## APPENDIX A: SAR DISTRIBUTION COMPARISON FOR ACCURACY VERIFICATION

Date/Time: 10/07/2006 3:42:41 PM

Test Laboratory: RTS
File Name: 835MHz_Validation_Ambient_Temp_24_0_C_Liquid_Temp_23_2_C_07_10_06.da4

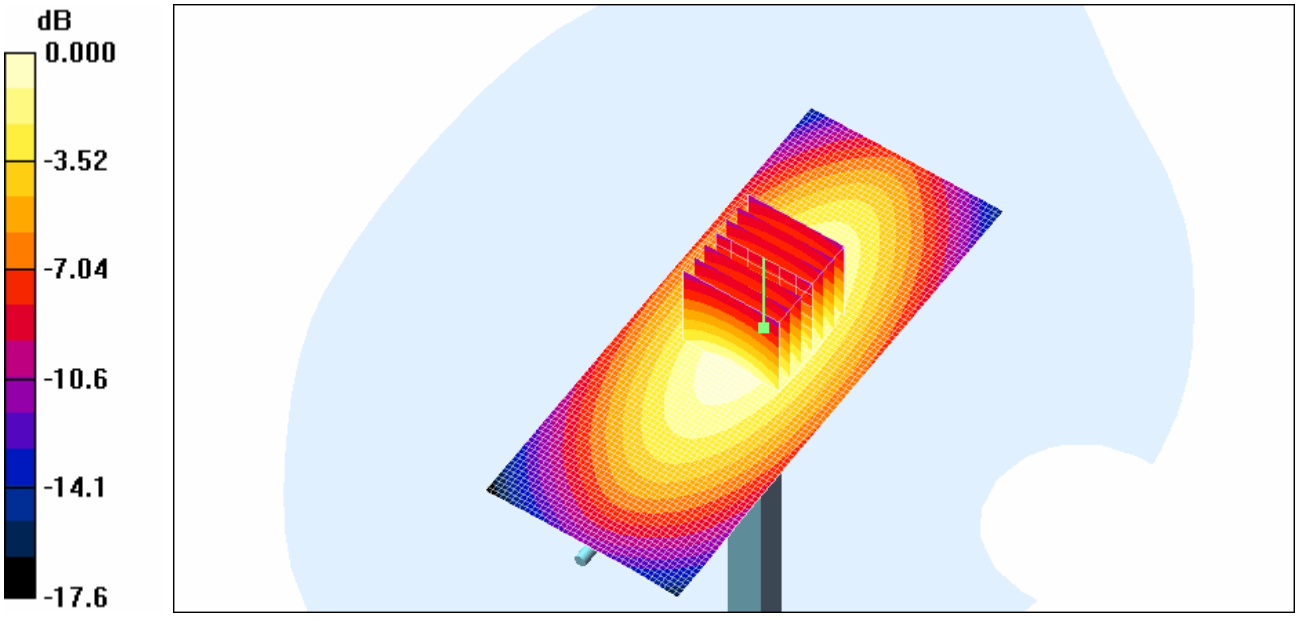
**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446**
**Program Name: Unnamed Program**

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; $\sigma$ = 0.89 mho/m; $\varepsilon_r$ = 41.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.36, 6.36, 6.36); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Dipole Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 111.1 V/m; Power Drift = -0.033 dB
Peak SAR (extrapolated) = 11.6 W/kg
**SAR(1 g) = 8.31 mW/g; SAR(10 g) = 5.53 mW/g**
Maximum value of SAR (measured) = 9.01 mW/g

**Dipole Validation/Area Scan (41x101x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 8.99 mW/g




0 dB = 8.99mW/g

Date/Time: 20/07/2006 8:19:30 PM

Test Laboratory: RTS
File Name: 835MHz_Validation_Ambient_Temp_23_8_C_Liquid_Temp_22_6_C_07_20_06.da4

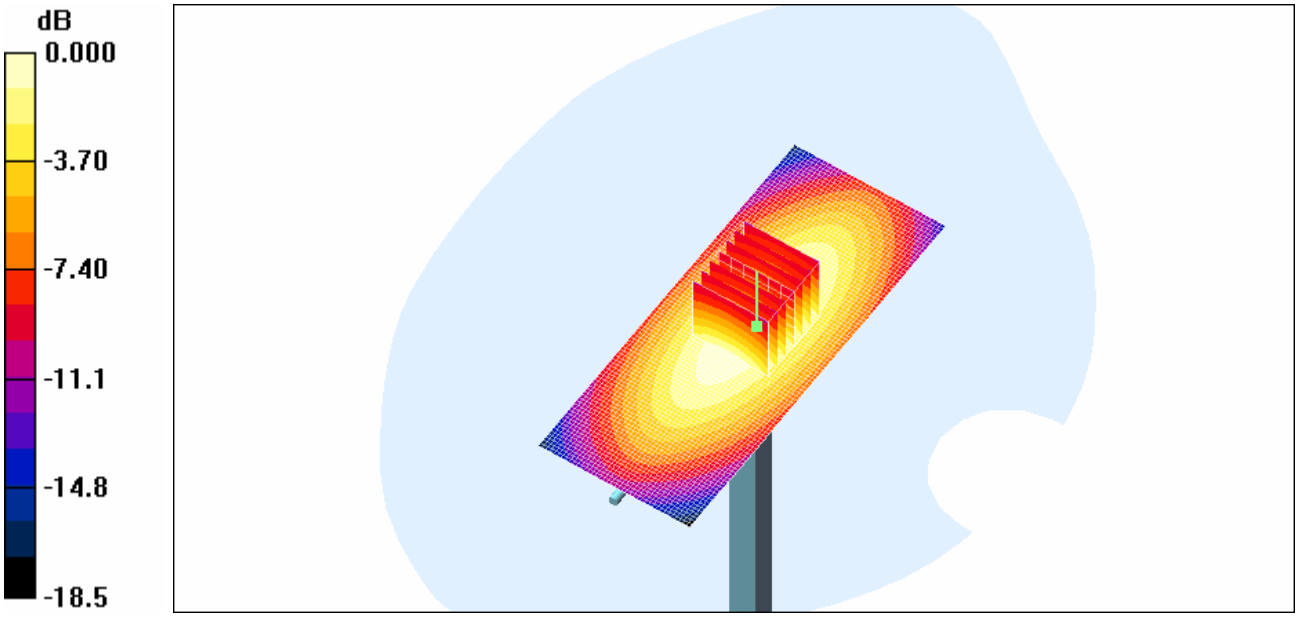
**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446**
**Program Name: Unnamed Program**

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; $\sigma$ = 0.91 mho/m; $\varepsilon_r$ = 42.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.36, 6.36, 6.36); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Dipole Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 107.5 V/m; Power Drift = 0.012 dB
Peak SAR (extrapolated) = 12.9 W/kg
**SAR(1 g) = 8.97 mW/g; SAR(10 g) = 5.91 mW/g**
Maximum value of SAR (measured) = 9.72 mW/g

**Dipole Validation/Area Scan (41x101x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 9.73 mW/g




0 dB = 9.73mW/g

Date/Time: 11/07/2006 12:08:22 PM

Test Laboratory: RTS

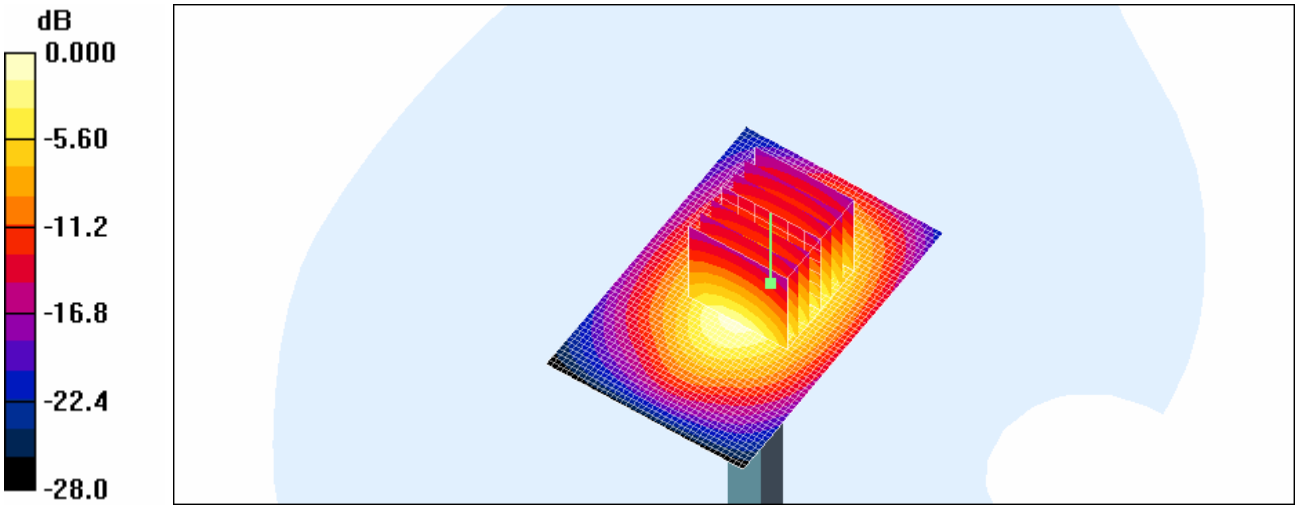
**1900MHz_Validation_Ambient_Temp_23_9_C_Liquid_Temp_22_8_C_07_11_06**

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:545**
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; $\sigma$ = 1.45 mho/m; $\varepsilon_r$ = 39.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
DASY4 Configuration:

- Probe: ET3DV6 - SN1642; ConvF(5.18, 5.18, 5.18); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Dipole Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 179.0 V/m; Power Drift = 0.025 dB
Peak SAR (extrapolated) = 68.5 W/kg
**SAR(1 g) = 38.9 mW/g; SAR(10 g) = 20.4 mW/g**
Maximum value of SAR (measured) = 44.3 mW/g

**Dipole Validation/Area Scan (41x61x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 47.1 mW/g




0 dB = 47.1mW/g

Date/Time: 17/07/2006 6:04:57 PM

Test Laboratory: RTS
File Name: 1900MHz_Validation_Ambient_Temp_24_0_C_Liquid_Temp_23_0_C_07_17_06.da4

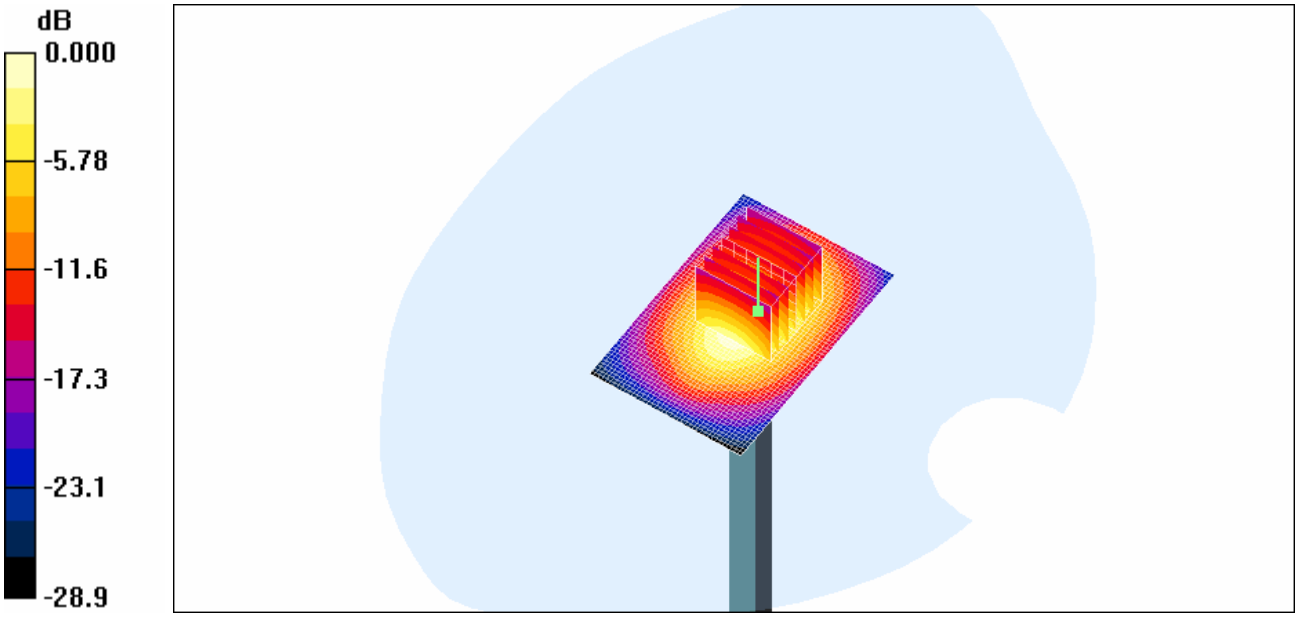
**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:545**
**Program Name: Unnamed Program**

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; $\sigma$ = 1.43 mho/m; $\varepsilon_r$ = 39; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(5.18, 5.18, 5.18); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Dipole Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 188.9 V/m; Power Drift = 0.030 dB
Peak SAR (extrapolated) = 71.2 W/kg
**SAR(1 g) = 40.6 mW/g; SAR(10 g) = 21.3 mW/g**
Maximum value of SAR (measured) = 45.8 mW/g

**Dipole Validation/Area Scan (41x61x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 48.9 mW/g




0 dB = 48.9mW/g

Date/Time: 18/07/2006 4:32:38 PM

Test Laboratory: RTS
File Name: 1900MHz_Validation_Ambient_Temp_24_2_C_Liquid_Temp_23_1_C_07_18_06.da4

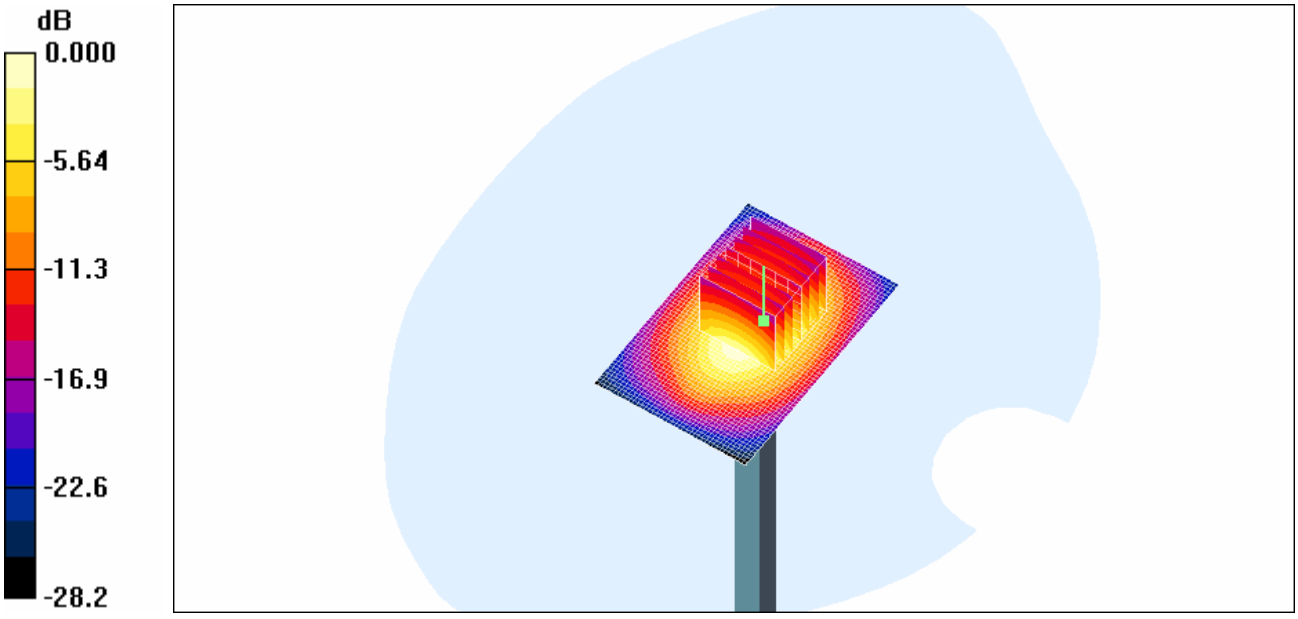
**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:545**
**Program Name: Unnamed Program**

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; $\sigma$ = 1.43 mho/m; $\varepsilon_r$ = 39; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(5.18, 5.18, 5.18); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Dipole Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 190.9 V/m; Power Drift = -0.026 dB
Peak SAR (extrapolated) = 69.2 W/kg
**SAR(1 g) = 39.8 mW/g; SAR(10 g) = 21 mW/g**
Maximum value of SAR (measured) = 45.0 mW/g

**Dipole Validation/Area Scan (41x61x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 48.5 mW/g




0 dB = 48.5mW/g

Date/Time: 20/07/2006 5:31:04 PM

Test Laboratory: RTS
File Name: 1900MHz_Validation_Ambient_Temp_23_1_C_Liquid_Temp_22_0_C_07_20_06.da4

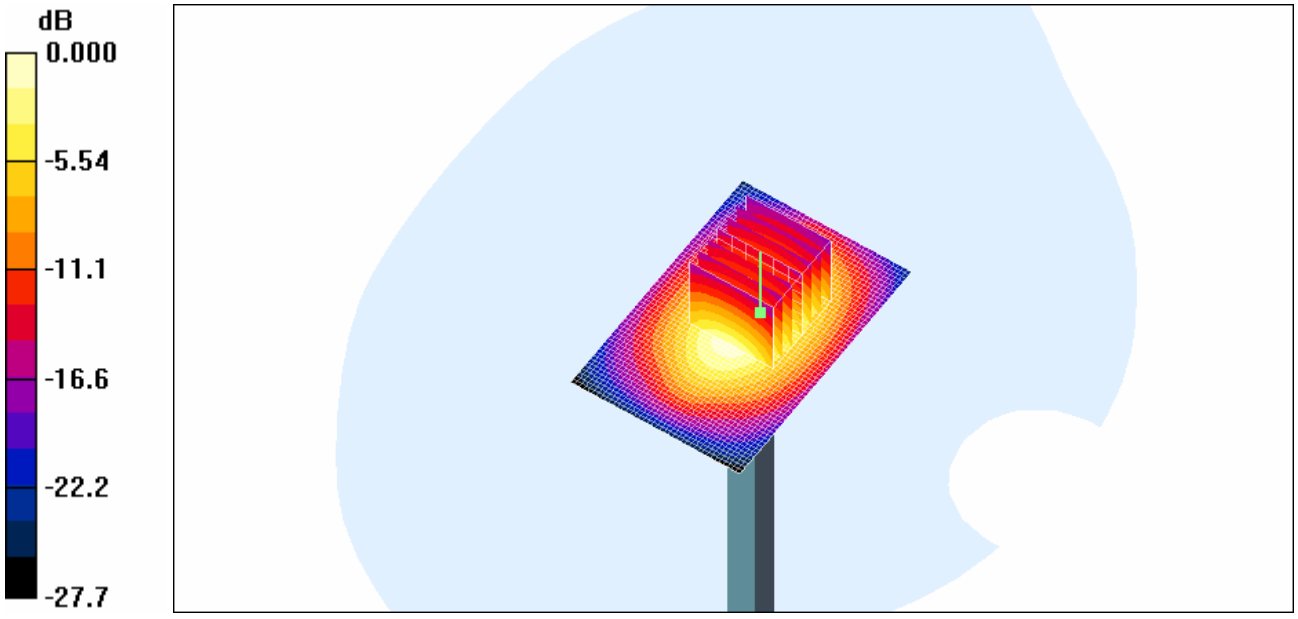
**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:545**
**Program Name: Unnamed Program**

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; $\sigma$ = 1.43 mho/m; $\varepsilon_r$ = 39; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(5.18, 5.18, 5.18); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Dipole Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 189.0 V/m; Power Drift = -0.105 dB
Peak SAR (extrapolated) = 71.3 W/kg
**SAR(1 g) = 40.4 mW/g; SAR(10 g) = 21.1 mW/g**
Maximum value of SAR (measured) = 45.7 mW/g

**Dipole Validation/Area Scan (41x61x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 49.1 mW/g




0 dB = 49.1mW/g

## APPENDIX B: SAR DISTRIBUTION PLOTS FOR HEAD CONFIGURATION

Date/Time: 10/07/2006 5:37:18 PM

Test Laboratory: RTS
File Name: Right_Touch_GSM850_Low_Chan_Batt1_Ambient_Temp_23_3_C_Liquid_Temp_22_7_C.da4

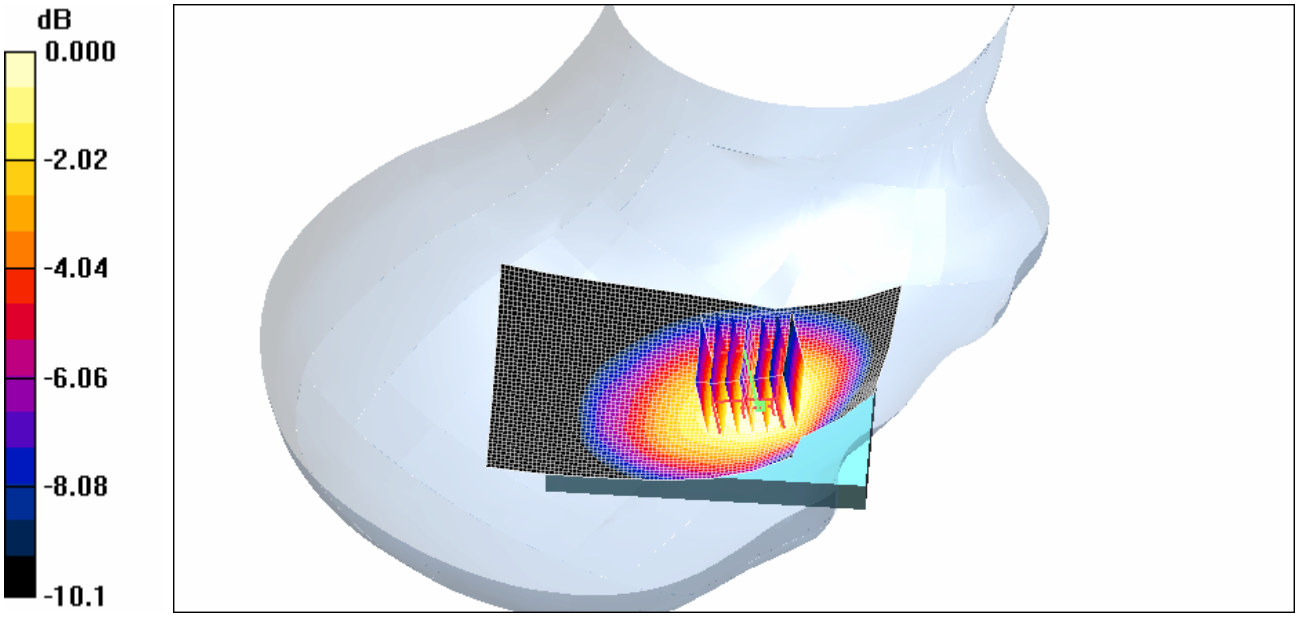
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)**

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 824.2 MHz; $\sigma$ = 0.89 mho/m; $\varepsilon_r$ = 41.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.36, 6.36, 6.36); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.00 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 = -0.205 dB
Peak SAR (extrapolated) = 1.22 W/kg
**SAR(1 g) = 0.930 mW/g; SAR(10 g) = 0.662 mW/g**
Maximum value of SAR (measured) = 0.999 mW/g



0 dB = 0.999mW/g

Date/Time: 10/07/2006 5:14:53 PM

Test Laboratory: RTS
File Name: Right_Touch_GSM850_Mid_Chan_Batt1_Ambient_Temp_24_4_C_Liquid_Temp_23_0_C.da4

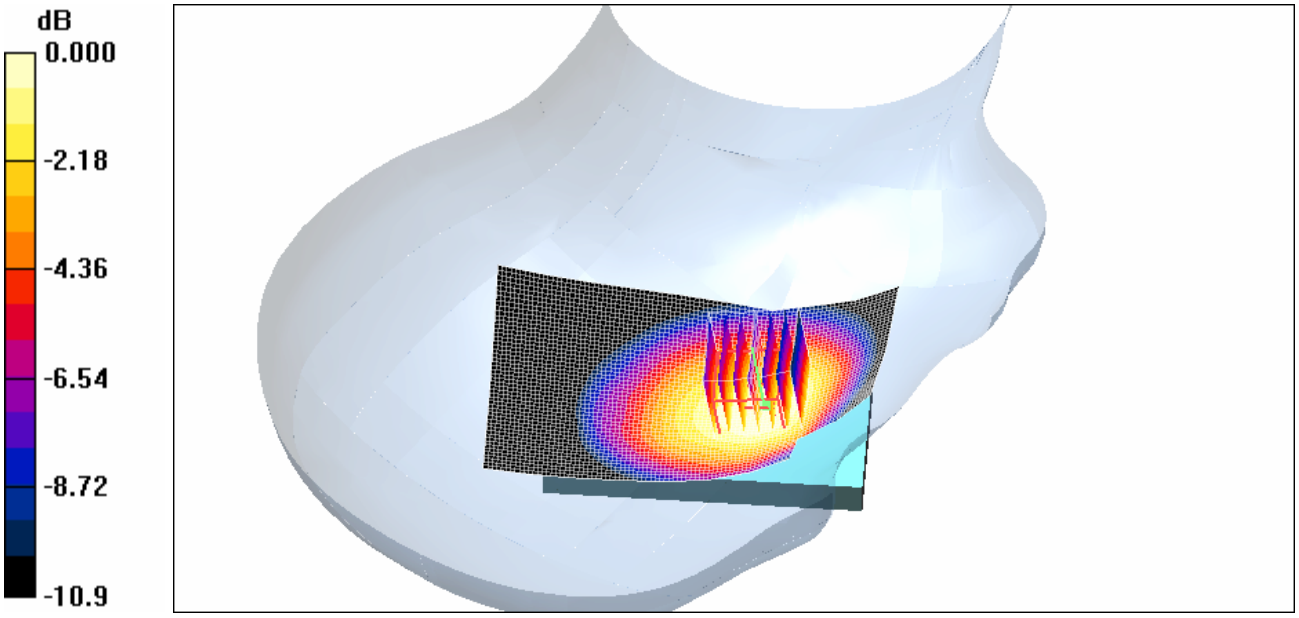
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)**

