

<b>RTS</b> <b>RIM Testing Services</b>	Document Appendices for the BlackBerry 7285 Wireless Handheld Model RAP31GW SAR Report		Page 1(12)
	Author Data <b>Lauren Weber</b>	Dates of Test <b>August 02 – August 04, 2005</b>	Test Report No <b>RTS-0248-0508-02</b>

APPENDIX A: SAR DISTRIBUTION COMPARISON FOR ACCURACY VERIFICATION

Date/Time: 02/08/2005 12:35:27 PM Date/Time: 02/08/2005 12:31:29 PM

**Lab: RIM Testing Services (RTS)**

**1900MHz\_Validation\_Ambient\_Temp\_22.6\_C\_Liquid\_Temp\_21.8\_C\_08-02-2005**

**DUT: Dipole 1900 MHz; Type: D1900V2**

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1  
Medium: HSL1900 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.45$  mho/m;  $\epsilon_r = 38.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

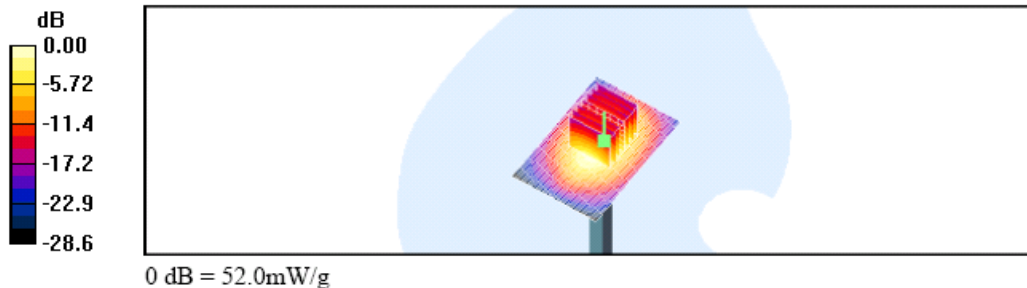
DASY4 Configuration:

- Probe: ET3DV6 - SN1642; ConvF(5.29, 5.29, 5.29); Calibrated: 07/01/2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Reference Value = 192.9 V/m; Power Drift = -0.022 dB  
Peak SAR (extrapolated) = 76.7 W/kg  
**SAR(1 g) = 42.3 mW/g; SAR(10 g) = 21.8 mW/g**  
Maximum value of SAR (measured) = 47.8 mW/g

**Dipole Validation/Area Scan (41x61x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 52.0 mW/g



<b>RTS</b> <b>RIM Testing Services</b>	Document		Page
	Appendices for the BlackBerry 7285 Wireless Handheld Model RAP31GW SAR Report		2(12)
Author Data	Dates of Test	Test Report No	FCC ID:
<b>Lauren Weber</b>	<b>August 02 – August 04, 2005</b>	<b>RTS-0248-0508-02</b>	<b>L6ARAP31GW</b>

Date/Time: 03/08/2005 10:16:07 AM Date/Time: 03/08/2005 10:12:09 AM

**Lab: RIM Testing Services (RTS)**

**1900MHz\_Validation\_Ambient\_Temp\_22.3\_C\_Liquid\_Temp\_21.5\_C\_08-03-2005**

**DUT: Dipole 1900 MHz; Type: D1900V2**

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.46$  mho/m;  $\epsilon_r = 39.5$ ;  $\rho = 1000$

kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1642; ConvF(5.29, 5.29, 5.29); Calibrated: 07/01/2005

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

- Electronics: DAE3 Sn472; Calibrated: 03/01/2005

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

- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Reference Value = 192.6 V/m; Power Drift = -0.00 dB

