
 <b>RESEARCH IN MOTION</b>	Document <b>Appendices to SAR Compliance Test Report for BlackBerry  Wireless Handheld Model No. RAL10IN</b>		Page <b>1(1)</b>
	Author Data <b>Daoud Attayi</b>	Dates of Test <b>Sep. 09 - 16, 2003</b>	Test Report No <b>RIM-0057-0309-01</b>

APPENDIX A: SAR DISTRIBUTION COMPARISON FOR THE ACCURACY VERIFICATION

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		2(2)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/09/03 11:47:47

Test Laboratory: Research In Motion Limited

Ambient Temperature : 22.6 °C      Liquid Temperature : 21.8 °C

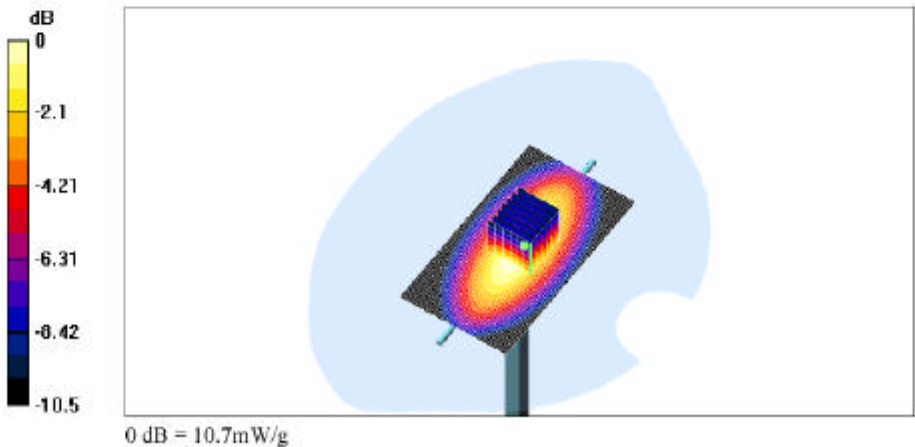
**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446**


Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1  
Medium: 835 MHz Head ( $\sigma = 0.9149$  mho/m,  $\epsilon_r = 42.5113$ ,  $\rho = 1000$  kg/m<sup>3</sup>)  
Phantom section: Flat Section

- DASY4 Configuration:
- Probe: ET3DV6 - SN1644; ConvF(6.6, 6.6, 6.6); Calibrated: 21/10/2002
  - Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
  - Electronics: DAE3 Sn472; Calibrated: 19/08/2003
  - Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
  - Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm  
Reference Value = 111.0 V/m  
Power Drift = 0.03 dB  
Maximum value of SAR = 10.7 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Peak SAR (extrapolated) = 14.4 W/kg  
SAR(1 g) = 9.96 mW/g; SAR(10 g) = 6.48 mW/g  
Reference Value = 111.0 V/m  
Power Drift = 0.03 dB  
Maximum value of SAR = 10.7 mW/g



 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		3(3)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/11/03 10:37:00

Test Laboratory: Research In Motion Limited

Ambient Temperature : 21.5 °C      Liquid Temperature : 20.6 °C

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446**

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1  
 Medium: 835 MHz Head ( $\sigma = 0.91$  mho/m,  $\epsilon_r = 42.73$ ,  $\rho = 1000$  kg/m<sup>3</sup>)  
 Phantom section: Flat Section

DASY4 Configuration:

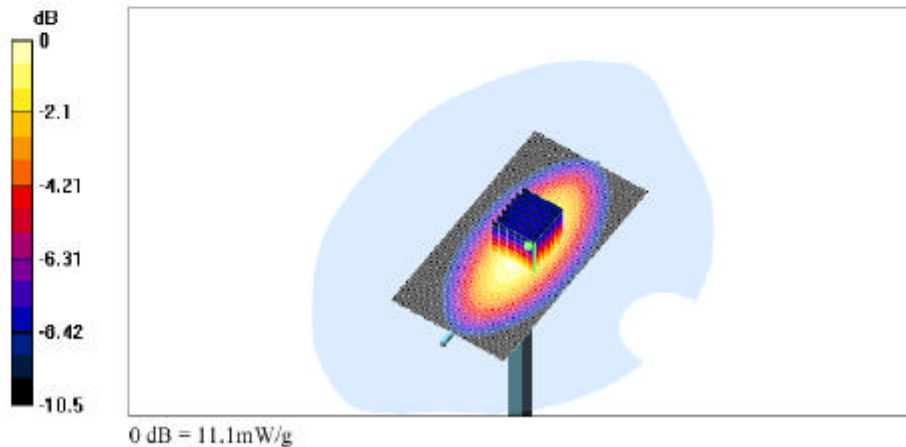
- Probe: ET3DV6 - SN1644; ConvF(6.6, 6.6, 6.6); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (81x151x1):** Measurement grid: dx=10mm, dy=10mm

Reference Value = 113.1 V/m  
 Power Drift = -0.1 dB  
 Maximum value of SAR = 11.1 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 15.4 W/kg  
 SAR(1 g) = 10.3 mW/g; SAR(10 g) = 6.62 mW/g  
 Reference Value = 113.1 V/m  
 Power Drift = -0.1 dB  
 Maximum value of SAR = 11.1 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\validation%20835%20MH%20Sep.... 16/09/2003

Author Data <b>Daoud Attayi</b>	Dates of Test <b>Sep. 09 - 16, 2003</b>	Test Report No <b>RIM-0057-0309-01</b>	FCC ID <b>L6ARAL10IN</b>
------------------------------------	--	---	-----------------------------