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.89 mho/m; $\varepsilon_r$ = 41.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.36, 6.36, 6.36); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.16 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.2 V/m; Power Drift = -0.697 dB
Peak SAR (extrapolated) = 1.36 W/kg
**SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.739 mW/g**
Maximum value of SAR (measured) = 1.11 mW/g



0 dB = 1.11mW/g

Date/Time: 10/07/2006 6:00:54 PM

Test Laboratory: RTS
File Name: Right_Touch_GSM850_High_Chan_Batt1_Ambient_Temp_23_2_C_Liquid_Temp_22_8_C.da4

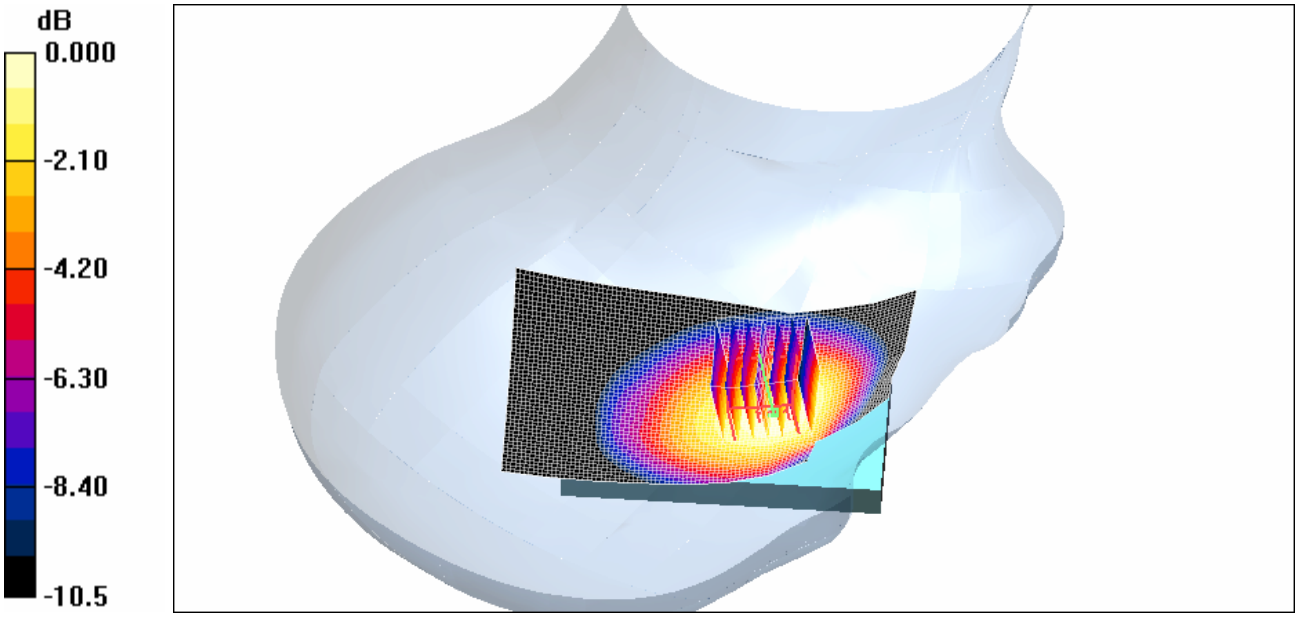
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)**

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 848.8 MHz; $\sigma$ = 0.89 mho/m; $\varepsilon_r$ = 41.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.36, 6.36, 6.36); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.08 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.8 V/m; Power Drift = -0.117 dB
Peak SAR (extrapolated) = 1.33 W/kg
**SAR(1 g) = 0.999 mW/g; SAR(10 g) = 0.706 mW/g**
Maximum value of SAR (measured) = 1.08 mW/g



0 dB = 1.08mW/g

Date/Time: 10/07/2006 6:24:54 PM

Test Laboratory: RTS
File Name: Right_Tilted_GSM850_Mid_Chan_Batt1_Ambient_Temp_23_8_C_Liquid_Temp_23_1_C.da4

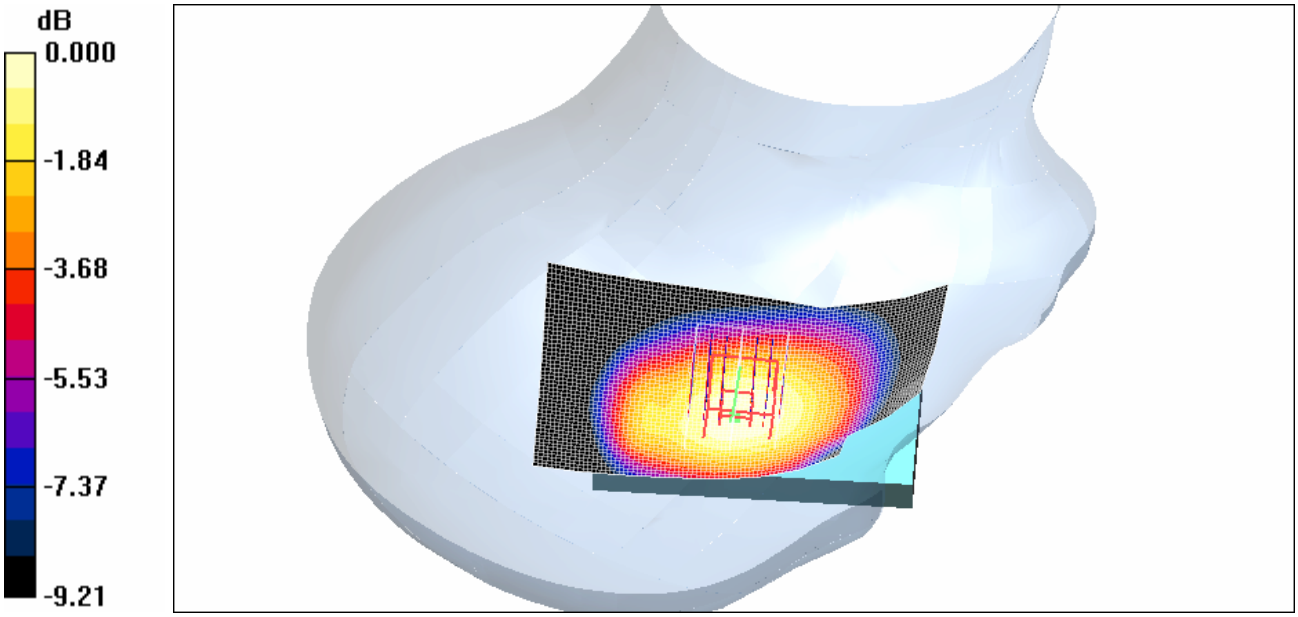
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)**

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.89 mho/m; $\varepsilon_r$ = 41.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.36, 6.36, 6.36); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.543 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.4 V/m; Power Drift = -0.003 dB
Peak SAR (extrapolated) = 0.668 W/kg
**SAR(1 g) = 0.512 mW/g; SAR(10 g) = 0.371 mW/g**
Maximum value of SAR (measured) = 0.546 mW/g



0 dB = 0.546mW/g

Date/Time: 10/07/2006 7:16:44 PM

Test Laboratory: RTS
File Name: Left_Touch_GSM850_Low_Chan_Batt1_Ambient_Temp_23_5_C_Liquid_Temp_23_2.da4

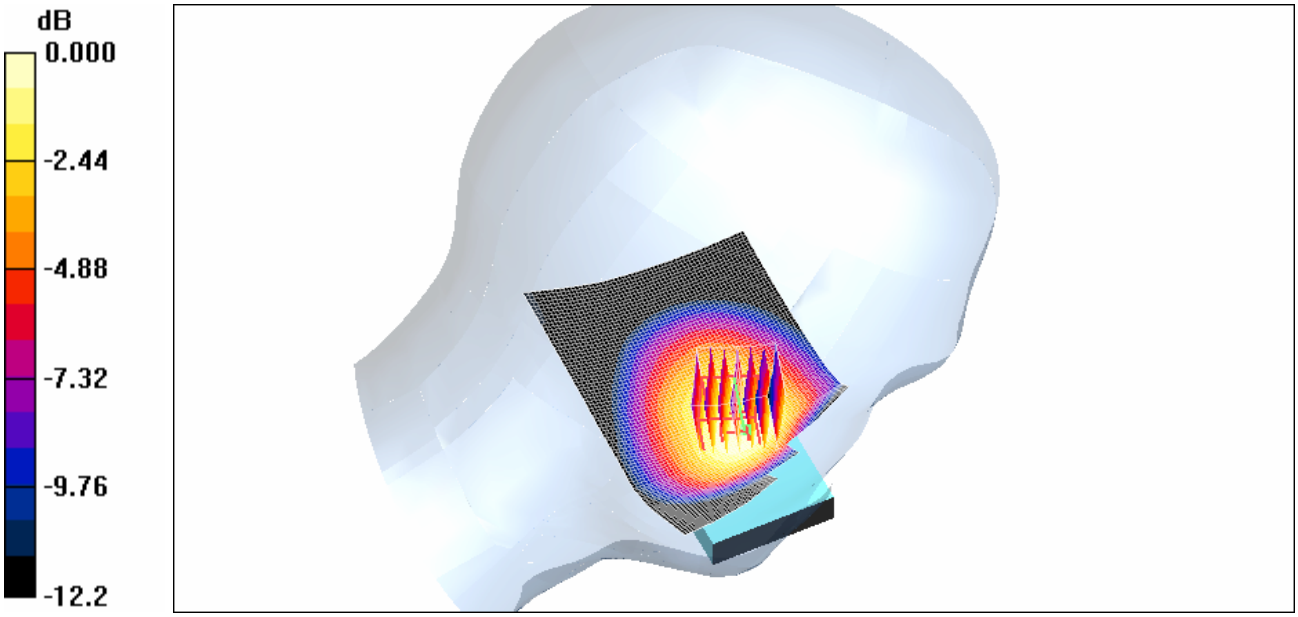
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)**

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 824.2 MHz; $\sigma$ = 0.89 mho/m; $\varepsilon_r$ = 41.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.36, 6.36, 6.36); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (61x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.10 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.8 V/m; Power Drift = -0.047 dB
Peak SAR (extrapolated) = 1.28 W/kg
**SAR(1 g) = 0.957 mW/g; SAR(10 g) = 0.676 mW/g**
Maximum value of SAR (measured) = 1.02 mW/g



0 dB = 1.02mW/g

Date/Time: 10/07/2006 6:52:26 PM

Test Laboratory: RTS
File Name: Left_Touch_GSM850_Mid_Chan_Batt1_Ambient_Temp_23_4_C_Liquid_Temp_22_9_C.da4

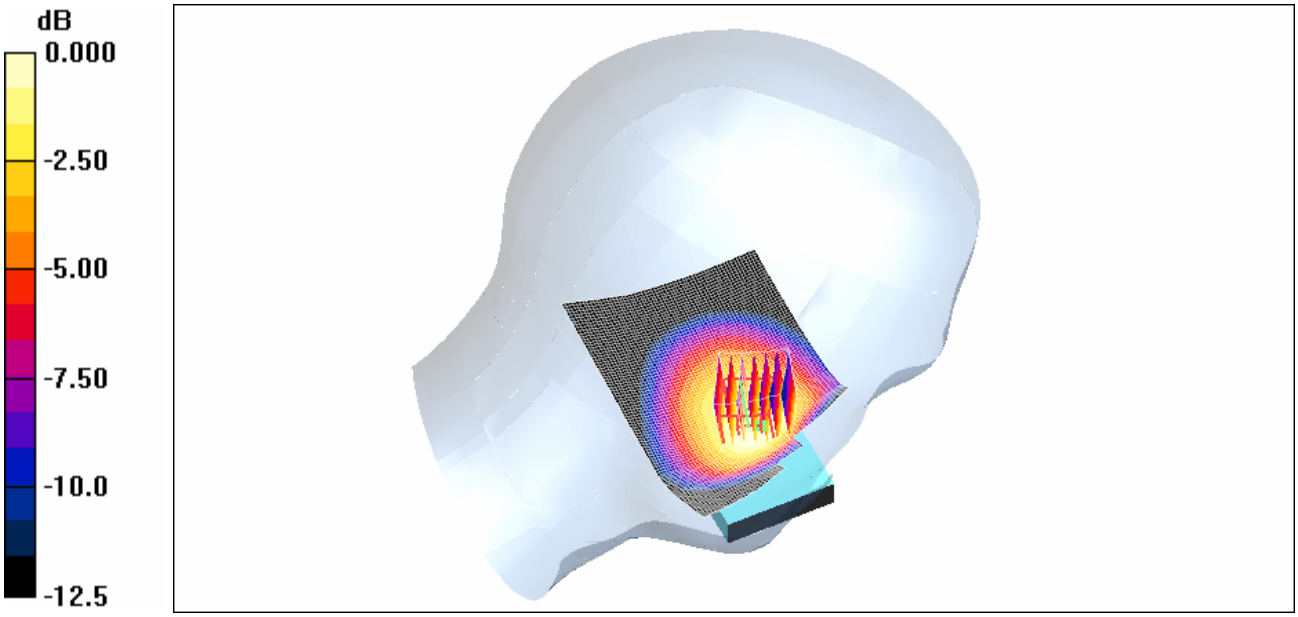
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)**

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.89 mho/m; $\varepsilon_r$ = 41.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.36, 6.36, 6.36); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (61x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.23 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.7 V/m; Power Drift = -0.068 dB
Peak SAR (extrapolated) = 1.42 W/kg
**SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.749 mW/g**
Maximum value of SAR (measured) = 1.13 mW/g



0 dB = 1.13mW/g

Date/Time: 10/07/2006 7:40:08 PM

Test Laboratory: RTS
File Name: Left_Touch_GSM850_High_Chan_Batt1_Ambient_Temp_23_3_C_Liquid_Temp_22_9.da4

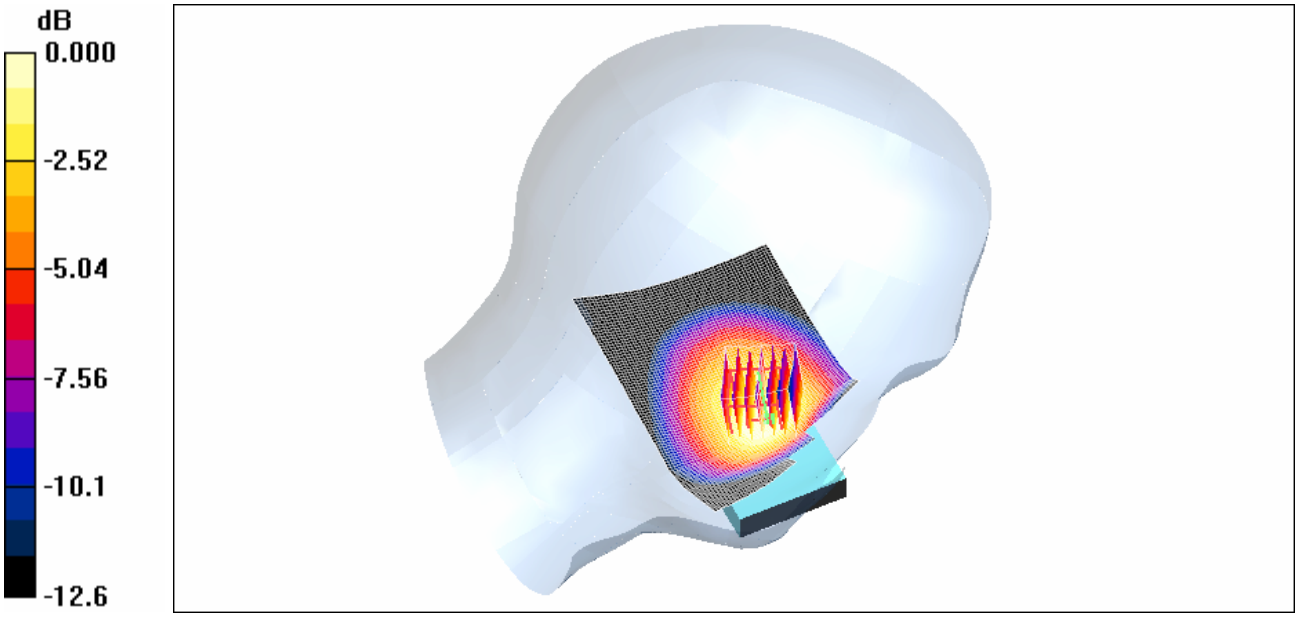
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)**

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 848.8 MHz; $\sigma$ = 0.89 mho/m; $\varepsilon_r$ = 41.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.36, 6.36, 6.36); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (61x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.16 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.0 V/m; Power Drift = -0.172 dB
Peak SAR (extrapolated) = 1.36 W/kg
**SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.716 mW/g**
Maximum value of SAR (measured) = 1.08 mW/g



0 dB = 1.08mW/g

Date/Time: 10/07/2006 8:04:33 PM

Test Laboratory: RTS
File Name: Left_Tilted_GSM850_Mid_Chan_Batt1_Ambient_Temp_23_4_C_Liquid_Temp_23_0_C.da4

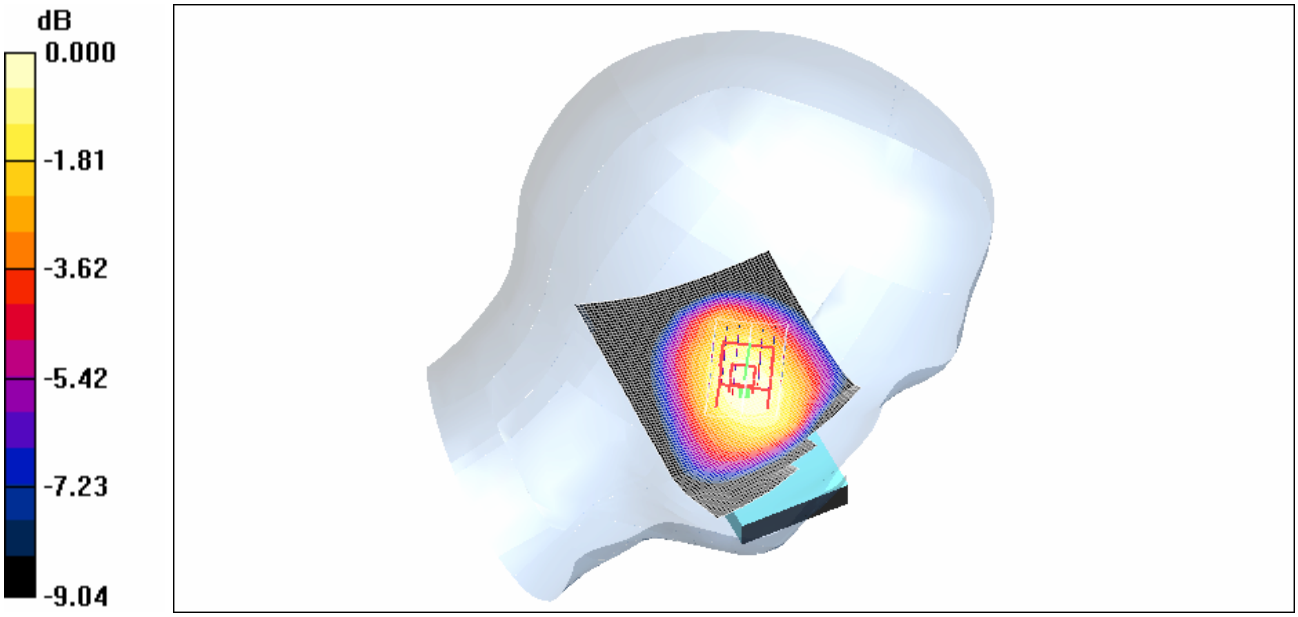
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)**

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.89 mho/m; $\varepsilon_r$ = 41.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.36, 6.36, 6.36); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (61x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.650 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.7 V/m; Power Drift = 0.008 dB
Peak SAR (extrapolated) = 0.800 W/kg
**SAR(1 g) = 0.605 mW/g; SAR(10 g) = 0.438 mW/g**
Maximum value of SAR (measured) = 0.647 mW/g



0 dB = 0.647mW/g

Date/Time: 10/07/2006 8:28:58 PM

Test Laboratory: RTS
File Name: Right_Touch_GSM850_Mid_Chan_Batt2_Ambient_Temp_23_5_C_Liquid_Temp_22_8_C.da4

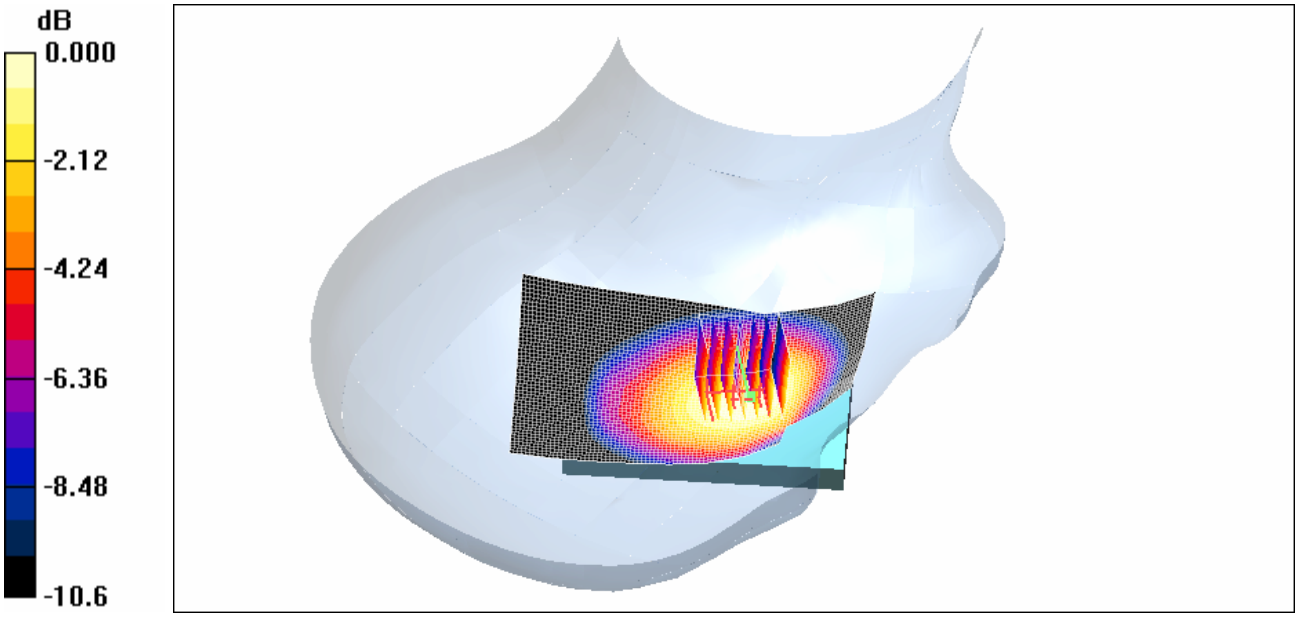
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)**

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.89 mho/m; $\varepsilon_r$ = 41.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.36, 6.36, 6.36); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.13 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.5 V/m; Power Drift = -0.191 dB
Peak SAR (extrapolated) = 1.38 W/kg
**SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.744 mW/g**
Maximum value of SAR (measured) = 1.12 mW/g



0 dB = 1.12mW/g

Date/Time: 21/07/2006 2:27:57 PM

Test Laboratory: RTS
File Name: Right_Touch_GSM850_Mid_Chan_Batt1_LCD1_Amb_Temp_23_3_C_Liq_Temp_22_1_C.da4