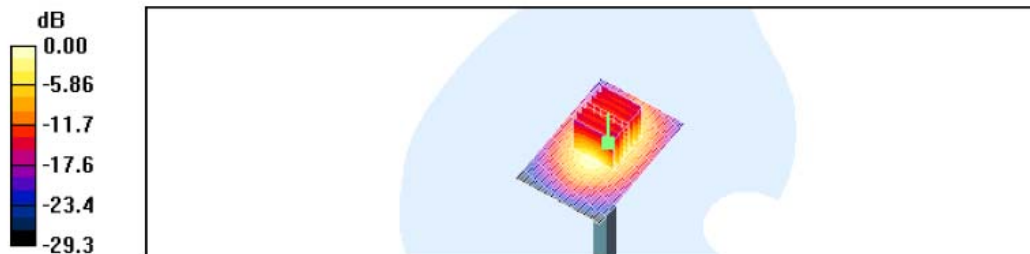
Peak SAR (extrapolated) = 78.2 W/kg

**SAR(1 g) = 43.4 mW/g; SAR(10 g) = 22.4 mW/g**

Maximum value of SAR (measured) = 49.1 mW/g

**Dipole Validation/Area Scan (41x61x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 52.6 mW/g



<b>RTS</b> <b>RIM Testing Services</b>	Document Appendices for the BlackBerry 7285 Wireless Handheld Model RAP31GW SAR Report		Page 3(12)
	Author Data <b>Lauren Weber</b>	Dates of Test <b>August 02 – August 04, 2005</b>	Test Report No <b>RTS-0248-0508-02</b>

APPENDIX B: SAR DISTRIBUTION PLOTS FOR HEAD CONFIGURATION

<b>RTS</b> <b>RIM Testing Services</b>	Document Appendices for the BlackBerry 7285 Wireless Handheld Model RAP31GW SAR Report		Page 4(12)
	Author Data <b>Lauren Weber</b>	Dates of Test <b>August 02 – August 04, 2005</b>	Test Report No <b>RTS-0248-0508-02</b>

Date/Time: 02/08/2005 4:11:43 PM Date/Time: 02/08/2005 4:18:14 PM

**Lab: RIM Testing Services (RTS)**

**Right\_Touch\_GSM1900\_mid\_chan\_Ambient\_Temp\_23\_1\_C\_Liquid\_Temp\_22\_2\_C**

**DUT: BlackBerry Wireless Handheld; Type: Sample**

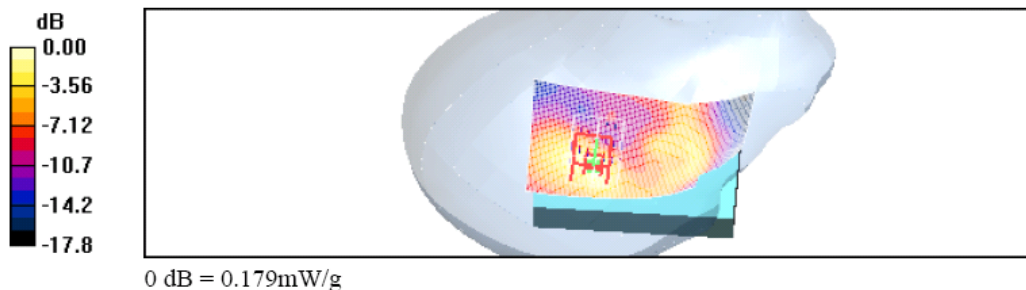
Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3  
Medium: HSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.45$  mho/m;  $\epsilon_r = 38.2$ ;  $\rho = 1000$   
kg/m<sup>3</sup>  
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1642; ConvF(5.29, 5.29, 5.29); Calibrated: 07/01/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

**Touch position - Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.160 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 9.12 V/m; Power Drift = -0.013 dB  
Peak SAR (extrapolated) = 0.228 W/kg  
**SAR(1 g) = 0.155 mW/g; SAR(10 g) = 0.085 mW/g**  
Maximum value of SAR (measured) = 0.179 mW/g



<b>RTS</b> <b>RIM Testing Services</b>	Document		Page
	Appendices for the BlackBerry 7285 Wireless Handheld Model RAP31GW SAR Report		5(12)
Author Data	Dates of Test	Test Report No	FCC ID:
<b>Lauren Weber</b>	<b>August 02 – August 04, 2005</b>	<b>RTS-0248-0508-02</b>	<b>L6ARAP31GW</b>