Date/Time: 09/14/03 13:02:05

Test Laboratory: Research In Motion Limited

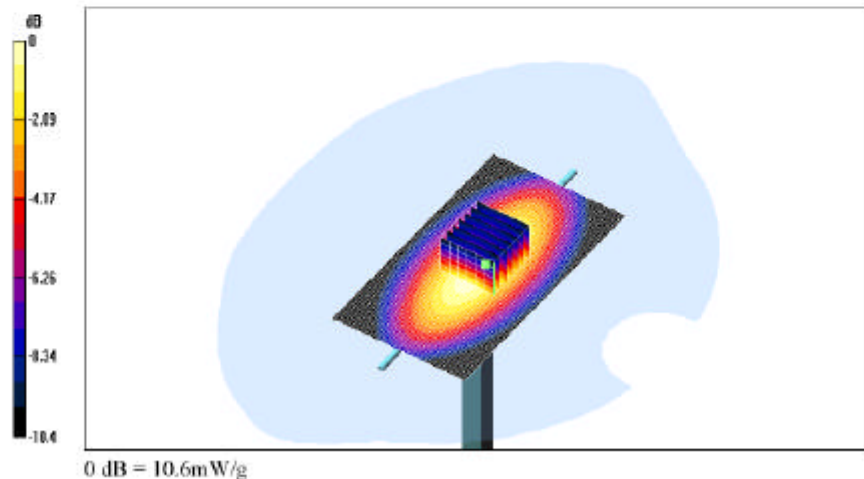
Ambient Temperature : 21.5 °C      Liquid Temperature : 20.6 °C

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446**  
 Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1  
 Medium: 835 MHz Head ( $\sigma = 0.91$  mho/m,  $\epsilon_r = 42.73$ ,  $\rho = 1000$  kg/m<sup>3</sup>)  
 Phantom section: Flat Section


DASY4 Configuration:  
 - Probe: ET3DV6 - SN1644; ConvF(6.6, 6.6, 6.6); Calibrated: 21/10/2002  
 - Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)  
 - Electronics: DAE3 Sn472; Calibrated: 19/08/2003  
 - Phantom: SAM 1; Type: SAM 4.0; Serial: 1076  
 - Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm  
 Reference Value = 111.0 V/m  
 Power Drift = -0.02 dB  
 Maximum value of SAR = 10.6 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Peak SAR (extrapolated) = 14.5 W/kg  
 SAR(1 g) = 9.9 mW/g; SAR(10 g) = 6.43 mW/g  
 Reference Value = 111.0 V/m  
 Power Drift = -0.02 dB  
 Maximum value of SAR = 10.6 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\validation%20835%20MH%20Sep.... 16/09/2003

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		5(5)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/15/03 11:08:42

Test Laboratory: Research In Motion Limited

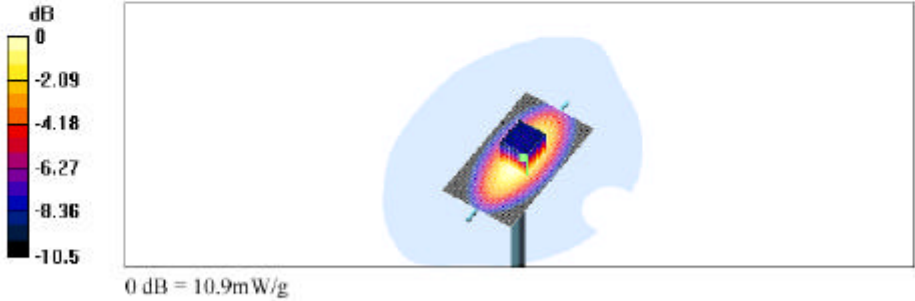
Ambient Temperature : 22.0 °C      Liquid Temperature : 21.2 °C

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446**  
Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1  
Medium: 835 MHz Head ( $\sigma = 0.91$  mho/m,  $\epsilon_r = 42.22$ ,  $\rho = 1000$  kg/m<sup>3</sup>)  
Phantom section: Flat Section


DASY4 Configuration:  
- Probe: ET3DV6 - SN1644; ConvF(6.6, 6.6, 6.6); Calibrated: 21/10/2002  
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)  
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003  
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076  
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm  
Reference Value = 112.2 V/m  
Power Drift = -0.05 dB  
Maximum value of SAR = 11 mW/g


**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Peak SAR (extrapolated) = 15 W/kg  
SAR(1 g) = 10.1 mW/g; SAR(10 g) = 6.55 mW/g  
Reference Value = 112.2 V/m  
Power Drift = -0.05 dB  
Maximum value of SAR = 10.9 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\validation%20835%20MH%20Sep.... 16/09/2003

 <b>RESEARCH IN MOTION</b>	Document <b>Appendices to SAR Compliance Test Report for BlackBerry  Wireless Handheld Model No. RAL10IN</b>		Page <b>6(6)</b>
	Author Data <b>Daoud Attayi</b>	Dates of Test <b>Sep. 09 - 16, 2003</b>	Test Report No <b>RIM-0057-0309-01</b>

APPENDIX B: SAR DISTRIBUTION PLOTS FOR HEAD CONFIGURATION

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		7(7)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/11/03 12:45:30