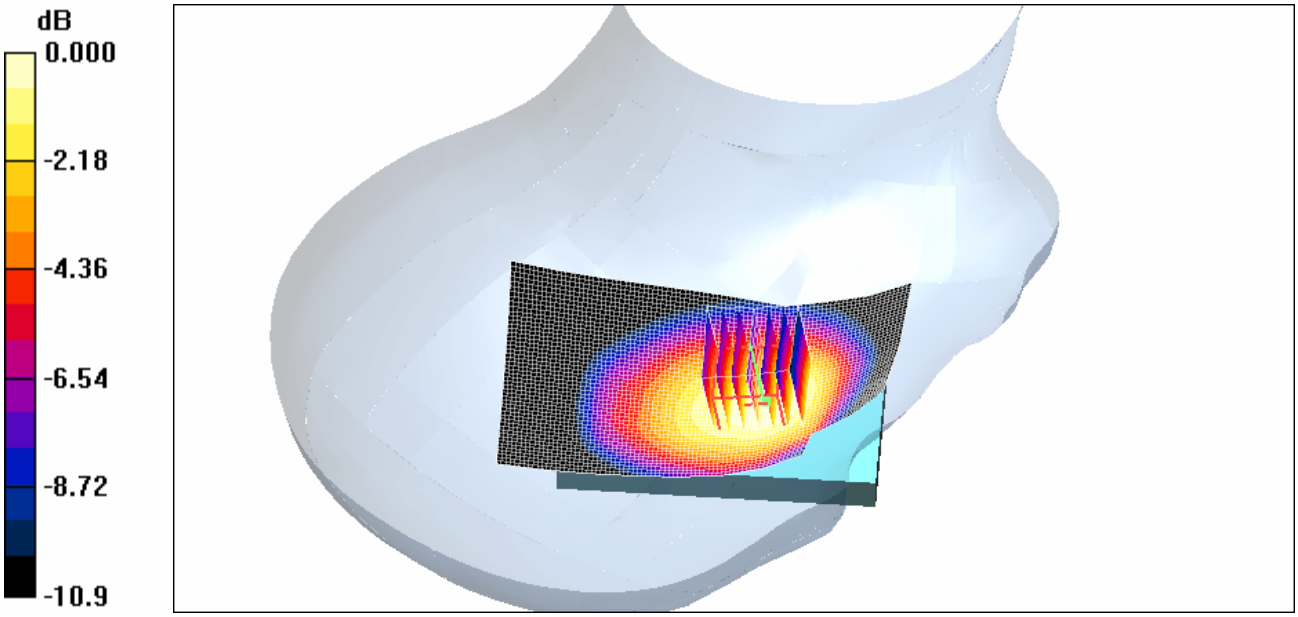
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)**

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.91 mho/m; $\varepsilon_r$ = 42.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.36, 6.36, 6.36); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.12 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.5 V/m; Power Drift = 0.060 dB
Peak SAR (extrapolated) = 1.39 W/kg
**SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.747 mW/g**
Maximum value of SAR (measured) = 1.12 mW/g



0 dB = 1.12mW/g

Date/Time: 21/07/2006 3:34:04 PM

Test Laboratory: RTS
File Name: Right_Touch_GSM850_Mid_Chan_Batt1_LCD2_Amb_Temp_23_2_C_Liq_Temp_22_3_C.da4

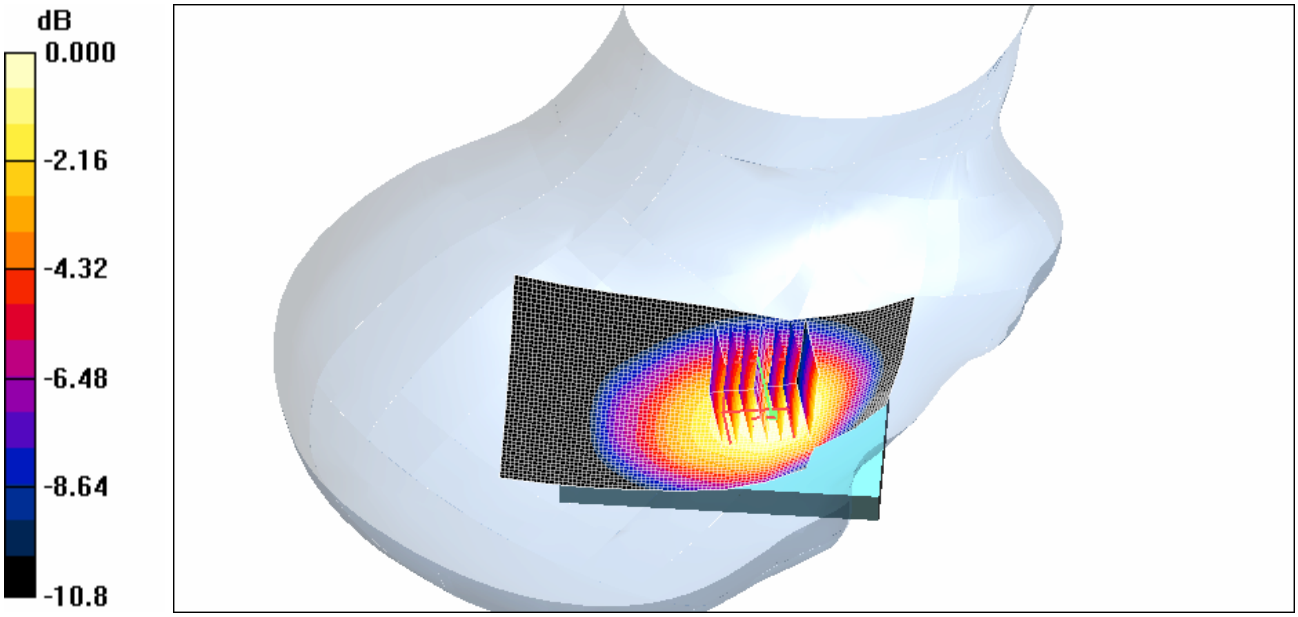
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)**

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.91 mho/m; $\varepsilon_r$ = 42.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.36, 6.36, 6.36); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.16 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.7 V/m; Power Drift = -0.041 dB
Peak SAR (extrapolated) = 1.41 W/kg
**SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.751 mW/g**
Maximum value of SAR (measured) = 1.14 mW/g



0 dB = 1.14mW/g

Date/Time: 21/07/2006 3:57:22 PM

Test Laboratory: RTS
File Name: Right_Touch_GSM850_Mid_Chan_Batt1_LCD3_Amb_Temp_23_4_C_Liq_Temp_22_4_C.da4

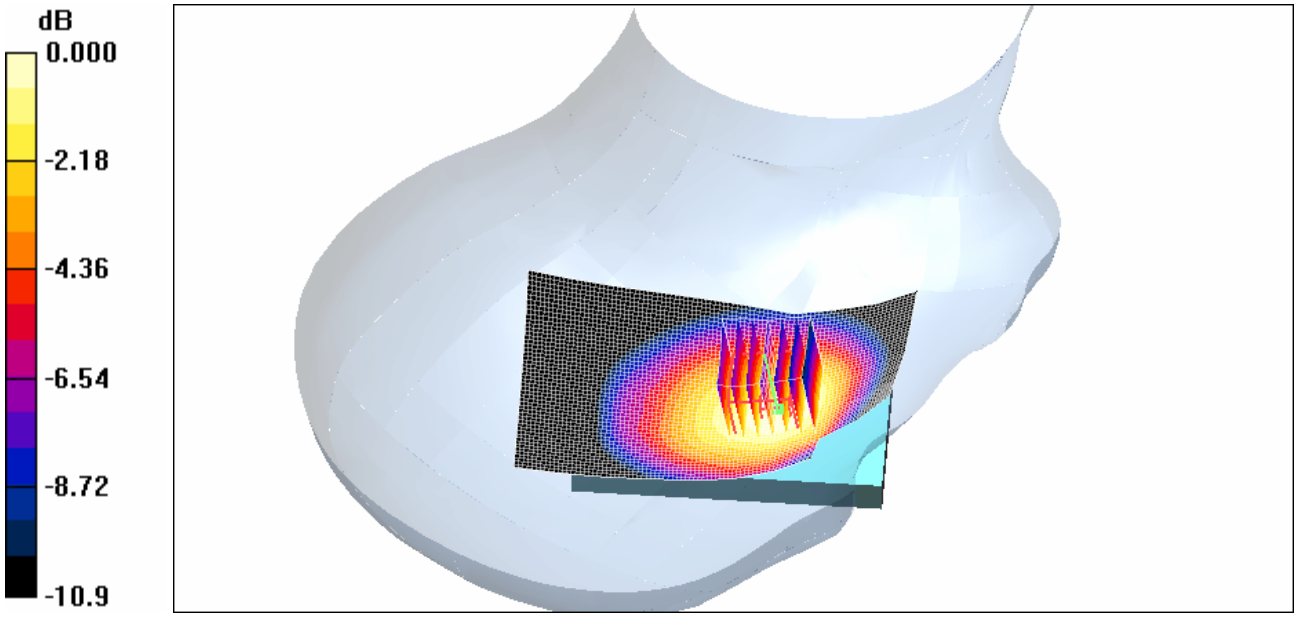
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)**

Communication System: GSM 850; Frequency: 836.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.91 mho/m; $\varepsilon_r$ = 42.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.36, 6.36, 6.36); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.06 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.0 V/m; Power Drift = -0.069 dB
Peak SAR (extrapolated) = 1.29 W/kg
**SAR(1 g) = 0.979 mW/g; SAR(10 g) = 0.695 mW/g**
Maximum value of SAR (measured) = 1.05 mW/g



0 dB = 1.05mW/g

Date/Time: 11/07/2006 1:01:49 PM

Test Laboratory: RTS

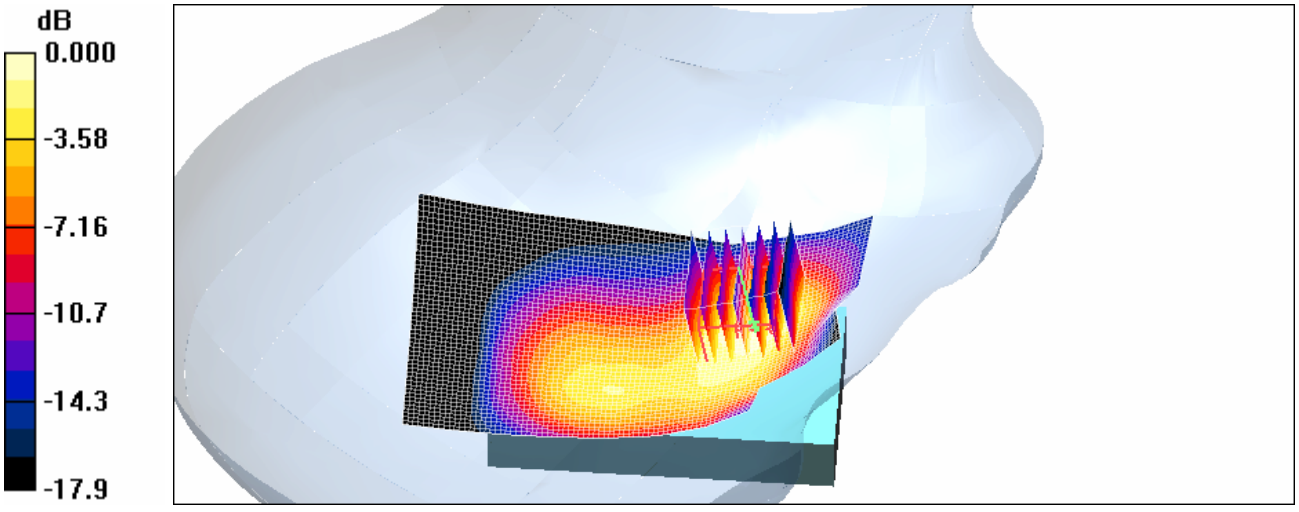
**Right_Touch_GSM1900_Low_Chan_Amb_Temp_23.5_C_Liq_Temp_22_7_C**

**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1850.2 MHz; $\sigma$ = 1.45 mho/m; $\varepsilon_r$ = 39.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
DASY4 Configuration:

- Probe: ET3DV6 - SN1642; ConvF(5.18, 5.18, 5.18); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.22 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.44 V/m; Power Drift = -0.258 dB
Peak SAR (extrapolated) = 1.56 W/kg
**SAR(1 g) = 1 mW/g; SAR(10 g) = 0.561 mW/g**
Maximum value of SAR (measured) = 1.11 mW/g




0 dB = 1.11mW/g

Date/Time: 11/07/2006 12:34:01 PM

Test Laboratory: RTS

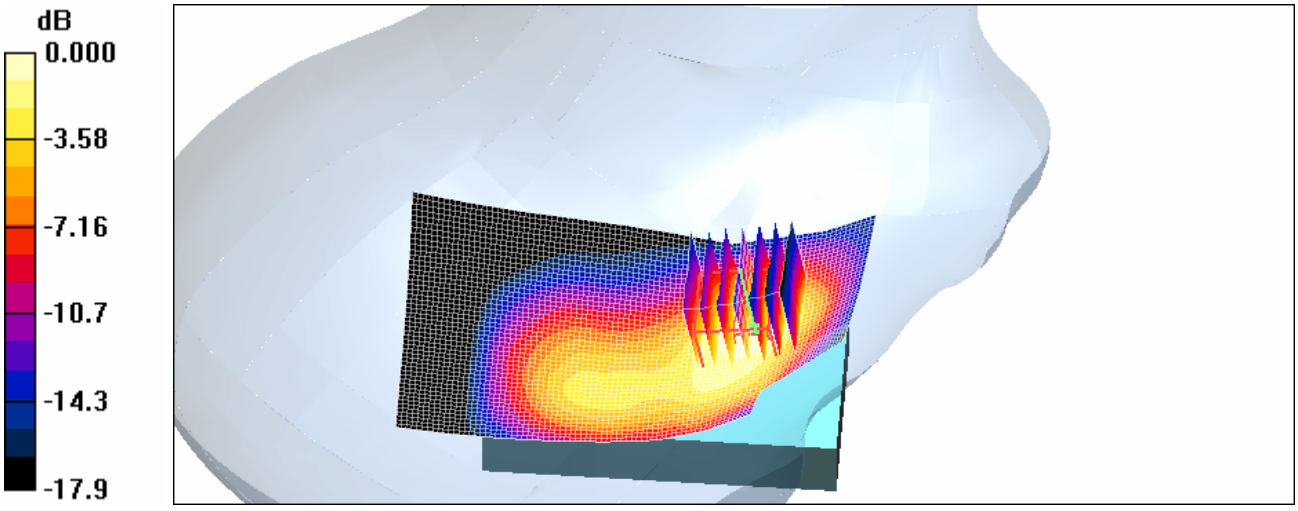
**Right_Touch_GSM1900_Mid_Chan_Amb_Temp_23.4_C_Liq_Temp_22_6_C**

**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.45 mho/m; $\varepsilon_r$ = 39.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
DASY4 Configuration:

- Probe: ET3DV6 - SN1642; ConvF(5.18, 5.18, 5.18); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.23 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.50 V/m; Power Drift = -0.600 dB
Peak SAR (extrapolated) = 1.53 W/kg
**SAR(1 g) = 0.994 mW/g; SAR(10 g) = 0.559 mW/g**
Maximum value of SAR (measured) = 1.11 mW/g




0 dB = 1.11mW/g

Date/Time: 11/07/2006 1:52:24 PM

Test Laboratory: RTS

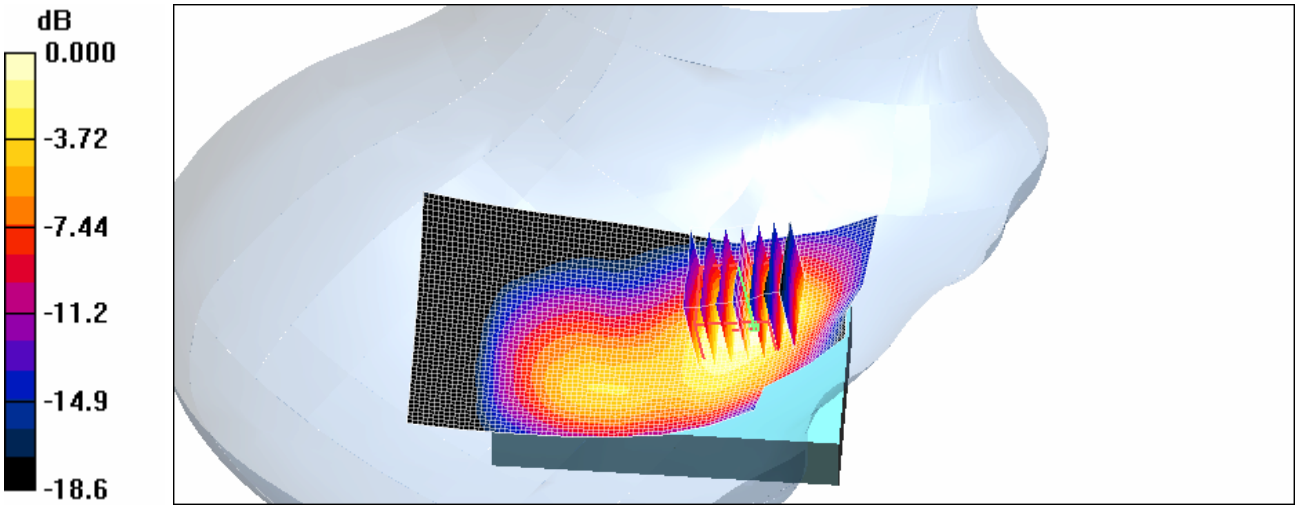
**Right_Touch_GSM1900_High_Chan_Amb_Temp_23.7_C_Liq_Temp_22_9_C**

**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1909.8 MHz; $\sigma$ = 1.45 mho/m; $\varepsilon_r$ = 39.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
DASY4 Configuration:

- Probe: ET3DV6 - SN1642; ConvF(5.18, 5.18, 5.18); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.27 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.49 V/m; Power Drift = -0.119 dB
Peak SAR (extrapolated) = 1.65 W/kg
**SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.587 mW/g**
Maximum value of SAR (measured) = 1.17 mW/g



0 dB = 1.17mW/g

Date/Time: 11/07/2006 4:12:01 PM

Test Laboratory: RTS
File Name: Right_Tilted_GSM1900_Mid_Chan_Amb_Temp_24.0_C_Liq_Temp_23_0_C.da4

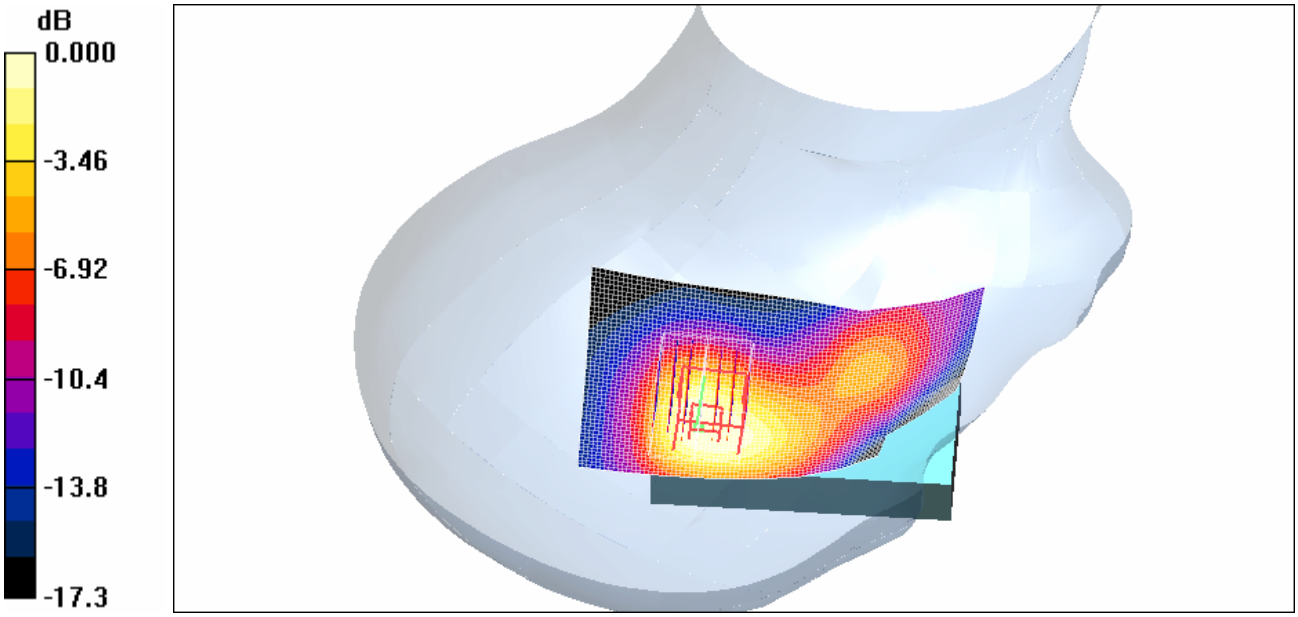
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Right-Hand Side)**

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.45 mho/m; $\varepsilon_r$ = 39.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(5.18, 5.18, 5.18); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.554 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.0 V/m; Power Drift = -0.058 dB
Peak SAR (extrapolated) = 0.710 W/kg
**SAR(1 g) = 0.469 mW/g; SAR(10 g) = 0.283 mW/g**
Maximum value of SAR (measured) = 0.509 mW/g




0 dB = 0.509mW/g

Date/Time: 11/07/2006 6:51:27 PM

Test Laboratory: RTS
File Name: Left_Touch_GSM1900_Low_Chan_Amb_Temp_24.6_C_Liq_Temp_23.3_C.da4

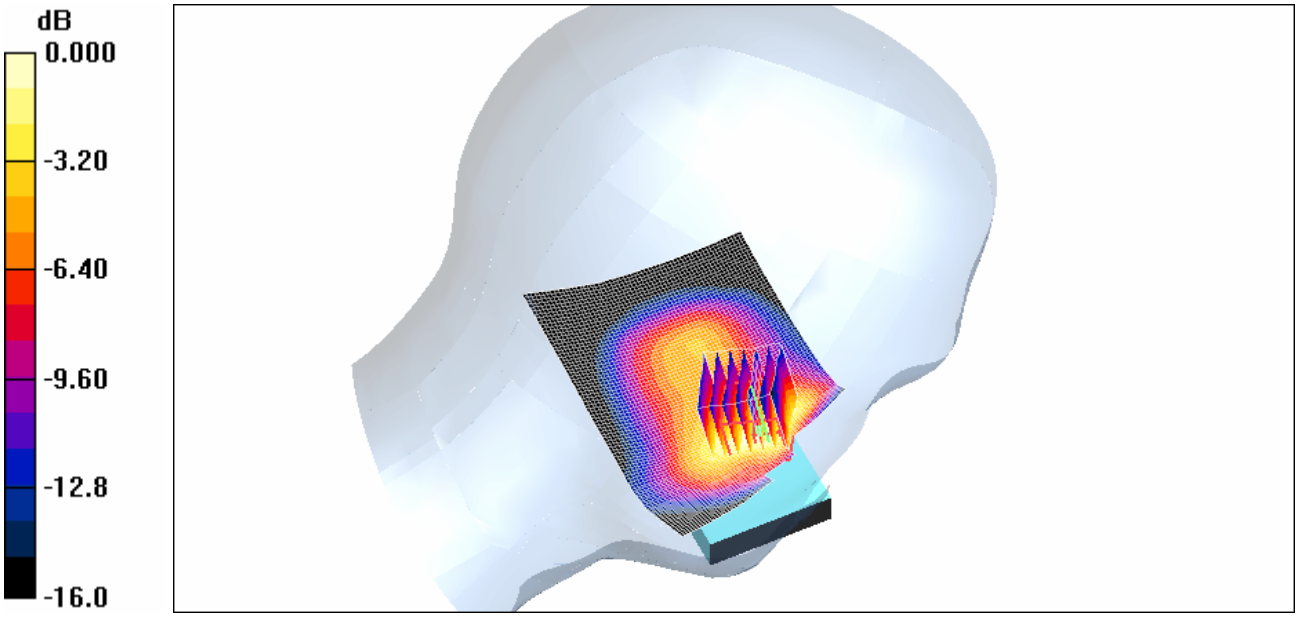
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)**

Communication System: GSM 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1850.2 MHz; $\sigma$ = 1.45 mho/m; $\varepsilon_r$ = 39.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(5.18, 5.18, 5.18); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (61x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.05 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.6 V/m; Power Drift = -0.154 dB
Peak SAR (extrapolated) = 1.46 W/kg
**SAR(1 g) = 0.934 mW/g; SAR(10 g) = 0.547 mW/g**
Maximum value of SAR (measured) = 1.02 mW/g




0 dB = 1.02mW/g

Date/Time: 11/07/2006 6:27:35 PM

Test Laboratory: RTS
File Name: Left_Touch_GSM1900_Mid_Chan_Amb_Temp_23.9_C_Liq_Temp_22.8_C.da4

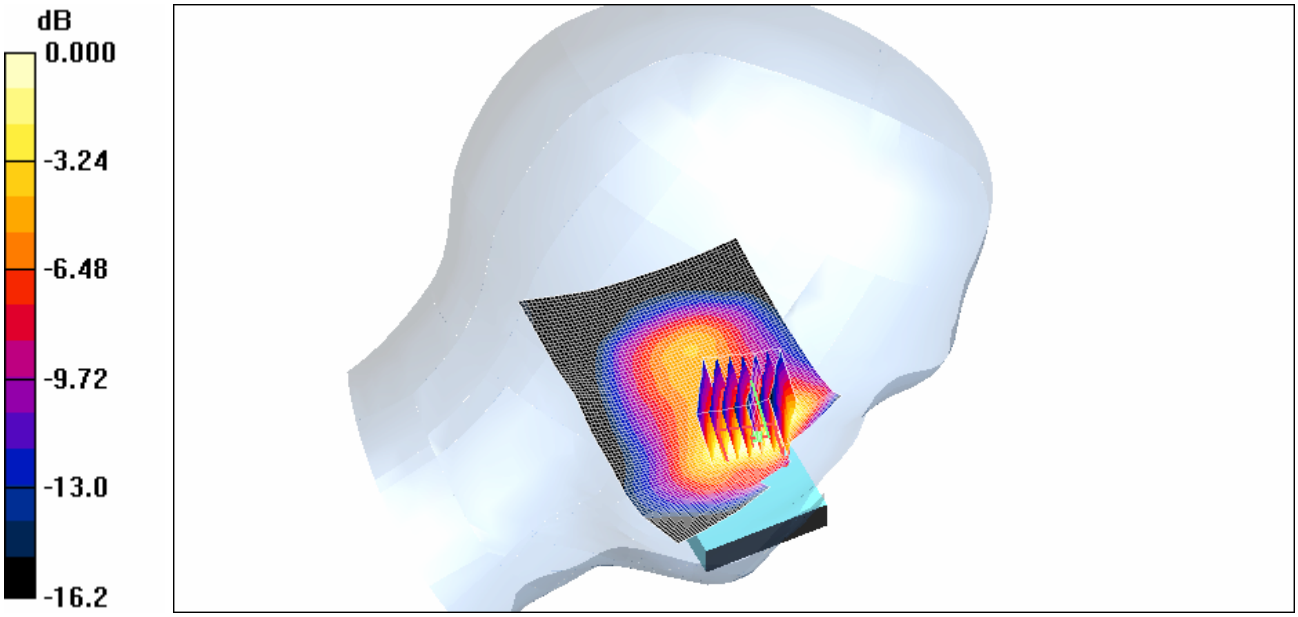
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)**