Date/Time: 02/08/2005 4:43:44 PM Date/Time: 02/08/2005 4:50:16 PM

**Lab: RIM Testing Services (RTS)**

**Right\_Tilted\_GSM1900\_mid\_chan\_Ambient\_Temp\_23\_0\_C\_Liquid\_Temp\_21\_9\_C**

**DUT: BlackBerry Wireless Handheld; Type: Sample**

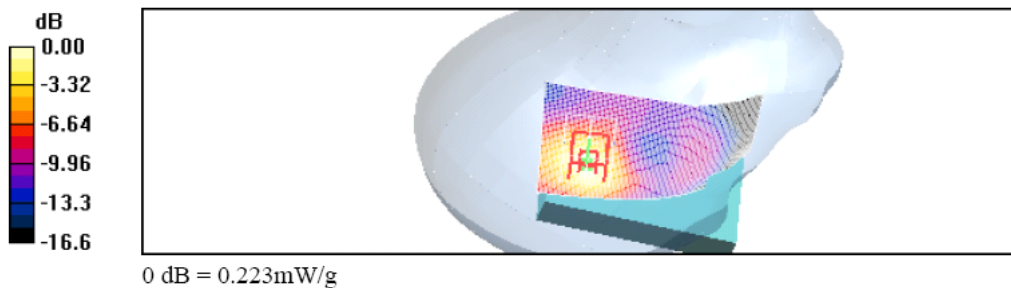
Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3  
Medium: HSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.45$  mho/m;  $\epsilon_r = 38.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1642; ConvF(5.29, 5.29, 5.29); Calibrated: 07/01/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

**Touch position - Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.226 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 11.5 V/m; Power Drift = -0.050 dB  
Peak SAR (extrapolated) = 0.289 W/kg  
**SAR(1 g) = 0.202 mW/g; SAR(10 g) = 0.118 mW/g**  
Maximum value of SAR (measured) = 0.223 mW/g



<b>RTS</b> RIM Testing Services	Document Appendices for the BlackBerry 7285 Wireless Handheld Model RAP31GW SAR Report		Page 6(12)
	Author Data <b>Lauren Weber</b>	Dates of Test <b>August 02 – August 04, 2005</b>	Test Report No <b>RTS-0248-0508-02</b>
		FCC ID: <b>L6ARAP31GW</b>	

Date/Time: 03/08/2005 8:48:38 AM Date/Time: 03/08/2005 8:56:15 AM

**Lab: RIM Testing Services (RTS)**

**Right Tilted GSM1900**  
**LCD\_1\_mid\_chan\_Ambient\_Temp\_22.0\_C\_Liquid\_Temp\_21.5\_C**

**DUT: BlackBerry Wireless Handheld; Type: Sample**

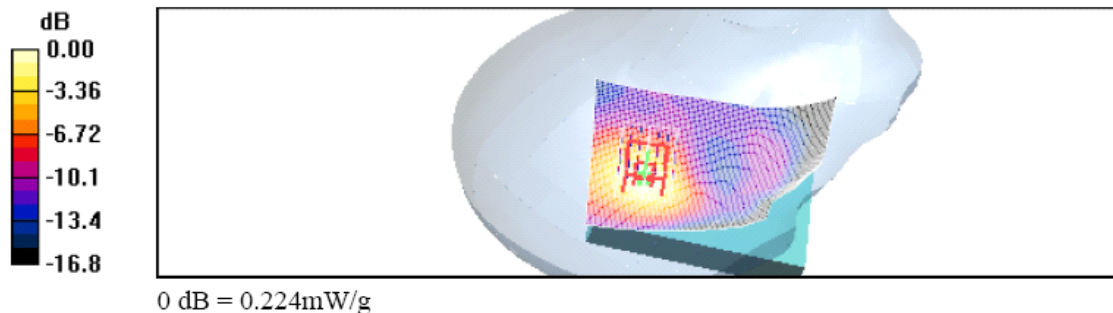
Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3  
Medium: HSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.45 \text{ mho/m}$ ;  $\epsilon_r = 38.2$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1642; ConvF(5.29, 5.29, 5.29); Calibrated: 07/01/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

