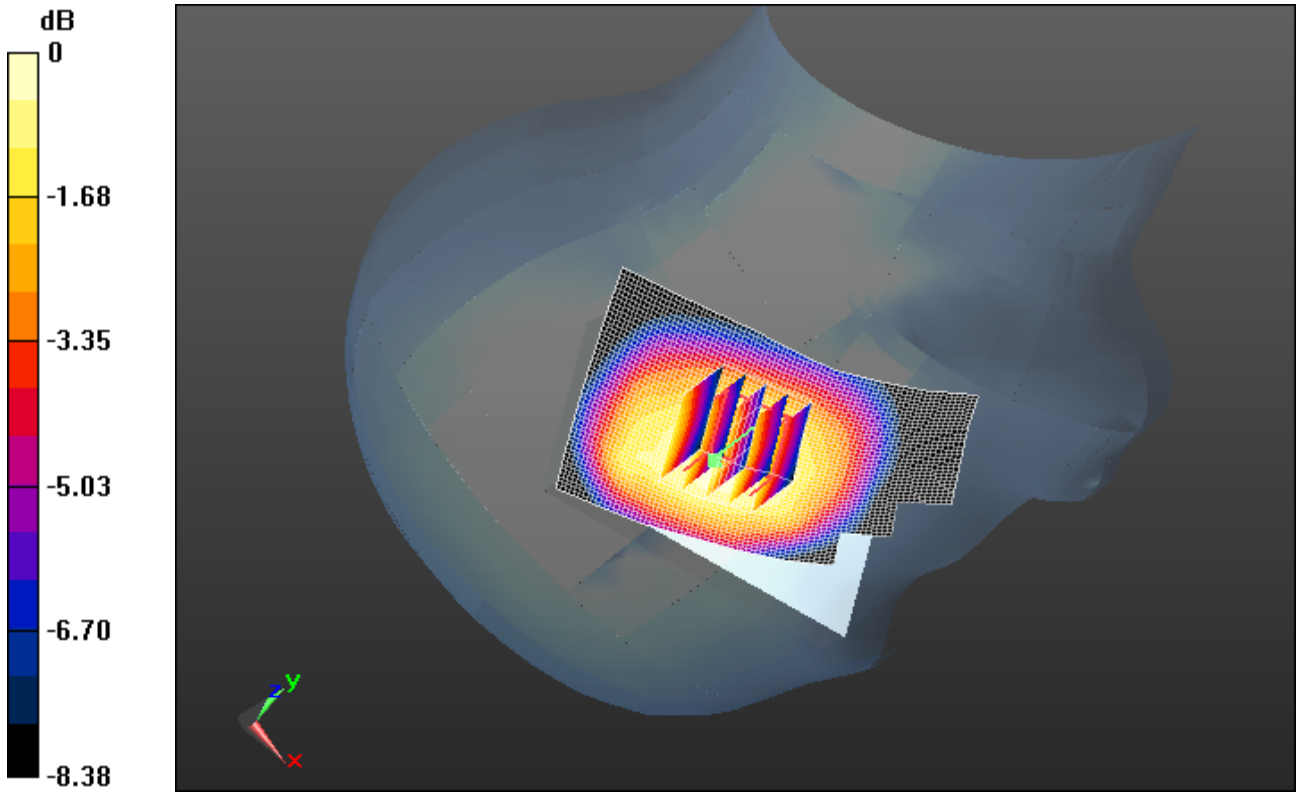
Author Data
Andrew Becker

Dates of Test
February 23 – March 19, 2012


Test Report No
RTS-5994-1203-78

FCC ID:
L6ARFD30CW

IC ID
2503A-RFD30CW



0 dB = 0.690mW/g = -3.22 dB mW/g

	Document Appendix B for the BlackBerry® Smartphone Model RFD31CW SAR Report			Page 10(18)
	Author Data Andrew Becker	Dates of Test February 23 – March 19, 2012	Test Report No RTS-5994-1203-78	FCC ID: L6ARFD30CW