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.45 mho/m; $\varepsilon_r$ = 39.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(5.18, 5.18, 5.18); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (61x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.07 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.9 V/m; Power Drift = -0.938 dB
Peak SAR (extrapolated) = 1.48 W/kg
**SAR(1 g) = 0.938 mW/g; SAR(10 g) = 0.546 mW/g**
Maximum value of SAR (measured) = 1.03 mW/g




0 dB = 1.03mW/g

Date/Time: 11/07/2006 7:14:32 PM

Test Laboratory: RTS
File Name: Left_Touch_GSM1900_High_Chan_Amb_Temp_23.7_C_Liq_Temp_23.0_C.da4

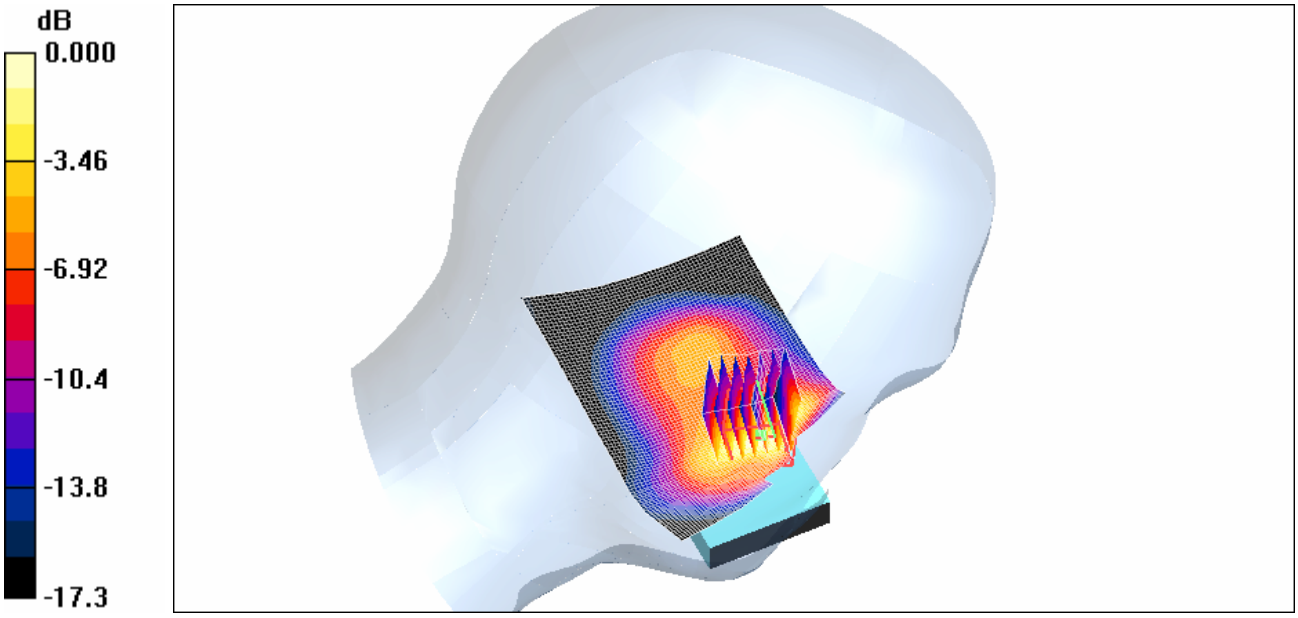
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)**

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1909.8 MHz; $\sigma$ = 1.45 mho/m; $\varepsilon_r$ = 39.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(5.18, 5.18, 5.18); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (61x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.994 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.7 V/m; Power Drift = -0.125 dB
Peak SAR (extrapolated) = 1.48 W/kg
**SAR(1 g) = 0.918 mW/g; SAR(10 g) = 0.518 mW/g**
Maximum value of SAR (measured) = 1.03 mW/g




0 dB = 1.03mW/g

Date/Time: 11/07/2006 7:47:21 PM

Test Laboratory: RTS
File Name: Left_Tilted_GSM1900_Mid_Chan_Amb_Temp_24.2_C_Liq_Temp_23.1_C.da4

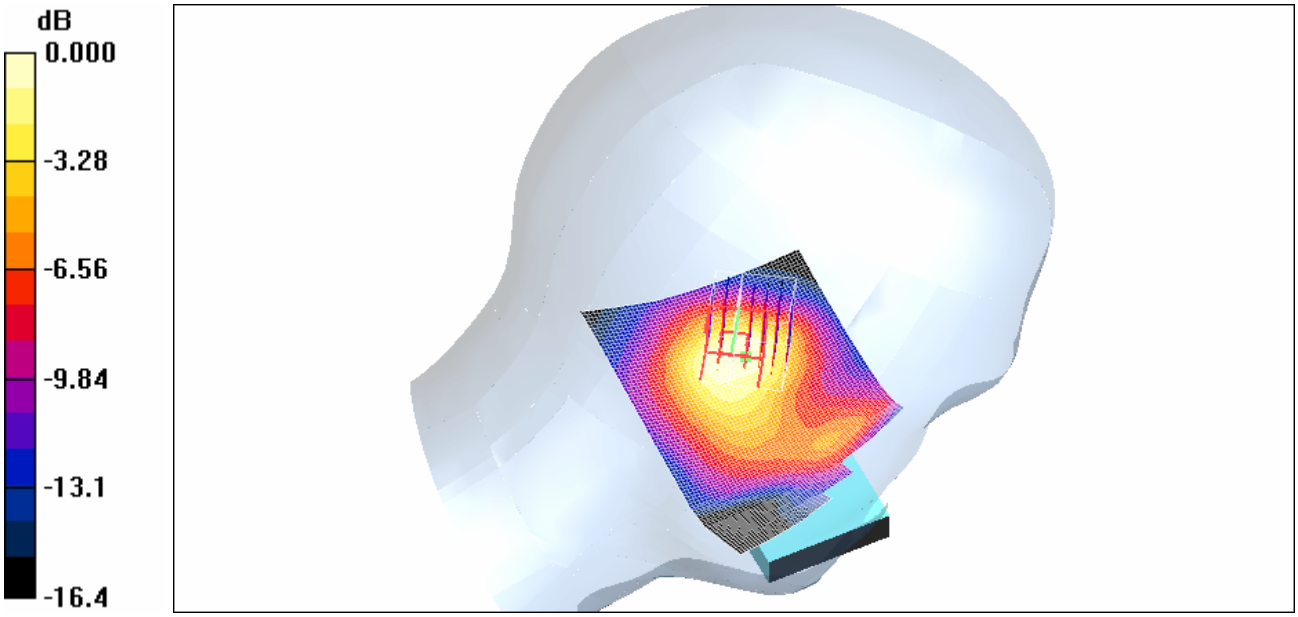
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)**

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.45 mho/m; $\varepsilon_r$ = 39.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(5.18, 5.18, 5.18); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (61x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.473 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.8 V/m; Power Drift = 0.023 dB
Peak SAR (extrapolated) = 0.590 W/kg
**SAR(1 g) = 0.391 mW/g; SAR(10 g) = 0.235 mW/g**
Maximum value of SAR (measured) = 0.430 mW/g




0 dB = 0.430mW/g

Date/Time: 11/07/2006 8:09:16 PM

Test Laboratory: RTS
File Name: Left_Touch_GSM1900_Mid_Chan_Batt2_Amb_Temp_24.3_C_Liq_Temp_23.0_C.da4

**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)**

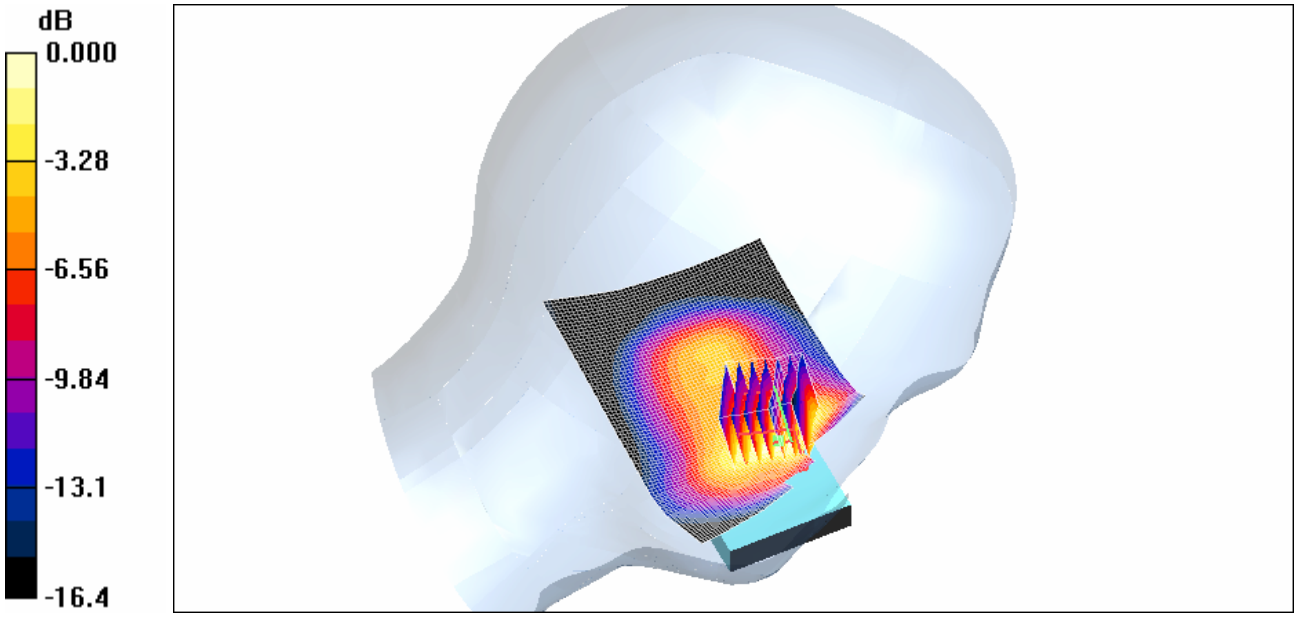
Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.45 mho/m; $\varepsilon_r$ = 39.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(5.18, 5.18, 5.18); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 25/04/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch position - Middle/Area Scan (61x91x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.996 mW/g

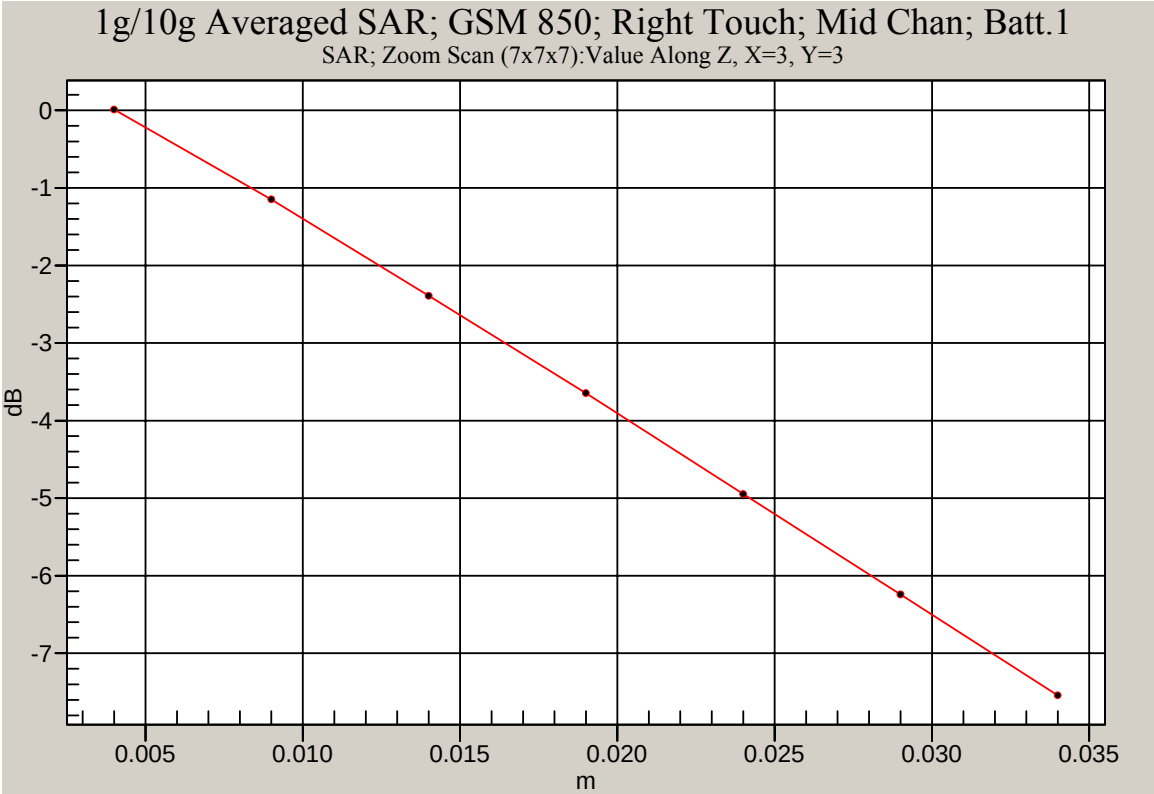
**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.9 V/m; Power Drift = 0.015 dB
Peak SAR (extrapolated) = 1.39 W/kg

**SAR(1 g) = 0.884 mW/g; SAR(10 g) = 0.514 mW/g**
Maximum value of SAR (measured) = 0.982 mW/g




0 dB = 0.982mW/g

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



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

Date/Time: 20/07/2006 8:48:27 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_Mid_Chan_Batt1_LeatherHolster_Front_Amb_Temp_23.4_C_Liq_Temp_22.0_C.da4

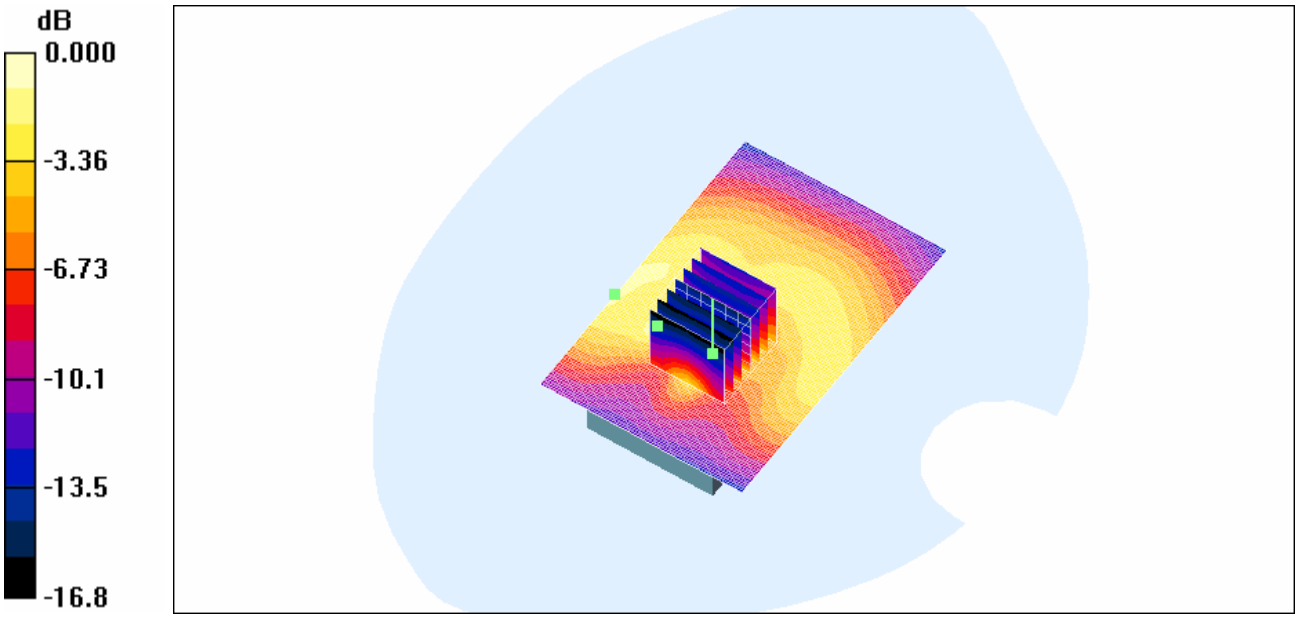
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn with holster**

Communication System: GPRS 850; Frequency: 836.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.4 V/m; Power Drift = 0.047 dB
Peak SAR (extrapolated) = 2.89 W/kg
**SAR(1 g) = 0.712 mW/g; SAR(10 g) = 0.287 mW/g**

Maximum value of SAR (measured) = 0.817 mW/g
**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.793 mW/g




0 dB = 0.793mW/g

Date/Time: 20/07/2006 9:15:08 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_Mid_Chan_Batt1_LeatherHolster_Back_Amb_Temp_23.8_C_Liq_Temp_22.3_C.da4

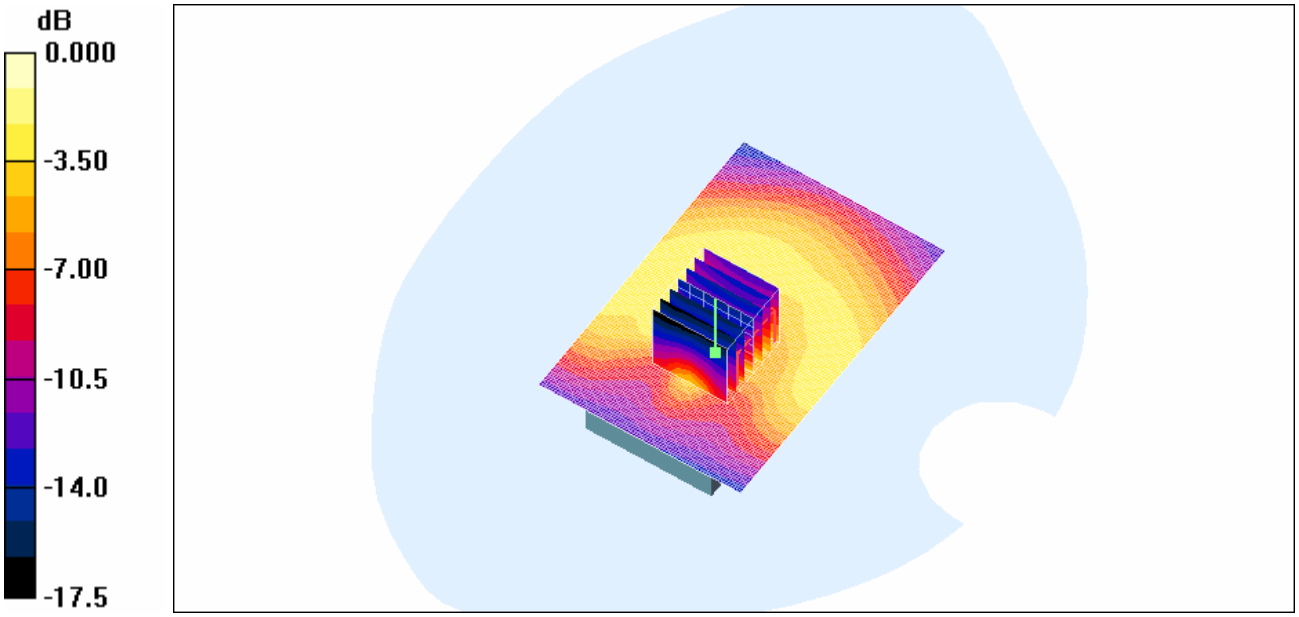
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn with holster**

Communication System: GPRS 850; Frequency: 836.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.8 V/m; Power Drift = 0.038 dB
Peak SAR (extrapolated) = 2.68 W/kg
**SAR(1 g) = 0.729 mW/g; SAR(10 g) = 0.292 mW/g**
Maximum value of SAR (measured) = 0.845 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.832 mW/g




0 dB = 0.832mW/g

Date/Time: 20/07/2006 10:08:11 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_Low_Chan_Batt1_LeatherSwivelHolster_Front_Amb_Temp_23.9_C_Liq_Temp_22.4_C.da4

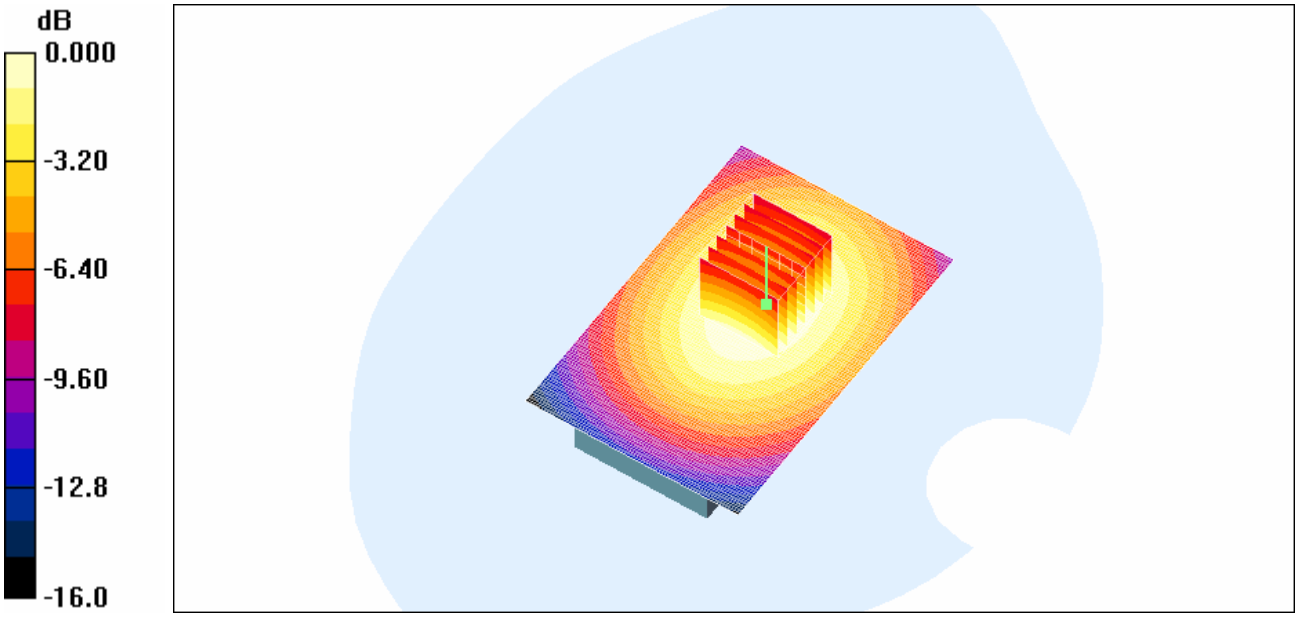
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn with holster**

Communication System: GPRS 850; Frequency: 824.2 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 824.2 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 32.6 V/m; Power Drift = 0.116 dB
Peak SAR (extrapolated) = 1.25 W/kg
**SAR(1 g) = 0.986 mW/g; SAR(10 g) = 0.720 mW/g**
Maximum value of SAR (measured) = 1.04 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.03 mW/g




0 dB = 1.03mW/g

Date/Time: 20/07/2006 9:42:01 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_Mid_Chan_Batt1_LeatherSwivelHolster_Front_Amb_Temp_24.0_C_Liq_Temp_22.6_C.da4