**Touch position - Middle/Area Scan (61x91x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
Maximum value of SAR (interpolated) = 0.225 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value = 12.4 V/m; Power Drift = -0.041 dB  
Peak SAR (extrapolated) = 0.285 W/kg  
**SAR(1 g) = 0.203 mW/g; SAR(10 g) = 0.119 mW/g**  
Maximum value of SAR (measured) = 0.224 mW/g



<b>RTS</b> <b>RIM Testing Services</b>	Document Appendices for the BlackBerry 7285 Wireless Handheld Model RAP31GW SAR Report		Page 7(12)
	Author Data <b>Lauren Weber</b>	Dates of Test <b>August 02 – August 04, 2005</b>	Test Report No <b>RTS-0248-0508-02</b>

Date/Time: 02/08/2005 5:38:56 PM Date/Time: 02/08/2005 5:47:06 PM

**Lab: RIM Testing Services (RTS)**

**Left\_Tilted\_GSM1900\_mid\_chan\_Ambient\_Temp\_23\_1\_C\_Liquid\_Temp\_22\_0\_C**

**DUT: BlackBerry Wireless Handheld; Type: Sample**

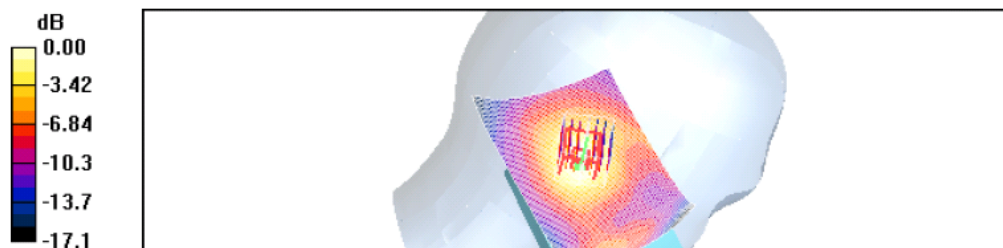
Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3  
Medium: HSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.45$  mho/m;  $\epsilon_r = 38.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1642; ConvF(5.29, 5.29, 5.29); Calibrated: 07/01/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

**Touch position - Middle/Area Scan (61x91x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.199 mW/g

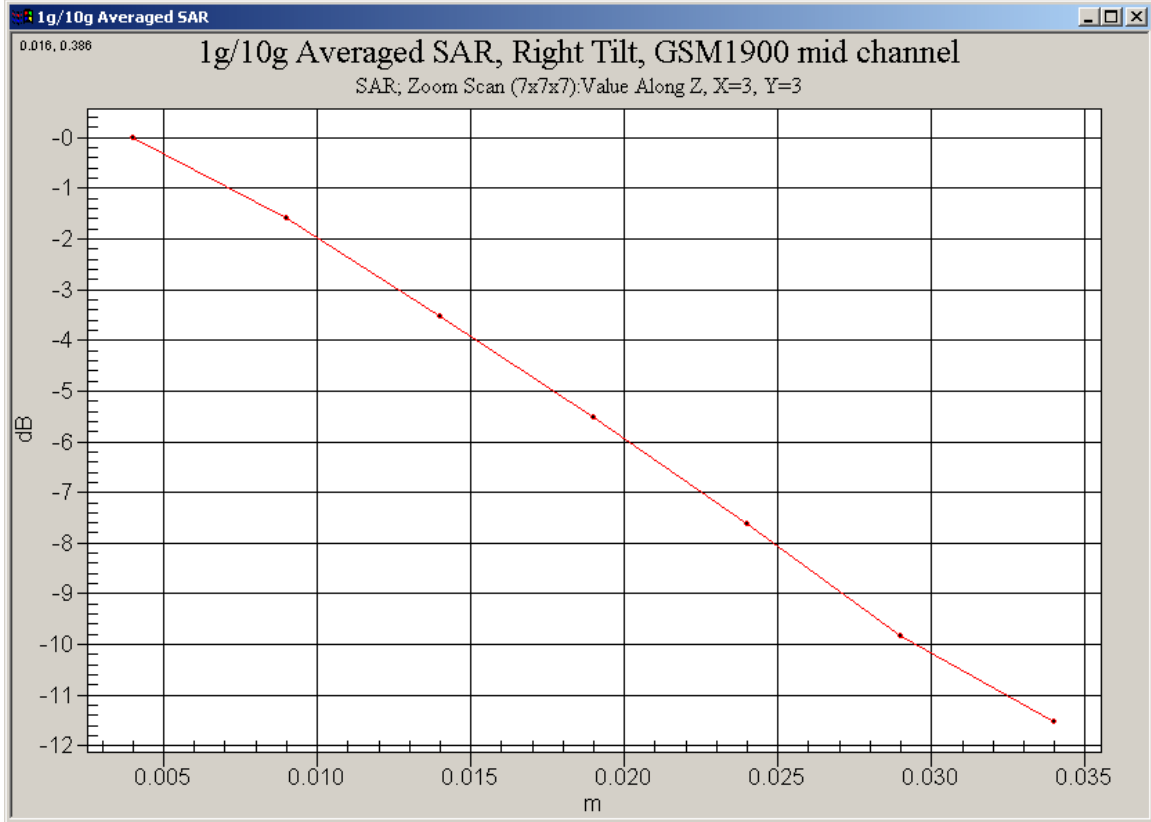
**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 12.0 V/m; Power Drift = -0.012 dB  
Peak SAR (extrapolated) = 0.244 W/kg  
**SAR(1 g) = 0.171 mW/g; SAR(10 g) = 0.105 mW/g**  
Maximum value of SAR (measured) = 0.185 mW/g



0 dB = 0.185mW/g

<b>RTS</b> <b>RIM Testing Services</b>	Document Appendices for the BlackBerry 7285 Wireless Handheld Model RAP31GW SAR Report		Page 8(12)
	Author Data <b>Lauren Weber</b>	Dates of Test <b>August 02 – August 04, 2005</b>	Test Report No <b>RTS-0248-0508-02</b>

**Z-axis plot for worst-case head configuration:**





<b>RTS</b> <b>RIM Testing Services</b>	Document Appendices for the BlackBerry 7285 Wireless Handheld Model RAP31GW SAR Report		Page <b>9(12)</b>
	Author Data <b>Lauren Weber</b>	Dates of Test <b>August 02 – August 04, 2005</b>	Test Report No <b>RTS-0248-0508-02</b>

APPENDIX C: SAR DISTRIBUTION PLOTS FOR BODY-WORN CONFIGURATION

<b>RTS</b> <b>RIM Testing Services</b>	Document		Page
	Appendices for the BlackBerry 7285 Wireless Handheld Model RAP31GW SAR Report		10(12)
Author Data	Dates of Test	Test Report No	FCC ID:
<b>Lauren Weber</b>	<b>August 02 – August 04, 2005</b>	<b>RTS-0248-0508-02</b>	<b>L6ARAP31GW</b>

Date/Time: 03/08/2005 11:06:09 AM Date/Time: 03/08/2005 10:57:43 AM

**Lab: RIM Testing Services (RTS)**

**Body worn with Vertical Foam Holster\_GSM 1900\_Mid Chan\_back side\_Ambient\_Temp\_23.1\_C\_Liquid\_Temp\_21.8\_C\_08-03-2005**

**DUT: BlackBerry Wireless Handheld ; Type: Sample**

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: M1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r = 50.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1642; ConvF(4.78, 4.78, 4.78); Calibrated: 07/01/2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Reference Value = 22.8 V/m; Power Drift = -0.122 dB