Date/Time: 3/16/2012 2:39:21 PM

Test Laboratory: RIM Testing Services

LeftHandSide_CDMA800_low_chan_amb_temp_22.3C_liq_temp_21.1C

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

Communication System: CDMA 800; Frequency: 817.9 MHz

Medium parameters used (interpolated): $f = 817.9$ MHz; $\sigma = 0.869$ mho/m; $\epsilon_r = 40.103$; $\rho = 1000$ kg/m³

Phantom section: Left 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/Touch position -/Area Scan (51x81x1): Measurement grid:
 $dx=15$ mm, $dy=15$ mm

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

Maximum value of SAR (interpolated) = 1.251 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 = 14.055 V/m; Power Drift = -0.0057 dB

Peak SAR (extrapolated) = 1.4300

SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.826 mW/g

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

Maximum value of SAR (measured) = 1.250 mW/g

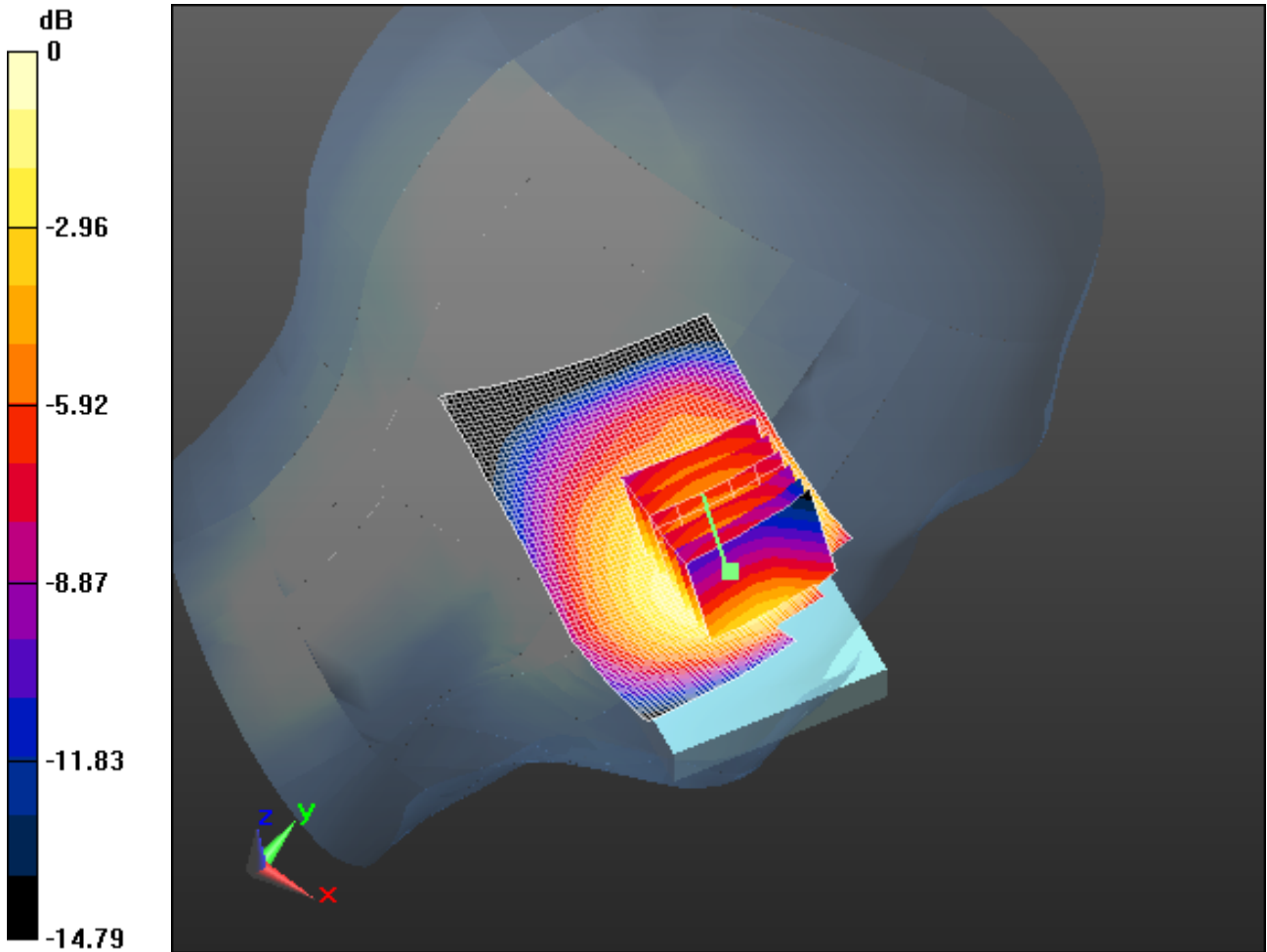
Author Data
Andrew Becker

Dates of Test
February 23 – March 19, 2012


Test Report No
RTS-5994-1203-78

FCC ID:
L6ARFD30CW

IC ID
2503A-RFD30CW



0 dB = 1.250mW/g = 1.94 dB mW/g

	Document Appendix B for the BlackBerry® Smartphone Model RFD31CW SAR Report			Page 12(18)
	Author Data Andrew Becker	Dates of Test February 23 – March 19, 2012	Test Report No RTS-5994-1203-78	FCC ID: L6ARFD30CW

Date/Time: 3/16/2012 2:05:13 PM

Test Laboratory: RIM Testing Services

LeftHandSide_CDMA800_mid_chan_amb_temp_22.2C_liq_temp_21.1C

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

Communication System: CDMA 800; Frequency: 820.5 MHz

Medium parameters used (interpolated): $f = 820.5$ MHz; $\sigma = 0.871$ mho/m; $\epsilon_r = 40.065$; $\rho = 1000$ kg/m³

Phantom section: Left 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/Touch position -/Area Scan (51x81x1): Measurement grid:
 $dx=15$ mm, $dy=15$ mm

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

Maximum value of SAR (interpolated) = 1.199 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 = 13.580 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.3700

SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.782 mW/g

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

Maximum value of SAR (measured) = 1.198 mW/g

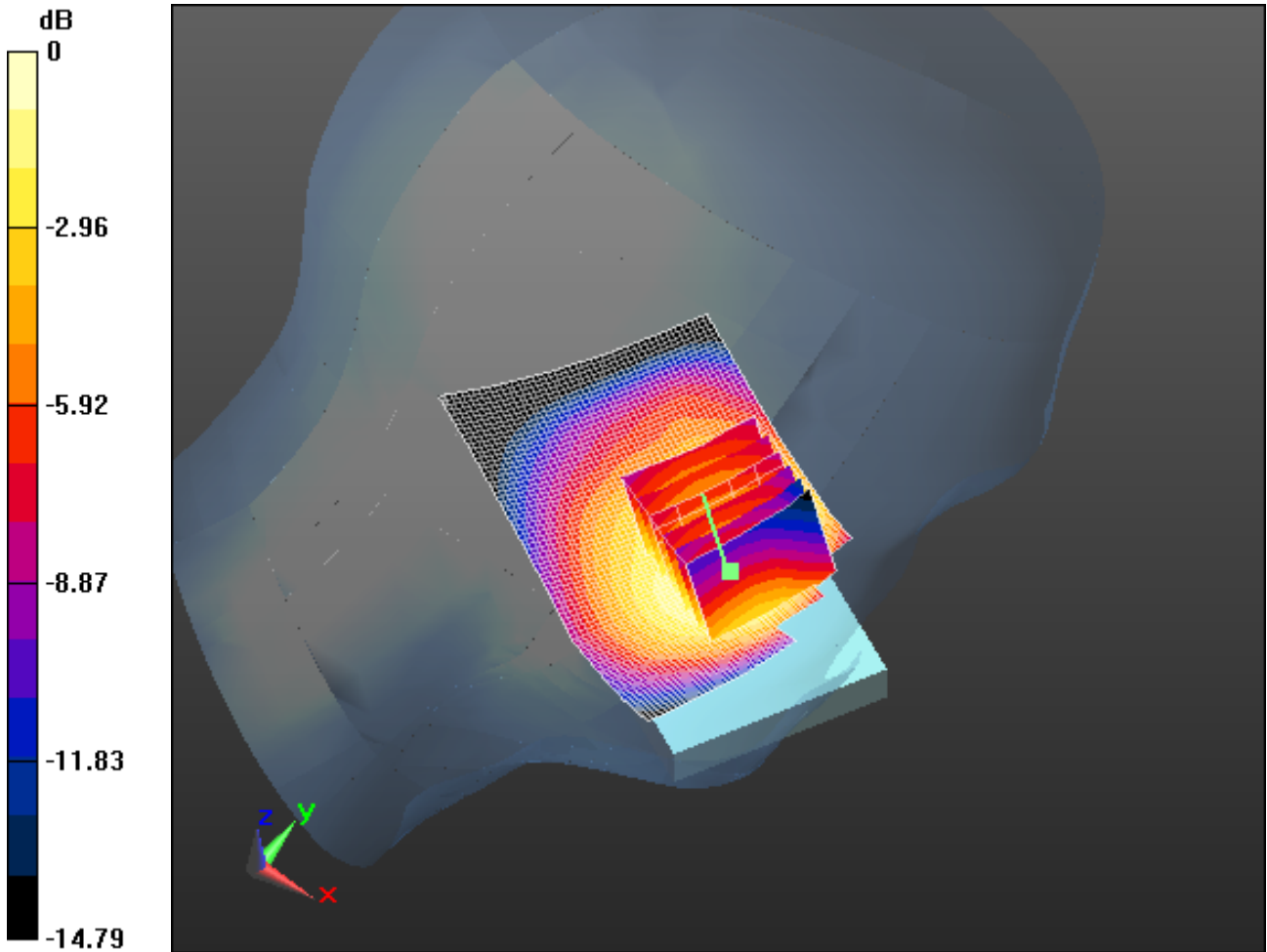
Author Data
Andrew Becker

Dates of Test
February 23 – March 19, 2012


Test Report No
RTS-5994-1203-78

FCC ID:
L6ARFD30CW

IC ID
2503A-RFD30CW



0 dB = 1.200mW/g = 1.58 dB mW/g

	Document Appendix B for the BlackBerry® Smartphone Model RFD31CW SAR Report			Page 14(18)
	Author Data Andrew Becker	Dates of Test February 23 – March 19, 2012	Test Report No RTS-5994-1203-78	FCC ID: L6ARFD30CW

Date/Time: 3/16/2012 2:56:47 PM

Test Laboratory: RIM Testing Services

LeftHandSide_CDMA800_high_chan_amb_temp_22.3C_liq_temp_21.1C

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

Communication System: CDMA 800; Frequency: 823.1 MHz

Medium parameters used (interpolated): $f = 823.1$ MHz; $\sigma = 0.874$ mho/m; $\epsilon_r = 40.021$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Measurement Standard: DASYS5 (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/Touch position -/Area Scan (51x81x1): Measurement grid:
 $dx=15$ mm, $dy=15$ mm

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

Maximum value of SAR (interpolated) = 1.138 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 = 13.000 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.2960

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.747 mW/g

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

Maximum value of SAR (measured) = 1.120 mW/g

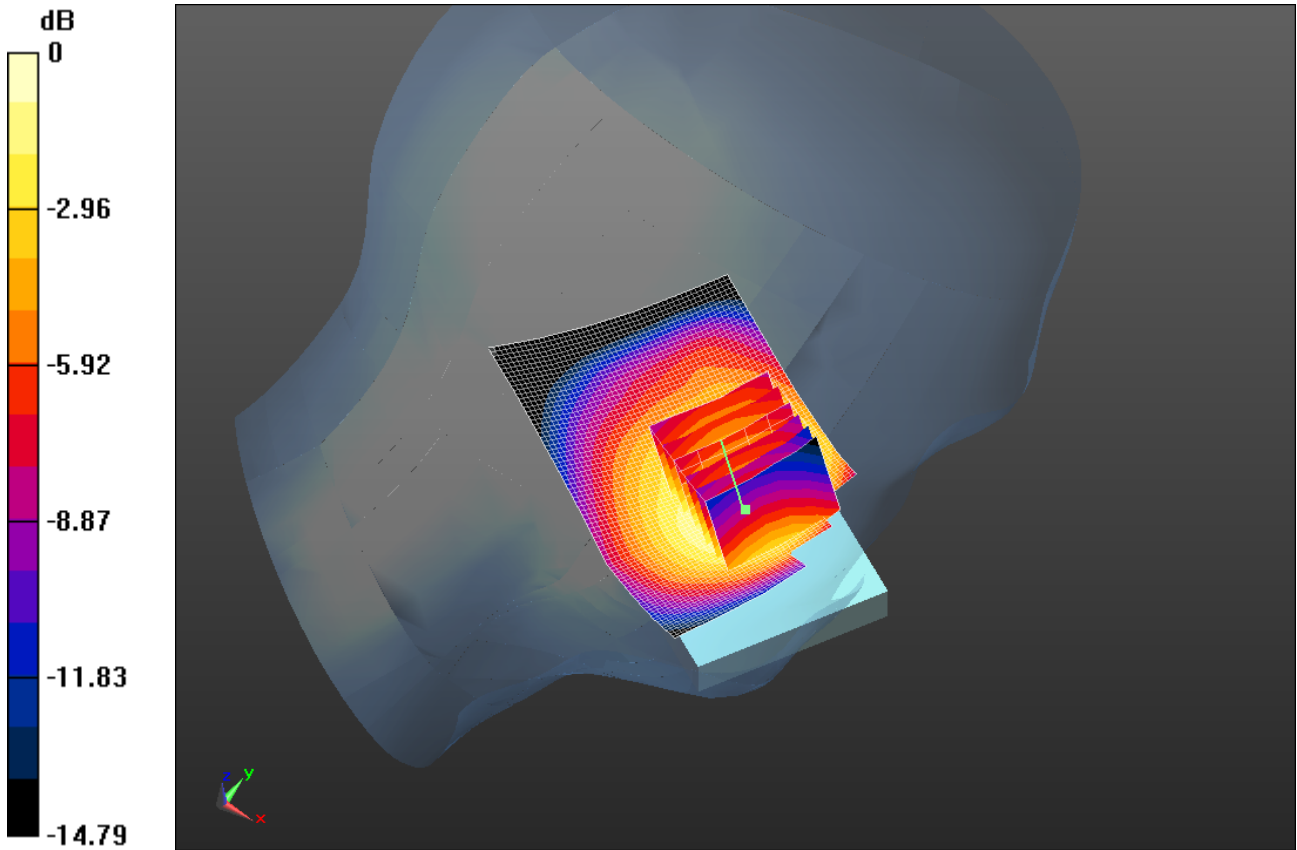
Author Data
Andrew Becker

Dates of Test
February 23 – March 19, 2012


Test Report No
RTS-5994-1203-78

FCC ID:
L6ARFD30CW

IC ID
2503A-RFD30CW



0 dB = 1.120mW/g = 0.98 dB mW/g

	Document Appendix B for the BlackBerry® Smartphone Model RFD31CW SAR Report			Page 16(18)
	Author Data Andrew Becker	Dates of Test February 23 – March 19, 2012	Test Report No RTS-5994-1203-78	FCC ID: L6ARFD30CW

Date/Time: 3/16/2012 3:21:46 PM

Test Laboratory: RIM Testing Services

**LeftHandSide_Tilt_CDMA800_mid_chan_amb_temp_22.3C_liq_temp_21
.1C**

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

Communication System: CDMA 800; Frequency: 820.5 MHz
Medium parameters used (interpolated): $f = 820.5$ MHz; $\sigma = 0.871$ mho/m; $\epsilon_r = 40.065$; $\rho = 1000$ kg/m³
Phantom section: Left 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/Tilt position -/Area Scan (51x81x1): Measurement grid:
 $dx=15$ mm, $dy=15$ mm

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


Maximum value of SAR (interpolated) = 0.660 mW/g

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

Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm
Reference Value = 21.049 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.7430
SAR(1 g) = 0.588 mW/g; SAR(10 g) = 0.443 mW/g

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

Maximum value of SAR (measured) = 0.649 mW/g

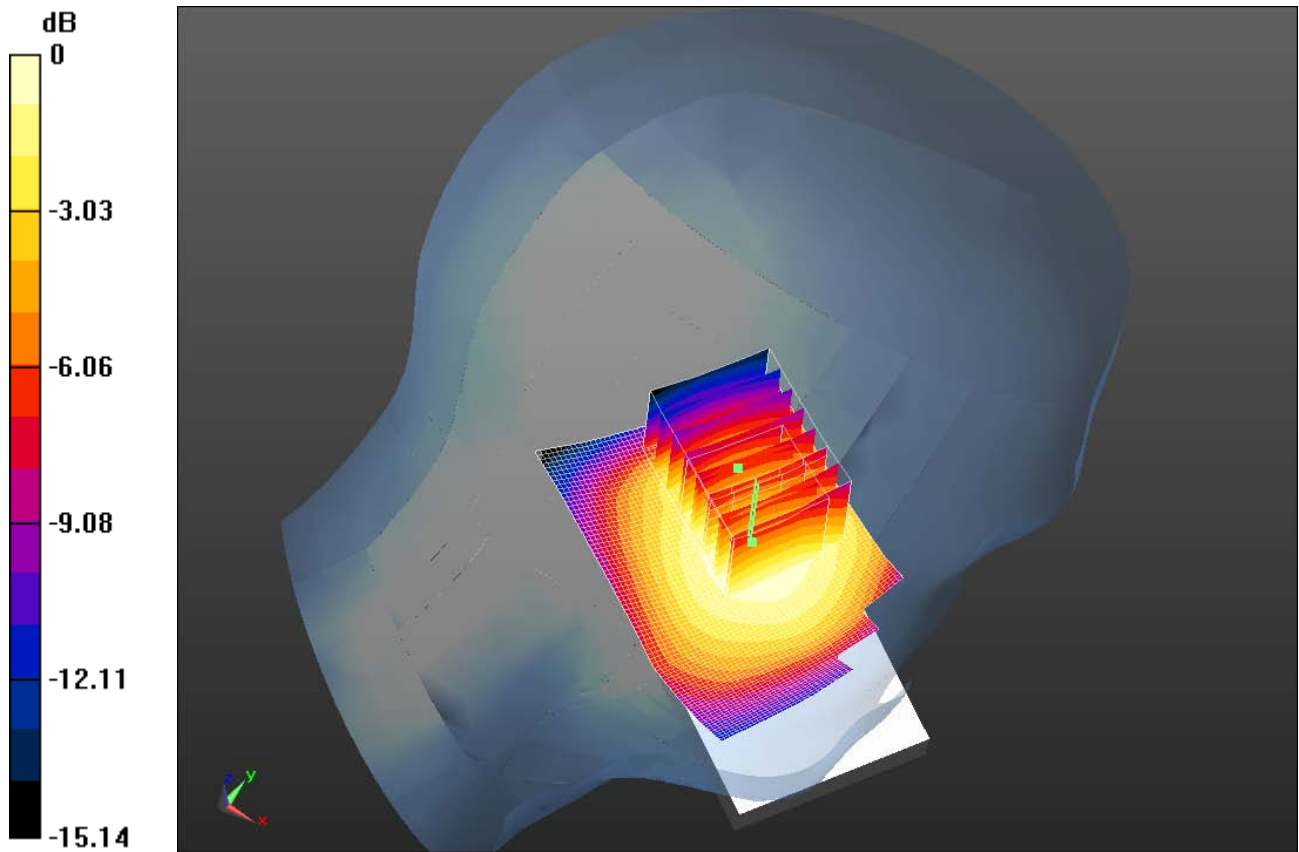
	Document Appendix B for the BlackBerry® Smartphone Model RFD31CW SAR Report			Page 17(18)
	Author Data Andrew Becker	Dates of Test February 23 – March 19, 2012	Test Report No RTS-5994-1203-78	FCC ID: L6ARFD30CW

Configuration/Tilt position -/Zoom Scan 2 (5x5x7) (6x8x7)/Cube 0:


Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 21.049 V/m; Power Drift = 0.12 dB
 Peak SAR (extrapolated) = 0.7620
SAR(1 g) = 0.598 mW/g; SAR(10 g) = 0.448 mW/g

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

Maximum value of SAR (measured) = 0.663 mW/g



0 dB = 0.660mW/g = -3.61 dB mW/g

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

Z axis plot for the worst case head configuration