Test Laboratory: Research In Motion Limited

Ambient Temperature : 22.4 °C Liquid Temperature : 21.2 °C

**DUT: BlackBerry Wireless Handheld Model RAL10IN; Type: Sample (Retracted Ant.); Serial: N/A**

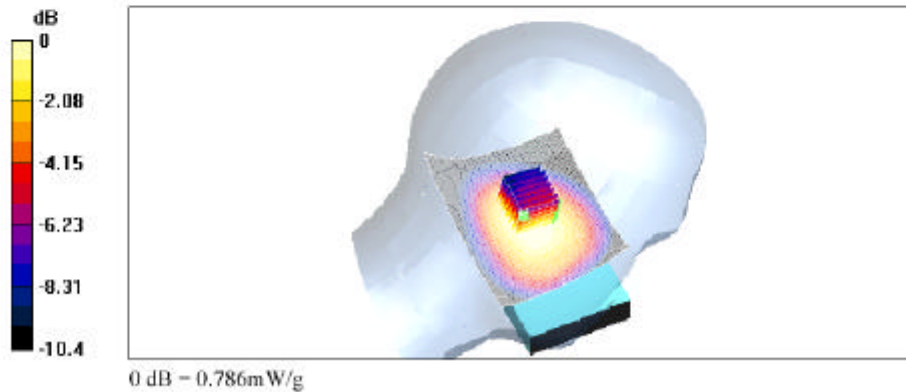
Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3  
 Medium: 835 MHz Head ( $\sigma = 0.91$  mho/m,  $\epsilon_r = 42.73$ ,  $\rho = 1000$  kg/m<sup>3</sup>)  
 Phantom section: Left Section

DASY4 Configuration:


- Probe: ET3DV6 - SN1644; ConvF(6.6, 6.6, 6.6); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm  
 Reference Value = 29.2 V/m  
 Power Drift = -0.08 dB  
 Maximum value of SAR = 0.773 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Peak SAR (extrapolated) = 0.97 W/kg  
 SAR(1 g) = 0.735 mW/g; SAR(10 g) = 0.547 mW/g  
 Reference Value = 29.2 V/m  
 Power Drift = -0.08 dB  
 Maximum value of SAR = 0.786 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\Left%20side%20of%20head%20to... 17/09/2003

	Document		Page
	<b>Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN</b>		<b>8(8)</b>
Author Data	Dates of Test	Test Report No	FCC ID
<b>Daoud Attayi</b>	<b>Sep. 09 - 16, 2003</b>	<b>RIM-0057-0309-01</b>	<b>L6ARAL10IN</b>

Date/Time: 09/11/03 14:02:49

Test Laboratory: Research In Motion Limited

Ambient Temperature : 22.4 °C Liquid Temperature : 21.2 °C

**DUT: BlackBerry Wireless Handheld Model RAL10IN Ext; Type: Sample (Extended Ant.);  
Serial: N/A**

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3  
Medium: 835 MHz Head ( $\sigma = 0.91$  mho/m,  $\epsilon_r = 42.73$ ,  $\rho = 1000$  kg/m<sup>3</sup>)  
Phantom section: Left Section

DASY4 Configuration:

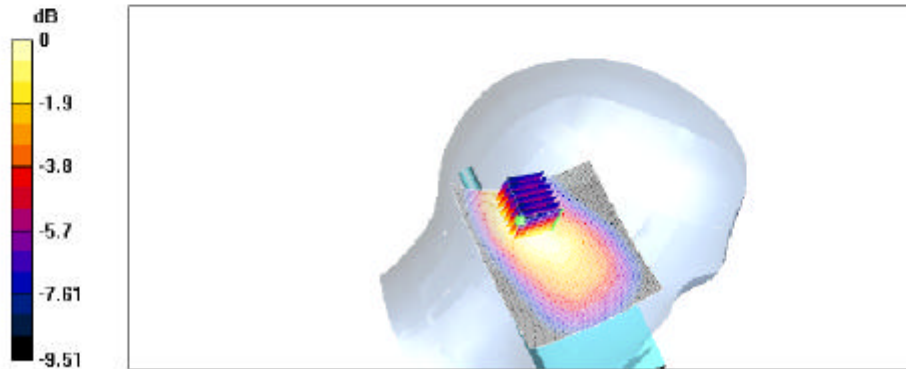
- Probe: ET3DV6 - SN1644; ConvF(6.6, 6.6, 6.6); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Reference Value = 22.6 V/m  
Power Drift = 0.05 dB  
Maximum value of SAR = 0.506 mW/g


**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.657 W/kg  
SAR(1 g) = 0.481 mW/g; SAR(10 g) = 0.338 mW/g  
Reference Value = 22.6 V/m  
Power Drift = 0.05 dB  
Maximum value of SAR = 0.525 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\Left%20side%20of%20head%20tilt... 17/09/2003



 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		9(9)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/10/03 19:28:20

Test Laboratory: Research In Motion Limited

Ambient Temperature : 22.6 °C      Liquid Temperature : 21.6 °C

**DUT: BlackBerry Wireless Handheld Model RAL10IN; Type: Sample (Retracted Ant.);**

**Serial: N/A**

Communication System: IDEN 800 MHz; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: 835 MHz Head ( $\sigma = 0.9149 \text{ mho/m}$ ,  $\epsilon_r = 42.5113$ ,  $\rho = 1000 \text{ kg/m}^3$ )

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(6.6, 6.6, 6.6); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Reference Value = 26.5 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.934 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