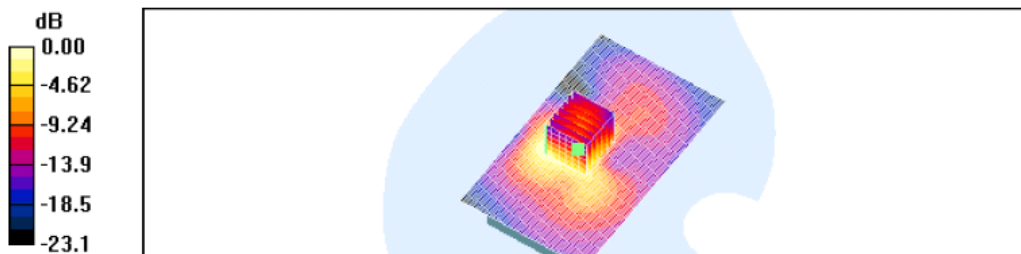
Peak SAR (extrapolated) = 1.45 W/kg

**SAR(1 g) = 0.736 mW/g; SAR(10 g) = 0.430 mW/g**

Maximum value of SAR (measured) = 0.839 mW/g

**Dipole Validation/Area Scan (61x101x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.851 mW/g



0 dB = 0.851mW/g

<b>RTS</b> <b>RIM Testing Services</b>	Document Appendices for the BlackBerry 7285 Wireless Handheld Model RAP31GW SAR Report		Page 11(12)
	Author Data <b>Lauren Weber</b>	Dates of Test <b>August 02 – August 04, 2005</b>	Test Report No <b>RTS-0248-0508-02</b>

Date/Time: 03/08/2005 11:38:49 AM Date/Time: 03/08/2005 11:30:19 AM

**Lab: RIM Testing Services (RTS)**

**Body worn with 15 mm distance\_GSM 1900\_Mid Chan\_back  
side\_Ambient\_Temp\_23.3\_C\_Liquid\_Temp\_21.9\_C\_08-03-2005**

**DUT: BlackBerry Wireless Handheld ; Type: Sample**

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3  
 Medium: M1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.57 \text{ mho/m}$ ;  $\epsilon_r = 50.9$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

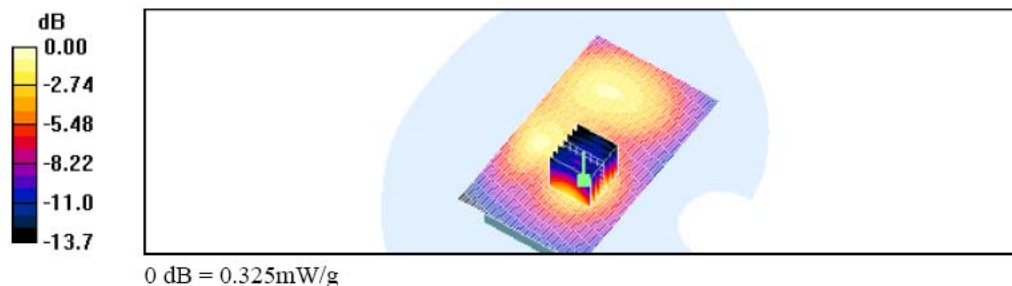
DASY4 Configuration:

- Probe: ET3DV6 - SN1642; ConvF(4.78, 4.78, 4.78); Calibrated: 07/01/2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 03/01/2005
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Reference Value = 10.1 V/m; Power Drift = 0.066 dB  
 Peak SAR (extrapolated) = 0.439 W/kg  
**SAR(1 g) = 0.285 mW/g; SAR(10 g) = 0.168 mW/g**  
 Maximum value of SAR (measured) = 0.313 mW/g

**Dipole Validation/Area Scan (61x101x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (interpolated) = 0.325 mW/g



Author Data  
**Lauren Weber**

Dates of Test  
**August 02 – August 04, 2005**

Test Report No  
**RTS-0248-0508-02**

FCC ID:  
**L6ARAP31GW**

**Z-axis plot for worst-case body worn configuration:**

