Testing Services™	Document Appendix B for the BlackBerry® Smartphone Model RCS71CW SAR Report		
Author Data	Dates of Test	Test Report No	FCC ID:
Andrew Becker	October 19 - November 4, 2009	RTS -2340-0911-15	L6ARCS70CW

#### APPENDIX B: SAR DISTRIBUTION PLOTS FOR HEAD CONFIGURATION

Date/Time: 23/10/2009 11:57:55 AM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide EDGE850 low chan Amb Tem 23.9 Liq Tem 22.1 C.da4

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: EDGE 850 (2slots); Frequency: 824.2 MHz;Duty Cycle: 1:4.2 Medium parameters used: f = 825 MHz;  $\sigma = 0.857$  mho/m;  $\epsilon_r = 41.4$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1642; ConvF(6.06, 6.06, 6.06); Calibrated: 12/01/2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn472; Calibrated: 03/03/2009

- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Touch position -/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.855 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 12.4 V/m; Power Drift = -0.244 dB Peak SAR (extrapolated) = 1.13 W/kg SAR(1 g) = 0.809 mW/g; SAR(10 g) = 0.547 mW/g Maximum value of SAR (measured) = 0.883 mW/g



Testing Services™	Document Appendix B for the BlackBerry® Smartphone Model RCS71CW SAR Report			Page <b>4(102)</b>
Author Data	Dates of Test	Test Report No	FCC ID:	
Andrew Becker	October 19 - November 4, 2009	RTS -2340-0911-15	L6ARCS7	70CW

Date/Time: 23/10/2009 12:13:31 PM

Test Laboratory: RIM TESTING SERVICES File Name: <u>LeftHandSide\_EDGE850\_mid\_chan\_Amb\_Tem\_24.1\_Liq\_Tem\_22.3\_C.da4</u>

# DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: EDGE 850 (2slots); Frequency: 836.8 MHz;Duty Cycle: 1:4.2 Medium parameters used (interpolated): f = 836.8 MHz;  $\sigma = 0.869$  mho/m;  $\varepsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.06, 6.06, 6.06); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.969 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 12.4 V/m; Power Drift = -0.106 dB Peak SAR (extrapolated) = 1.33 W/kg SAR(1 g) = 0.937 mW/g; SAR(10 g) = 0.627 mW/g Maximum value of SAR (measured) = 1.02 mW/g





Date/Time: 23/10/2009 12:43:52 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide EDGE850 high chan Amb Tem 24.3 Liq Tem 22.4 C.da4

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: EDGE 850 (2slots); Frequency: 848.8 MHz;Duty Cycle: 1:4.2 Medium parameters used (interpolated): f = 848.8 MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 41.1$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.06, 6.06, 6.06); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Touch position -/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm. Maximum value of SAR (interpolated) = 1.00 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 12.3 V/m; Power Drift = -0.115 dB Peak SAR (extrapolated) = 1.38 W/kg SAR(1 g) = 0.962 mW/g; SAR(10 g) = 0.643 mW/g Maximum value of SAR (measured) = 1.05 mW/g





Date/Time: 23/10/2009 12:58:47 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide Tilt EDGE850 high chan Amb Tem 24.4 Liq Tem 22.2 C.da4

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: EDGE 850 (2slots); Frequency: 848.8 MHz;Duty Cycle: 1:4.2 Medium parameters used (interpolated): f = 848.8 MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 41.1$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.06, 6.06, 6.06); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.529 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 16.3 V/m; Power Drift = -0.029 dB Peak SAR (extrapolated) = 0.589 W/kg SAR(1 g) = 0.491 mW/g; SAR(10 g) = 0.376 mW/g Maximum value of SAR (measured) = 0.513 mW/g





Date/Time: 22/10/2009 10:09:13 PM

Test Laboratory: RIM TESTING SERVICES File Name: <u>RightHandSide EDGE850 low chan Amb Tem 23.0 Liq Tem 21.9 C.da4</u>

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: EDGE 850 (2slots); Frequency: 824.2 MHz;Duty Cycle: 1:4.2 Medium parameters used: f = 825 MHz;  $\sigma = 0.857$  mho/m;  $\varepsilon_r = 41.4$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.42, 6.42, 6.42); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

## Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mmMaximum value of SAR (interpolated) = 0.929 mW/g

# Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 11.9 V/m; Power Drift = -0.253 dB Peak SAR (extrapolated) = 1.17 W/kg SAR(1 g) = 0.872 mW/g; SAR(10 g) = 0.604 mW/g Maximum value of SAR (measured) = 0.985 mW/g



 $0 \, dB = 0.985 mW/g$ 



Date/Time: 22/10/2009 10:48:00 PM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide EDGE850 mid chan Amb Tem 22.9 Liq Tem 21.9 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: EDGE 850 (2slots); Frequency: 836.8 MHz;Duty Cycle: 1:4.2 Medium parameters used (interpolated): f = 836.8 MHz;  $\sigma = 0.869$  mho/m;  $\epsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

#### DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.42, 6.42, 6.42); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 1.07 mW/g

## Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 11.7 V/m; Power Drift = -0.008 dB Peak SAR (extrapolated) = 1.37 W/kg **SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.693 mW/g** Maximum value of SAR (measured) = 1.12 mW/g



 $0 \, dB = 1.12 mW/g$ 

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Date/Time: 22/10/2009 11:02:31 PM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide EDGE850 high chan Amb Tem 23.1 Liq Tem 22.0 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: EDGE 850 (2slots); Frequency: 848.8 MHz;Duty Cycle: 1:4.2 Medium parameters used (interpolated): f = 848.8 MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 41.1$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

## DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.42, 6.42, 6.42); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 1.03 mW/g

# Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 11.1 V/m; Power Drift = 0.006 dB Peak SAR (extrapolated) = 1.34 W/kg **SAR(1 g) = 0.990 mW/g; SAR(10 g) = 0.674 mW/g** Maximum value of SAR (measured) = 1.09 mW/g



0 dB = 1.09 mW/g

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Author Data	Dates of Test	Test Report No	FCC ID:	
Andrew Becker	October 19 - November 4, 2009	RTS -2340-0911-15	L6ARCS7	70CW

Date/Time: 22/10/2009 11:44:09 PM

Test Laboratory: RIM TESTING SERVICES File Name: <u>RightHandSide GSM850 mid chan Amb Tem 23.1 Liq Tem 22.0 C.da4</u>

# DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3 Medium parameters used (interpolated): f = 836.8 MHz;  $\sigma = 0.869$  mho/m;  $\varepsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.42, 6.42, 6.42); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 1.05 mW/g

# Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 11.0 V/m; Power Drift = -0.067 dB Peak SAR (extrapolated) = 1.38 W/kg **SAR(1 g) = 1 mW/g; SAR(10 g) = 0.679 mW/g**. Maximum value of SAR (measured) = 1.13 mW/g





Date/Time: 22/10/2009 11:24:21 PM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide Tilt EDGE850 mid chan Amb Tem 23.1 Liq Tem 22.0 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: EDGE 850 (2slots); Frequency: 836.8 MHz;Duty Cycle: 1:4.2 Medium parameters used (interpolated): f = 836.8 MHz;  $\sigma = 0.869$  mho/m;  $\epsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

## DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.42, 6.42, 6.42); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

## Tilt position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mmMaximum value of SAR (interpolated) = 0.428 mW/g

## Tilt position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement

grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 15.4 V/m; Power Drift = -0.039 dB Peak SAR (extrapolated) = 0.485 W/kg SAR(1 g) = 0.413 mW/g; SAR(10 g) = 0.315 mW/g Maximum value of SAR (measured) = 0.433 mW/g



 $0 \, dB = 0.433 mW/g$ 



Date/Time: 23/10/2009 2:06:29 PM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide EDGE850 3slots mid chan Amb Tem 23.8 Liq Tem 22.6 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: EDGE 850 (3 slots); Frequency: 836.8 MHz;Duty Cycle: 1:2.8 Medium parameters used (interpolated): f = 836.8 MHz;  $\sigma = 0.869$  mho/m;  $\epsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.42, 6.42, 6.42); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.07 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 11.2 V/m; Power Drift = -0.167 dB Peak SAR (extrapolated) = 1.33 W/kg SAR(1 g) = 0.990 mW/g; SAR(10 g) = 0.675 mW/g Maximum value of SAR (measured) = 1.10 mW/g





Date/Time: 23/10/2009 2:21:06 PM

Test Laboratory: RIM TESTING SERVICES File Name: <u>RightHandSide EDGE850 4slots mid chan Amb Tem 24.5 Liq Tem 22.7 C.da4</u>

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: EDGE 850 (4 slots); Frequency: 836.8 MHz;Duty Cycle: 1:2.1 Medium parameters used (interpolated): f = 836.8 MHz;  $\sigma = 0.869$  mho/m;  $\epsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.42, 6.42, 6.42); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.906 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 10.3 V/m; Power Drift = -0.080 dB Peak SAR (extrapolated) = 1.13 W/kg SAR(1 g) = 0.841 mW/g; SAR(10 g) = 0.574 mW/gMaximum value of SAR (measured) = 0.941 mW/g



0 dB = 0.941 mW/g



Date/Time: 22/10/2009 5:26:47 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide CDMA800 low chan Amb Tem 24.1 Liq Tem 22.1 C.da4

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA 800; Frequency: 824.7 MHz;Duty Cycle: 1:1 Medium parameters used: f = 825 MHz;  $\sigma = 0.857$  mho/m;  $\epsilon_r = 41.4$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.06, 6.06, 6.06); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.23 mW/g

## Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement

grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 12.9 V/m; Power Drift = 0.014 dB Peak SAR (extrapolated) = 1.72 W/kg **SAR(1 g) = 1.21 mW/g; SAR(10 g) = 0.819 mW/g** Maximum value of SAR (measured) = 1.31 mW/g



 $0 \, dB = 1.31 \, mW/g$ 



Date/Time: 22/10/2009 5:43:26 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide CDMA800 mid chan Amb Tem 22.8 Lig Tem 22.1 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA 800; Frequency: 836.52 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 836.52 MHz;  $\sigma = 0.869$  mho/m;  $\varepsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

#### DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.06, 6.06, 6.06); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.11 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 11.6 V/m; Power Drift = -0.079 dB Peak SAR (extrapolated) = 1.58 W/kg SAR(1 g) = 1.09 mW/g; SAR(10 g) = 0.726 mW/g Maximum value of SAR (measured) = 1.18 mW/g



 $0 \, dB = 1.18 \, mW/g$ 



Date/Time: 22/10/2009 5:58:51 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide CDMA800 high chan Amb Tem 22.7 Liq Tem 22.0 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA 800; Frequency: 848.52 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 848.52 MHz;  $\sigma = 0.88$  mho/m;  $\varepsilon_r = 41.1$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

#### DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.06, 6.06, 6.06); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.18 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 11.7 V/m; Power Drift = 0.016 dB Peak SAR (extrapolated) = 1.68 W/kg SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.778 mW/g Maximum value of SAR (measured) = 1.27 mW/g



 $0 \, dB = 1.27 mW/g$ 



Date/Time: 22/10/2009 6:20:35 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide Tilt CDMA800 low chan Amb Tem 22.7 Lig Tem 21.9 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA 800; Frequency: 824.7 MHz;Duty Cycle: 1:1 Medium parameters used: f = 825 MHz;  $\sigma = 0.857$  mho/m;  $\epsilon_r = 41.4$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

## DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.06, 6.06, 6.06); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.615 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 19.0 V/m; Power Drift = -0.024 dB Peak SAR (extrapolated) = 0.697 W/kg SAR(1 g) = 0.577 mW/g; SAR(10 g) = 0.441 mW/g Maximum value of SAR (measured) = 0.613 mW/g



-6.46

-8.08

0 dB = 0.613 mW/g

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Date/Time: 22/10/2009 6:50:49 PM

Test Laboratory: RIM TESTING SERVICES File Name: <u>RightHandSide CDMA800 low chan Amb Tem 22.7 Liq Tem 21.9 C.da4</u>

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA 800; Frequency: 824.7 MHz;Duty Cycle: 1:1 Medium parameters used: f = 825 MHz;  $\sigma = 0.857$  mho/m;  $\epsilon_r = 41.4$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

## DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.42, 6.42, 6.42); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mmMaximum value of SAR (interpolated) = 1.34 mW/g

# Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 14.4 V/m; Power Drift = -0.131 dB Peak SAR (extrapolated) = 1.77 W/kg **SAR(1 g) = 1.29 mW/g; SAR(10 g) = 0.887 mW/g** Maximum value of SAR (measured) = 1.45 mW/g





Date/Time: 22/10/2009 8:34:41 PM

Test Laboratory: RIM TESTING SERVICES File Name: <u>RightHandSide\_CDMA800\_low\_chan\_Alt\_Battery\_Amb\_Tem\_23.1\_Liq\_Tem\_22.0\_C.</u> da4

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA 800; Frequency: 824.7 MHz;Duty Cycle: 1:1 Medium parameters used: f = 825 MHz;  $\sigma = 0.857$  mho/m;  $\epsilon_r = 41.4$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

## DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.42, 6.42, 6.42); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 1.41 mW/g

## Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 14.1 V/m; Power Drift = -0.108 dB Peak SAR (extrapolated) = 1.81 W/kg **SAR(1 g) = 1.35 mW/g; SAR(10 g) = 0.922 mW/g** Maximum value of SAR (measured) = 1.53 mW/g



 $0 \, dB = 1.53 mW/g$ 



Date/Time: 22/10/2009 7:06:29 PM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide CDMA800 mid chan Amb Tem 22.8 Liq Tem 21.9 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA 800; Frequency: 836.52 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 836.52 MHz;  $\sigma = 0.869$  mho/m;  $\varepsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

#### DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.42, 6.42, 6.42); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 1.22 mW/g

## Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 13.1 V/m; Power Drift = -0.109 dB Peak SAR (extrapolated) = 1.61 W/kg **SAR(1 g) = 1.19 mW/g; SAR(10 g) = 0.811 mW/g** Maximum value of SAR (measured) = 1.31 mW/g




Date/Time: 22/10/2009 7:21:28 PM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide CDMA800 high chan Amb Tem 22.6 Liq Tem 21.9 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA 800; Frequency: 848.52 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 848.52 MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 41.1$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

#### DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.42, 6.42, 6.42); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 1.31 mW/g

# Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 13.1 V/m; Power Drift = 0.068 dB Peak SAR (extrapolated) = 1.71 W/kg **SAR(1 g) = 1.28 mW/g; SAR(10 g) = 0.874 mW/g** Maximum value of SAR (measured) = 1.41 mW/g



 $0 \, dB = 1.41 \, mW/g$ 



Date/Time: 22/10/2009 7:39:15 PM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide Tilt CDMA800 low chan Amb Tem 22.9 Liq Tem 21.9 C.da4

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA 800; Frequency: 824.7 MHz;Duty Cycle: 1:1 Medium parameters used: f = 825 MHz;  $\sigma = 0.857$  mho/m;  $\epsilon_r = 41.4$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

# DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(6.42, 6.42, 6.42); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Tilt position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 0.563 mW/g

# Tilt position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement

grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 17.1 V/m; Power Drift = 0.141 dB Peak SAR (extrapolated) = 0.637 W/kg SAR(1 g) = 0.542 mW/g; SAR(10 g) = 0.419 mW/g Maximum value of SAR (measured) = 0.564 mW/g



 $0 \, dB = 0.564 \, mW/g$ 



Date/Time: 29/10/2009 8:00:37 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide EDGE1900 low chan Amb Tem 23.3 Liq Tem 22.3 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: EDGE 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:4.2 Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 38.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

#### DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.14, 5.14, 5.14); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.549 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 6.68 V/m; Power Drift = -0.018 dB Peak SAR (extrapolated) = 0.719 W/kg SAR(1 g) = 0.501 mW/g; SAR(10 g) = 0.295 mW/g Maximum value of SAR (measured) = 0.545 mW/g



 $0 \, dB = 0.545 \, mW/g$ 



Date/Time: 29/10/2009 8:22:20 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide EDGE1900 mid chan Amb Tem 22.9 Lig Tem 22.2 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: EDGE 1900; Frequency: 1880 MHz;Duty Cycle: 1:4.2 Medium parameters used: f = 1880 MHz;  $\sigma = 1.45$  mho/m;  $\epsilon_r = 38.1$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.14, 5.14, 5.14); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.646 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 7.53 V/m; Power Drift = -0.060 dB Peak SAR (extrapolated) = 0.855 W/kg SAR(1 g) = 0.594 mW/g; SAR(10 g) = 0.341 mW/g Maximum value of SAR (measured) = 0.648 mW/g



0 dB = 0.648 mW/g

-16.8



Date/Time: 29/10/2009 8:40:01 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide EDGE1900 high chan Amb Tem 22.9 Liq Tem 22.1 C.da4

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: EDGE 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:4.2 Medium parameters used: f = 1910 MHz;  $\sigma = 1.48 \text{ mho/m}$ ;  $\epsilon_r = 38$ ;  $\rho = 1000 \text{ kg/m}^3$  Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.14, 5.14, 5.14); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.722 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 8.16 V/m; Power Drift = -0.112 dB Peak SAR (extrapolated) = 0.972 W/kg SAR(1 g) = 0.670 mW/g; SAR(10 g) = 0.380 mW/g Maximum value of SAR (measured) = 0.739 mW/g



 $0 \, dB = 0.739 \, mW/g$ 

Testing Services™	Document Appendix B for the BlackBerry® Smartphone Model RCS71CW SAR Report			Page <b>48(102)</b>
Author Data	Dates of Test	Test Report No	FCC ID:	
Andrew Becker	October 19 - November 4, 2009	RTS -2340-0911-15	L6ARCS7	70CW

Date/Time: 29/10/2009 11:04:29 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide GSM1900 high chan Amb Tem 22.9 Liq Tem 22.1 C.da4

# DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3 Medium parameters used: f = 1910 MHz;  $\sigma = 1.48$  mho/m;  $\epsilon_r = 38$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.14, 5.14, 5.14); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Touch position -/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.480 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 7.63 V/m; Power Drift = -0.191 dB Peak SAR (extrapolated) = 0.697 W/kg SAR(1 g) = 0.445 mW/g; SAR(10 g) = 0.257 mW/g Maximum value of SAR (measured) = 0.488 mW/g



-13.4

-16.7

0 dB = 0.488 mW/g



Date/Time: 29/10/2009 8:59:26 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide Tilt EDGE1900 high chan Amb Tem 22.8 Liq Tem 22.0 C.da4

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: EDGE 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:4.2 Medium parameters used: f = 1910 MHz;  $\sigma = 1.48 \text{ mho/m}$ ;  $\epsilon_r = 38$ ;  $\rho = 1000 \text{ kg/m}^3$  Phantom section: Left Section

# DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.14, 5.14, 5.14); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.275 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 11.6 V/m; Power Drift = 0.101 dB Peak SAR (extrapolated) = 0.322 W/kg SAR(1 g) = 0.229 mW/g; SAR(10 g) = 0.142 mW/g Maximum value of SAR (measured) = 0.248 mW/g

Testing Services™	Document Appendix B for the BlackBerry® Smartphone Model RCS71CW SAR Report			
Author Data	Dates of Test	Test Report No	FCC ID:	
Andrew Becker	October 19 - November 4, 2009	RTS -2340-0911-15	L6ARCS7	70CW



Date/Time: 29/10/2009 11:32:54 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide EDGE1900 3Slots high chan Amb Tem 23.0 Liq Tem 22.1 C.da4

# DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: EDGE 1900(3 slots); Frequency: 1909.8 MHz;Duty Cycle: 1:2.8

Medium parameters used: f = 1910 MHz;  $\sigma$  = 1.48 mho/m;  $\epsilon_r$  = 38;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.14, 5.14, 5.14); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.603 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 8.12 V/m; Power Drift = -0.231 dB Peak SAR (extrapolated) = 0.804 W/kg SAR(1 g) = 0.538 mW/g; SAR(10 g) = 0.316 mW/g Maximum value of SAR (measured) = 0.599 mW/g