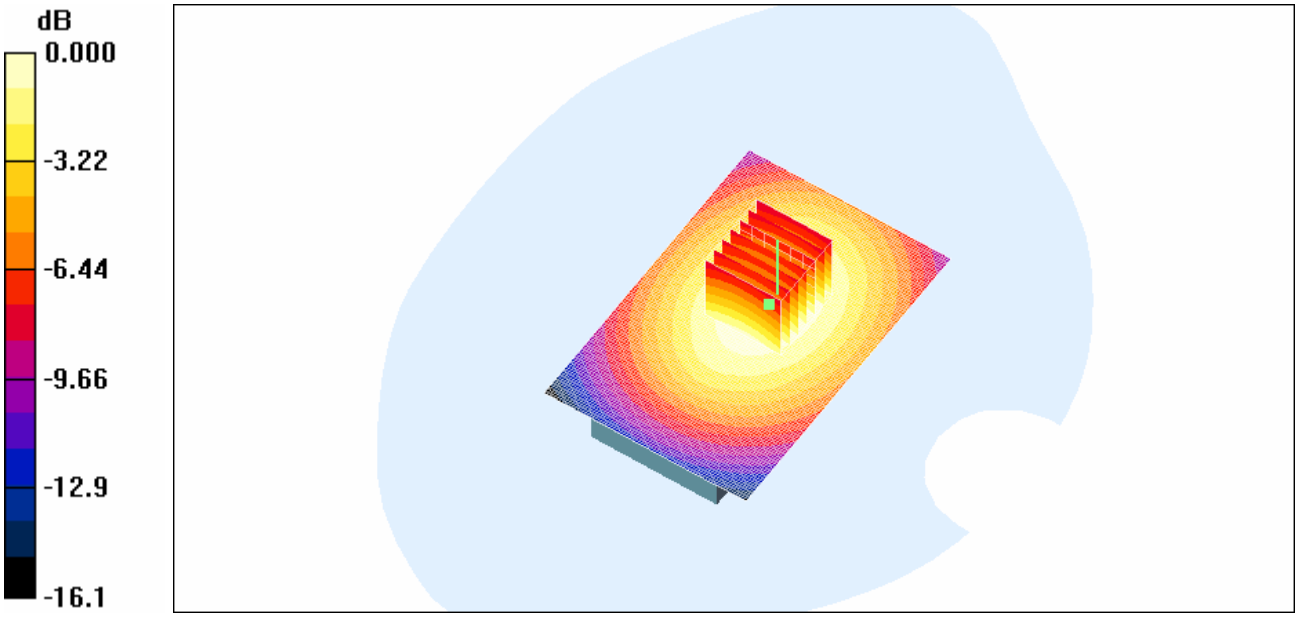
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn with holster**

Communication System: GPRS 850; Frequency: 836.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 30.9 V/m; Power Drift = 0.013 dB
Peak SAR (extrapolated) = 1.12 W/kg
**SAR(1 g) = 0.859 mW/g; SAR(10 g) = 0.625 mW/g**
Maximum value of SAR (measured) = 0.910 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.916 mW/g




0 dB = 0.916mW/g

Date/Time: 20/07/2006 10:36:19 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_High_Chan_Batt1_LeatherSwivelHolster_Front_Amb_Temp_23.7_C_Liq_Temp_22.3_C.da4

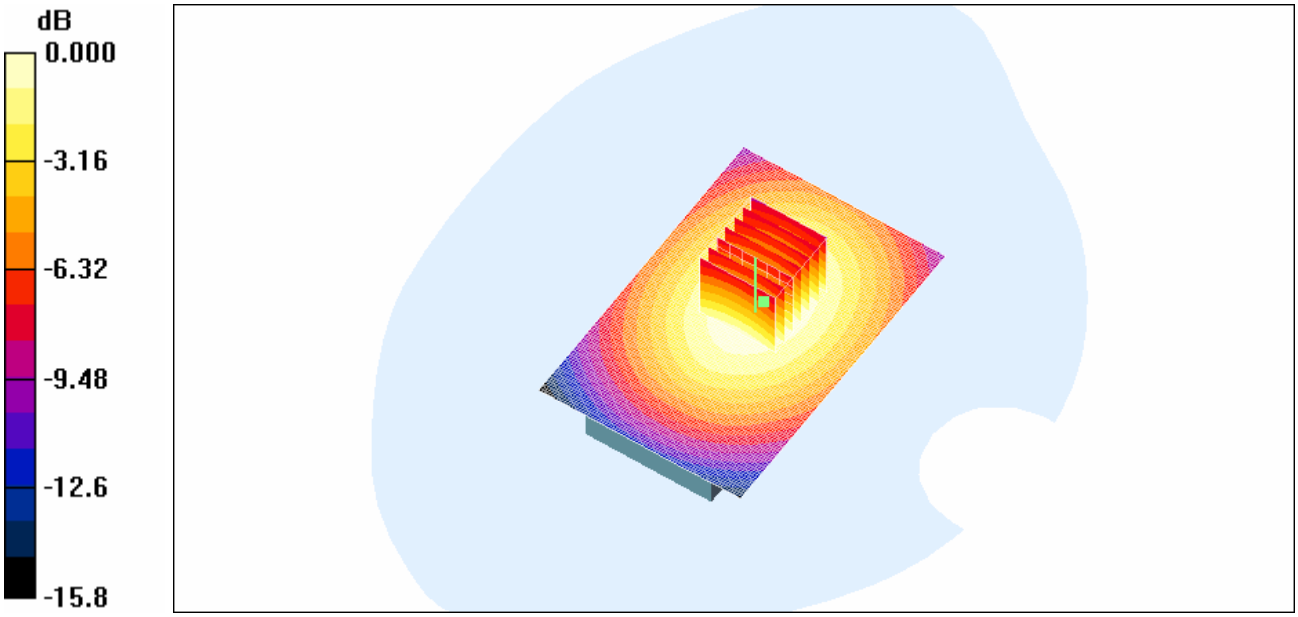
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn with holster**

Communication System: GPRS 850; Frequency: 848.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 848.8 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 29.3 V/m; Power Drift = 0.065 dB
Peak SAR (extrapolated) = 0.970 W/kg
**SAR(1 g) = 0.758 mW/g; SAR(10 g) = 0.553 mW/g**
Maximum value of SAR (measured) = 0.806 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.805 mW/g




0 dB = 0.805mW/g

Date/Time: 20/07/2006 11:29:34 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_Low_Chan_Batt1_LeatherSwivelHolster_Back_Amb_Temp_23.8_C_Liq_Temp_22.2_C.da4

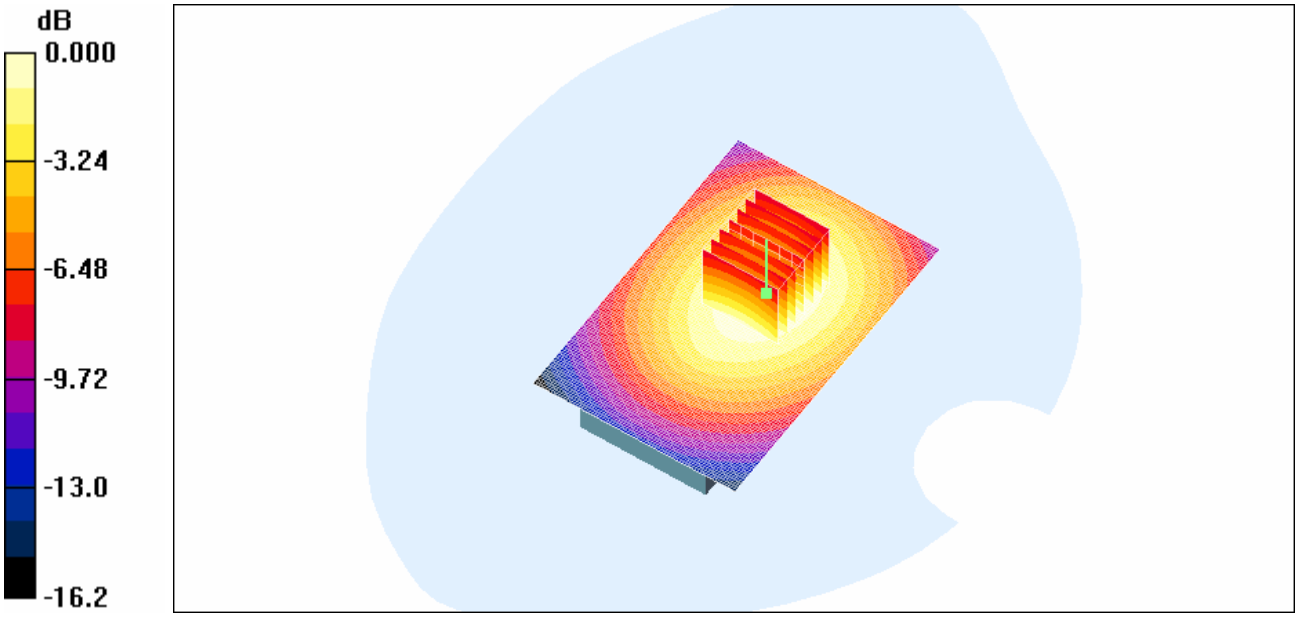
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn with holster**

Communication System: GPRS 850; Frequency: 824.2 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 824.2 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 35.5 V/m; Power Drift = 0.012 dB
Peak SAR (extrapolated) = 1.58 W/kg
**SAR(1 g) = 1.18 mW/g; SAR(10 g) = 0.846 mW/g**
Maximum value of SAR (measured) = 1.24 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.24 mW/g




0 dB = 1.24mW/g

Date/Time: 20/07/2006 11:03:42 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_Mid_Chan_Batt1_LeatherSwivelHolster_Back_Amb_Temp_24.3_C_Liq_Temp_22.8_C.da4

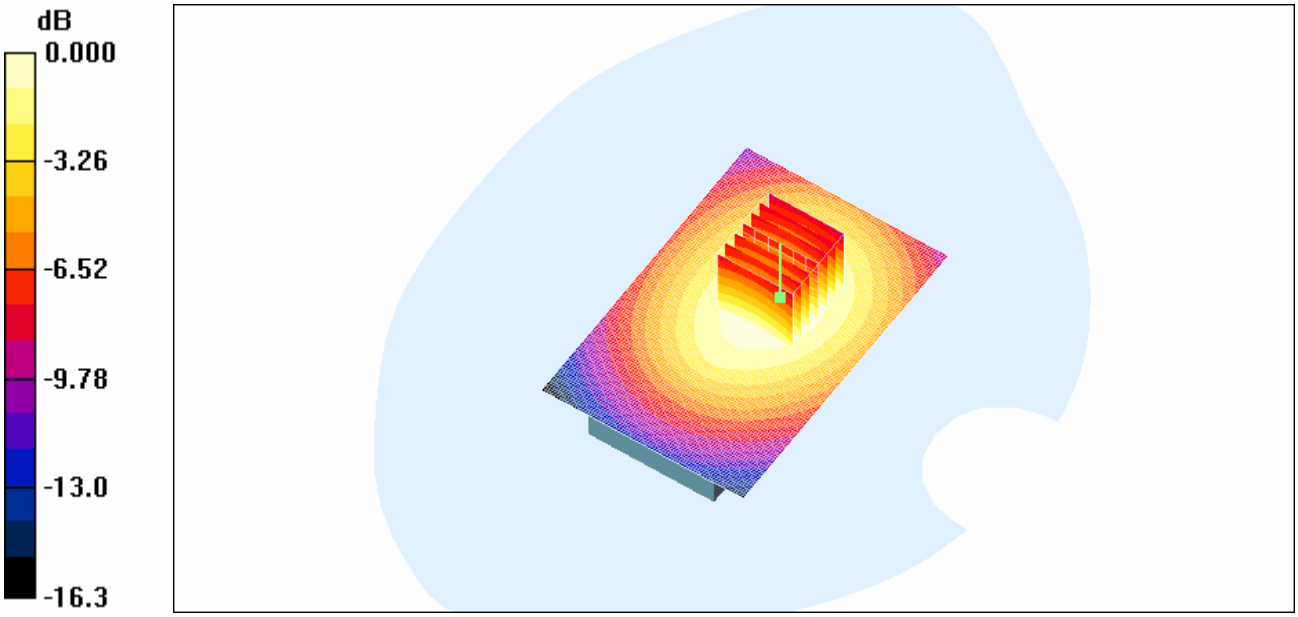
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn with holster**

Communication System: GPRS 850; Frequency: 836.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 32.2 V/m; Power Drift = 0.063 dB
Peak SAR (extrapolated) = 1.25 W/kg
**SAR(1 g) = 0.966 mW/g; SAR(10 g) = 0.699 mW/g**
Maximum value of SAR (measured) = 1.02 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.02 mW/g




0 dB = 1.02mW/g

Date/Time: 20/07/2006 11:54:50 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_High_Chan_Batt1_LeatherSwivelHolster_Back_Amb_Temp_23.5_C_Liq_Temp_22.0_C.da4

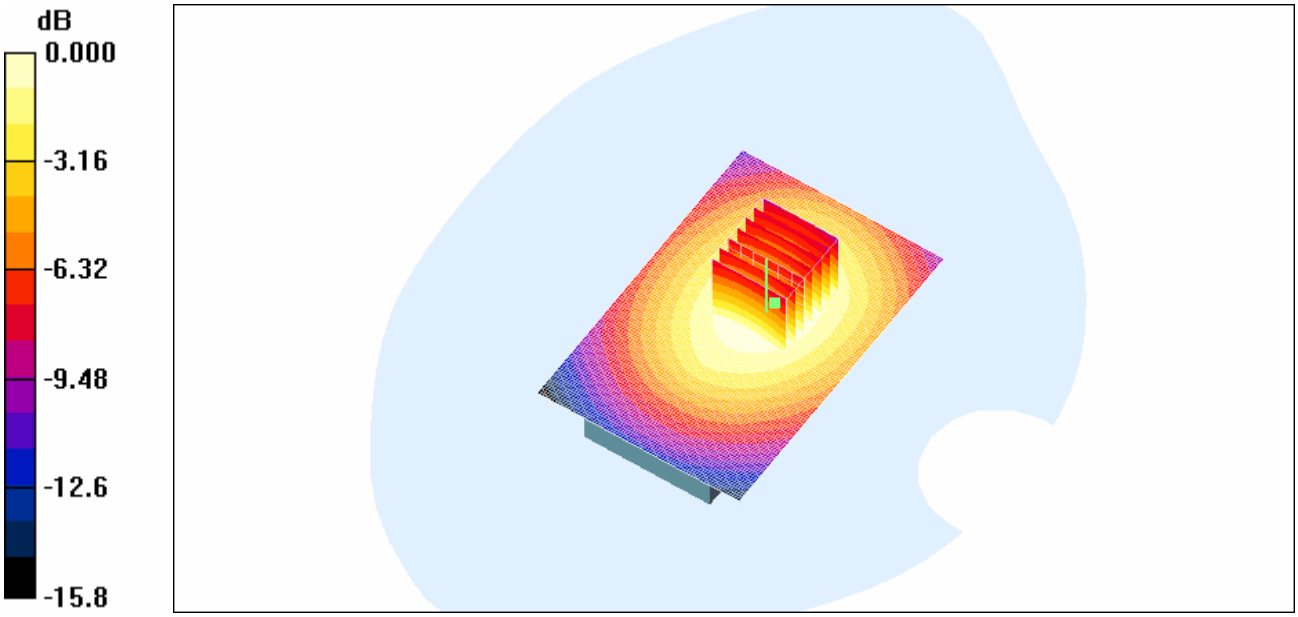
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn with holster**

Communication System: GPRS 850; Frequency: 848.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 848.8 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 30.7 V/m; Power Drift = 0.108 dB
Peak SAR (extrapolated) = 1.13 W/kg
**SAR(1 g) = 0.868 mW/g; SAR(10 g) = 0.626 mW/g**
Maximum value of SAR (measured) = 0.920 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.914 mW/g




0 dB = 0.914mW/g

Date/Time: 21/07/2006 2:32:38 AM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_Low_Chan_Batt1_15mmaway_Back_Amb_Temp_23.7_C_Liq_Temp_22.9_C.da4

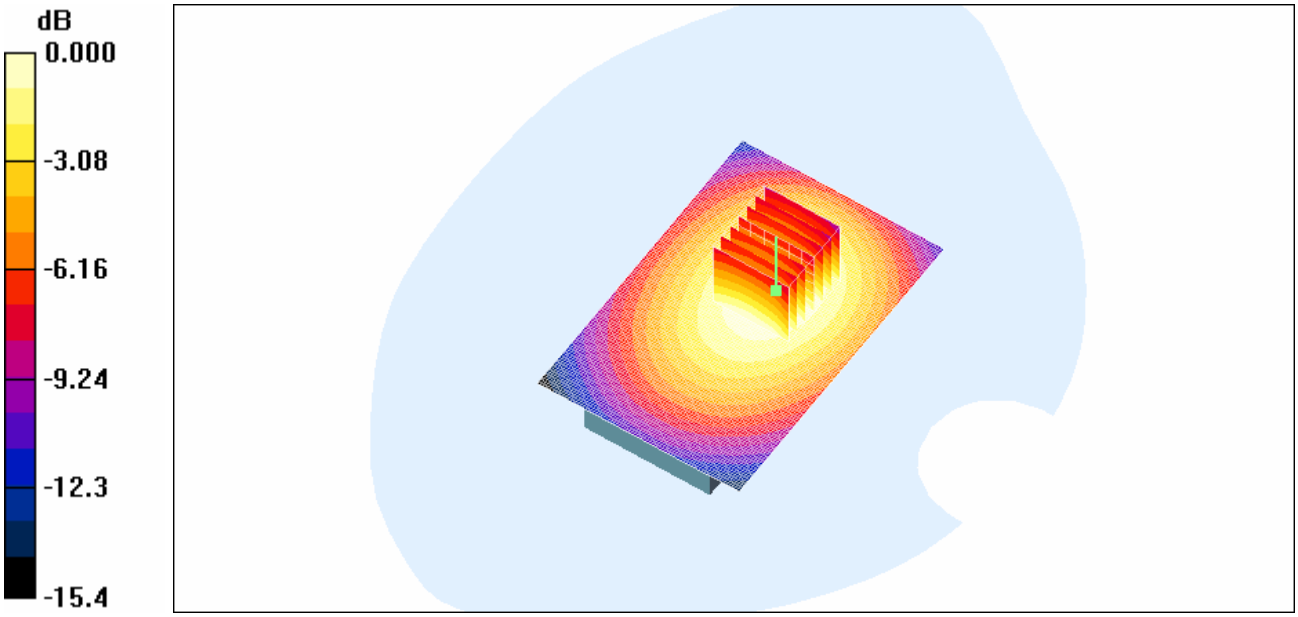
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn no holster**

Communication System: GPRS 850; Frequency: 824.2 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 824.2 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 37.1 V/m; Power Drift = 0.423 dB
Peak SAR (extrapolated) = 1.97 W/kg
**SAR(1 g) = 1.49 mW/g; SAR(10 g) = 1.07 mW/g**
Maximum value of SAR (measured) = 1.59 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.39 mW/g




0 dB = 1.39mW/g

Date/Time: 21/07/2006 1:41:44 AM

Test Laboratory: RTS
File Name: Body_Worn_GPRS850_Mid_Chan_Batt1_15mmaway_Back_Amb_Temp_24.0_C_Liq_Temp_23.0_C.da4

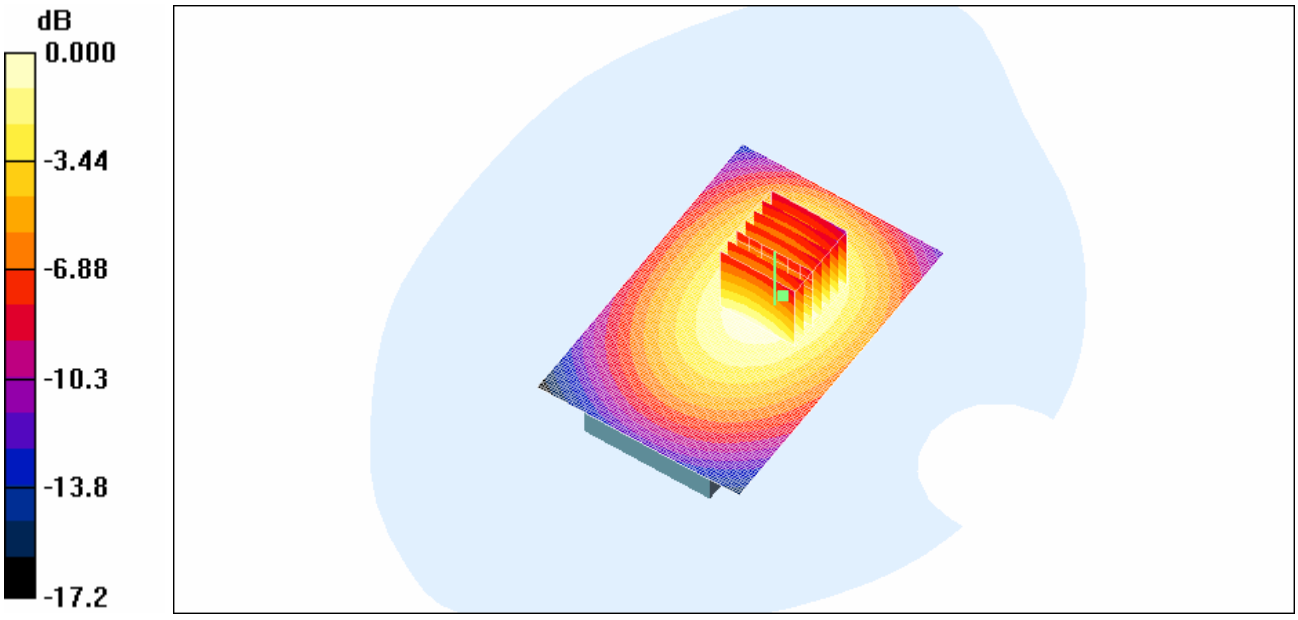
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn no holster**

Communication System: GPRS 850; Frequency: 836.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 39.2 V/m; Power Drift = 0.094 dB
Peak SAR (extrapolated) = 2.00 W/kg
**SAR(1 g) = 1.51 mW/g; SAR(10 g) = 1.08 mW/g**
Maximum value of SAR (measured) = 1.60 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.59 mW/g




0 dB = 1.59mW/g

Date/Time: 21/07/2006 2:58:18 AM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_High_Chan_Batt1_15mmaway_Back_Amb_Temp_23.8_C_Liq_Temp_22.7_C.da4

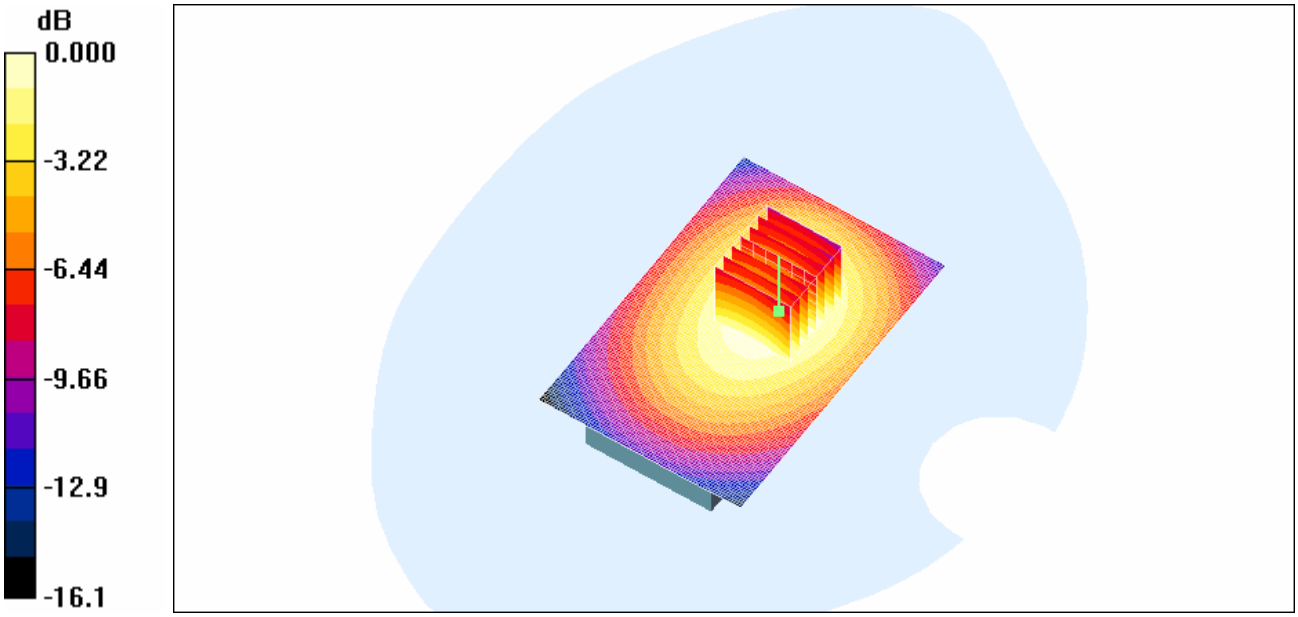
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn no holster**

Communication System: GPRS 850; Frequency: 848.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 848.8 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 36.4 V/m; Power Drift = 0.103 dB
Peak SAR (extrapolated) = 1.68 W/kg
**SAR(1 g) = 1.27 mW/g; SAR(10 g) = 0.912 mW/g**
Maximum value of SAR (measured) = 1.35 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.35 mW/g




0 dB = 1.35mW/g

Date/Time: 21/07/2006 3:28:13 AM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_Mid_Chan_Batt1_15mmaway_withBTHS_Back_Amb_Temp_24.2_C_Liq_Temp_23.1_C.da4

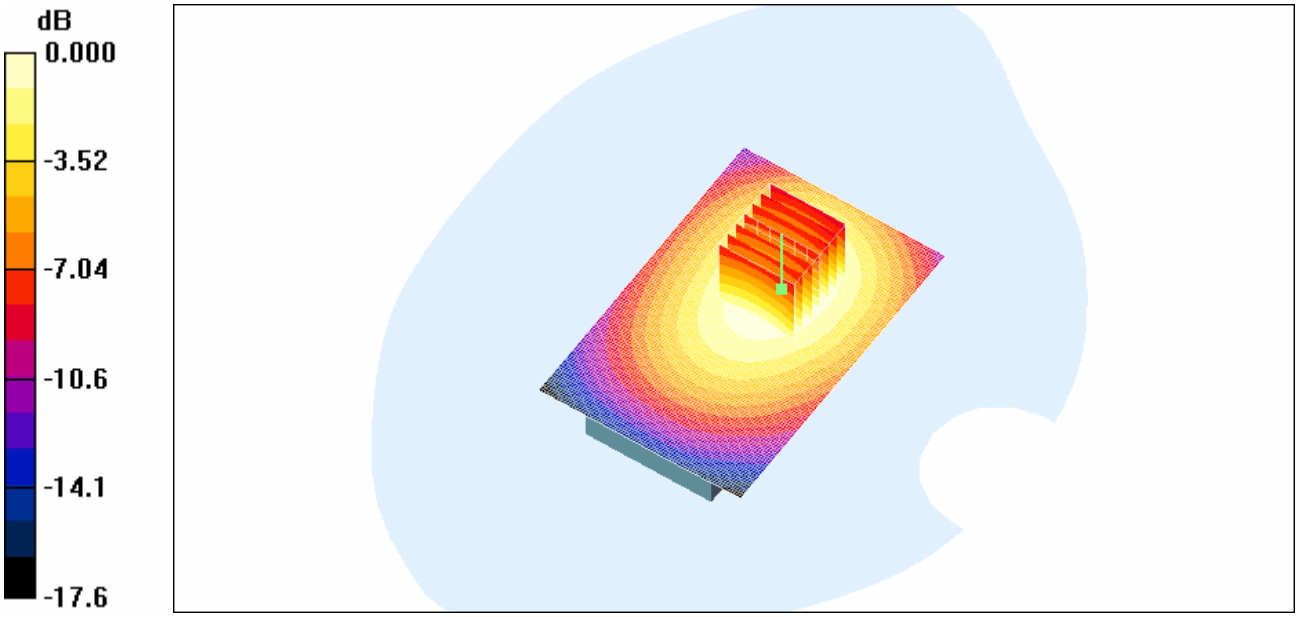
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn no holster**

Communication System: GPRS 850; Frequency: 836.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 32.3 V/m; Power Drift = 0.083 dB
Peak SAR (extrapolated) = 1.42 W/kg
**SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.768 mW/g**
Maximum value of SAR (measured) = 1.13 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.13 mW/g




0 dB = 1.13mW/g

Date/Time: 24/07/2006 2:35:42 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_Mid_Chan_Batt1_15mmaway_BTStereoHS_Back_Amb_Temp_24.0_C_Liq_Temp_23.0_C.da4

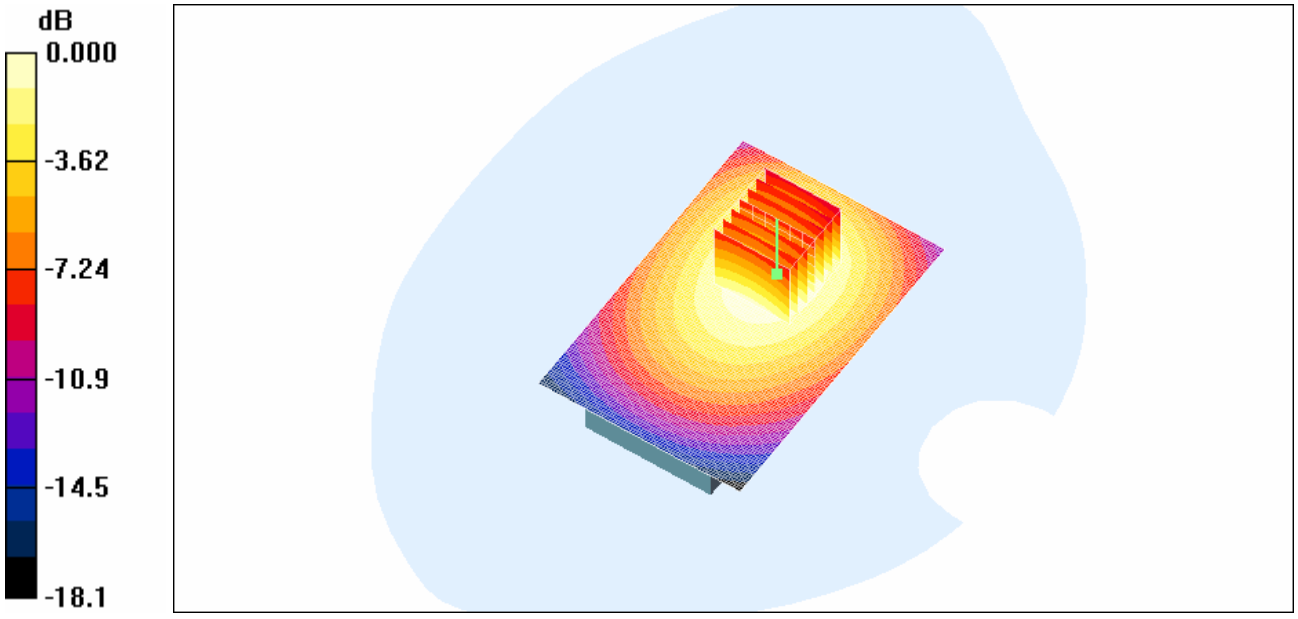
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn no holster**

Communication System: GPRS 850; Frequency: 836.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 32.3 V/m; Power Drift = 0.017 dB
Peak SAR (extrapolated) = 1.44 W/kg
**SAR(1 g) = 1.09 mW/g; SAR(10 g) = 0.779 mW/g**
Maximum value of SAR (measured) = 1.16 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.16 mW/g




0 dB = 1.16mW/g

Date/Time: 21/07/2006 1:00:30 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_Mid_Chan_Batt1_15mmaway_Back_LCD1_Amb_Temp_23.1_C_Liq_Temp_22.0_C.da4

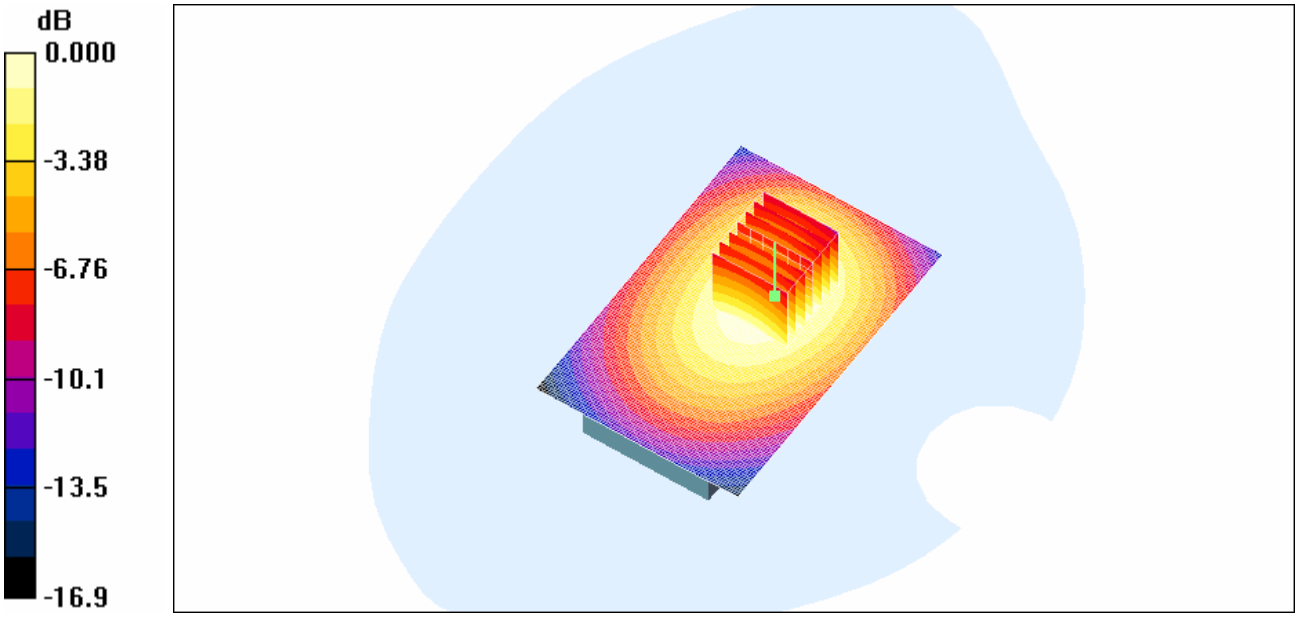
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn no holster**

Communication System: GPRS 850; Frequency: 836.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 39.7 V/m; Power Drift = 0.098 dB
Peak SAR (extrapolated) = 1.97 W/kg
**SAR(1 g) = 1.52 mW/g; SAR(10 g) = 1.09 mW/g**
Maximum value of SAR (measured) = 1.63 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.62 mW/g




0 dB = 1.62mW/g

Date/Time: 21/07/2006 2:05:05 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_Mid_Chan_Batt1_15mmaway_Back_LCD2_Amb_Temp_23.2_C_Liq_Temp_22.2_C.da4

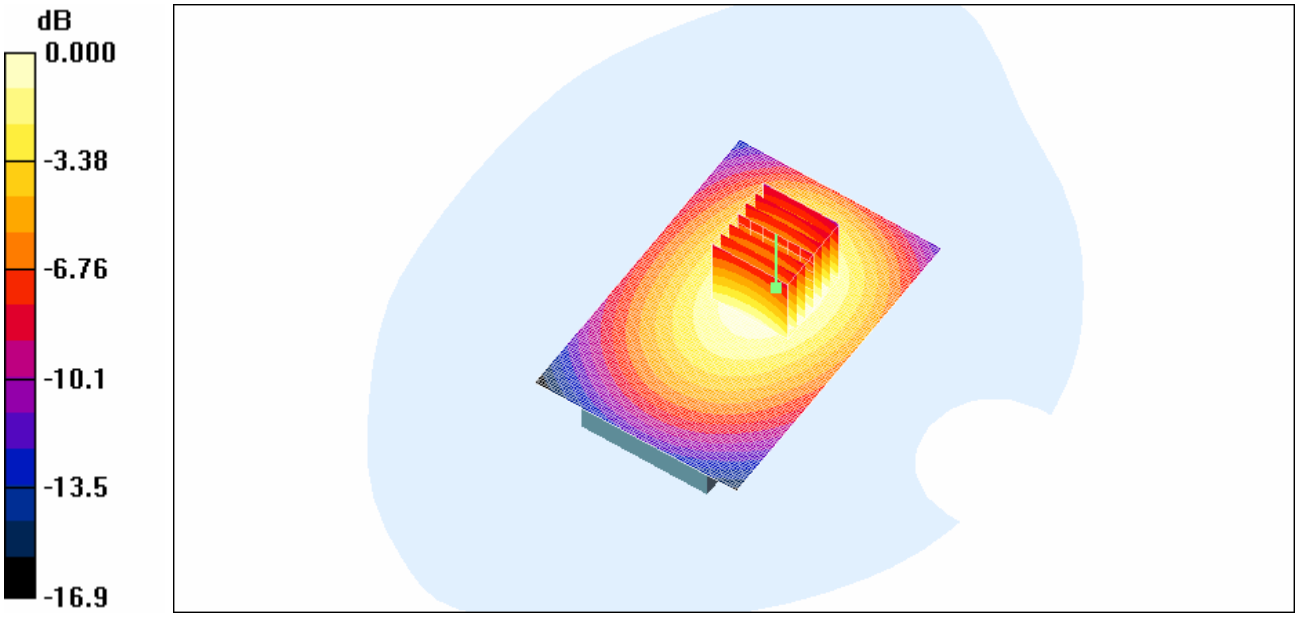
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn no holster**

Communication System: GPRS 850; Frequency: 836.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 38.3 V/m; Power Drift = 0.016 dB
Peak SAR (extrapolated) = 1.92 W/kg
**SAR(1 g) = 1.43 mW/g; SAR(10 g) = 1.02 mW/g**
Maximum value of SAR (measured) = 1.52 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.50 mW/g




0 dB = 1.50mW/g

Date/Time: 21/07/2006 1:32:16 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS850_Mid_Chan_Batt1_15mmaway_Back_LCD3_Amb_Temp_24.3_C_Liq_Temp_22.5_C.da4

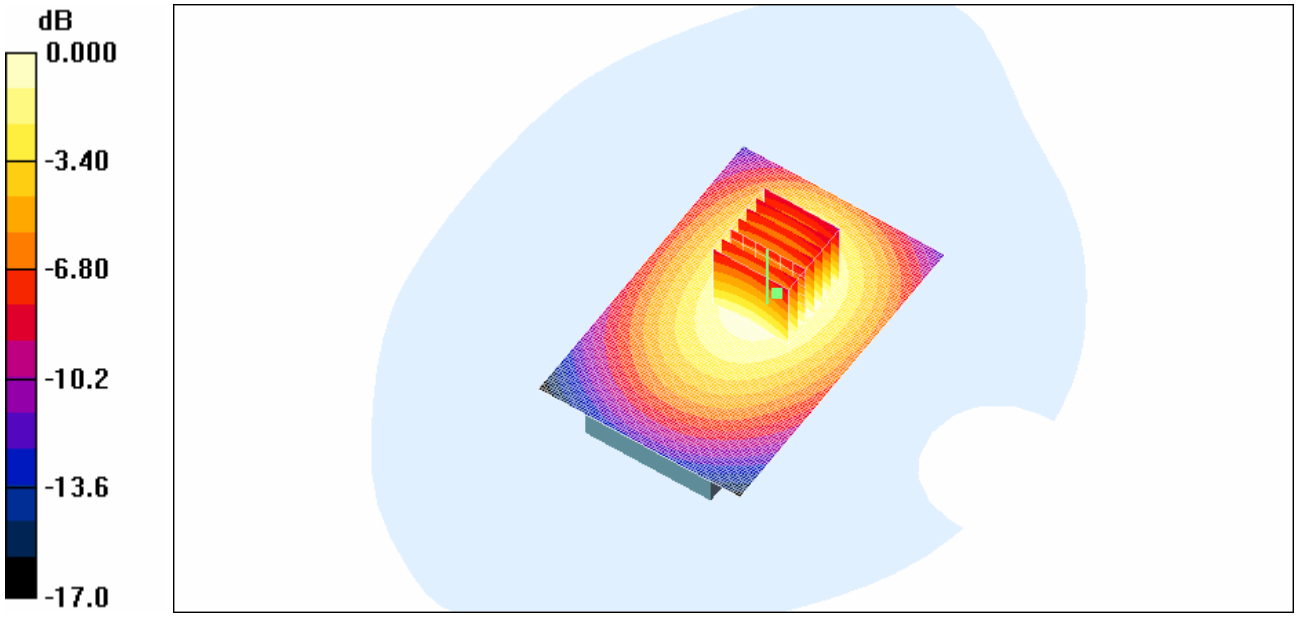
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn no holster**

Communication System: GPRS 850; Frequency: 836.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 836.8 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 53.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(6.13, 6.13, 6.13); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 39.2 V/m; Power Drift = 0.014 dB
Peak SAR (extrapolated) = 1.93 W/kg
**SAR(1 g) = 1.48 mW/g; SAR(10 g) = 1.07 mW/g**
Maximum value of SAR (measured) = 1.57 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.58 mW/g




0 dB = 1.58mW/g

Date/Time: 17/07/2006 6:40:29 PM

Test Laboratory: RTS
File Name: Body_Worn_GPRS1900_Mid_Chan_LeatherHolster_Front_Amb_Temp_24.1_C_Liq_Temp_23.0_C.da4

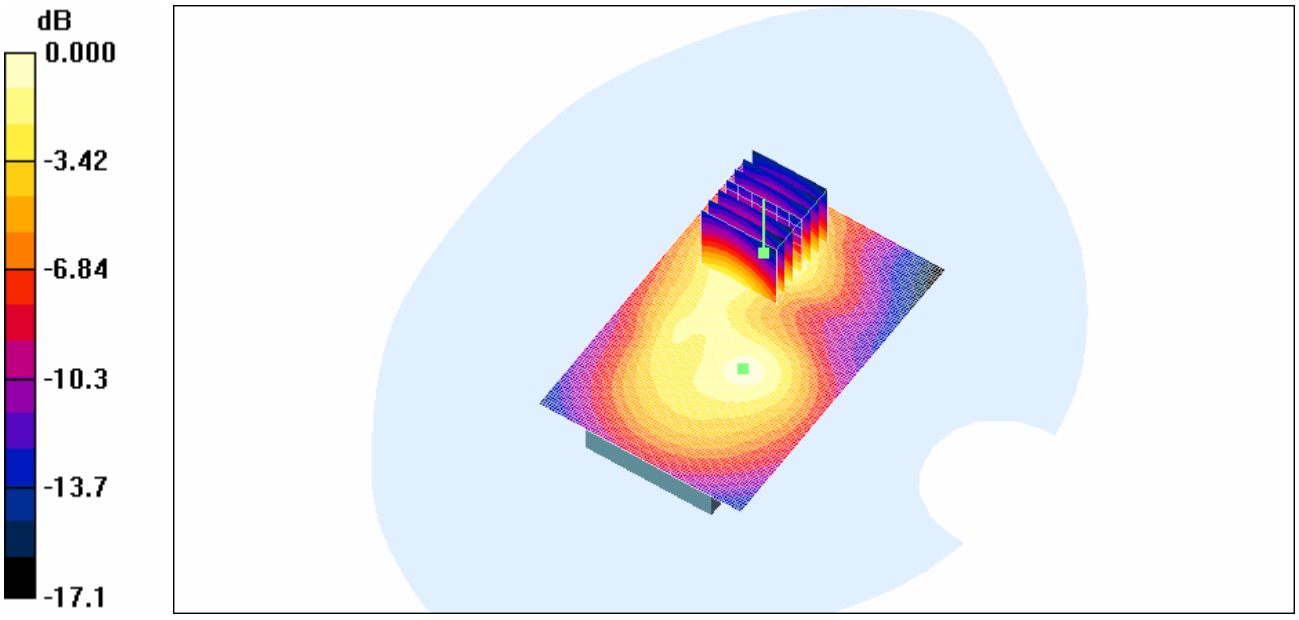
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn with holster**

Communication System: GPRS 1900; Frequency: 1880 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.59 mho/m; $\varepsilon_r$ = 50.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(4.72, 4.72, 4.72); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.3 V/m; Power Drift = -0.061 dB
Peak SAR (extrapolated) = 0.906 W/kg
**SAR(1 g) = 0.548 mW/g; SAR(10 g) = 0.314 mW/g**
Maximum value of SAR (measured) = 0.595 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.612 mW/g




0 dB = 0.612mW/g

Date/Time: 17/07/2006 7:07:13 PM

Test Laboratory: RTS
File Name: Body_Worn_GPRS1900_Mid_Chan_LeatherHolster_Back_Amb_Temp_23.9_C_Liq_Temp_22.8_C.da4

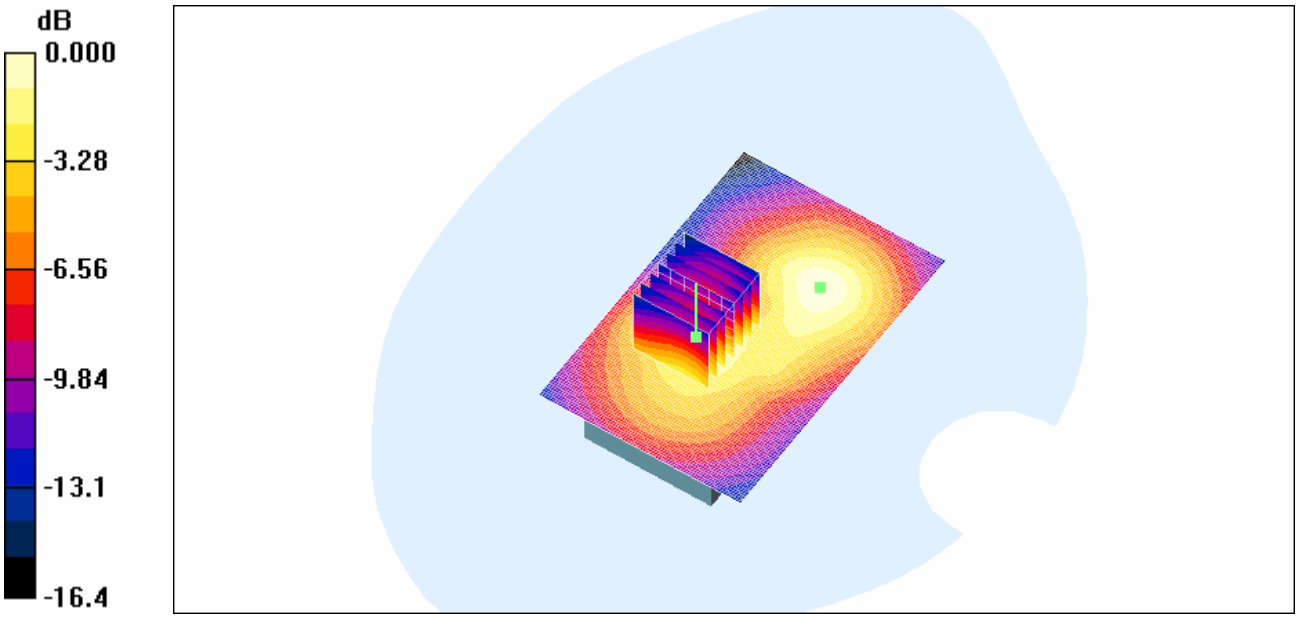
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn with holster**

Communication System: GPRS 1900; Frequency: 1880 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.59 mho/m; $\varepsilon_r$ = 50.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(4.72, 4.72, 4.72); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.7 V/m; Power Drift = 0.001 dB
Peak SAR (extrapolated) = 1.10 W/kg
**SAR(1 g) = 0.750 mW/g; SAR(10 g) = 0.444 mW/g**
Maximum value of SAR (measured) = 0.830 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.822 mW/g




0 dB = 0.822mW/g

Date/Time: 17/07/2006 10:03:21 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS1900_Mid_Chan_LeatherSwivelHolster_Front_Amb_Temp_24.4_C_Liq_Temp_23.1_C.da4

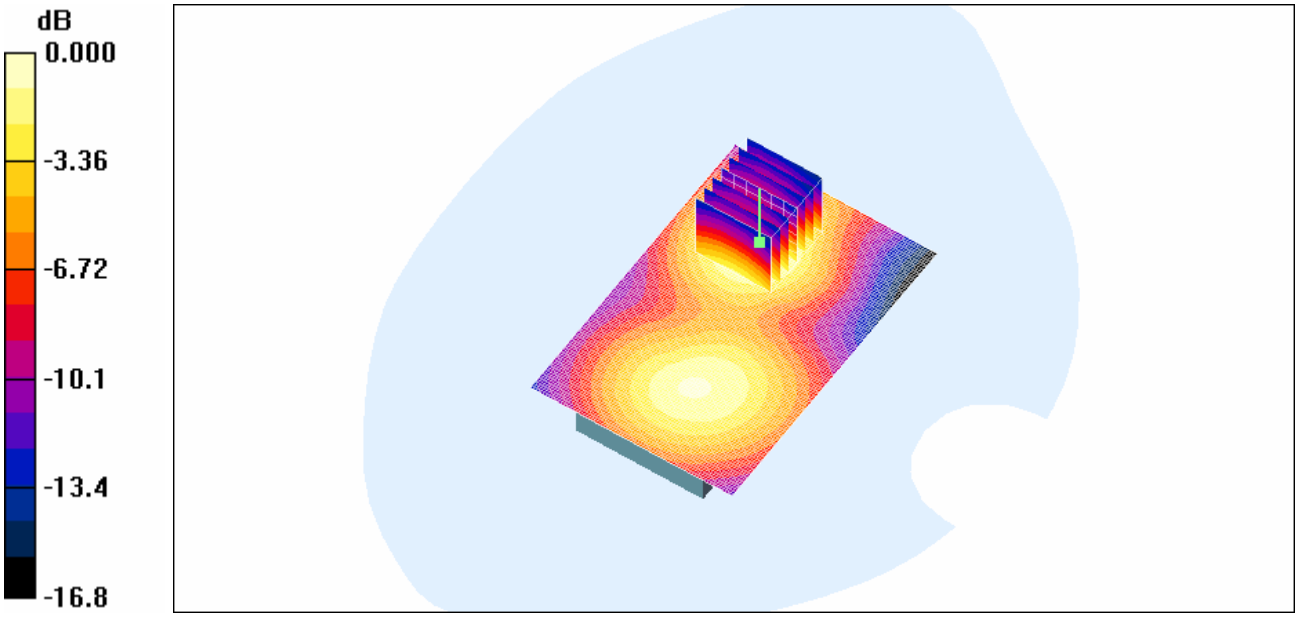
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn with holster**

Communication System: GPRS 1900; Frequency: 1880 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.59 mho/m; $\varepsilon_r$ = 50.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(4.72, 4.72, 4.72); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.1 V/m; Power Drift = -0.111 dB
Peak SAR (extrapolated) = 0.631 W/kg
**SAR(1 g) = 0.416 mW/g; SAR(10 g) = 0.251 mW/g**
Maximum value of SAR (measured) = 0.458 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.462 mW/g




0 dB = 0.462mW/g

Date/Time: 17/07/2006 10:29:33 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS1900_Mid_Chan_LeatherSwivelHolster_Back_Amb_Temp_24.0_C_Liq_Temp_22.9_C.da4

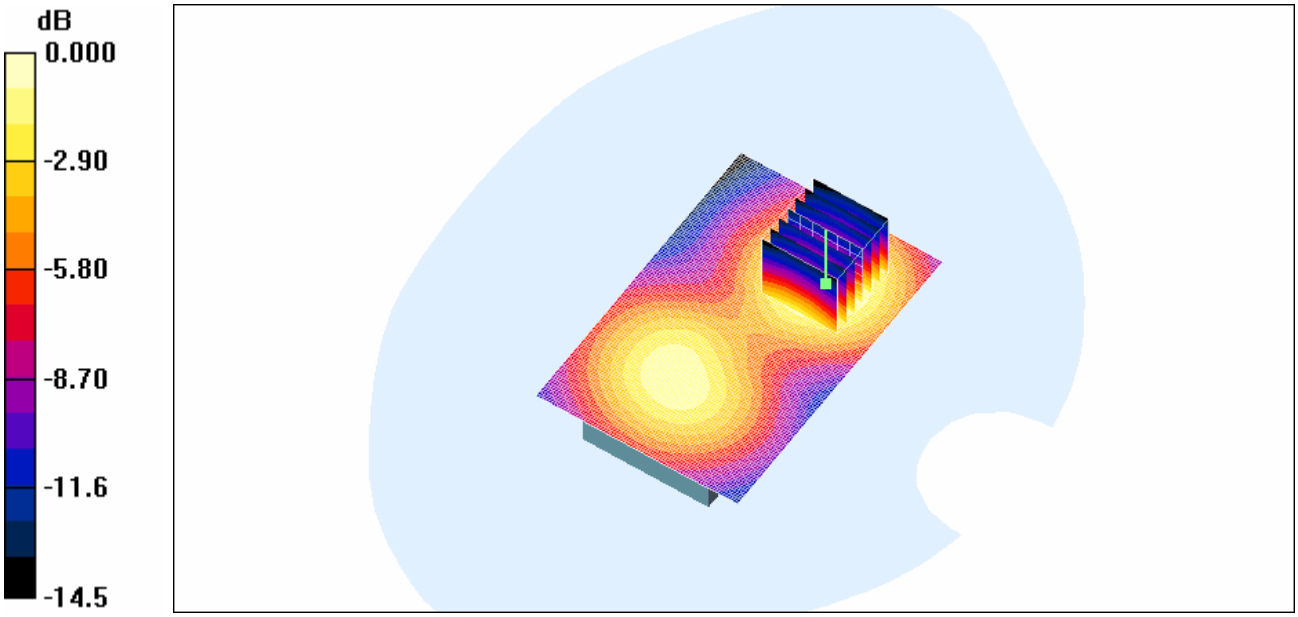
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn with holster**

Communication System: GPRS 1900; Frequency: 1880 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.59 mho/m; $\varepsilon_r$ = 50.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(4.72, 4.72, 4.72); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.8 V/m; Power Drift = -0.030 dB
Peak SAR (extrapolated) = 0.807 W/kg
**SAR(1 g) = 0.515 mW/g; SAR(10 g) = 0.309 mW/g**
Maximum value of SAR (measured) = 0.561 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.567 mW/g




0 dB = 0.567mW/g

Date/Time: 18/07/2006 9:00:57 PM

Test Laboratory: RTS
File Name: Body_Worn_GPRS1900_Low_Chan_15mm_away_Back_Amb_Temp_23.3_C_Liq_Temp_22.7_C.da4

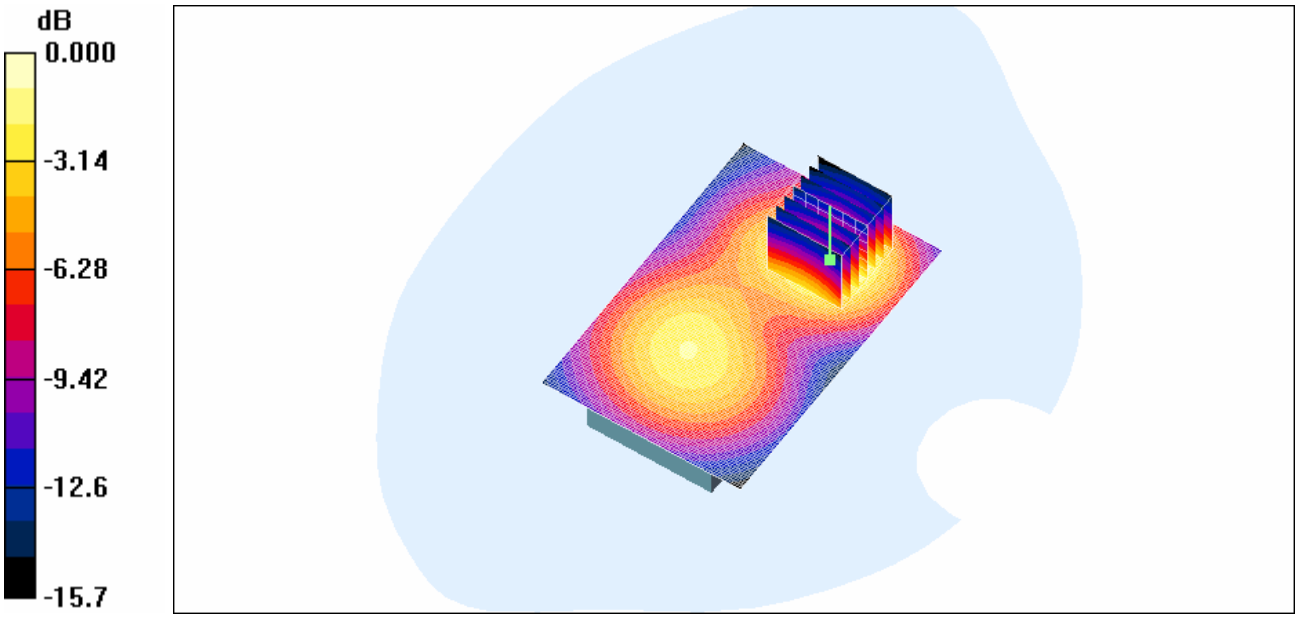
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn no holster**

Communication System: GPRS 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 1850.2 MHz; $\sigma$ = 1.59 mho/m; $\varepsilon_r$ = 50.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(4.72, 4.72, 4.72); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.0 V/m; Power Drift = -0.008 dB
Peak SAR (extrapolated) = 1.76 W/kg
**SAR(1 g) = 1.09 mW/g; SAR(10 g) = 0.626 mW/g**
Maximum value of SAR (measured) = 1.21 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.22 mW/g




0 dB = 1.22mW/g

Date/Time: 18/07/2006 1:16:33 AM

Test Laboratory: RTS
File Name: Body_Worn_GPRS1900_Mid_Chan_15mm_away_Back_Amb_Temp_23.8_C_Liq_Temp_22.6_C.da4

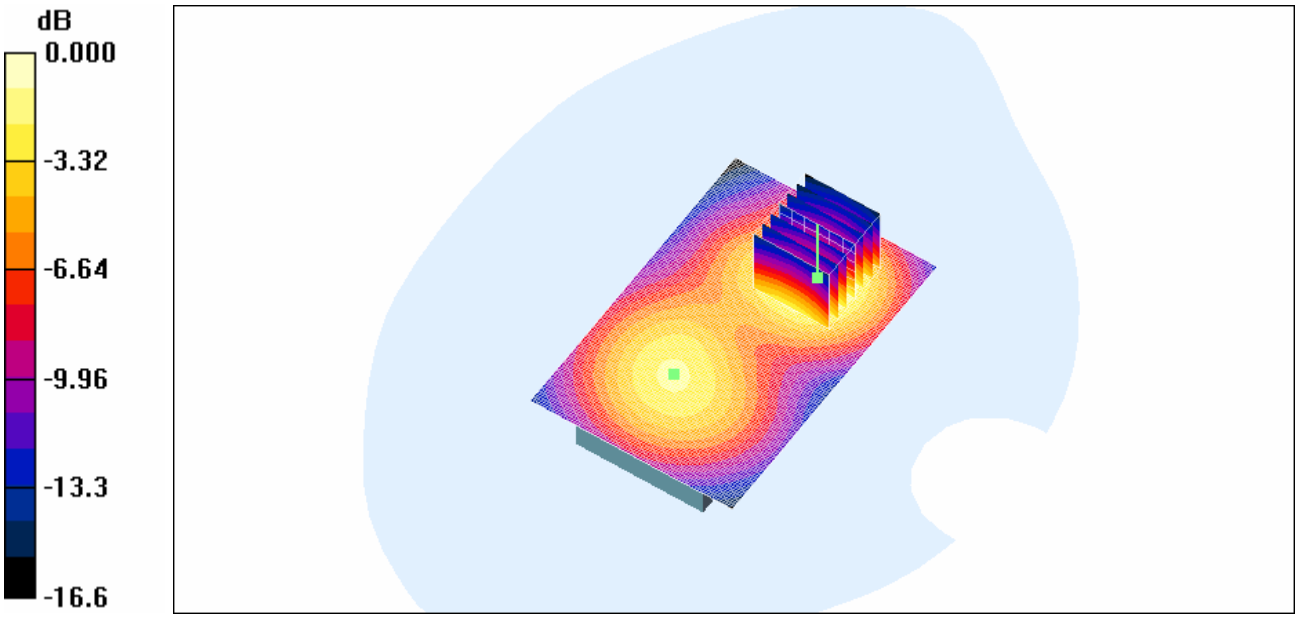
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn no holster**

Communication System: GPRS 1900; Frequency: 1880 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.59 mho/m; $\varepsilon_r$ = 50.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(4.72, 4.72, 4.72); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.3 V/m; Power Drift = -0.038 dB
Peak SAR (extrapolated) = 1.71 W/kg
**SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.586 mW/g**
Maximum value of SAR (measured) = 1.14 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.13 mW/g




0 dB = 1.13mW/g

Date/Time: 18/07/2006 9:26:58 PM

Test Laboratory: RTS
File Name: Body_Worn_GPRS1900_High_Chan_15mm_away_Back_Amb_Temp_23.2_C_Liq_Temp_22.5_C.da4

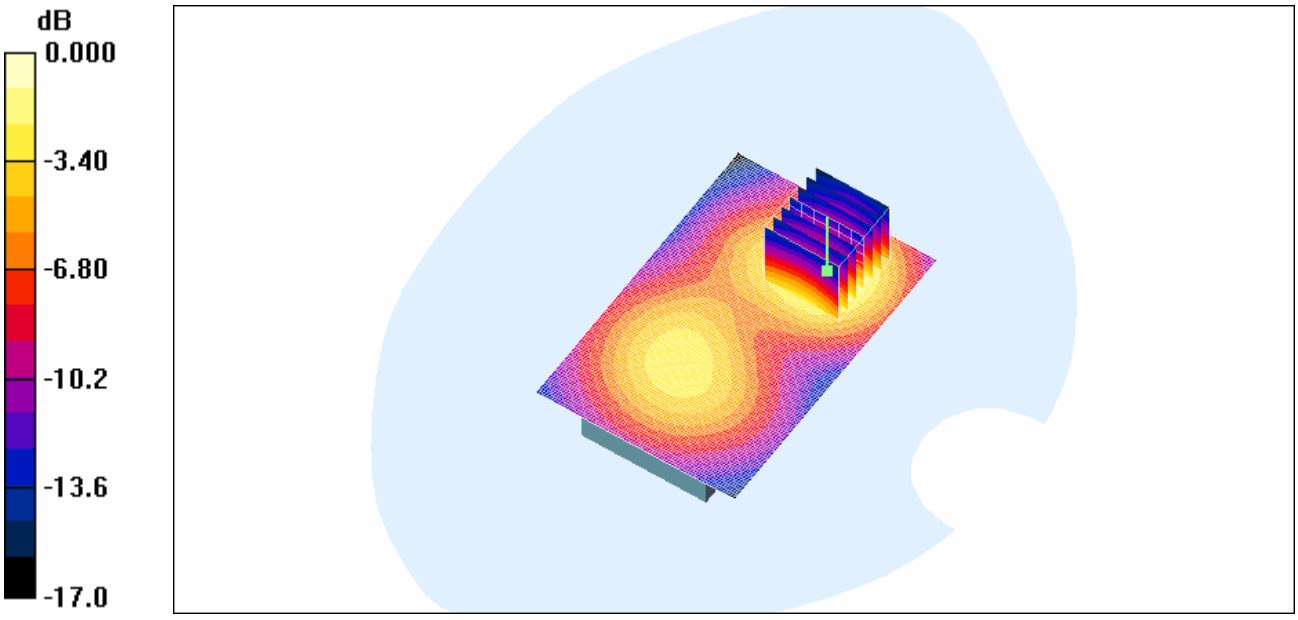
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn no holster**

Communication System: GPRS 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 1909.8 MHz; $\sigma$ = 1.59 mho/m; $\varepsilon_r$ = 50.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(4.72, 4.72, 4.72); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.9 V/m; Power Drift = -0.048 dB
Peak SAR (extrapolated) = 1.69 W/kg
**SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.575 mW/g**
Maximum value of SAR (measured) = 1.11 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.12 mW/g




0 dB = 1.12mW/g

Date/Time: 20/07/2006 7:56:34 PM

Test Laboratory: RTS
File Name:
Body_Worn_GPRS1900_Low_Chan_15mm_away_withHeadsetBT_Back_Amb_Temp_23.8_C_Liq_Temp_22.5_C.da4

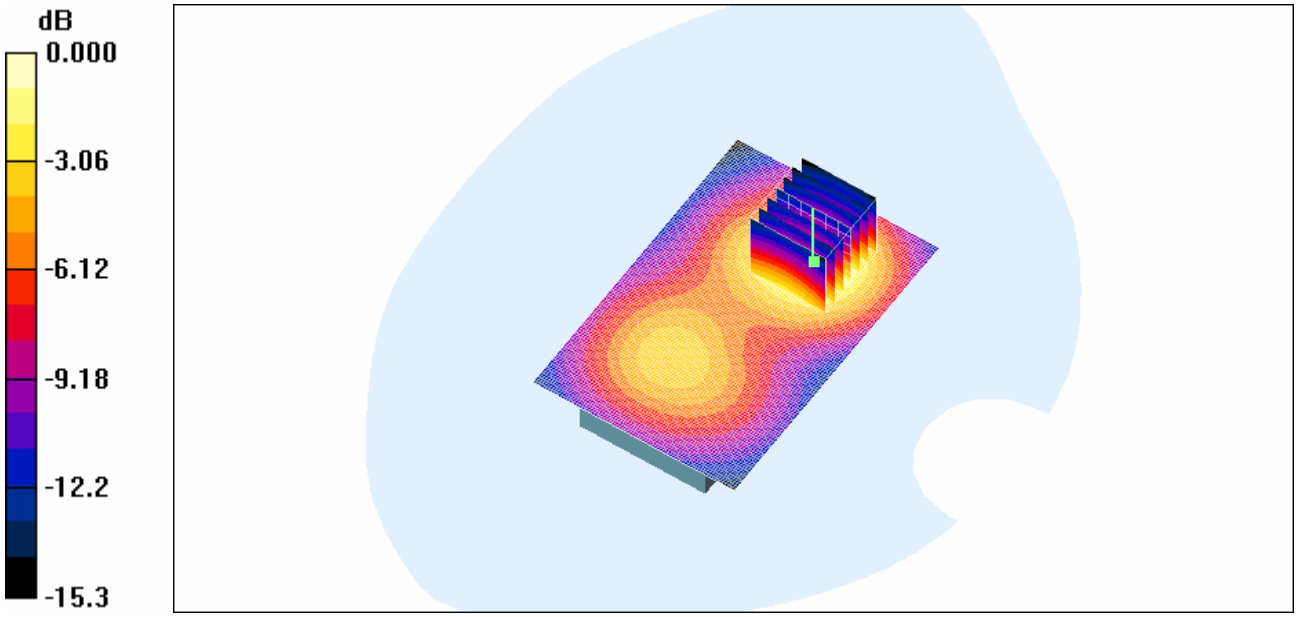
**DUT: BlackBerry Wireless Handheld ; Type: Sample ; Serial: Not Specified**
**Program Name: Compliance Testing: Body-worn no holster**

Communication System: GPRS 1900; Frequency: 1850.2 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 1850.2 MHz; $\sigma$ = 1.59 mho/m; $\varepsilon_r$ = 50.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1642; ConvF(4.72, 4.72, 4.72); Calibrated: 19/01/2006
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 12/01/2006
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

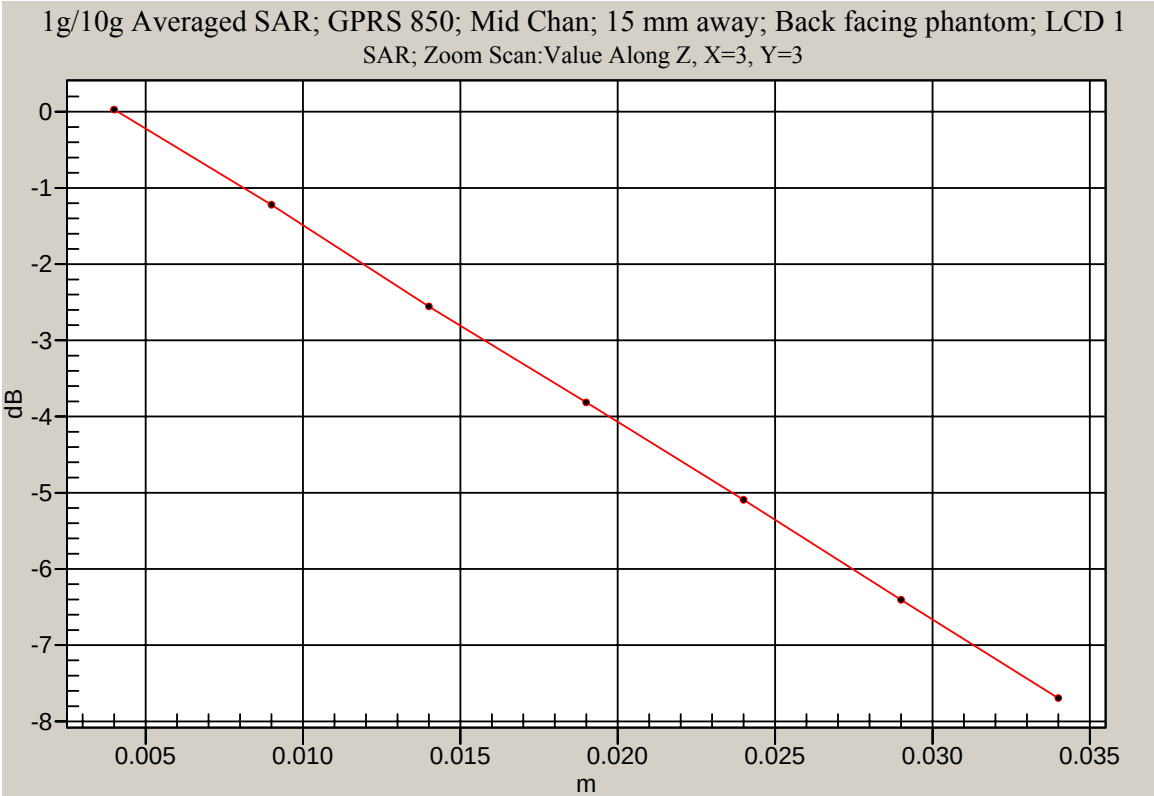
**Unnamed procedure/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.9 V/m; Power Drift = -0.272 dB
Peak SAR (extrapolated) = 1.56 W/kg
**SAR(1 g) = 0.971 mW/g; SAR(10 g) = 0.568 mW/g**
Maximum value of SAR (measured) = 1.06 mW/g

**Unnamed procedure/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.07 mW/g




0 dB = 1.07mW/g

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



## APPENDIX D: PROBE & DIPOLE CALIBRATION DATA

**Calibration Laboratory of**
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**Zeughausstrasse 43, 8004 Zurich, Switzerland**

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**Accreditation No.: SCS 108**

**Client** RIM

**Certificate No: ET3-1642_Jan06**

# CALIBRATION CERTIFICATE

| | |
|---|---|
| Object | ET3DV6 - SN:1642 |
| Calibration procedure(s) | QA CAL-01.v5<br>Calibration procedure for dosimetric E-field probes |
| Calibration date: | January 19, 2006 |
| Condition of the calibrated item | In Tolerance |

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards | ID # | Cal Date (Calibrated by, Certificate No.) | Scheduled Calibration |
|---|---|---|---|
| Power meter E4419B | GB41293874 | 3-May-05 (METAS, No. 251-00466) | May-06 |
| Power sensor E4412A | MY41495277 | 3-May-05 (METAS, No. 251-00466) | May-06 |
| Power sensor E4412A | MY41498087 | 3-May-05 (METAS, No. 251-00466) | May-06 |
| Reference 3 dB Attenuator | SN: S5054 (3c) | 11-Aug-05 (METAS, No. 251-00499) | Aug-06 |
| Reference 20 dB Attenuator | SN: S5086 (20b) | 3-May-05 (METAS, No. 251-00467) | May-06 |
| Reference 30 dB Attenuator | SN: S5129 (30b) | 11-Aug-05 (METAS, No. 251-00500) | Aug-06 |
| Reference Probe ES3DV2 | SN: 3013 | 2-Jan-06 (SPEAG, No. ES3-3013_Jan06) | Jan-07 |
| DAE4 | SN: 654 | 27-Oct-05 (SPEAG, No. DAE4-654_Oct05) | Oct-06 |

| Secondary Standards | ID # | Check Date (in house) | Scheduled Check |
|---|---|---|---|
| RF generator HP 8648C | US3642U01700 | 4-Aug-99 (SPEAG, in house check Nov-05) | In house check: Nov-07 |
| Network Analyzer HP 8753E | US37390585 | 18-Oct-01 (SPEAG, in house check Nov-05) | In house check: Nov 06 |

| | Name | Function | Signature |
|---|---|---|---|
| Calibrated by: | Katja Pokovic | Technical Manager | |
| Approved by: | Fin Bomholt | R&D Director | |

Issued: January 20, 2006

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: ET3-1642_Jan06 Page 1 of 9

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Accreditation No.: SCS 108

**Glossary:**

| | |
|---|---|
| TSL | tissue simulating liquid |
| NORMx,y,z | sensitivity in free space |
| ConF | sensitivity in TSL / NORMx,y,z |
| DCP | diode compression point |
| Polarization φ | φ rotation around probe axis |
| Polarization ϑ | ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis |

**Calibration is Performed According to the Following Standards:**

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) CENELEC EN 50361, "Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz - 3 GHz), July 2001

**Methods Applied and Interpretation of Parameters:**

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not effect the $E^2$-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep (no uncertainty required). DCP does not depend on frequency nor media.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and Inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset:* The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

# Probe ET3DV6

# SN:1642

Manufactured: November 7, 2001
Last calibrated: January 7, 2005
Recalibrated: January 19, 2006

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

**ET3DV6 SN:1642** **January 19, 2006**

# DASY - Parameters of Probe: ET3DV6 SN:1642

## Sensitivity in Free Space[A]

## Diode Compression[B]

| | | | | |
|---|---|---|---|---|
| NormX | 1.66 ± 10.1% | $\mu V/(V/m)^2$ | DCP X | 94 mV |
| NormY | 1.91 ± 10.1% | $\mu V/(V/m)^2$ | DCP Y | 94 mV |
| NormZ | 1.64 ± 10.1% | $\mu V/(V/m)^2$ | DCP Z | 94 mV |

## Sensitivity in Tissue Simulating Liquid (Conversion Factors)

**Please see Page 8.**

## Boundary Effect

**TSL** **900 MHz** **Typical SAR gradient: 5 % per mm**

| Sensor Center to Phantom Surface Distance | | 3.7 mm | 4.7 mm |
|---|---|---|---|
| $SAR_{be}$ [%] | Without Correction Algorithm | 8.5 | 4.6 |
| $SAR_{be}$ [%] | With Correction Algorithm | 0.1 | 0.1 |

**TSL** **1810 MHz** **Typical SAR gradient: 10 % per mm**

| Sensor Center to Phantom Surface Distance | | 3.7 mm | 4.7 mm |
|---|---|---|---|
| $SAR_{be}$ [%] | Without Correction Algorithm | 12.3 | 8.1 |
| $SAR_{be}$ [%] | With Correction Algorithm | 0.6 | 0.3 |

## Sensor Offset

| | |
|---|---|
| Probe Tip to Sensor Center | 2.7 mm |

**The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.**

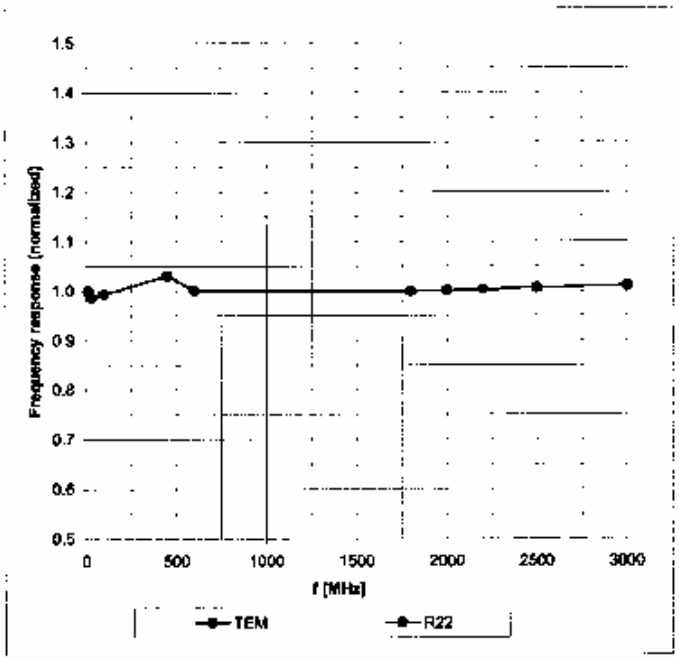
A The uncertainties of NormX,Y,Z do not affect the $E^2$-field uncertainty inside TSL (see Page 8).

B Numerical linearization parameter: uncertainty not required.

**ET3DV6 SN:1642** **January 19, 2006**

## Frequency Response of E-Field

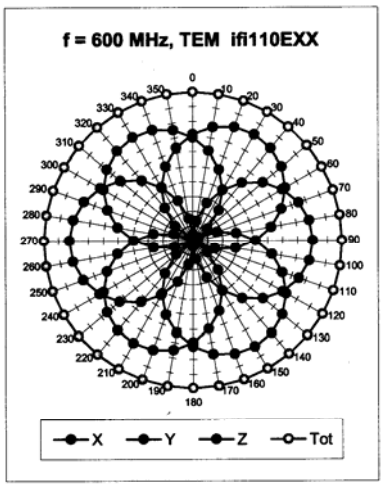
**(TEM-Cell:ifi110 EXX, Waveguide: R22)**

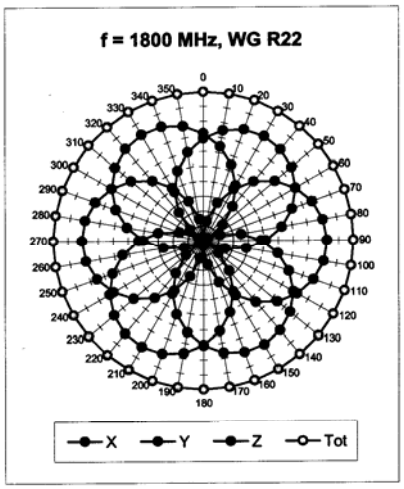


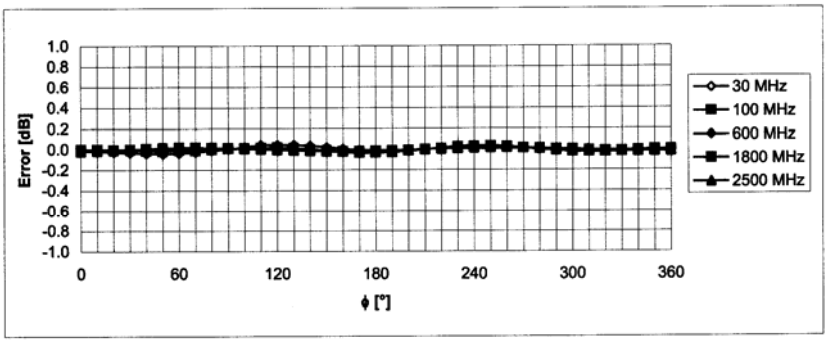

**Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)**

**ET3DV6 SN:1642** **January 19, 2006**

## Receiving Pattern ($\phi$), $\vartheta$ = 0°



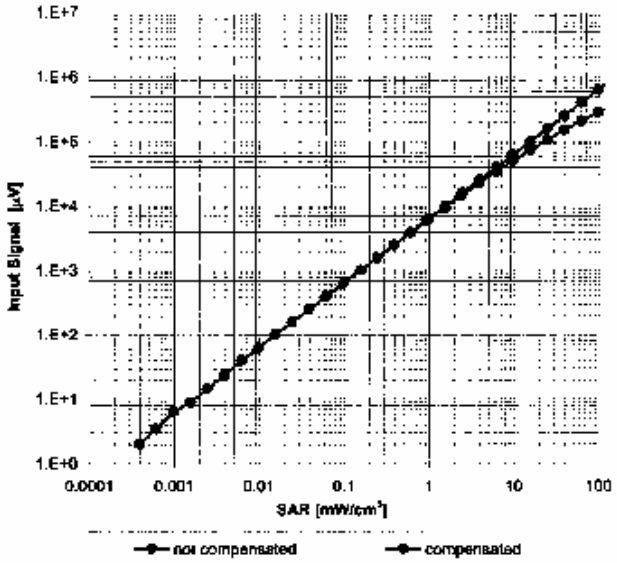



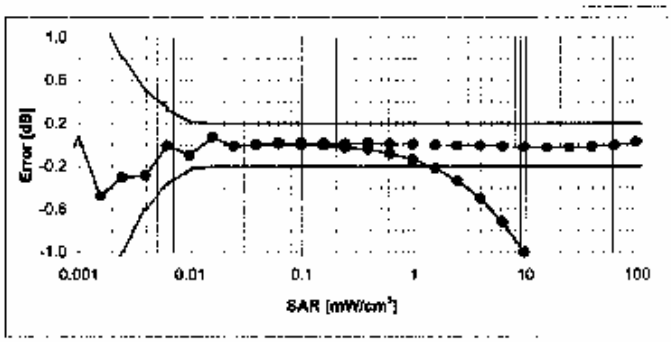

**Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)**

ET3DV6 SN:1642 January 19, 2006

## Dynamic Range f($SAR_{head}$)

(Waveguide R22, f = 1800 MHz)



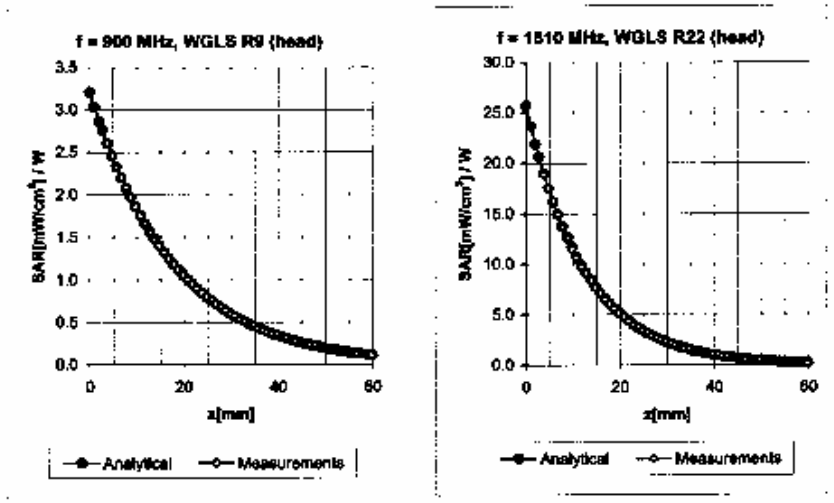




Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Certificate No: ET3-1642_Jan06 Page 7 of 9

ET3DV6 SN:1642 January 19, 2006

## Conversion Factor Assessment




| f [MHz] | Validity [MHz][C] | TSL | Permittivity | Conductivity | Alpha | Depth | ConvF Uncertainty |
|---|---|---|---|---|---|---|---|
| 900 | ± 50 / ± 100 | Head | 41.5 ± 5% | 0.97 ± 5% | 0.57 | 1.66 | 6.38 ± 11.0% (k=2) |
| 1810 | ± 50 / ± 100 | Head | 40.0 ± 5% | 1.40 ± 5% | 0.66 | 2.12 | 5.18 ± 11.0% (k=2) |
| 1950 | ± 50 / ± 100 | Head | 40.0 ± 5% | 1.40 ± 5% | 0.73 | 1.55 | 5.02 ± 11.0% (k=2) |
| 900 | ± 50 / ± 100 | Body | 55.0 ± 5% | 1.05 ± 5% | 0.50 | 2.06 | 6.13 ± 11.0% (k=2) |
| 1810 | ± 50 / ± 100 | Body | 53.3 ± 5% | 1.52 ± 5% | 0.67 | 2.05 | 4.72 ± 11.0% (k=2) |
| 1950 | ± 50 / ± 100 | Body | 53.3 ± 5% | 1.52 ± 5% | 0.64 | 2.44 | 4.38 ± 11.0% (k=2) |

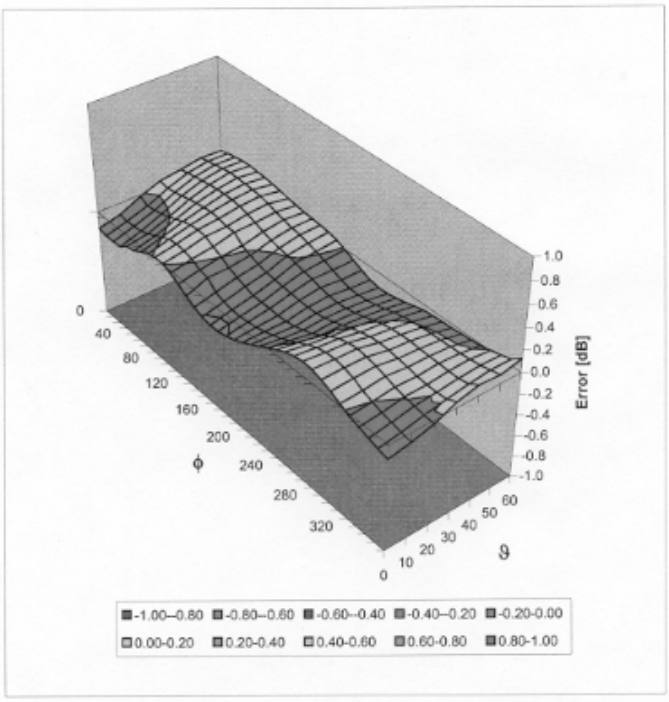
[C] The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

Certificate No: ET3-1642_Jan06 Page 8 of 9

ET3DV6 SN:1642 January 19, 2006

## Deviation from Isotropy in HSL

Error ($\phi$, $\vartheta$), f = 900 MHz




Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

Certificate No: ET3-1642_Jan06 Page 9 of 9

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**Accreditation No.: SCS 108**

**Client** RIM

**Certificate No: D835V2-446_Jan05**

# CALIBRATION CERTIFICATE

| | |
|---|---|
| Object | D835V2 - SN: 446 |
| Calibration procedure(s) | QA CAL-05.v6<br>Calibration procedure for dipole validation kits |
| Calibration date: | January 7, 2005 |
| Condition of the calibrated item | In Tolerance |

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards | ID # | Cal Date (Calibrated by, Certificate No.) | Scheduled Calibration |
|---|---|---|---|
| Power meter EPM E442 | GB37480704 | 12-Oct-04 (METAS, No. 251-00412) | Oct-05 |
| Power sensor HP 8481A | US37292783 | 12-Oct-04 (METAS, No. 251-00412) | Oct-05 |
| Reference 20 dB Attenuator | SN: 5086 (20g) | 10-Aug-04 (METAS, No 251-00402) | Aug-05 |
| Reference 10 dB Attenuator | SN: 5047.2 (10r) | 10-Aug-04 (METAS, No 251-00402) | Aug-05 |
| Reference Probe ET3DV6 | SN 1507 | 26-Oct-04 (SPEAG, No. ET3-1507_Oct04) | Oct-05 |
| DAE4 | SN 907 | 03-May-04 (SPEAG, No. DAE4-907_May04) | May-05 |

| Secondary Standards | ID # | Check Date (in house) | Scheduled Check |
|---|---|---|---|
| Power sensor HP 8481A | MY41092317 | 18-Oct-02 (SPEAG, in house check Oct-03) | In house check: Oct-05 |
| RF generator R&S SML-03 | 100698 | 27-Mar-02 (SPEAG, in house check Dec-03) | In house check: Dec-05 |
| Network Analyzer HP 8753E | US37390585 S4206 | Oct-01 (SPEAG, in house check Nov-04) | In house check: Nov-05 |

| | Name | Function | Signature |
|---|---|---|---|
| Calibrated by: | Judith Müller | Laboratory Technician | |
| Approved by: | Katja Pokovic | Technical Manager | |

Issued: January 13, 2005

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**Accreditation No.: SCS 108**

**Glossary:**

| | |
|---|---|
| TSL | tissue simulating liquid |
| ConvF | sensitivity in TSL / NORM x,y,z |
| N/A | not applicable or not measured |

**Calibration is Performed According to the Following Standards:**

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) CENELEC EN 50361, "Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz - 3 GHz), July 2001
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

**Additional Documentation:**

d) DASY4 System Handbook

**Methods Applied and Interpretation of Parameters:**

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

**Measurement Conditions**

DASY system configuration, as far as not given on page 1.

| | | |
|---|---|---|
| **DASY Version** | DASY4 | V4.4 |
| **Extrapolation** | Advanced Extrapolation | |
| **Phantom** | Modular Flat Phantom V4.9 | |
| **Distance Dipole Center - TSL** | 15 mm | with Spacer |
| **Area Scan resolution** | dx, dy = 15 mm | |
| **Zoom Scan Resolution** | dx, dy, dz = 5 mm | |
| **Frequency** | 835 MHz ± 1 MHz | |

**Head TSL parameters**

The following parameters and calculations were applied.

| | Temperature | Permittivity | Conductivity |
|---|---|---|---|
| **Nominal Head TSL parameters** | 22.0 °C | 41.5 | 0.90 mho/m |
| **Measured Head TSL parameters** | (22.0 ± 0.2) °C | 42.2 ± 6 % | 0.91 mho/m ± 6 % |
| **Head TSL temperature during test** | (22.0 ± 0.2) °C | ---- | ---- |

**SAR result with Head TSL**

| **SAR averaged over 1 cm³ (1 g) of Head TSL** | condition | |
|---|---|---|
| SAR measured | 250 mW input power | 2.27 mW / g |
| SAR normalized | normalized to 1W | 9.08 mW / g |
| SAR for nominal Head TSL parameters [1] | normalized to 1W | **9.10 mW / g ± 17.0 % (k=2)** |

| **SAR averaged over 10 cm³ (10 g) of Head TSL** | condition | |
|---|---|---|
| SAR measured | 250 mW input power | 1.48 mW / g |
| SAR normalized | normalized to 1W | 5.92 mW / g |
| SAR for nominal Head TSL parameters [1] | normalized to 1W | **5.93 mW / g ± 16.5 % (k=2)** |

[1] Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

## Appendix

### Antenna Parameters with Head TSL

| | |
|---|---|
| Impedance, transformed to feed point | 50.1 Ω - 7.1 jΩ |
| Return Loss | - 22.9 dB |

### General Antenna Parameters and Design

| | |
|---|---|
| Electrical Delay (one direction) | 1.385 ns |

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

### Additional EUT Data

| | |
|---|---|
| Manufactured by | SPEAG |
| Manufactured on | October 24, 2001 |

**DASY4 Validation Report for Head TSL**

Date/Time: 01/07/05 15:08:43

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN446**

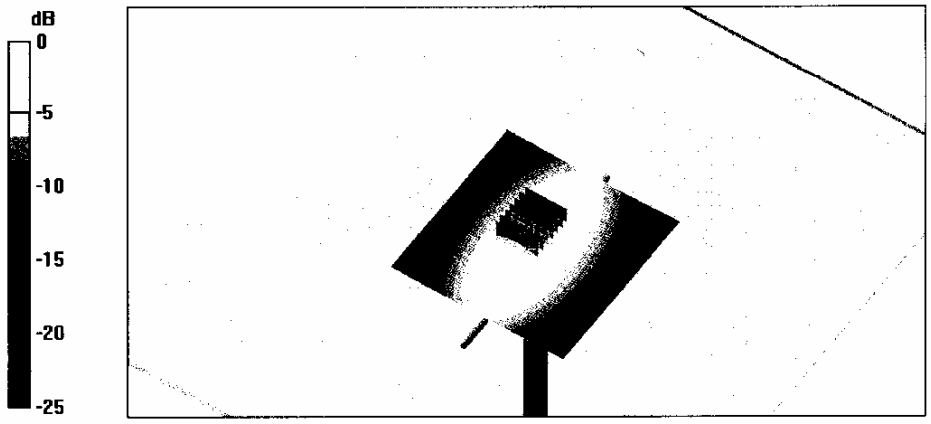
Communication System: CW-835; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: HSL 900 MHz;
Medium parameters used: f = 835 MHz; $\sigma$ = 0.91 mho/m; $\varepsilon_r$ = 42.2; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(6.24, 6.24, 6.24); Calibrated: 26.10.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn907; Calibrated: 03.05.2004
- Phantom: Flat Phantom 4.9L; Type: QD000P50AA; Serial: SN:1001;
- Measurement SW: DASY4, V4.4 Build 10; Postprocessing SW: SEMCAD, V1.8 Build 133

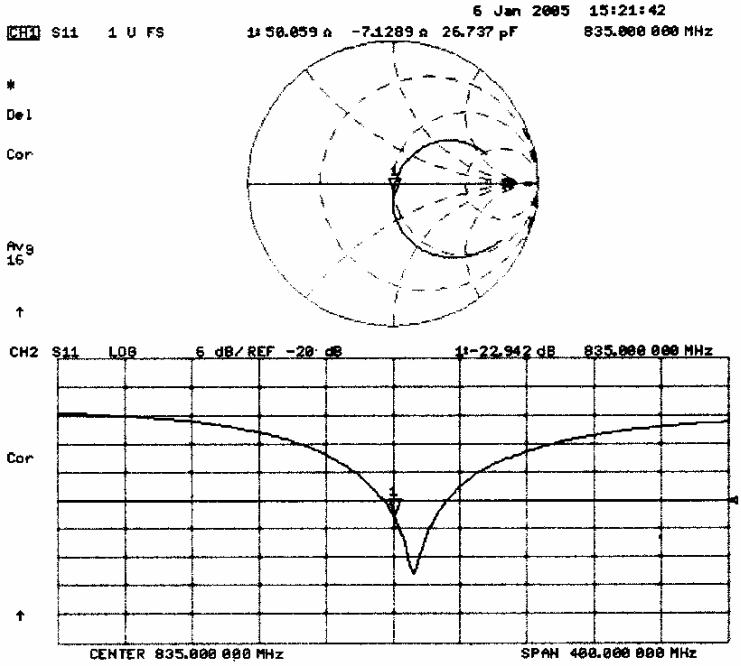
**Pin = 250 mW; d = 15 mm/Area Scan (81x81x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.44 mW/g

**Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 54.2 V/m; Power Drift = 0.0 dB
Peak SAR (extrapolated) = 3.36 W/kg
**SAR(1 g) = 2.27 mW/g; SAR(10 g) = 1.48 mW/g**
Maximum value of SAR (measured) = 2.45 mW/g




0 dB = 2.45mW/g

**Impedance Measurement Plot for Head TSL**



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**Accreditation No.: SCS 108**

**Client** RIM

**Certificate No: D1900V2-545_Jan05**

# CALIBRATION CERTIFICATE

| | |
|---|---|
| Object | D1900V2 - SN: 545 |
| Calibration procedure(s) | QA CAL-05.v6<br>Calibration procedure for dipole validation kits |
| Calibration date: | January 06, 2005 |
| Condition of the calibrated item | In Tolerance |

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards | ID # | Cal Date (Calibrated by, Certificate No.) | Scheduled Calibration |
|---|---|---|---|
| Power meter EPM E442 | GB37480704 | 12-Oct-04 (METAS, No. 251-00412) | Oct-05 |
| Power sensor HP 8481A | US37292783 | 12-Oct-04 (METAS, No. 251-00412) | Oct-05 |
| Reference 20 dB Attenuator | SN: 5086 (20g) | 10-Aug-04 (METAS, No 251-00402) | Aug-05 |
| Reference 10 dB Attenuator | SN: 5047.2 (10r) | 10-Aug-04 (METAS, No 251-00402) | Aug-05 |
| Reference Probe ET3DV6 | SN 1507 | 26-Oct-04 (SPEAG, No. ET3-1507_Oct04) | Oct-05 |
| DAE4 | SN 907 | 03-May-04 (SPEAG, No. DAE4-907_May04) | May-05 |

| Secondary Standards | ID # | Check Date (in house) | Scheduled Check |
|---|---|---|---|
| Power sensor HP 8481A | MY41092317 | 18-Oct-02 (SPEAG, in house check Oct-03) | In house check: Oct-05 |
| RF generator R&S SML-03 | 100698 | 27-Mar-02 (SPEAG, in house check Dec-03) | In house check: Dec-05 |
| Network Analyzer HP 8753E | US37390585 S4206 | 18-Oct-01 (SPEAG, in house check Nov-04) | In house check: Nov 05 |

| | Name | Function | Signature |
|---|---|---|---|
| Calibrated by: | Judith Müller | Laboratory Technician | |
| Approved by: | Katja Pokovic | Technical Manager | |

Issued: January 13, 2005

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

**Calibration Laboratory of**
Schmid & Partner
Engineering AG
**Zeughausstrasse 43, 8004 Zurich, Switzerland**

**S** Schweizerischer Kalibrierdienst
**C** Service suisse d'étalonnage
**S** Servizio svizzero di taratura
**S** Swiss Calibration Service

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**The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates**

**Accreditation No.: SCS 108**

**Glossary:**

| | |
|---|---|
| TSL | tissue simulating liquid |
| ConvF | sensitivity in TSL / NORM x,y,z |
| N/A | not applicable or not measured |

**Calibration is Performed According to the Following Standards:**

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) CENELEC EN 50361, "Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz - 3 GHz), July 2001
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

**Additional Documentation:**

d) DASY4 System Handbook

**Methods Applied and Interpretation of Parameters:**

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

## Measurement Conditions

DASY system configuration, as far as not given on page 1.

| | | |
|---|---|---|
| **DASY Version** | DASY4 | V4.4 |
| **Extrapolation** | Advanced Extrapolation | |
| **Phantom** | Modular Flat Phantom V4.9 | |
| **Distance Dipole Center - TSL** | 10 mm | with Spacer |
| **Area Scan resolution** | dx, dy = 15 mm | |
| **Zoom Scan Resolution** | dx, dy, dz = 5 mm | |
| **Frequency** | 1900 MHz ± 1 MHz | |

## Head TSL parameters

The following parameters and calculations were applied.

| | **Temperature** | **Permittivity** | **Conductivity** |
|---|---|---|---|
| **Nominal Head TSL parameters** | 22.0 °C | 40.0 | 1.40 mho/m |
| **Measured Head TSL parameters** | (22.0 ± 0.2) °C | 38.9 ± 6 % | 1.45 mho/m ± 6 % |
| **Head TSL temperature during test** | (22.0 ± 0.2) °C | ---- | ---- |

## SAR result with Head TSL

| **SAR averaged over 1 cm$^3$ (1 g) of Head TSL** | condition | |
|---|---|---|
| SAR measured | 250 mW input power | 10.2 mW / g |
| SAR normalized | normalized to 1W | 40.8 mW / g |
| SAR for nominal Head TSL parameters [1] | normalized to 1W | **39.5 mW / g ± 17.0 % (k=2)** |

| **SAR averaged over 10 cm$^3$ (10 g) of Head TSL** | condition | |
|---|---|---|
| SAR measured | 250 mW input power | 5.34 mW / g |
| SAR normalized | normalized to 1W | 21.4 mW / g |
| SAR for nominal Head TSL parameters [1] | normalized to 1W | **20.7 mW / g ± 16.5 % (k=2)** |

[1] Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

## Appendix

### Antenna Parameters with Head TSL

| | |
|---|---|
| Impedance, transformed to feed point | 51.7 Ω + 2.1 jΩ |
| Return Loss | - 31.5 dB |

### General Antenna Parameters and Design

| | |
|---|---|
| Electrical Delay (one direction) | 1.198 ns |

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

### Additional EUT Data

| | |
|---|---|
| Manufactured by | SPEAG |
| Manufactured on | November 15, 2001 |

**DASY4 Validation Report for Head TSL**

Date/Time: 01/06/05 18:30:23

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN545**

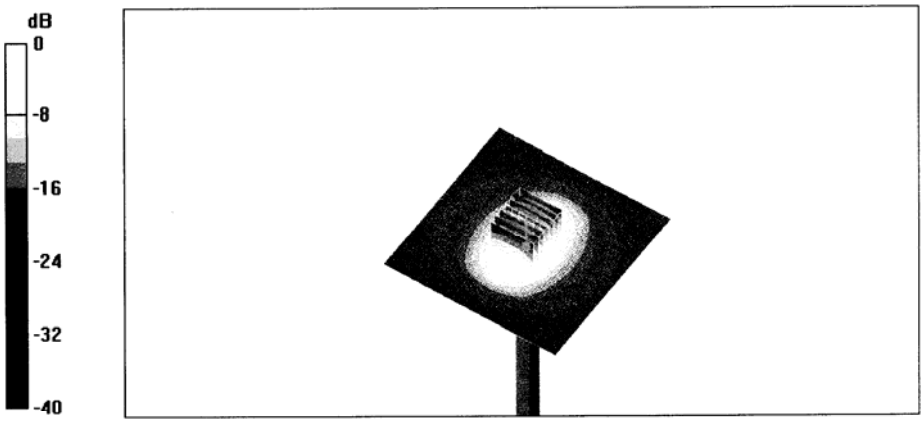
Communication System: CW-1900; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL 1900 MHz;
Medium parameters used: f = 1900 MHz; $\sigma$ = 1.45 mho/m; $\varepsilon_r$ = 39.6; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(4.96, 4.96, 4.96); Calibrated: 26.10.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn907; Calibrated: 03.05.2004
- Phantom: Flat Phantom quarter size; Type: QD000P50AA; Serial: SN:1001;
- Measurement SW: DASY4, V4.4 Build 10; Postprocessing SW: SEMCAD, V1.8 Build 133

**Pin = 250 mW; d = 10 mm/Area Scan (81x81x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.6 mW/g

**Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 95.2 V/m; Power Drift = 0.007 dB
Peak SAR (extrapolated) = 18 W/kg
**SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.34 mW/g**
Maximum value of SAR (measured) = 11.7 mW/g




0 dB = 11.7mW/g

**Impedance Measurement Plot for Head TSL**