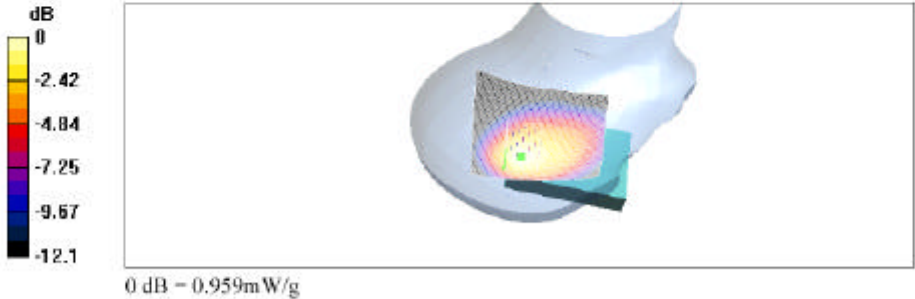
Peak SAR (extrapolated) = 1.41 W/kg

SAR(1 g) = 0.9 mW/g; SAR(10 g) = 0.588 mW/g


Reference Value = 26.5 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.959 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\P1528-RightHandSide-835%20mid... 16/09/2003

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		10(10)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/10/03 18:47:28

Test Laboratory: Research In Motion Limited

Ambient Temperature : 22.6 °C      Liquid Temperature : 21.6 °C

**DUT: BlackBerry Wireless Handheld Model RAL10IN Ext; Type: Sample (Extended Ant.);**

**Serial: N/A**

Communication System: IDEN 800 MHz; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: 835 MHz Head ( $\sigma = 0.9149$  mho/m,  $\epsilon_r = 42.5113$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(6.6, 6.6, 6.6); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Reference Value = 19.8 V/m

Power Drift = -0.09 dB

Maximum value of SAR = 0.582 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

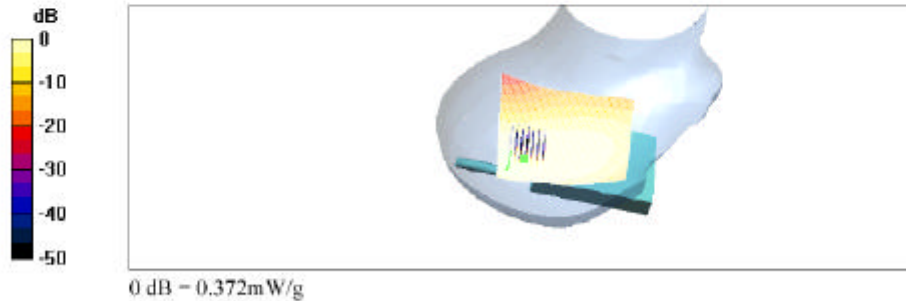
Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.252 mW/g; SAR(10 g) = 0.101 mW/g


Reference Value = 19.8 V/m

Power Drift = -0.09 dB

Maximum value of SAR = 0.372 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\P1528-RightHandSide-835%20mid... 16/09/2003

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		11(11)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/11/03 15:59:13

Test Laboratory: Research In Motion Limited

Ambient Temperature : 22.6 °C Liquid Temperature : 21.4 °C

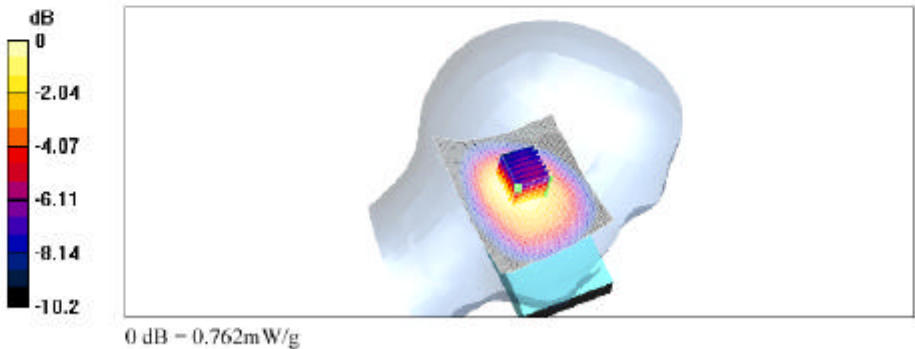
**DUT: BlackBerry Wireless Handheld Model RAL10IN; Type: Sample (Retracted Ant.); Higher capacity battery; Serial: N/A**

Communication System: IDEN ; Frequency: 815.5 MHz;Duty Cycle: 1:3  
Medium: 835 MHz Head ( $\sigma = 0.91$  mho/m,  $\epsilon_r = 42.73$ ,  $\rho = 1000$  kg/m<sup>3</sup>)  
Phantom section: Left Section


DASY4 Configuration:  
- Probe: ET3DV6 - SN1644; ConvF(6.6, 6.6, 6.6); Calibrated: 21/10/2002  
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)  
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003  
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076  
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm  
Reference Value = 29.3 V/m  
Power Drift = 0.06 dB  
Maximum value of SAR = 0.741 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Peak SAR (extrapolated) = 0.941 W/kg  
SAR(1 g) = 0.699 mW/g; SAR(10 g) = 0.497 mW/g  
Reference Value = 29.3 V/m  
Power Drift = 0.06 dB  
Maximum value of SAR = 0.762 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\Left%20side%20of%20head%20tilt... 17/09/2003

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		12(12)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/11/03 16:35:42

Test Laboratory: Research In Motion Limited

Ambient Temperature : 22.6 °C Liquid Temperature : 21.4 °C

**DUT: BlackBerry Wireless Handheld Model RAN10IN Ext; Type: Sample (Extended Ant.); With higher capacity battery.**

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3  
 Medium: 835 MHz Head ( $\sigma = 0.91$  mho/m,  $\epsilon_r = 42.73$ ,  $\rho = 1000$  kg/m<sup>3</sup>)  
 Phantom section: Left Section

DASY4 Configuration:

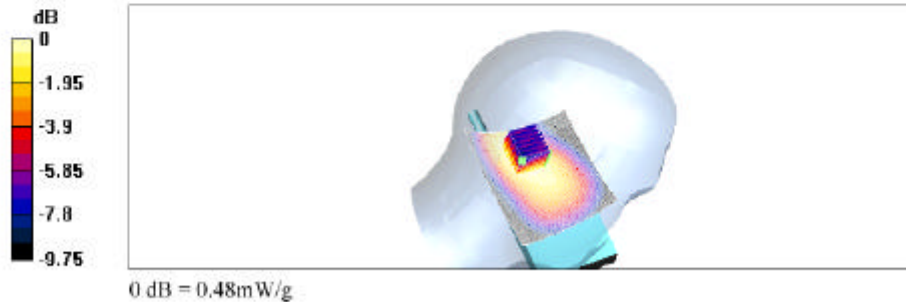
- Probe: ET3DV6 - SN1644; ConvF(6.6, 6.6, 6.6); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm


Reference Value = 23 V/m  
 Power Drift = 0.02 dB  
 Maximum value of SAR = 0.475 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.586 W/kg  
 SAR(1 g) = 0.436 mW/g; SAR(10 g) = 0.309 mW/g  
 Reference Value = 23 V/m  
 Power Drift = 0.02 dB  
 Maximum value of SAR = 0.48 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\Left%20side%20of%20head%20tilt... 17/09/2003

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		13(13)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/14/03 14:53:53

Test Laboratory: Research In Motion Limited

Ambient Temperature : 21.5 °C Liquid Temperature : 20.6 °C

**DUT: BlackBerry Wireless Handheld Model RAL10IN; Type: Sample (Retracted Ant.); With larger capacity battery.**

Communication System: IDEN ; Frequency: 806.013 MHz;Duty Cycle: 1:3

Medium: 835 MHz Head ( $\sigma = 0.91$  mho/m,  $\epsilon_r = 42.73$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(6.6, 6.6, 6.6); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Reference Value = 26.6 V/m

Power Drift = 0.03 dB

Maximum value of SAR = 0.934 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

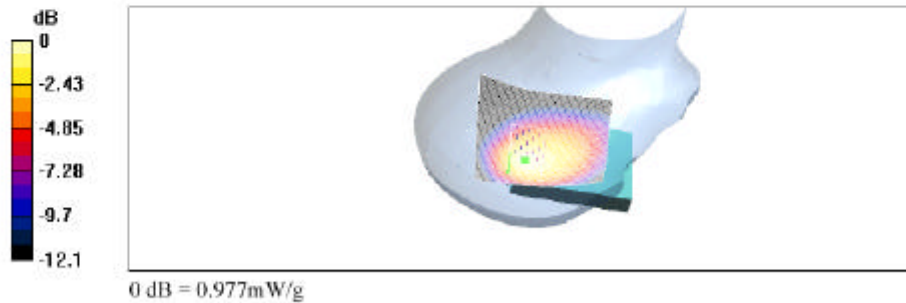
Peak SAR (extrapolated) = 1.45 W/kg

SAR(1 g) = 0.909 mW/g; SAR(10 g) = 0.595 mW/g


Reference Value = 26.6 V/m

Power Drift = 0.03 dB

Maximum value of SAR = 0.977 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\Right%20side%20of%20head%20til... 17/09/2003

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		14(14)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/14/03 17:27:45

Test Laboratory: Research In Motion Limited

Ambient Temperature : 21.6 °C Liquid Temperature : 20.8 °C

**DUT: BlackBerry Wireless Handheld Model RAL10IN Ext; Type: Sample (Extended Ant.); With higher capacity battery**

Communication System: IDEN ; Frequency: 815.5 MHz;Duty Cycle: 1:3

Medium: 835 MHz Head ( $\sigma = 0.91$  mho/m,  $\epsilon_r = 42.73$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(6.6, 6.6, 6.6); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Reference Value = 20.8 V/m

Power Drift = 0.03 dB

Maximum value of SAR = 0.506 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

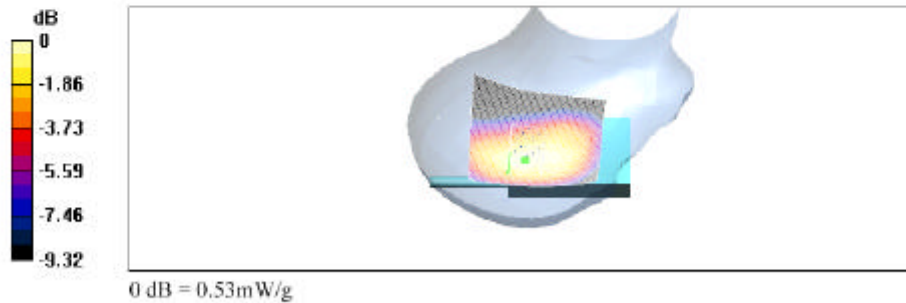
Peak SAR (extrapolated) = 0.751 W/kg

SAR(1 g) = 0.499 mW/g; SAR(10 g) = 0.347 mW/g


Reference Value = 20.8 V/m

Power Drift = 0.03 dB


Maximum value of SAR = 0.53 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\Right%20side%20of%20head%20to... 17/09/2003

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		15(15)
Author Data	Dates of Test	Test Report No	FCC ID
<b>Daoud Attayi</b>	<b>Sep. 09 - 16, 2003</b>	<b>RIM-0057-0309-01</b>	<b>L6ARAL10IN</b>

APPENDIX C: SAR DISTRIBUTION PLOTS FOR BODY-WORN SAR CONFIGURATION

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		16(16)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/15/03 12:10:14

Test Laboratory: Research In Motion Limited

Ambient Temperature : 22.8 °C Liquid Temperature : 21.5 °C

**DUT: BlackBerry Wireless Handheld Model RAL10IN; Type: Sample (Retracted Ant.); Body-worn with holster**

Communication System: IDEN ; Frequency: 815.5 MHz;Duty Cycle: 1:3  
Medium: M 835 ( $\sigma = 0.98 \text{ mho/m}$ ,  $\epsilon_r = 53.79$ ,  $\rho = 1000 \text{ kg/m}^3$ )  
Phantom section: Flat Section

DASY4 Configuration:

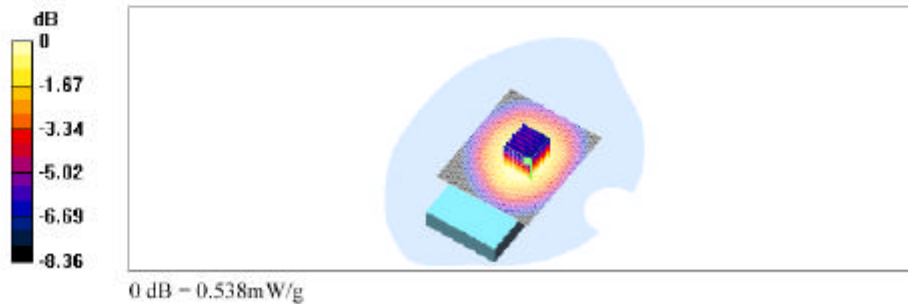
- Probe: ET3DV6 - SN1644; ConvF(6.4, 6.4, 6.4); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Reference Value = 24.4 V/m  
Power Drift = -0.2 dB  
Maximum value of SAR = 0.531 mW/g


**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.638 W/kg  
SAR(1 g) = 0.501 mW/g; SAR(10 g) = 0.377 mW/g  
Reference Value = 24.4 V/m  
Power Drift = -0.2 dB  
Maximum value of SAR = 0.538 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\Body%20worn%20with%20holster... 17/09/2003



 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		17(17)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Page 1 of 1

Date/Time: 09/15/03 13:58:13

Test Laboratory: Research In Motion Limited

Ambient Temperature : 22.7 °C Liquid Temperature : 21.7 °C

**DUT: BlackBerry Wireless Handheld Model RAL10IN Ext; Type: Sample (Extended Ant.); Body worn with holster**

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: M 835 ( $\sigma = 0.98 \text{ mho/m}$ ,  $\epsilon_r = 53.79$ ,  $\rho = 1000 \text{ kg/m}^3$ )

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(6.4, 6.4, 6.4); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x141x1):** Measurement grid: dx=10mm, dy=10mm

Reference Value = 20.1 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.392 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

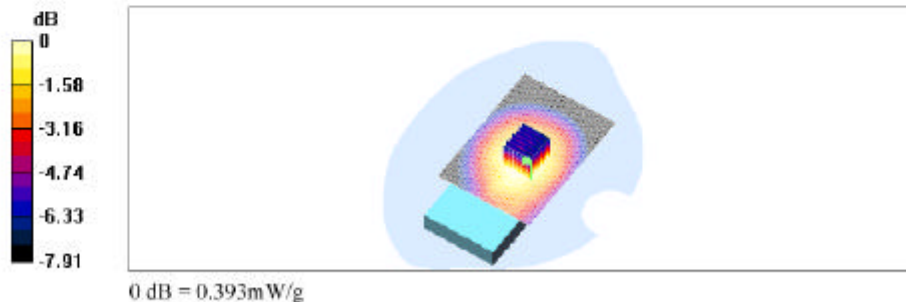
Peak SAR (extrapolated) = 0.462 W/kg

SAR(1 g) = 0.363 mW/g; SAR(10 g) = 0.279 mW/g


Reference Value = 20.1 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.393 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\Body%20worn%20with%20holster... 17/09/2003

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		18(18)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/15/03 15:12:54

Test Laboratory: Research In Motion Limited

Ambient Temperature : 22.4 °C Liquid Temperature : 21.2 °C

**DUT: BlackBerry Wireless Handheld Model RAL10IN; Type: Sample (Retracted Ant.); Body worn with leather holster**

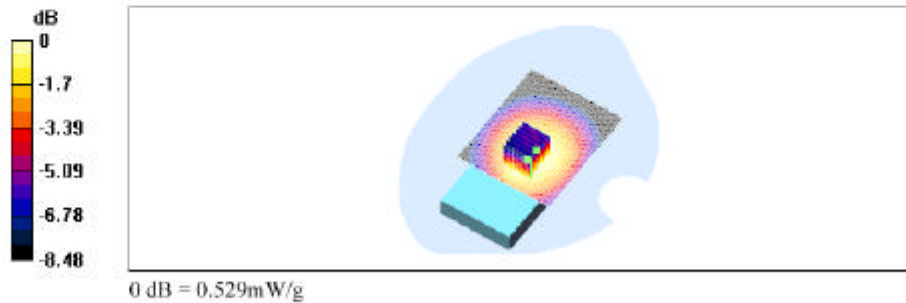
Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3  
Medium: M 835 ( $\sigma = 0.98 \text{ mho/m}$ ,  $\epsilon_r = 53.79$ ,  $\rho = 1000 \text{ kg/m}^3$ )  
Phantom section: Flat Section

DASY4 Configuration:


- Probe: ET3DV6 - SN1644; ConvF(6.4, 6.4, 6.4); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm  
Reference Value = 23.7 V/m  
Power Drift = -0.3 dB  
Maximum value of SAR = 0.52 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Peak SAR (extrapolated) = 0.635 W/kg  
SAR(1 g) = 0.494 mW/g; SAR(10 g) = 0.372 mW/g  
Reference Value = 23.7 V/m  
Power Drift = -0.3 dB  
Maximum value of SAR = 0.529 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\Body%20worn%20with%20leather... 17/09/2003

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		19(19)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/15/03 15:50:27

Test Laboratory: Research In Motion Limited

Ambient Temperature : 22.3 °C Liquid Temperature : 21.2 °C

**DUT: BlackBerry Wireless Handheld Model RAL10IN Ext; Type: Sample (Extended Ant.); Body worn with leather holster**

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3  
 Medium: M 835 ( $\sigma = 0.98 \text{ mho/m}$ ,  $\epsilon_r = 53.86$ ,  $\rho = 1000 \text{ kg/m}^3$ )  
 Phantom section: Flat Section

DASY4 Configuration:

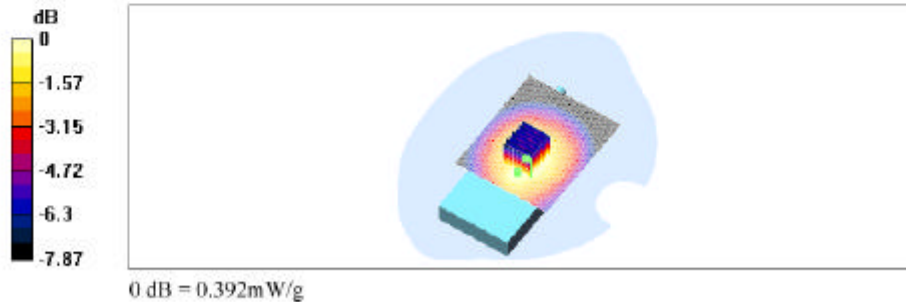
- Probe: ET3DV6 - SN1644; ConvF(6.4, 6.4, 6.4); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm


Reference Value = 20.5 V/m  
 Power Drift = -0.2 dB  
 Maximum value of SAR = 0.392 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.468 W/kg  
 SAR(1 g) = 0.363 mW/g; SAR(10 g) = 0.277 mW/g  
 Reference Value = 20.5 V/m  
 Power Drift = -0.2 dB  
 Maximum value of SAR = 0.392 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\Body%20worn%20with%20leather... 17/09/2003

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		20(20)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/15/03 16:24:29

Test Laboratory: Research In Motion Limited

Ambient Temperature : 21.8 °C Liquid Temperature : 21.0 °C

**DUT: BlackBerry Wireless Handheld Model RAL10IN; Type: Sample (Retracted Ant.); Body worn with holster and higher capacity battery**

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: M 835 ( $\sigma = 0.98 \text{ mho/m}$ ,  $\epsilon_r = 53.79$ ,  $\rho = 1000 \text{ kg/m}^3$ )

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(6.4, 6.4, 6.4); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Reference Value = 24.2 V/m

Power Drift = -0.07 dB

Maximum value of SAR = 0.537 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

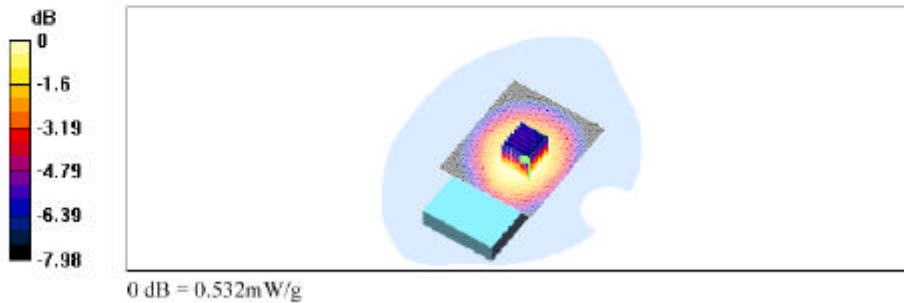
Peak SAR (extrapolated) = 0.636 W/kg

SAR(1 g) = 0.502 mW/g; SAR(10 g) = 0.378 mW/g


Reference Value = 24.2 V/m

Power Drift = -0.07 dB

Maximum value of SAR = 0.532 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\Body%20worn%20with%20holster... 17/09/2003

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		21(21)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Page 1 of 1

Date/Time: 09/15/03 17:32:54

Test Laboratory: Research In Motion Limited

Ambient Temperature : 21.8 °C Liquid Temperature : 21.0 °C

**DUT: BlackBerry Wireless Handheld Model RAL10IN; Type: Sample (Extended Ant.); Body worn with holster and higher capacity battery**

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: M 835 ( $\sigma = 0.98$  mho/m,  $\epsilon_r = 53.79$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(6.4, 6.4, 6.4); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Reference Value = 20.9 V/m

Power Drift = -0.09 dB

Maximum value of SAR = 0.392 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

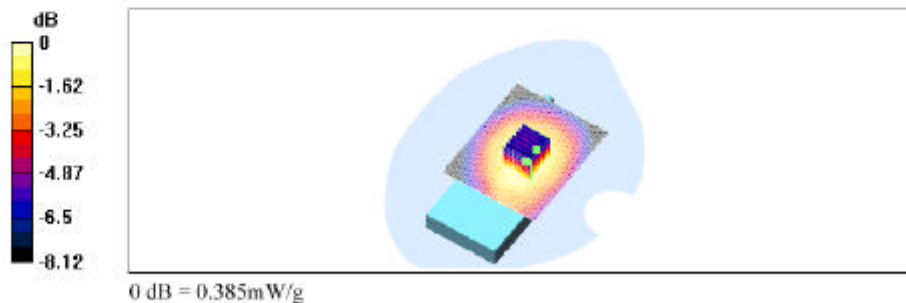
Peak SAR (extrapolated) = 0.462 W/kg

SAR(1 g) = 0.364 mW/g; SAR(10 g) = 0.276 mW/g


Reference Value = 20.9 V/m

Power Drift = -0.09 dB

Maximum value of SAR = 0.385 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\Body%20worn%20with%20holster... 17/09/2003

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		22(22)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Page 1 of 1

Date/Time: 09/16/03 09:24:24

Test Laboratory: Research In Motion Limited

Ambient Temperature : 22.5 °C Liquid Temperature : 21.3 °C

**DUT: BlackBerry Wireless Handheld Model RAL10IN; Type: Sample (Retracted Ant.); Body worn with leather holster and higher capacity battery**

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: M 835 ( $\sigma = 0.98$  mho/m,  $\epsilon_r = 53.86$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(6.4, 6.4, 6.4); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Reference Value = 23.3 V/m

Power Drift = 0.05 dB

Maximum value of SAR = 0.505 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

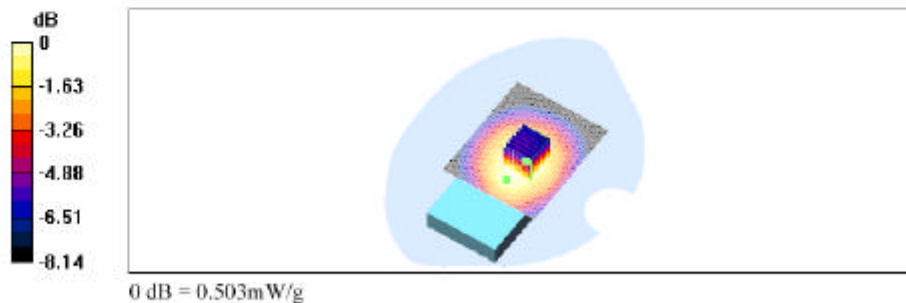
Peak SAR (extrapolated) = 0.593 W/kg

SAR(1 g) = 0.47 mW/g; SAR(10 g) = 0.361 mW/g


Reference Value = 23.3 V/m

Power Drift = 0.05 dB

Maximum value of SAR = 0.503 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\Body%20worn%20with%20leather... 17/09/2003

 RESEARCH IN MOTION	Document		Page
	Appendices to SAR Compliance Test Report for BlackBerry Wireless Handheld Model No. RAL10IN		23(23)
Author Data	Dates of Test	Test Report No	FCC ID
Daoud Attayi	Sep. 09 - 16, 2003	RIM-0057-0309-01	L6ARAL10IN

Date/Time: 09/16/03 09:58:08

Test Laboratory: Research In Motion Limited

Ambient Temperature : 22.5 °C Liquid Temperature : 21.3 °C

**DUT: BlackBerry Wireless Handheld Model RAL10IN; Type: Sample (Extended Ant.); Body worn with leather holster and higher capacity battery**

Communication System: IDEN ; Frequency: 815.5 MHz; Duty Cycle: 1:3

Medium: M 835 ( $\sigma = 0.98 \text{ mho/m}$ ,  $\epsilon_r = 53.79$ ,  $\rho = 1000 \text{ kg/m}^3$ )

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1644; ConvF(6.4, 6.4, 6.4); Calibrated: 21/10/2002
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 19/08/2003
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Unnamed procedure/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Reference Value = 24 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.519 mW/g

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

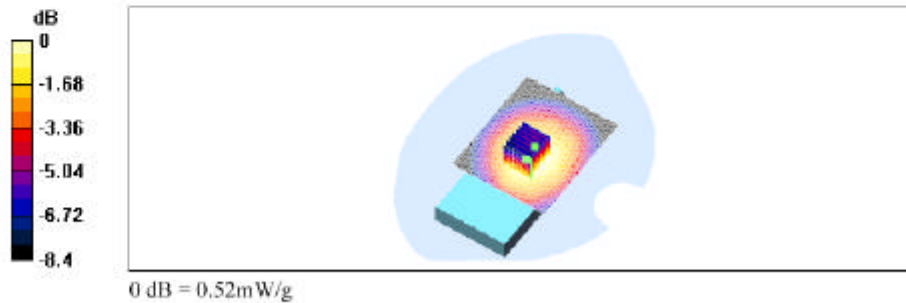
Peak SAR (extrapolated) = 0.65 W/kg

SAR(1 g) = 0.485 mW/g; SAR(10 g) = 0.368 mW/g

Reference Value = 24 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.52 mW/g



file://C:\Program%20Files\DASY4\Print\_Templates\Body%20worn%20with%20leather... 17/09/2003