-11.7

-17.5

-23.4

-29.2

 $0 \, dB = 0.599 \, mW/g$ 



Date/Time: 30/10/2009 12:43:03 AM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide EDGE1900 4Slots high chan Amb Tem 23.0 Liq Tem 22.1 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: EDGE 1900(4 slots); Frequency: 1909.8 MHz;Duty Cycle: 1:2.1 Medium parameters used: f = 1910 MHz;  $\sigma = 1.48$  mho/m;  $\epsilon_r = 38$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

# DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.14, 5.14, 5.14); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.728 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 8.46 V/m; Power Drift = -0.150 dB Peak SAR (extrapolated) = 1.02 W/kg SAR(1 g) = 0.655 mW/g; SAR(10 g) = 0.377 mW/g

Maximum value of SAR (measured) = 0.705 mW/g



 $0 \, dB = 0.705 \, mW/g$ 



Date/Time: 29/10/2009 9:25:53 PM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide EDGE1900 low chan Amb Tem 22.9 Liq Tem 22.0 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: EDGE 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:4.2 Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 38.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

#### DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.15, 5.15, 5.15); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 0.452 mW/g

# Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 9.54 V/m; Power Drift = -0.083 dB Peak SAR (extrapolated) = 0.558 W/kg **SAR(1 g) = 0.406 mW/g; SAR(10 g) = 0.249 mW/g** Maximum value of SAR (measured) = 0.435 mW/g

Testing Services™	Document Appendix B for the BlackBerry® Smartphone Model RCS71CW SAR Report			Page <b>57(102)</b>
Author Data	Dates of Test	Test Report No	FCC ID:	
Andrew Becker	October 19 - November 4, 2009	RTS -2340-0911-15	L6ARCS70CW	
	·			







Date/Time: 29/10/2009 9:41:09 PM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide EDGE1900 mid chan Amb Tem 22.8 Liq Tem 22.0 C.da4

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: EDGE 1900; Frequency: 1880 MHz;Duty Cycle: 1:4.2 Medium parameters used: f = 1880 MHz;  $\sigma = 1.45$  mho/m;  $\epsilon_r = 38.1$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

# DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.15, 5.15, 5.15); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 0.539 mW/g

# Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 10.3 V/m; Power Drift = -0.006 dB Peak SAR (extrapolated) = 0.669 W/kg **SAR(1 g) = 0.480 mW/g; SAR(10 g) = 0.295 mW/g** Maximum value of SAR (measured) = 0.527 mW/g





Date/Time: 29/10/2009 10:01:47 PM

Test Laboratory: RIM TESTING SERVICES File Name: <u>RightHandSide EDGE1900 high chan Amb Tem 22.8 Liq Tem 22.0 C.da4</u>

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: EDGE 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:4.2 Medium parameters used: f = 1910 MHz;  $\sigma = 1.48$  mho/m;  $\varepsilon_r = 38$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

# DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.15, 5.15, 5.15); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 0.590 mW/g

# Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 10.5 V/m; Power Drift = -0.125 dB Peak SAR (extrapolated) = 0.735 W/kg **SAR(1 g) = 0.522 mW/g; SAR(10 g) = 0.316 mW/g** Maximum value of SAR (measured) = 0.569 mW/g





Date/Time: 29/10/2009 10:41:24 PM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide GSM1900 high chan Amb Tem 22.8 Liq Tem 22.1 C.da4

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3 Medium parameters used: f = 1910 MHz;  $\sigma = 1.48$  mho/m;  $\varepsilon_r = 38$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

# DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.15, 5.15, 5.15); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 0.388 mW/g

# Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 8.58 V/m; Power Drift = 0.001 dB Peak SAR (extrapolated) = 0.491 W/kg **SAR(1 g) = 0.348 mW/g; SAR(10 g) = 0.210 mW/g** Maximum value of SAR (measured) = 0.384 mW/g





Date/Time: 29/10/2009 10:22:44 PM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide Tilt EDGE1900 high chan Amb Tem 23.0 Liq Tem 22.1 C.da4

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: EDGE 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:4.2 Medium parameters used: f = 1910 MHz;  $\sigma = 1.48$  mho/m;  $\varepsilon_r = 38$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.14, 5.14, 5.14); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.244 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 13.3 V/m; Power Drift = -0.022 dB Peak SAR (extrapolated) = 0.298 W/kg SAR(1 g) = 0.207 mW/g; SAR(10 g) = 0.126 mW/g Maximum value of SAR (measured) = 0.229 mW/g



-9.78

-13.0

-16.3

 $0 \, dB = 0.229 \, mW/g$ 



Date/Time: 21/10/2009 6:39:00 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide CDMA1900 low chan Amb Tem 23.5 Liq Tem 22.0 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA 1900; Frequency: 1851.25 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 1851.25 MHz;  $\sigma = 1.38$  mho/m;  $\varepsilon_r = 39$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

#### DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.14, 5.14, 5.14); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.05 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 10.6 V/m; Power Drift = 0.157 dB Peak SAR (extrapolated) = 1.39 W/kg SAR(1 g) = 0.926 mW/g; SAR(10 g) = 0.543 mW/gMaximum value of SAR (measured) = 1.01 mW/g





Date/Time: 21/10/2009 7:17:25 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide CDMA1900 mid chan Amb Tem 23.5 Liq Tem 22.0 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA 1900; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium parameters used: f = 1880 MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 38.9$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.14, 5.14, 5.14); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.872 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 9.42 V/m; Power Drift = 0.222 dB Peak SAR (extrapolated) = 1.20 W/kg SAR(1 g) = 0.811 mW/g; SAR(10 g) = 0.467 mW/g

Maximum value of SAR (measured) = 0.859 mW/g





Date/Time: 21/10/2009 9:37:58 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide CDMA1900 high chan Amb Tem 22.7 Liq Tem 22.0 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA 1900; Frequency: 1908.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 1908.5 MHz;  $\sigma = 1.45$  mho/m;  $\epsilon_r = 38.8$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

#### DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.14, 5.14, 5.14); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.623 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 8.24 V/m; Power Drift = -0.107 dB Peak SAR (extrapolated) = 0.822 W/kg SAR(1 g) = 0.577 mW/g; SAR(10 g) = 0.330 mW/g

Maximum value of SAR (measured) = 0.625 mW/g





Date/Time: 21/10/2009 10:20:30 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide Tilt CDMA1900 low chan Amb Tem 23.2 Liq Tem 21.9 C.da4

#### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA 1900; Frequency: 1851.25 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 1851.25 MHz;  $\sigma = 1.38$  mho/m;  $\varepsilon_r = 39$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

#### DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.14, 5.14, 5.14); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.433 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 15.2 V/m; Power Drift = 0.050 dB Peak SAR (extrapolated) = 0.469 W/kg SAR(1 g) = 0.335 mW/g; SAR(10 g) = 0.213 mW/g

Maximum value of SAR (measured) = 0.359 mW/g
	Testing Services™	Document Appendix B for the BlackBerry® Smartphone Model RCS71CW SAR Report			Page <b>73(102)</b>
Author Data		Dates of Test	Test Report No	FCC ID:	
Andrew Becker		October 19 - November 4, 2009	RTS -2340-0911-15	L6ARCS70CW	
dB					
0.000					

-3.56 -7.12 -10.7 -14.2 -17.8

0 dB = 0.359 mW/g



Date/Time: 21/10/2009 11:11:13 PM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide CDMA1900 low chan Amb Tem 22.9 Liq Tem 22.1 C.da4

### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA 1900; Frequency: 1851.25 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 1851.25 MHz;  $\sigma = 1.38$  mho/m;  $\epsilon_r = 39$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

## DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.15, 5.15, 5.15); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 0.725 mW/g

# Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 12.2 V/m; Power Drift = -0.073 dB Peak SAR (extrapolated) = 0.910 W/kg **SAR(1 g) = 0.657 mW/g; SAR(10 g) = 0.406 mW/g**. Maximum value of SAR (measured) = 0.704 mW/g



 $0 \, dB = 0.704 \, mW/g$ 



Date/Time: 21/10/2009 11:31:17 PM

Test Laboratory: RIM TESTING SERVICES File Name: <u>RightHandSide CDMA1900 mid chan Amb Tem 23.2 Liq Tem 22.1 C.da4</u>

### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA 1900; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium parameters used: f = 1880 MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 38.9$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

## DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.15, 5.15, 5.15); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mmMaximum value of SAR (interpolated) = 0.672 mW/g

## Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 11.7 V/m; Power Drift = 0.153 dB Peak SAR (extrapolated) = 0.851 W/kg **SAR(1 g) = 0.610 mW/g; SAR(10 g) = 0.371 mW/g** Maximum value of SAR (measured) = 0.657 mW/g



 $0 \, dB = 0.657 mW/g$ 



Date/Time: 22/10/2009 12:02:49 AM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide CDMA1900 high chan Amb Tem 23.0 Liq Tem 22.1 C.da4

### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA 1900; Frequency: 1908.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 1908.5 MHz;  $\sigma = 1.45$  mho/m;  $\epsilon_r = 38.8$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

### DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.15, 5.15, 5.15); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 0.499 mW/g

## Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mmReference Value = 9.71 V/m; Power Drift = -0.062 dB Peak SAR (extrapolated) = 0.617 W/kg SAR(1 g) = 0.437 mW/g; SAR(10 g) = 0.266 mW/g Maximum value of SAR (measured) = 0.479 mW/g





Date/Time: 22/10/2009 12:33:19 AM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide Tilt CDMA1900 low chan Amb Tem 23.1 Liq Tem 22.1 C.da4

### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA 1900; Frequency: 1851.25 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 1851.25 MHz;  $\sigma = 1.38$  mho/m;  $\epsilon_r = 39$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

### DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(5.14, 5.14, 5.14); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.333 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 15.9 V/m; Power Drift = 0.001 dB Peak SAR (extrapolated) = 0.397 W/kg SAR(1 g) = 0.286 mW/g; SAR(10 g) = 0.180 mW/g Maximum value of SAR (measured) = 0.311 mW/g



 $0 \, dB = 0.311 \, mW/g$ 

Testing Services™	Document Appendix B for the BlackBerry® Smartphone Model RCS71CW SAR Report		Page <b>82(102)</b>	
Author Data	Dates of Test	Test Report No	FCC ID:	
Andrew Becker	October 19 - November 4, 2009 RTS -2340-0911-15 L6ARCS7		70CW	

Date/Time: 19/10/2009 11:41:59 PM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide 802.11b low chan Amb Tem 22.8 Liq Tem 21.9 C.da4

# DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: 802.11 b (2450); Frequency: 2412 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 2412 MHz;  $\sigma = 1.83$  mho/m;  $\varepsilon_r = 37.9$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(4.54, 4.54, 4.54); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.645 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 7.89 V/m; Power Drift = 0.079 dB Peak SAR (extrapolated) = 1.52 W/kg SAR(1 g) = 0.569 mW/g; SAR(10 g) = 0.249 mW/g Maximum value of SAR (measured) = 0.613 mW/g



 $0 \, dB = 0.613 mW/g$ 

Testing Services™	Document Appendix B for the BlackBerry® Smartphone Model RCS71CW SAR Report		Page 84(102)	
Author Data	Dates of Test	Test Report No	FCC ID:	
Andrew Becker	October 19 - November 4, 2009 RTS -2340-0911-15 L6ARCS7		70CW	

Date/Time: 20/10/2009 12:03:17 AM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide 802.11b mid chan Amb Tem 22.8 Liq Tem 21.9 C.da4

# DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: 802.11 b (2450); Frequency: 2437 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 2437 MHz;  $\sigma = 1.86$  mho/m;  $\varepsilon_r = 37.9$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(4.54, 4.54, 4.54); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.638 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 7.83 V/m; Power Drift = 0.053 dB Peak SAR (extrapolated) = 1.55 W/kg SAR(1 g) = 0.575 mW/g; SAR(10 g) = 0.250 mW/g Maximum value of SAR (measured) = 0.614 mW/g



-22.5

0 dB = 0.614 mW/g



Testing Services™	Appendix B for the BlackBerry® Smartphone Model RCS71CW SAR Report		Page 86(102)	
Author Data	Dates of Test	Test Report No	FCC ID:	
Andrew Becker	October 19 - November 4, 2009 RTS -2340-0911-15 L6ARCS7		70CW	

Date/Time: 20/10/2009 12:41:02 AM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide 802.11b high chan Amb Tem 22.8 Liq Tem 21.9 C.da4

# DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: 802.11 b (2450); Frequency: 2462 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 2462 MHz;  $\sigma = 1.89$  mho/m;  $\varepsilon_r = 37.8$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(4.54, 4.54, 4.54); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.724 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 7.40 V/m; Power Drift = 0.008 dB Peak SAR (extrapolated) = 1.84 W/kg SAR(1 g) = 0.666 mW/g; SAR(10 g) = 0.284 mW/g Maximum value of SAR (measured) = 0.719 mW/g



 $0 \, dB = 0.719 \, mW/g$ 



Date/Time: 20/10/2009 1:18:44 AM

Test Laboratory: RIM TESTING SERVICES File Name: LeftHandSide Tilt 802.11b high chan Amb Tem 22.8 Liq Tem 21.9 C.da4

### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: 802.11 b (2450); Frequency: 2462 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 2462 MHz;  $\sigma = 1.89$  mho/m;  $\epsilon_r = 37.8$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

### DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(4.54, 4.54, 4.54); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.840 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 8.68 V/m; Power Drift = -0.082 dB Peak SAR (extrapolated) = 2.51 W/kg SAR(1 g) = 0.890 mW/g; SAR(10 g) = 0.353 mW/g Maximum value of SAR (measured) = 0.950 mW/g

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Author Data		Dates of Test	Test Report No	FCC ID:	
Andrew Becker		October 19 - November 4, 2009	RTS -2340-0911-15	L6ARCS70CW	
dB					
0.000					

-4.64 -9.28 -13.9 -18.6 -23.2

0 dB = 0.950 mW/g

Testing Services™	Document Appendix B for the BlackBerry® Smartphone Model RCS71CW SAR Report		Page 90(102)	
Author Data	Dates of Test	Test Report No	FCC ID:	
Andrew Becker	October 19 - November 4, 2009 RTS -2340-0911-15 L6ARCS		70CW	

Date/Time: 20/10/2009 1:40:09 AM

Test Laboratory: RIM TESTING SERVICES File Name: <u>RightHandSide 802.11b low chan Amb Tem 22.7 Liq Tem 21.9 C.da4</u>

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: 802.11 b (2450); Frequency: 2412 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 2412 MHz;  $\sigma = 1.83$  mho/m;  $\varepsilon_r = 37.9$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(4.52, 4.52, 4.52); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mmMaximum value of SAR (interpolated) = 0.394 mW/g

# Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mmReference Value = 11.4 V/m; Power Drift = 0.014 dB Peak SAR (extrapolated) = 0.949 W/kg **SAR(1 g) = 0.383 mW/g; SAR(10 g) = 0.171 mW/g** Maximum value of SAR (measured) = 0.400 mW/g



Testing Services™	Document Appendix B for the BlackBerry® Smartphone Model RCS71CW SAR Report		Page 92(102)	
Author Data	Dates of Test	Test Report No	FCC ID:	
Andrew Becker	October 19 - November 4, 2009 RTS -2340-0911-15 L6ARCS7		70CW	

Date/Time: 28/10/2009 7:21:32 PM

Test Laboratory: RIM TESTING SERVICES File Name: <u>RightHandSide 802.11b mid chan Amb Tem 23.4 Liq Tem 22.4 C.da4</u>

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: 802.11 b (2450); Frequency: 2437 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 2437 MHz;  $\sigma = 1.87$  mho/m;  $\varepsilon_r = 37.4$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(4.52, 4.52, 4.52); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mmMaximum value of SAR (interpolated) = 0.402 mW/g

# Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 11.0 V/m; Power Drift = 0.020 dB Peak SAR (extrapolated) = 1.01 W/kg **SAR(1 g) = 0.404 mW/g; SAR(10 g) = 0.178 mW/g** Maximum value of SAR (measured) = 0.432 mW/g



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Author Data	Dates of Test	Test Report No	FCC ID:	
Andrew Becker	October 19 - November 4, 2009 RTS -2340-0911-15 L6ARCS7		70CW	

Date/Time: 28/10/2009 7:40:59 PM

Test Laboratory: RIM TESTING SERVICES File Name: <u>RightHandSide 802.11b high chan Amb Tem 23.5 Liq Tem 22.4 C.da4</u>

## DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: 802.11 b (2450); Frequency: 2462 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 2462 MHz;  $\sigma = 1.89$  mho/m;  $\varepsilon_r = 37.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(4.52, 4.52, 4.52); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mmMaximum value of SAR (interpolated) = 0.440 mW/g

# Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 9.20 V/m; Power Drift = -0.171 dB Peak SAR (extrapolated) = 1.01 W/kg **SAR(1 g) = 0.414 mW/g; SAR(10 g) = 0.184 mW/g** Maximum value of SAR (measured) = 0.434 mW/g





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Date/Time: 28/10/2009 8:05:17 PM

Test Laboratory: RIM TESTING SERVICES File Name: RightHandSide Tilt 802.11b high chan Amb Tem 23.5 Liq Tem 22.4 C.da4

### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: 802.11 b (2450); Frequency: 2462 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 2462 MHz;  $\sigma = 1.89$  mho/m;  $\epsilon_r = 37.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

### DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(4.52, 4.52, 4.52); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

## Tilt position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 0.571 mW/g

## Tilt position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement

grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 11.5 V/m; Power Drift = -0.101 dB Peak SAR (extrapolated) = 1.44 W/kg SAR(1 g) = 0.562 mW/g; SAR(10 g) = 0.239 mW/g Maximum value of SAR (measured) = 0.600 mW/g



0 dB = 0.600 mW/g

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Date/Time: 20/10/2009 9:58:47 PM

Test Laboratory: RIM TESTING SERVICES File Name: <u>LeftHandSide\_Bluetooth\_low\_chan\_Amb\_Tem\_22.7\_Liq\_Tem\_21.9\_C.da4</u>

# DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: Bluetooth; Frequency: 2402 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 2402 MHz;  $\sigma = 1.82$  mho/m;  $\epsilon_r = 38$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(4.54, 4.54, 4.54); Calibrated: 12/01/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch position -/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.013 mW/g

Touch position -/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 1.41 V/m; Power Drift = -0.588 dB Peak SAR (extrapolated) = 0.020 W/kg SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.00605 mW/g Maximum value of SAR (measured) = 0.012 mW/g





Date/Time: 20/10/2009 10:24:07 PM

Test Laboratory: RIM TESTING SERVICES File Name: <u>RightHandSide Bluetooth low chan Amb Tem 22.9 Liq Tem 21.9 C.da4</u>

### DUT: BlackBerry Smartphone; Type: Sample ; Serial: 30F4F733 Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: Bluetooth; Frequency: 2402 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 2402 MHz;  $\sigma = 1.82$  mho/m;  $\epsilon_r = 38$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Right Section

## DASY4 Configuration:

- Probe: ET3DV6 SN1642; ConvF(4.52, 4.52, 4.52); Calibrated: 18/01/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/03/2009
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

# Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm,

dy=15mm Maximum value of SAR (interpolated) = 0.013 mW/g

## Touch position - Low/30F4F733m Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 1.06 V/m; Power Drift = 0.954 dB Peak SAR (extrapolated) = 0.032 W/kg **SAR(1 g) = 0.010 mW/g; SAR(10 g) = 0.00219 mW/g** Maximum value of SAR (measured) = 0.013 mW/g



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## Z axis plot for the worst case head configuration:

