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**APPENDIX C1: SAR DISTRIBUTION PLOTS FOR BODY-WORN CONFIGURATION**

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# LTE Band 17

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<b>Andrew Becker</b>	<b>July 12 – October 16, 2013</b>	<b>RTS-6046-1310-25</b>	<b>L6ARFV120LW</b>	

Date: 7/12/2013

Test Lab: RIM Testing Services

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE9A7**

**Configuration: Body Worn MSL - LTE Band 17**

Communication System: LTE band 17; Communication System Band: LTE 17; Frequency: 709 MHz

Medium Parameters used: f=709 MHz;  $\sigma = 0.921$  S/m;  $\epsilon_r = 54.583$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (6.27,6.27,6.27); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - LTE Band 17/15mm Device Back -**

**LTE\_Band\_17\_chan23780\_RB1\_Off0\_amb\_temp\_24.1C\_liq\_temp\_22.5C/Area Scan**

**(61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 20.288 V/m; **Power Drift = 0.093 dB**

**Body Worn MSL - LTE Band 17/15mm Device Back -**

**LTE\_Band\_17\_chan23780\_RB1\_Off0\_amb\_temp\_24.1C\_liq\_temp\_22.5C/Zoom Scan**

**(26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 20.288 V/m; **Power Drift = 0.093 dB**

**Averaged SAR: SAR(1g) = 0.389 W/kg; SAR(10g) = 0.296 W/kg**

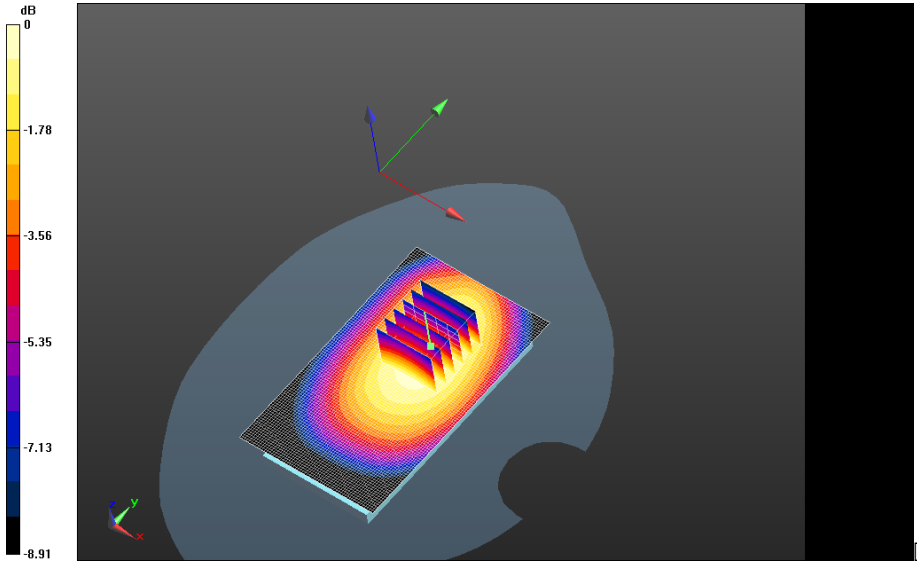
Maximum value of SAR (interpolated) = 0.498 W/kg

Author Data  
**Andrew Becker**


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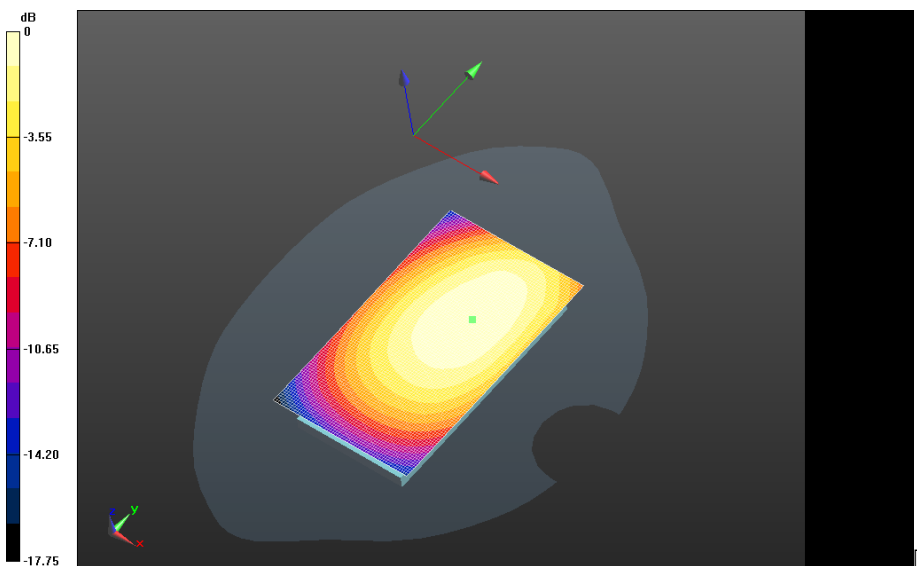



0 dB = 0.428 W/kg = -3.69 dBW/kg

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**Body Worn MSL - LTE Band 17/15mm Device Front -**  
**LTE\_Band\_17\_chan23780\_RB1\_Off0\_amb\_temp\_24.1C\_liq\_temp\_22.5C/Area Scan**  
**(61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm**  
Reference Value = 19.825 V/m; **Power Drift = 0.041 dB**

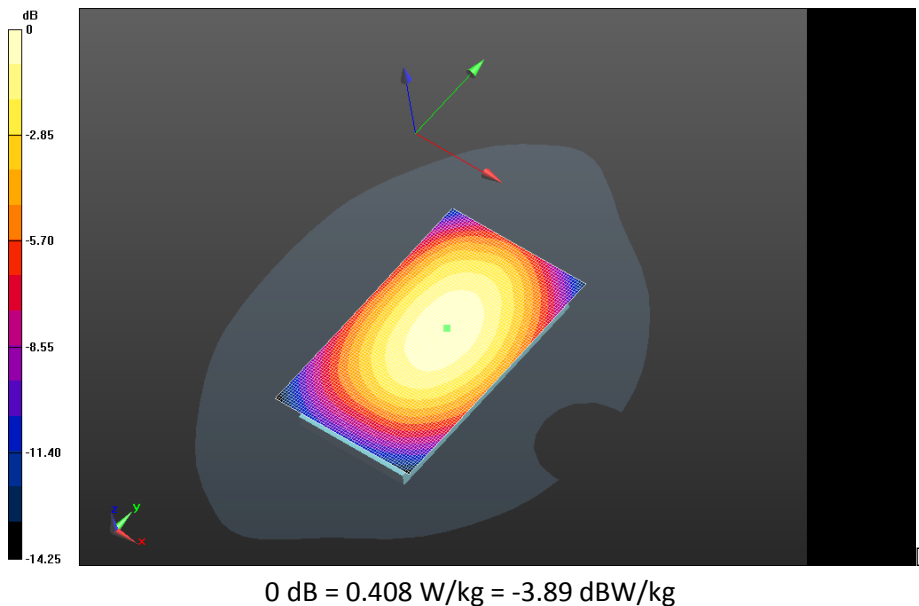
**Fast SAR: SAR(1g) = 0.364 W/kg; SAR(10g) = 0.259 W/kg**  
Maximum value of SAR (interpolated) = 0.408 W/kg




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**Body Worn MSL - LTE Band 17/Holster Device Back -  
LTE\_Band\_17\_chan23780\_RB1\_Off0\_amb\_temp\_23.8C\_liq\_temp\_22.8C/Area Scan  
(61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 20.484 V/m; Power Drift = -0.062 dB**

**Fast SAR: SAR(1g) = 0.345 W/kg; SAR(10g) = 0.244 W/kg  
Maximum value of SAR (interpolated) = 0.391 W/kg**



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# LTE 5

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Date: 7/15/2013

Test Lab: RIM Testing Services

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE967**

**Configuration: Body Worn MSL - LTE Band 5**

Communication System: LTE 5; Communication System Band: LTE 5; Frequency: 829 MHz

Medium Parameters used:  $f=829$  MHz;  $\sigma = 0.963$  S/m;  $\epsilon_r = 53.325$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (6.12,6.12,6.12); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - LTE Band 5/15mm Device Back -**

**LTE\_Band\_5\_chan20450\_RB1\_Off49\_amb\_temp\_23.2C\_liq\_temp\_22.3C/Area Scan**

**(61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 21.424 V/m; **Power Drift = -0.020 dB**

**Body Worn MSL - LTE Band 5/15mm Device Back -**

**LTE\_Band\_5\_chan20450\_RB1\_Off49\_amb\_temp\_23.2C\_liq\_temp\_22.3C/Zoom Scan**

**(26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 21.424 V/m; **Power Drift = -0.020 dB**

**Averaged SAR: SAR(1g) = 0.380 W/kg; SAR(10g) = 0.287 W/kg**

Maximum value of SAR (interpolated) = 0.479 W/kg

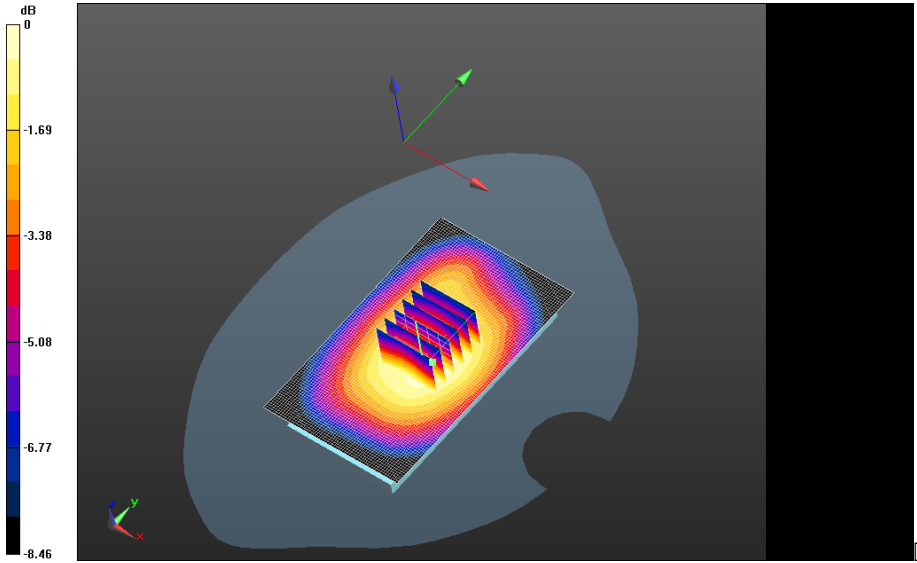


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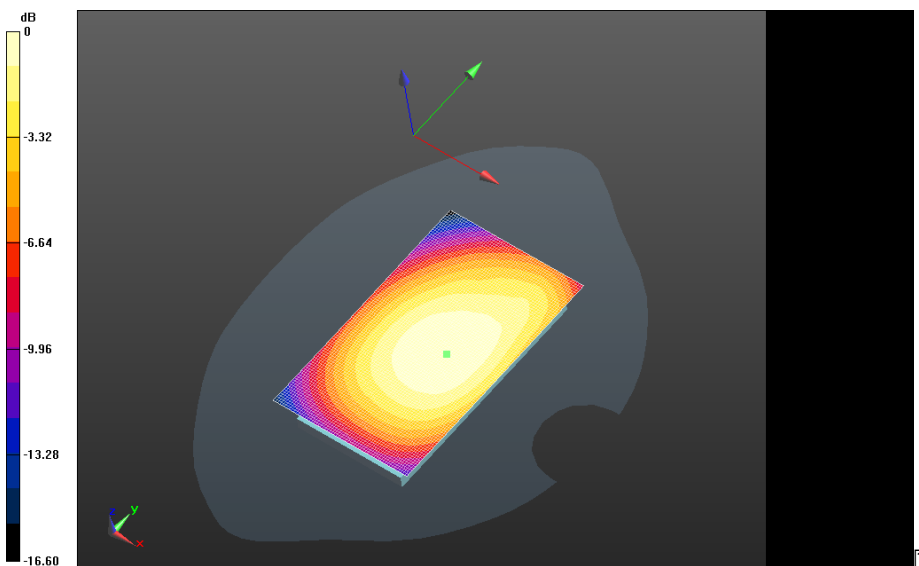


0 dB = 0.417 W/kg = -3.80 dBW/kg


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**Body Worn MSL - LTE Band 5/15mm Device Front -**  
**LTE\_Band\_5\_chan20450\_RB1\_Off49\_amb\_temp\_23.3C\_liq\_temp\_22.3C/Area Scan**  
**(61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm**  
Reference Value = 22.082 V/m; **Power Drift = -0.028 dB**

**Fast SAR: SAR(1g) = 0.397 W/kg; SAR(10g) = 0.280 W/kg**  
Maximum value of SAR (interpolated) = 0.449 W/kg

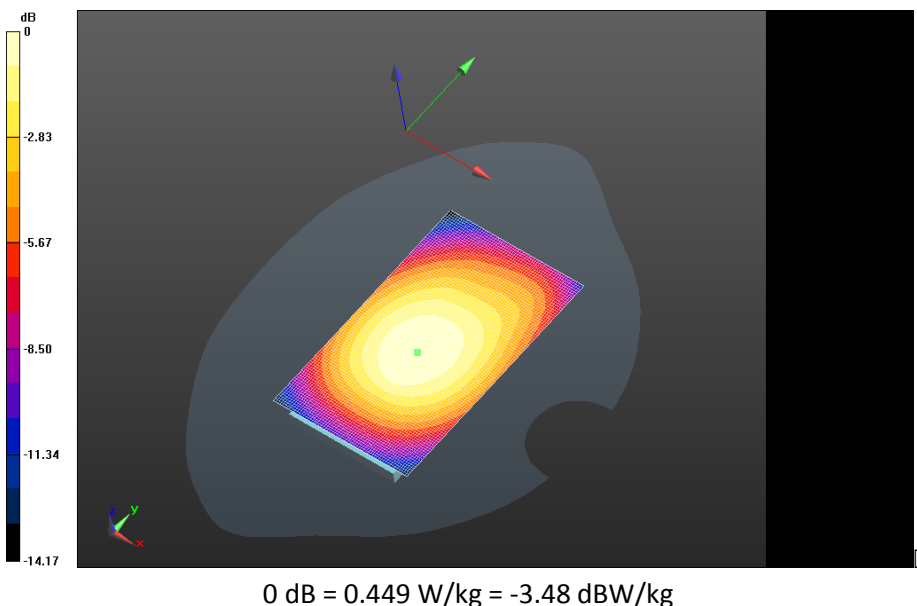



0 dB = 0.417 W/kg = -3.80 dBW/kg

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**Body Worn MSL - LTE Band 5/Holster Device Front -**  
**LTE\_Band\_5\_chan20450\_RB1\_Off49\_amb\_temp\_23.5C\_liq\_temp\_22.3C/Area Scan**  
**(61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm**  
Reference Value = 19.475 V/m; **Power Drift = 0.271 dB**

**Fast SAR: SAR(1g) = 0.303 W/kg; SAR(10g) = 0.213 W/kg**  
Maximum value of SAR (interpolated) = 0.342 W/kg



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# DTM/GSM 850

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Date: 7/15/2013

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE9A7**

**Configuration: Body Worn MSL - GPRS 850**

Communication System: GPRS 850 (4 slots); Communication System Band: GPRS (4 slots);

Frequency: 836.8 MHz

Medium Parameters used:  $f=836.8$  MHz;  $\sigma = 0.970$  S/m;  $\epsilon_r = 53.234$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (6.12,6.12,6.12); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - GPRS 850/15mm Device Back - GPRS850\_4-**

**Slots\_chan190\_amb\_temp\_23.3C\_liq\_temp\_22.2C/Area Scan (61x101x1):** Interpolated grid:

$dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 27.373 V/m; **Power Drift = -0.063 dB**

**Body Worn MSL - GPRS 850/15mm Device Back - GPRS850\_4-**

**Slots\_chan190\_amb\_temp\_23.3C\_liq\_temp\_22.2C/Zoom Scan (21x21x36)/Cube 0:**

Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm,  $dz=1.000$  mm

Reference Value = 27.373 V/m; **Power Drift = -0.063 dB**

**Averaged SAR: SAR(1g) = 0.614 W/kg; SAR(10g) = 0.468 W/kg**

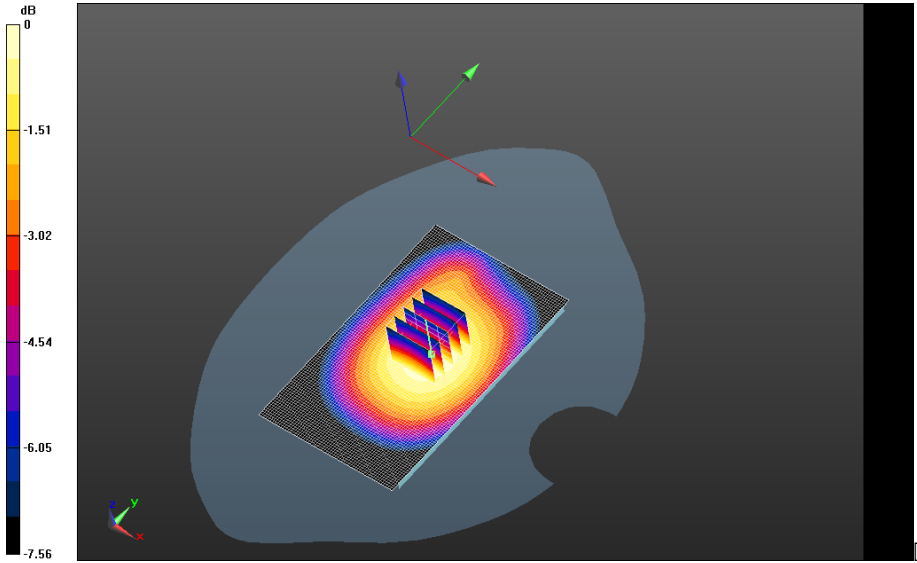
Maximum value of SAR (interpolated) = 0.776 W/kg

Author Data  
**Andrew Becker**


Dates of Test  
**July 12 – October 16, 2013**

Test Report No  
**RTS-6046-1310-25**

FCC ID:  
**L6ARFV120LW**

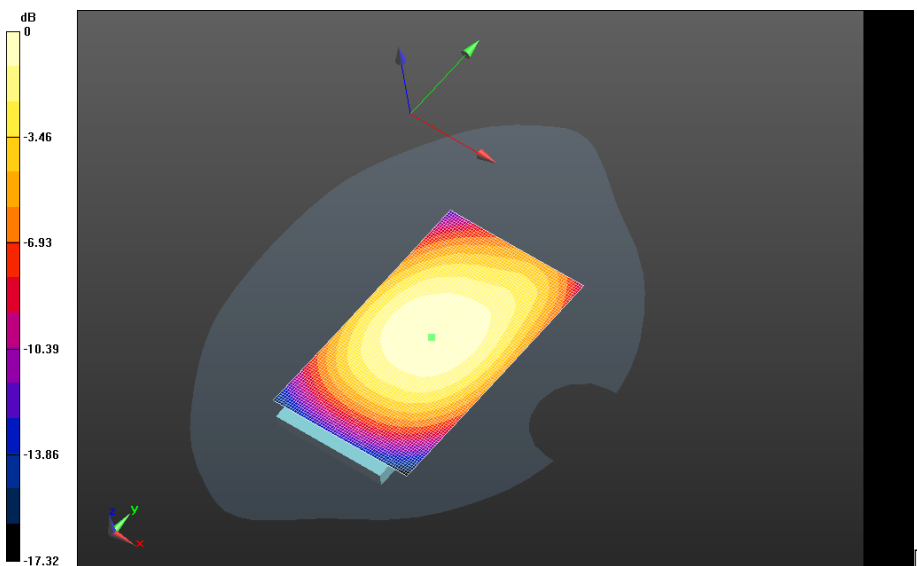


0 dB = 0.678 W/kg = -1.69 dBW/kg


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**Body Worn MSL - GPRS 850/15mm Device Front - GPRS850\_4-  
Slots\_chan190\_amb\_temp\_23.4C\_liq\_temp\_22.3C/Area Scan (61x101x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 27.223 V/m; **Power Drift = -0.000469 dB**

**Fast SAR: SAR(1g) = 0.598 W/kg; SAR(10g) = 0.423 W/kg**  
Maximum value of SAR (interpolated) = 0.674 W/kg

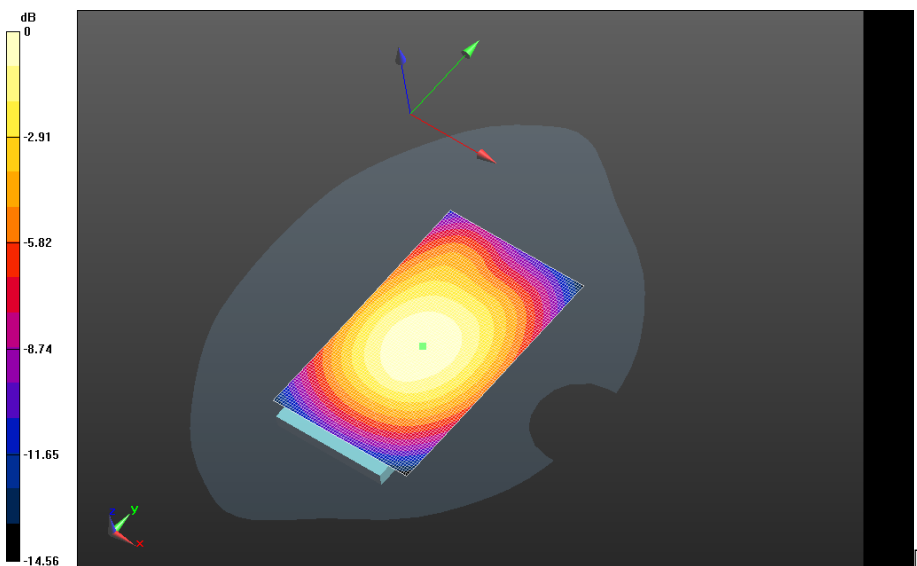


0 dB = 0.678 W/kg = -1.69 dBW/kg

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**Body Worn MSL - GPRS 850/Holster Device Back - GPRS850\_4-**  
**Slots\_chan190\_amb\_temp\_23.0C\_liq\_temp\_22.0C/Area Scan (61x101x1):** Interpolated grid:  
 dx=1.500 mm, dy=1.500 mm  
 Reference Value = 24.120 V/m; **Power Drift = -0.130 dB**

**Fast SAR: SAR(1g) = 0.472 W/kg; SAR(10g) = 0.331 W/kg**  
 Maximum value of SAR (interpolated) = 0.535 W/kg



0 dB = 0.674 W/kg = -1.71 dBW/kg



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Date: 8/16/2013

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE9A7**

**Configuration: Body Worn MSL - GPRS 850 Extra**

Communication System: GPRS 850 (4 slots); Communication System Band: GPRS (4 slots);

Frequency: 824.2 MHz

Medium Parameters used:  $f=825$  MHz;  $\sigma = 0.954$  S/m;  $\epsilon_r = 54.167$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (6.12,6.12,6.12); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - GPRS 850 Extra/15mm Device Back - GPRS850\_4-**

**Slots\_chan128\_amb\_temp\_23.3C\_liq\_temp\_22.2C/Area Scan (61x101x1):** Interpolated grid:

$dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 25.465 V/m; **Power Drift = 0.00982 dB**

**Body Worn MSL - GPRS 850 Extra/15mm Device Back - GPRS850\_4-**

**Slots\_chan128\_amb\_temp\_23.3C\_liq\_temp\_22.2C/Zoom Scan (21x21x36)/Cube 0:**

Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm,  $dz=1.000$  mm

Reference Value = 25.465 V/m; **Power Drift = 0.00982 dB**

**Averaged SAR: SAR(1g) = 0.538 W/kg; SAR(10g) = 0.412 W/kg**

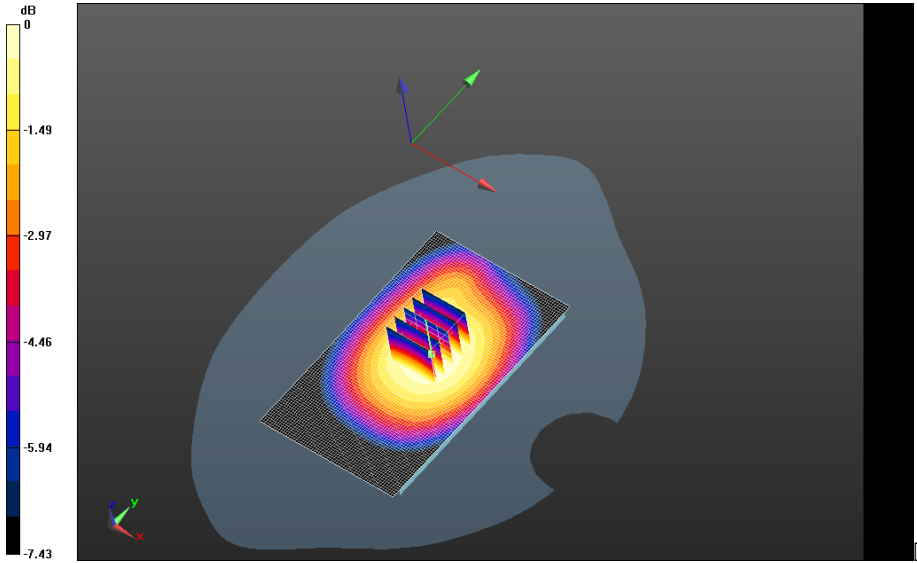
Maximum value of SAR (interpolated) = 0.667 W/kg

Author Data  
**Andrew Becker**


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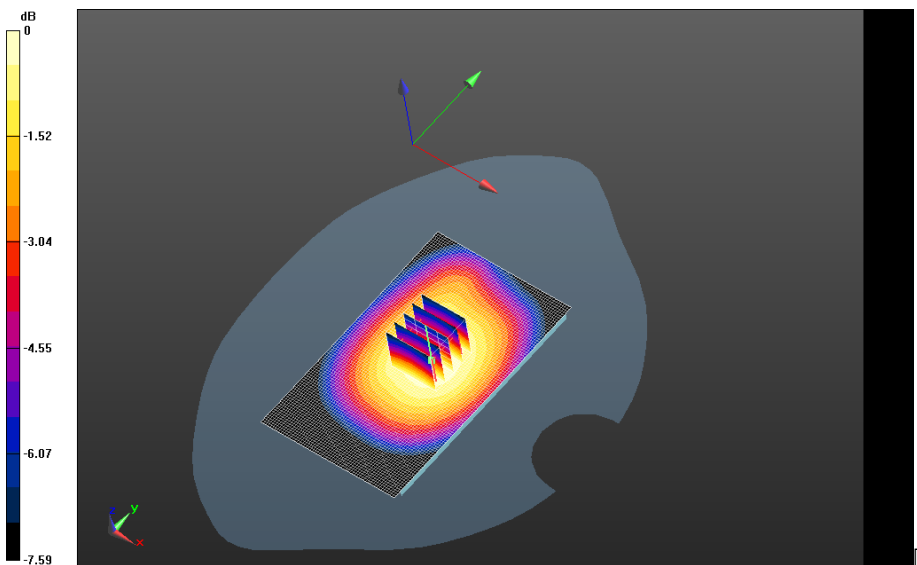
0 dB = 0.587 W/kg = -2.31 dBW/kg

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**Body Worn MSL - GPRS 850 Extra/15mm Device Back - GPRS850\_4-Slots\_chan251\_amb\_temp\_23.3C\_liq\_temp\_22.2C/Area Scan (61x101x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 23.692 V/m; **Power Drift = -0.161 dB**

**Body Worn MSL - GPRS 850 Extra/15mm Device Back - GPRS850\_4-Slots\_chan251\_amb\_temp\_23.3C\_liq\_temp\_22.2C/Zoom Scan (21x21x36)/Cube 0:**  
Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm  
Reference Value = 23.692 V/m; **Power Drift = -0.161 dB**


**Averaged SAR: SAR(1g) = 0.454 W/kg; SAR(10g) = 0.345 W/kg**  
Maximum value of SAR (interpolated) = 0.563 W/kg



0 dB = 0.587 W/kg = -2.31 dBW/kg

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# UMTS Band V

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Date: 7/15/2013

Test Lab: RIM Testing Services

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE9A7**

**Configuration: Body Worn MSL - UMTS band V**

Communication System: WCDMA FDD V; Communication System Band: UMTS band V;

Frequency: 836.4 MHz

Medium Parameters used:  $f=836.4$  MHz;  $\sigma = 0.970$  S/m;  $\epsilon_r = 53.238$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (6.12,6.12,6.12); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - UMTS band V/15mm Device Back - UMTS\_band**

**V\_chan4182\_amb\_temp\_23.1C\_liq\_temp\_21.6C/Area Scan (61x101x1):** Interpolated grid:

$dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 20.832 V/m; **Power Drift = -0.029 dB**

**Body Worn MSL - UMTS band V/15mm Device Back - UMTS\_band**

**V\_chan4182\_amb\_temp\_23.1C\_liq\_temp\_21.6C/Zoom Scan (21x21x36)/Cube 0:** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm,  $dz=1.000$  mm

Reference Value = 20.832 V/m; **Power Drift = -0.029 dB**

**Averaged SAR: SAR(1g) = 0.358 W/kg; SAR(10g) = 0.274 W/kg**

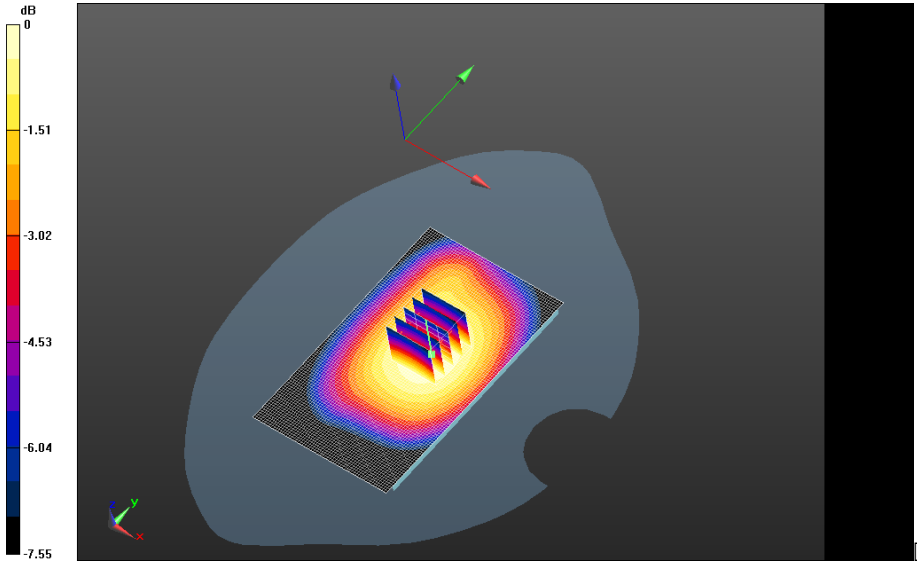
Maximum value of SAR (interpolated) = 0.446 W/kg

Author Data  
**Andrew Becker**


Dates of Test  
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0 dB = 0.392 W/kg = -4.07 dBW/kg

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**Body Worn MSL - UMTS band V/15mm Device Front - UMTS\_band**

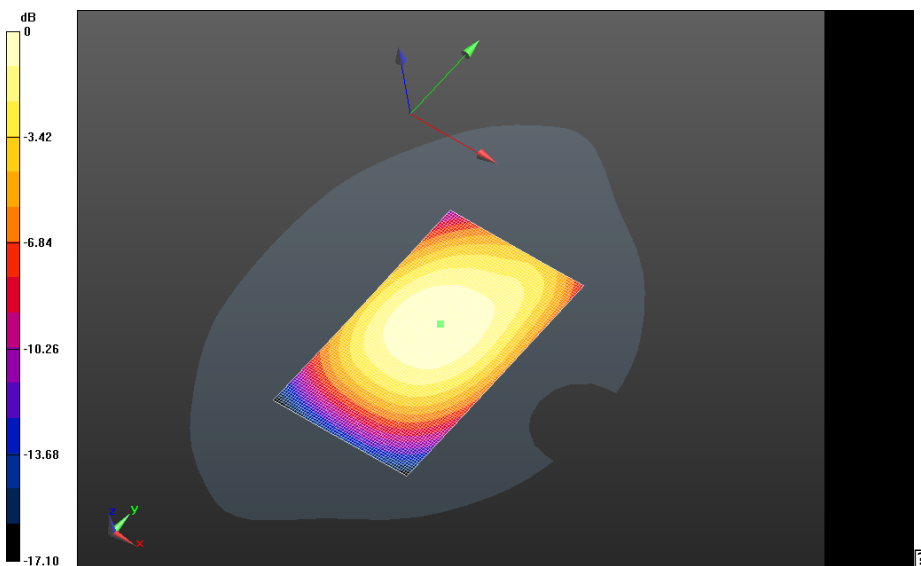
**V\_chan4182\_amb\_temp\_23.1C\_liq\_temp\_21.4C/Area Scan (61x101x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm


Reference Value = 21.430 V/m; **Power Drift = 0.00403 dB**

**Fast SAR: SAR(1g) = 0.372 W/kg; SAR(10g) = 0.263 W/kg**

Maximum value of SAR (interpolated) = 0.420 W/kg



0 dB = 0.392 W/kg = -4.07 dBW/kg

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	Author Data <b>Andrew Becker</b>	Dates of Test <b>July 12 – October 16, 2013</b>	Test Report No <b>RTS-6046-1310-25</b>	FCC ID: <b>L6ARFV120LW</b>

**Body Worn MSL - UMTS band V/Holster Device Front - UMTS\_band**

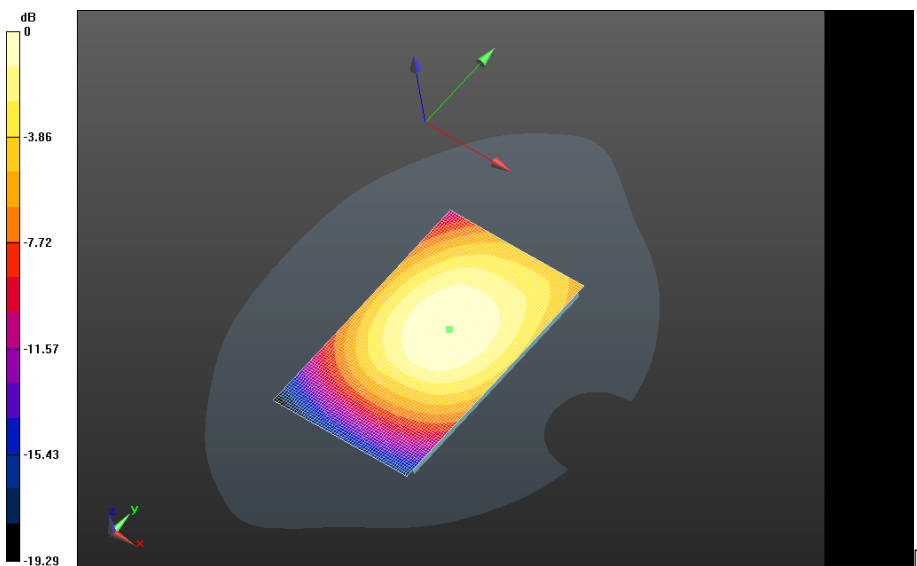
**V\_chan4182\_amb\_temp\_23.1C\_liq\_temp\_21.5C/Area Scan (61x101x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 18.813 V/m; **Power Drift = 0.081 dB**


**Fast SAR: SAR(1g) = 0.291 W/kg; SAR(10g) = 0.205 W/kg**

Maximum value of SAR (interpolated) = 0.330 W/kg




0 dB = 0.420 W/kg = -3.77 dBW/kg



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# LTE 4

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	Author Data <b>Andrew Becker</b>	Dates of Test <b>July 12 – October 16, 2013</b>	Test Report No <b>RTS-6046-1310-25</b>	FCC ID: <b>L6ARFV120LW</b>

Date: 7/12/2013

Test Lab: RIM Testing Services

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE9A7**

**Configuration: Body Worn MSL - LTE Band 4**

Communication System: LTE 4; Communication System Band: LTE 4; Frequency: 1720 MHz

Medium Parameters used:  $f=1720$  MHz;  $\sigma = 1.489$  S/m;  $\epsilon_r = 50.876$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (5.04,5.04,5.04); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - LTE Band 4/15mm Device Back -**

**LTE\_Band\_4\_chan20050\_RB1\_Off50\_amb\_temp\_23.2C\_liq\_temp\_22.2C/Area Scan**

**(61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 9.327 V/m; **Power Drift = 0.073 dB**

**Body Worn MSL - LTE Band 4/15mm Device Back -**

**LTE\_Band\_4\_chan20050\_RB1\_Off50\_amb\_temp\_23.2C\_liq\_temp\_22.2C/Zoom Scan**

**(21x21x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 9.327 V/m; **Power Drift = 0.073 dB**

**Averaged SAR: SAR(1g) = 0.511 W/kg; SAR(10g) = 0.319 W/kg**

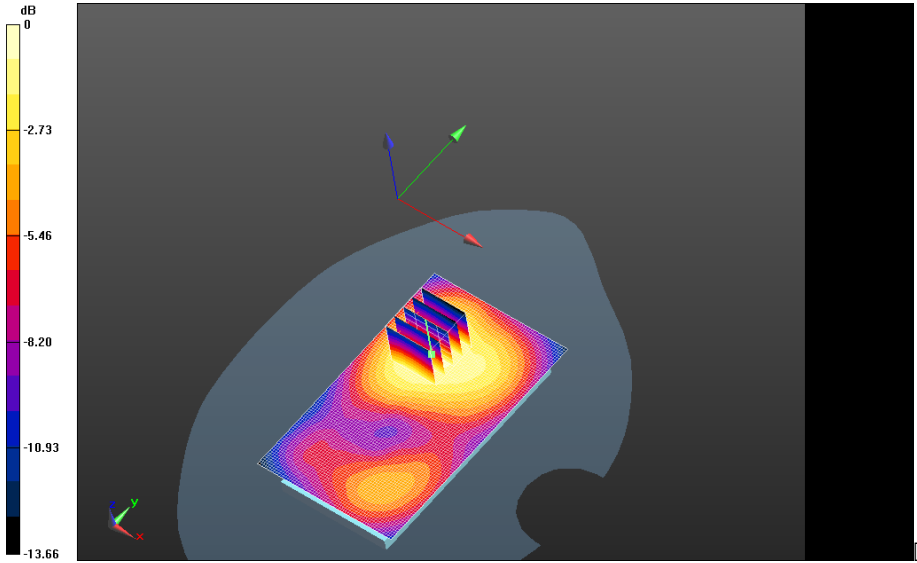
Maximum value of SAR (interpolated) = 0.803 W/kg

Author Data  
**Andrew Becker**


Dates of Test  
**July 12 – October 16, 2013**

Test Report No  
**RTS-6046-1310-25**

FCC ID:  
**L6ARFV120LW**

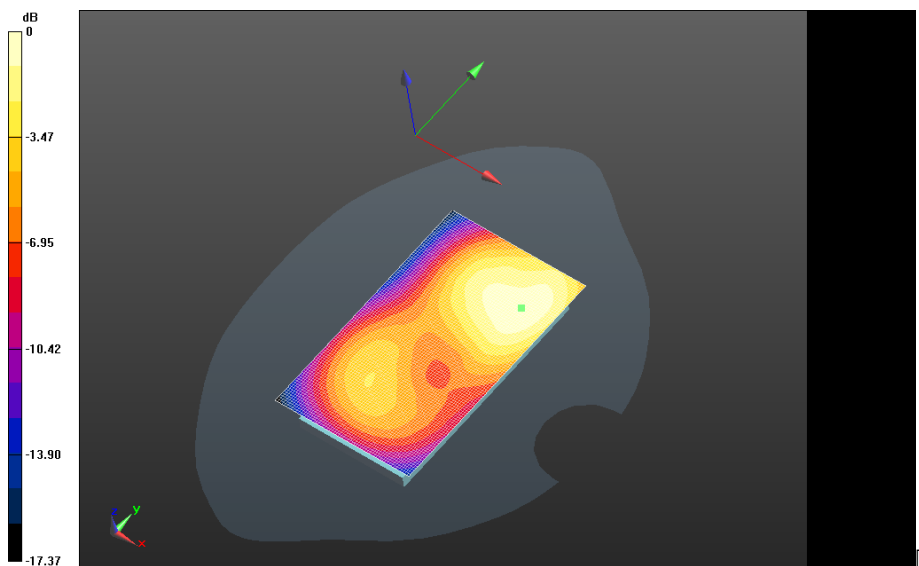


0 dB = 0.598 W/kg = -2.23 dBW/kg


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	Author Data <b>Andrew Becker</b>	Dates of Test <b>July 12 – October 16, 2013</b>	Test Report No <b>RTS-6046-1310-25</b>	FCC ID: <b>L6ARFV120LW</b>

**Body Worn MSL - LTE Band 4/15mm Device Front -**  
**LTE\_Band\_4\_chan20050\_RB1\_Off50\_amb\_temp\_23.8C\_liq\_temp\_22.8C/Area Scan**  
**(61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm**  
Reference Value = 9.060 V/m; **Power Drift = 0.064 dB**

**Fast SAR: SAR(1g) = 0.463 W/kg; SAR(10g) = 0.288 W/kg**  
Maximum value of SAR (interpolated) = 0.553 W/kg

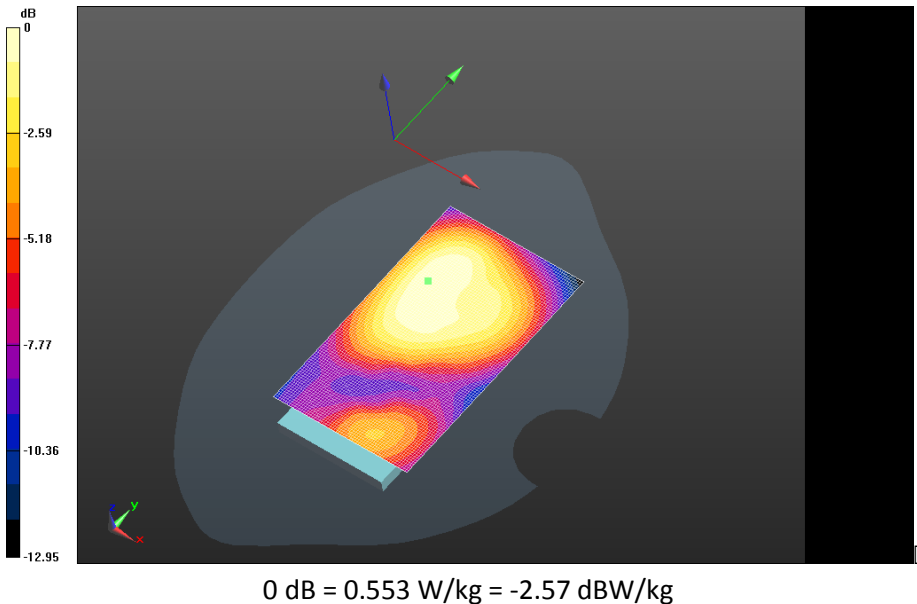



0 dB = 0.598 W/kg = -2.23 dBW/kg

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**Body Worn MSL - LTE Band 4/Holster Device Back -**  
**LTE\_Band\_4\_chan20050\_RB1\_Off50\_amb\_temp\_23.8C\_liq\_temp\_22.8C/Area Scan**  
**(61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm**  
 Reference Value = 9.611 V/m; **Power Drift = -0.102 dB**

**Fast SAR: SAR(1g) = 0.272 W/kg; SAR(10g) = 0.175 W/kg**  
 Maximum value of SAR (interpolated) = 0.319 W/kg



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# UMTS Band IV

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Date: 7/10/2013

Test Lab: RIM Testing Services

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE9A7**

**Configuration: Body Worn MSL - UMTS IV**

Communication System: WCDMA FDD IV; Communication System Band: UMTS band IV;

Frequency: 1732.6 MHz

Medium Parameters used:  $f=1732.6$  MHz;  $\sigma = 1.499$  S/m;  $\epsilon_r = 50.903$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (5.04,5.04,5.04); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - UMTS IV/15mm Device Back -**

**UMTS\_IV\_chan1413\_amb\_temp\_23.1C\_liq\_temp\_22.5C/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 10.100 V/m; **Power Drift = -0.053 dB**

**Body Worn MSL - UMTS IV/15mm Device Back -**

**UMTS\_IV\_chan1413\_amb\_temp\_23.1C\_liq\_temp\_22.5C/Zoom Scan (26x26x36)/Cube 0:**

Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 10.100 V/m; **Power Drift = -0.053 dB**

**Averaged SAR: SAR(1g) = 0.547 W/kg; SAR(10g) = 0.346 W/kg**

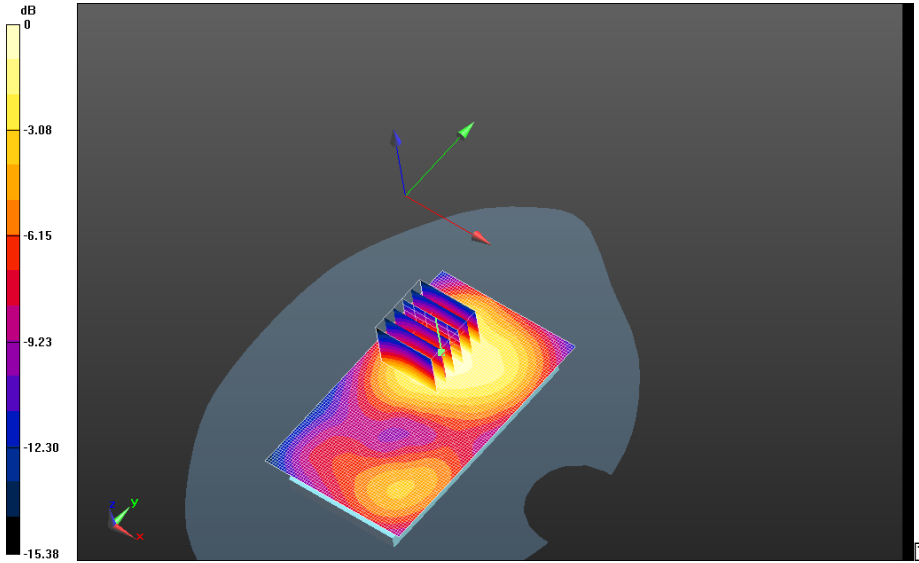
Maximum value of SAR (interpolated) = 0.848 W/kg

Author Data  
**Andrew Becker**

Dates of Test  
**July 12 – October 16, 2013**


Test Report No  
**RTS-6046-1310-25**

FCC ID:  
**L6ARFV120LW**



0 dB = 0.637 W/kg = -1.96 dBW/kg



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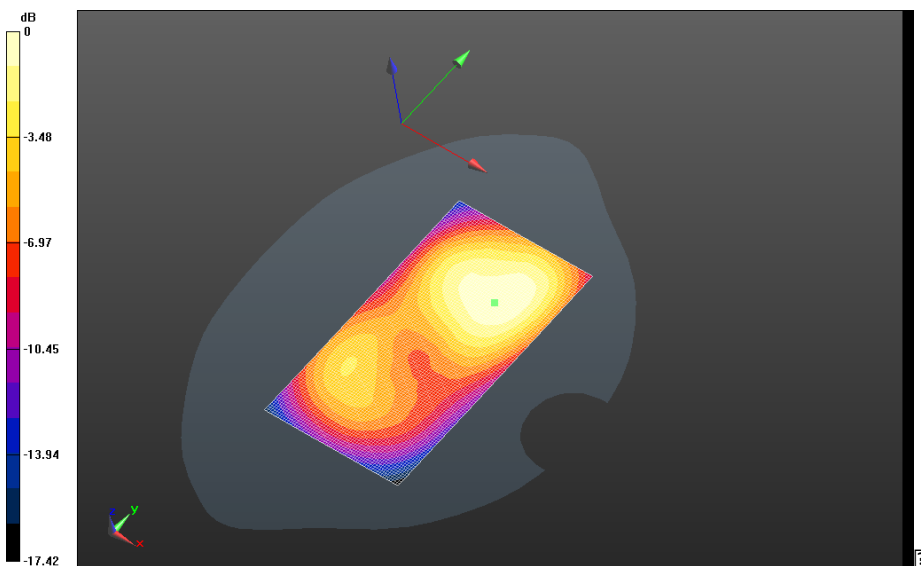
**Body Worn MSL - UMTS IV/15mm Device Front -**

**UMTS\_IV\_chan1413\_amb\_temp\_23.0C\_liq\_temp\_22.5C/Area Scan (61x111x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm


Reference Value = 9.981 V/m; **Power Drift = -0.031 dB**

**Fast SAR: SAR(1g) = 0.526 W/kg; SAR(10g) = 0.329 W/kg**

Maximum value of SAR (interpolated) = 0.624 W/kg



0 dB = 0.637 W/kg = -1.96 dBW/kg

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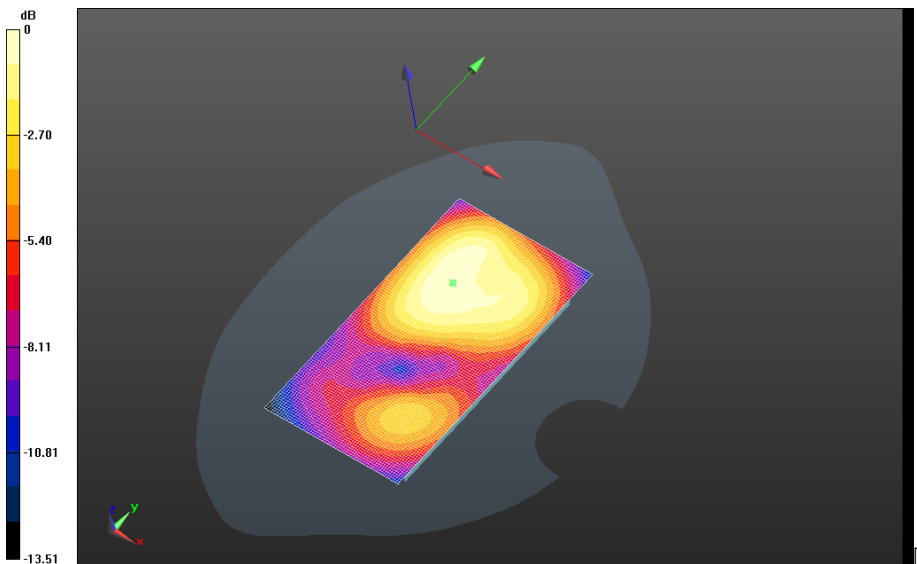
**Body Worn MSL - UMTS IV/Holster Device Back -**

**UMTS\_IV\_chan1413\_amb\_temp\_23.0C\_liq\_temp\_22.5C/Area Scan (61x111x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm


Reference Value = 8.850 V/m; **Power Drift = 0.00194 dB**

**Fast SAR: SAR(1g) = 0.335 W/kg; SAR(10g) = 0.212 W/kg**


Maximum value of SAR (interpolated) = 0.398 W/kg



0 dB = 0.624 W/kg = -2.05 dBW/kg

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# DTM/GSM 1900

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	Author Data <b>Andrew Becker</b>	Dates of Test <b>July 12 – October 16, 2013</b>	Test Report No <b>RTS-6046-1310-25</b>	FCC ID: <b>L6ARFV120LW</b>

Date: 7/5/2013

Test Lab: RIM Testing Services

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE967**

**Configuration: Body Worn MSL - GPRS 1900**

Communication System: GSM 1900; Communication System Band: GSM 1900; Frequency: 1880 MHz

Medium Parameters used:  $f=1880$  MHz;  $\sigma = 1.549$  S/m;  $\epsilon_r = 51.206$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (5.04,5.04,5.04); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - GPRS 1900/15mm Device Back -**

**GSM1900\_chan661\_amb\_temp\_23.3C\_liq\_temp\_22.2C/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 9.254 V/m; **Power Drift = -0.022 dB**

**Body Worn MSL - GPRS 1900/15mm Device Back -**

**GSM1900\_chan661\_amb\_temp\_23.3C\_liq\_temp\_22.2C/Zoom Scan (21x21x36)/Cube 0:**

Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 9.254 V/m; **Power Drift = -0.022 dB**

**Averaged SAR: SAR(1g) = 0.286 W/kg; SAR(10g) = 0.171 W/kg**

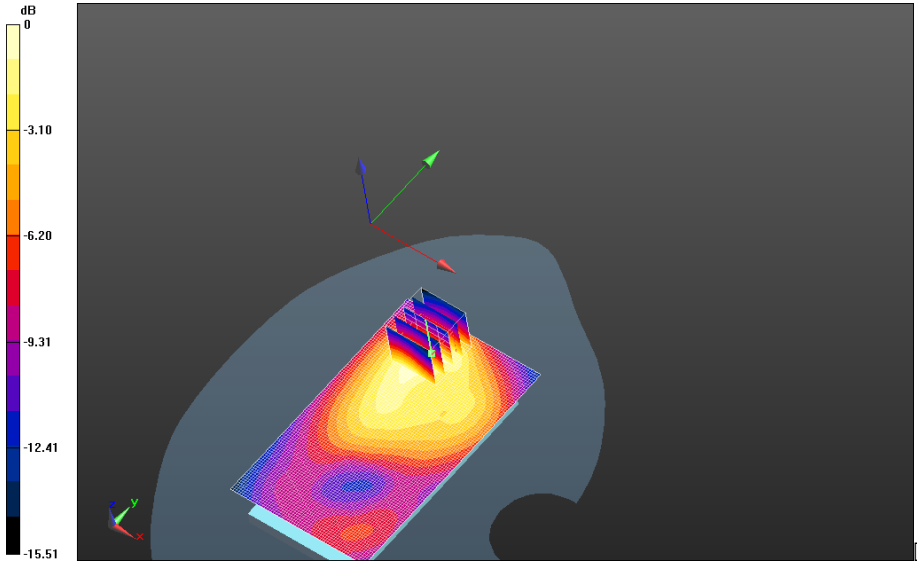
Maximum value of SAR (interpolated) = 0.450 W/kg

Author Data  
**Andrew Becker**


Dates of Test  
**July 12 – October 16, 2013**

Test Report No  
**RTS-6046-1310-25**

FCC ID:  
**L6ARFV120LW**

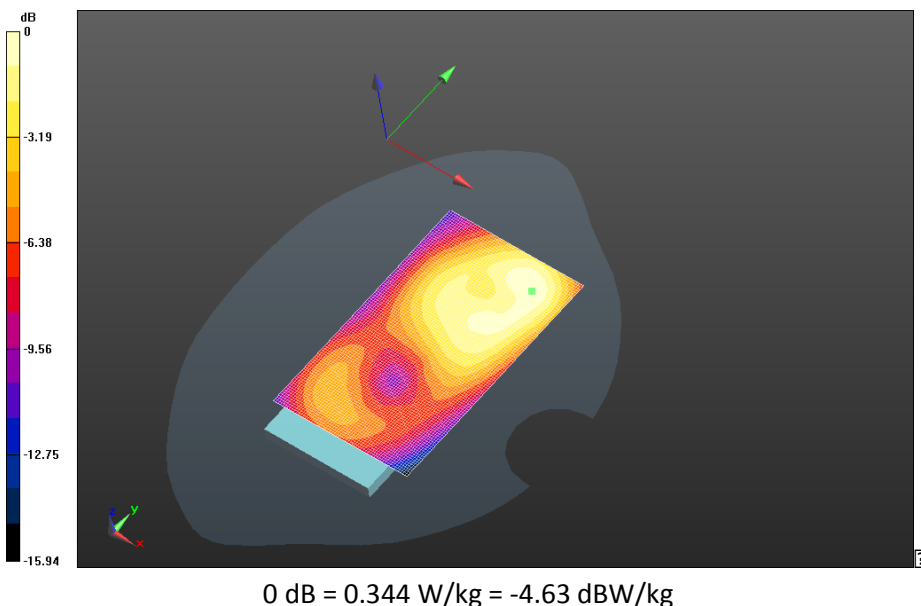



0 dB = 0.344 W/kg = -4.63 dBW/kg

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**Body Worn MSL - GPRS 1900/15mm Device Front -**  
**GSM1900\_chan661\_amb\_temp\_23.4C\_liq\_temp\_22.3C/Area Scan (61x101x1):** Interpolated  
grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 5.056 V/m; **Power Drift = 0.040 dB**

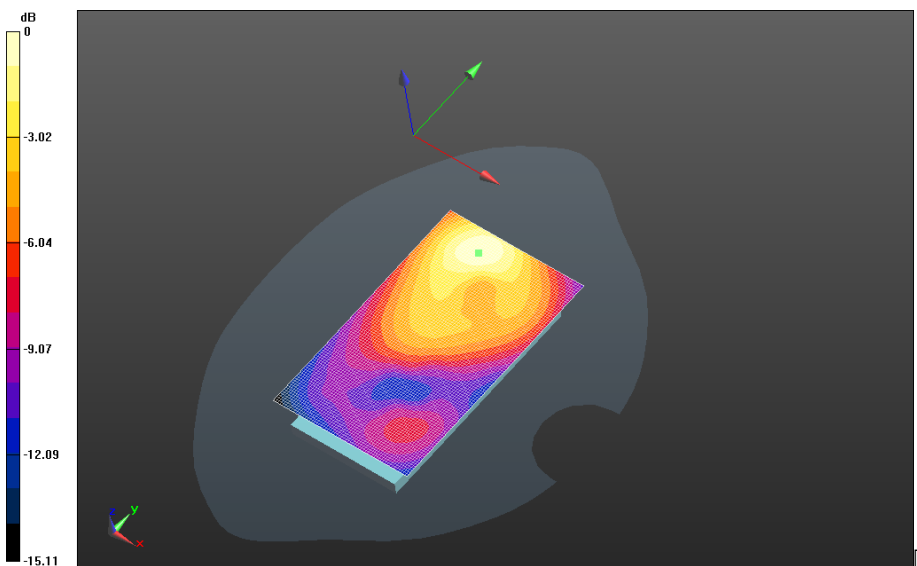
**Fast SAR: SAR(1g) = 0.184 W/kg; SAR(10g) = 0.109 W/kg**  
Maximum value of SAR (interpolated) = 0.224 W/kg




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**Body Worn MSL - GPRS 1900/Holster Device Back -**  
**GSM1900\_chan661\_amb\_temp\_23.0C\_liq\_temp\_22.0C/Area Scan (61x101x1):** Interpolated  
grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 6.347 V/m; **Power Drift = 0.039 dB**

**Fast SAR: SAR(1g) = 0.178 W/kg; SAR(10g) = 0.104 W/kg**  
Maximum value of SAR (interpolated) = 0.217 W/kg




0 dB = 0.224 W/kg = -6.50 dBW/kg

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# UMTS Band II



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Date: 7/5/2013

Test Lab: RIM Testing Services

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE967**

**Configuration: Body Worn MSL - UMTS II**

Communication System: WCDMA FDD II; Communication System Band: UMTS FDD II; Frequency: 1880 MHz

Medium Parameters used:  $f=1880$  MHz;  $\sigma = 1.549$  S/m;  $\epsilon_r = 51.206$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (5.04,5.04,5.04); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - UMTS II/15mm Device Back -**

**UMTS\_II\_chan9400\_amb\_temp\_22.9C\_liq\_temp\_22.5C/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 9.604 V/m; **Power Drift = -0.053 dB**

**Body Worn MSL - UMTS II/15mm Device Back -**

**UMTS\_II\_chan9400\_amb\_temp\_22.9C\_liq\_temp\_22.5C/Zoom Scan (26x26x36)/Cube 0:**

Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 9.604 V/m; **Power Drift = -0.053 dB**

**Averaged SAR: SAR(1g) = 0.421 W/kg; SAR(10g) = 0.249 W/kg**

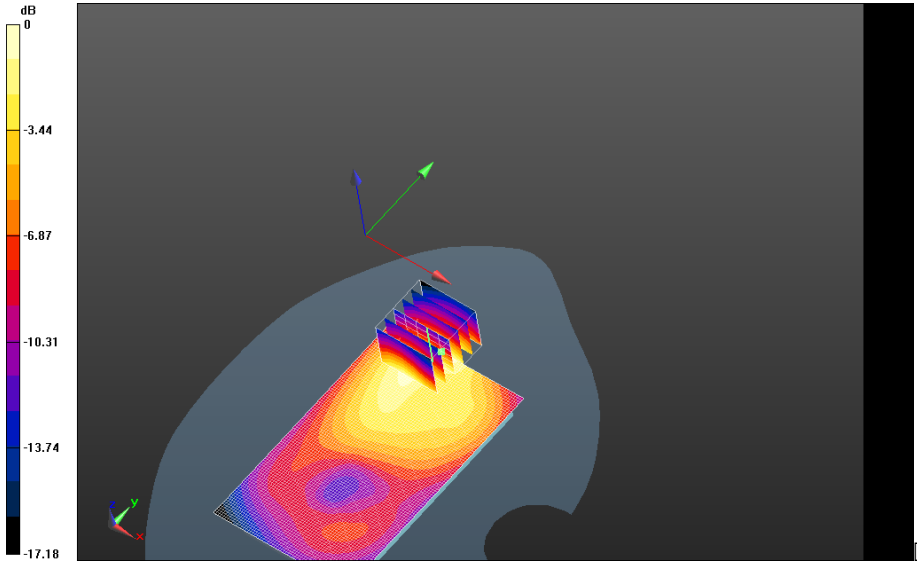
Maximum value of SAR (interpolated) = 0.665 W/kg

Author Data  
**Andrew Becker**


Dates of Test  
**July 12 – October 16, 2013**

Test Report No  
**RTS-6046-1310-25**

FCC ID:  
**L6ARFV120LW**



0 dB = 0.492 W/kg = -3.08 dBW/kg

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	Author Data <b>Andrew Becker</b>	Dates of Test <b>July 12 – October 16, 2013</b>	Test Report No <b>RTS-6046-1310-25</b>	FCC ID: <b>L6ARFV120LW</b>

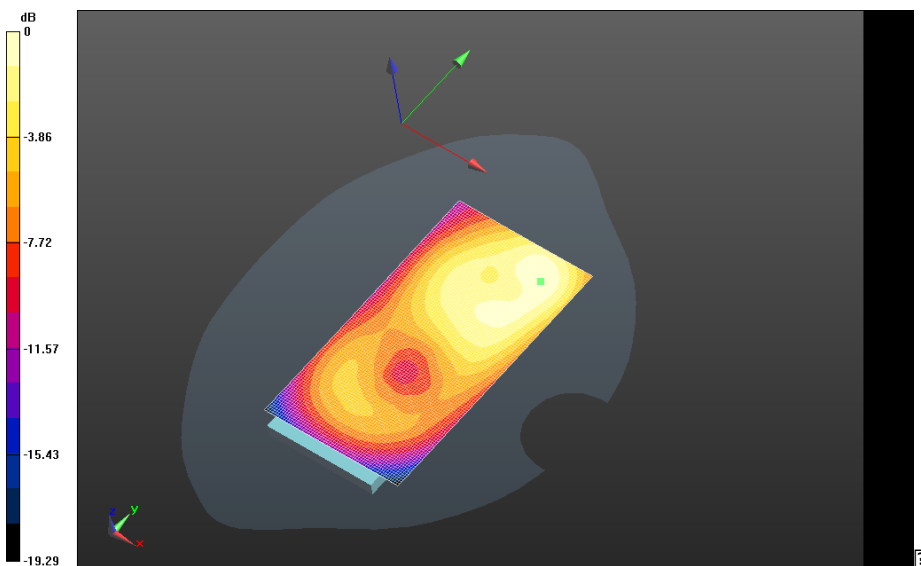
**Body Worn MSL - UMTS II/15mm Device Front -**

**UMTS\_II\_chan9400\_amb\_temp\_22.8C\_liq\_temp\_22.3C/Area Scan (61x111x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm


Reference Value = 7.123 V/m; **Power Drift = -0.027 dB**

**Fast SAR: SAR(1g) = 0.271 W/kg; SAR(10g) = 0.160 W/kg**

Maximum value of SAR (interpolated) = 0.331 W/kg



0 dB = 0.492 W/kg = -3.08 dBW/kg

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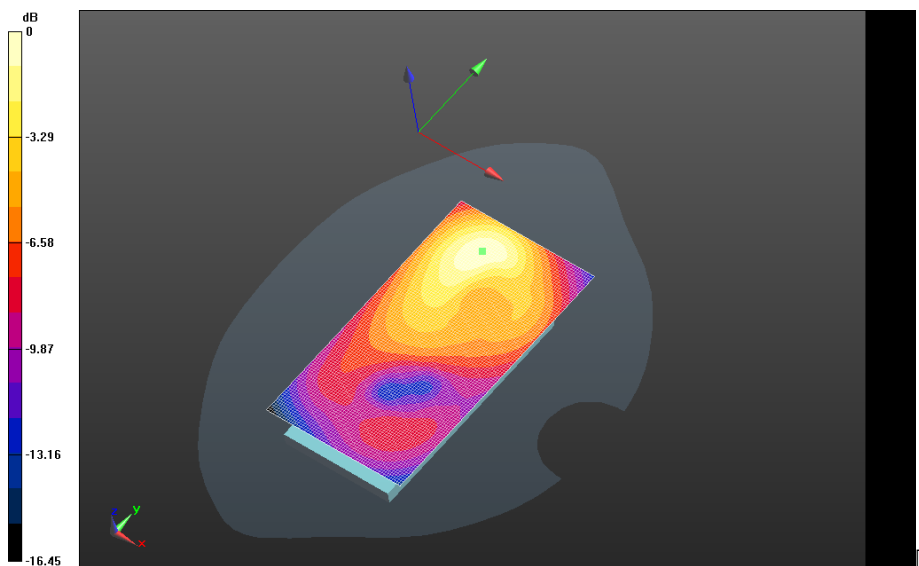
**Body Worn MSL - UMTS II/Holster Device Back -**

**UMTS\_II\_chan9400\_amb\_temp\_23.1C\_liq\_temp\_22.4C/Area Scan (61x111x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm


Reference Value = 7.648 V/m; **Power Drift = -0.153 dB**

**Fast SAR: SAR(1g) = 0.253 W/kg; SAR(10g) = 0.147 W/kg**


Maximum value of SAR (interpolated) = 0.314 W/kg



0 dB = 0.331 W/kg = -4.80 dBW/kg

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# LTE 2

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	Author Data <b>Andrew Becker</b>	Dates of Test <b>July 12 – October 16, 2013</b>	Test Report No <b>RTS-6046-1310-25</b>	FCC ID: <b>L6ARFV120LW</b>

Date: 7/9/2013

Test Lab: RIM Testing Services

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE9A7**

**Configuration: Body Worn MSL - LTE Band 2**

Communication System: LTE 2; Communication System Band: LTE Band 2; Frequency: 1860 MHz

Medium Parameters used:  $f=1860$  MHz;  $\sigma = 1.502$  S/m;  $\epsilon_r = 51.048$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (5.04,5.04,5.04); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - LTE Band 2/15mm Device Back -**

**LTE\_Band\_2\_chan18700\_RB1\_Off50\_amb\_temp\_23.8C\_liq\_temp\_22.8C/Area Scan**

**(61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 8.074 V/m; **Power Drift = 0.019 dB**

**Body Worn MSL - LTE Band 2/15mm Device Back -**

**LTE\_Band\_2\_chan18700\_RB1\_Off50\_amb\_temp\_23.8C\_liq\_temp\_22.8C/Zoom Scan**

**(21x21x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 8.074 V/m; **Power Drift = 0.019 dB**

**Averaged SAR: SAR(1g) = 0.422 W/kg; SAR(10g) = 0.253 W/kg**

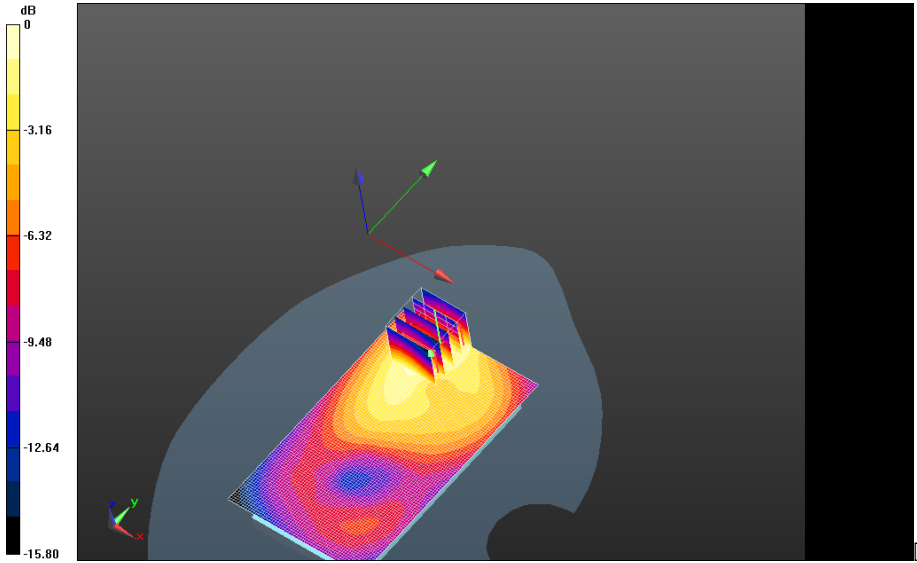
Maximum value of SAR (interpolated) = 0.661 W/kg

Author Data  
**Andrew Becker**


Dates of Test  
**July 12 – October 16, 2013**

Test Report No  
**RTS-6046-1310-25**

FCC ID:  
**L6ARFV120LW**

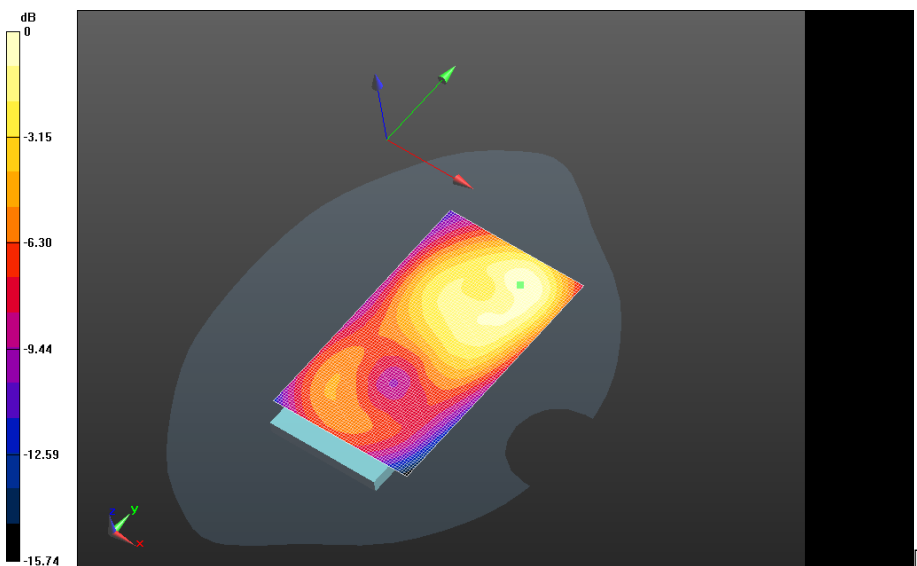


0 dB = 0.494 W/kg = -3.06 dBW/kg

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**Body Worn MSL - LTE Band 2/15mm Device Front -**  
**LTE\_Band\_2\_chan18700\_RB1\_Off50\_amb\_temp\_23.8C\_liq\_temp\_22.8C/Area Scan**  
**(61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm**  
Reference Value = 7.385 V/m; **Power Drift = 0.072 dB**

**Fast SAR: SAR(1g) = 0.349 W/kg; SAR(10g) = 0.205 W/kg**  
Maximum value of SAR (interpolated) = 0.430 W/kg



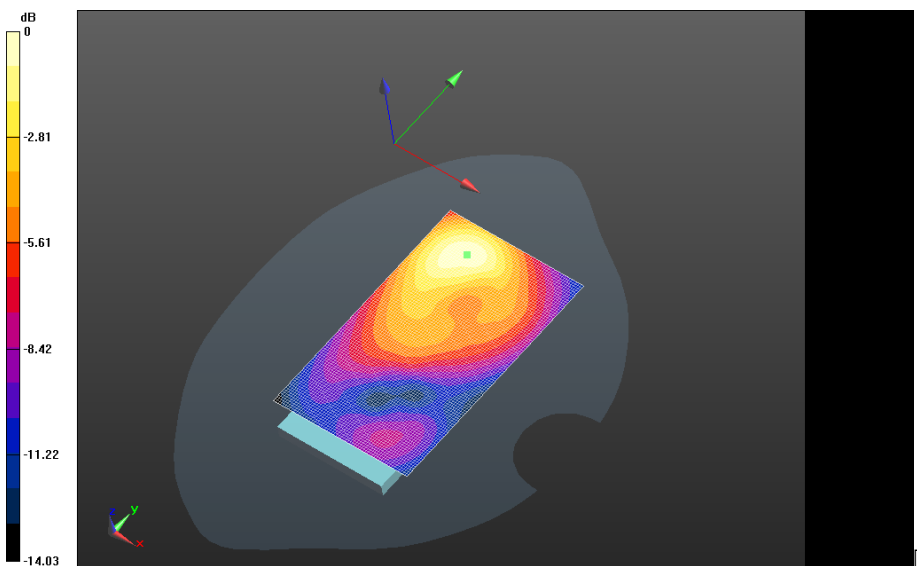
0 dB = 0.494 W/kg = -3.06 dBW/kg




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**Body Worn MSL - LTE Band 2/Holster Device Back -**  
**LTE\_Band\_2\_chan18700\_RB1\_Off50\_amb\_temp\_23.8C\_liq\_temp\_22.8C/Area Scan**  
**(61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm**  
Reference Value = 8.156 V/m; **Power Drift = -0.046 dB**


**Fast SAR: SAR(1g) = 0.322 W/kg; SAR(10g) = 0.188 W/kg**  
Maximum value of SAR (interpolated) = 0.394 W/kg



0 dB = 0.430 W/kg = -3.67 dBW/kg

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802.11b

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Date: 10/10/2013

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFF7DAD**

**Configuration: Body Worn MSL - 802.11b**

Communication System: 802.11 b (2450); Communication System Band: 802.11 b; Frequency: 2437 MHz

Medium Parameters used:  $f=2437$  MHz;  $\sigma = 2.006$  S/m;  $\epsilon_r = 50.271$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (4.35,4.35,4.35); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - 802.11b/15mm Device Back -**

**802.11b\_chan6\_amb\_temp\_23.5C\_liq\_temp\_22.2C/Area Scan (81x131x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.115 W/kg

**Body Worn MSL - 802.11b/15mm Device Back -**

**802.11b\_chan6\_amb\_temp\_23.5C\_liq\_temp\_22.2C/Zoom Scan (31x31x36)/Cube 0:**

Interpolated grid: dx=1.000 mm, dy=1.000 mm, dz=1.000 mm

Reference Value = 7.731 V/m; **Power Drift = -0.023 dB**

**Averaged SAR: SAR(1g) = 0.0918 W/kg; SAR(10g) = 0.0489 W/kg**

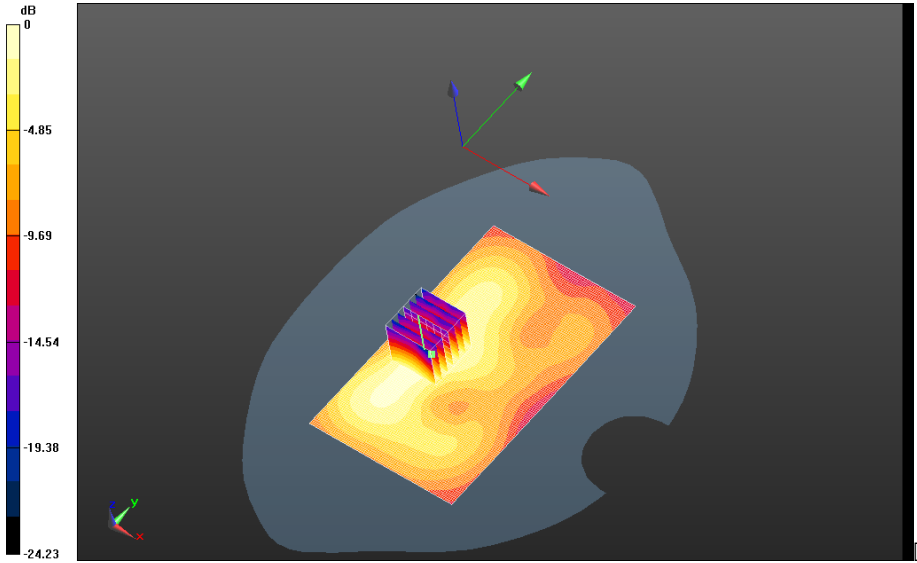
Maximum value of SAR (interpolated) = 0.183 W/kg

Author Data  
**Andrew Becker**


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0 dB = 0.117 W/kg = -9.32 dBW/kg

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**Body Worn MSL - 802.11b/15mm Device Front -**

**802.11b\_chan6\_amb\_temp\_23.5C\_liq\_temp\_22.2C/Area Scan (81x141x1):** Interpolated grid:  
dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0406 W/kg

**Body Worn MSL - 802.11b/15mm Device Front -**

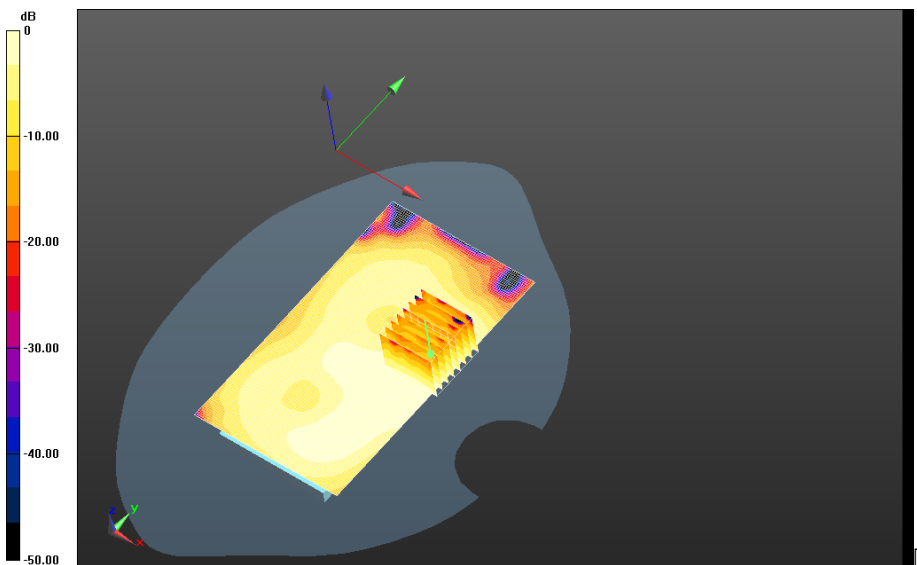
**802.11b\_chan6\_amb\_temp\_23.5C\_liq\_temp\_22.2C/Zoom Scan (36x36x36)/Cube 0:**

Interpolated grid: dx=1.000 mm, dy=1.000 mm, dz=1.000 mm


Reference Value = 4.658 V/m; **Power Drift = -0.0071 dB**

**Averaged SAR: SAR(1g) = 0.0349 W/kg; SAR(10g) = 0.0198 W/kg**

Maximum value of SAR (interpolated) = 0.0662 W/kg



0 dB = 0.117 W/kg = -9.32 dBW/kg

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**Body Worn MSL - 802.11b/Holster Device Back -**

**802.11b\_chan6\_amb\_temp\_23.6C\_liq\_temp\_22.2C/Area Scan (81x131x1):** Interpolated grid:  
dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0601 W/kg

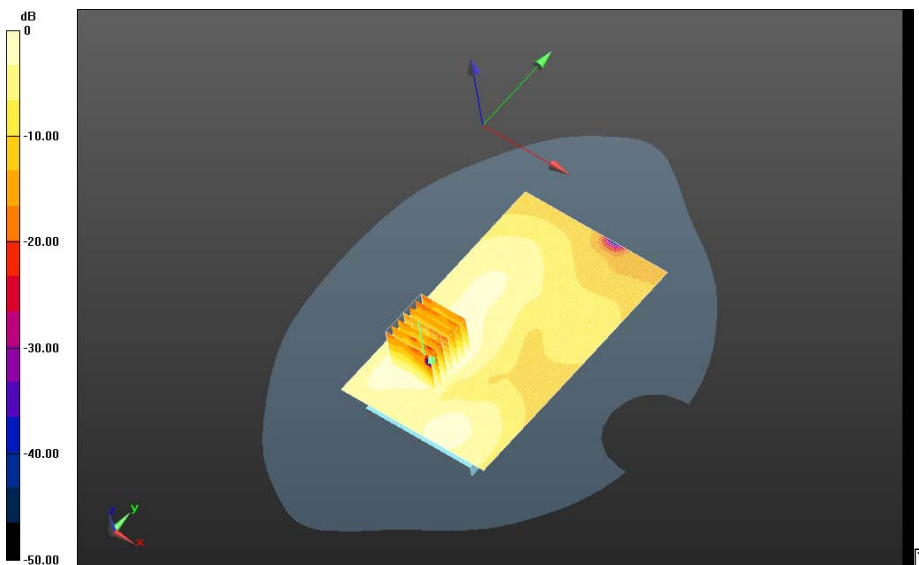
**Body Worn MSL - 802.11b/Holster Device Back -**

**802.11b\_chan6\_amb\_temp\_23.6C\_liq\_temp\_22.2C/Zoom Scan (31x31x36)/Cube 0:**  
Interpolated grid: dx=1.000 mm, dy=1.000 mm, dz=1.000 mm


Reference Value = 5.501 V/m; **Power Drift = 0.040 dB**

**Averaged SAR: SAR(1g) = 0.0481 W/kg; SAR(10g) = 0.0270 W/kg**


Maximum value of SAR (interpolated) = 0.0922 W/kg



0 dB = 0.0426 W/kg = -13.71 dBW/kg

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# Bluetooth

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Date: 7/19/2013

Test Lab: RIM Testing Services

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE4E2**

### **Configuration: Body Worn MSL - Bluetooth**

Communication System: Bluetooth; Communication System Band: Exported from older format (data unavailable - please correct).; Frequency: 2441 MHz

Medium Parameters used:  $f=2441$  MHz;  $\sigma = 1.998$  S/m;  $\epsilon_r = 50.773$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

#### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (4.35,4.35,4.35); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

#### **Body Worn MSL - Bluetooth/15mm Device Back -**

**Bluetooth\_chan39\_amb\_temp\_23.5C\_liq\_temp\_22.4C/Area Scan (81x131x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.00707 W/kg

#### **Body Worn MSL - Bluetooth/15mm Device Back -**

**Bluetooth\_chan39\_amb\_temp\_23.5C\_liq\_temp\_22.4C/Zoom Scan (31x31x36)/Cube 0:**

Interpolated grid: dx=1.000 mm, dy=1.000 mm, dz=1.000 mm

Reference Value = 1.937 V/m; **Power Drift = -0.151 dB**

**Averaged SAR: SAR(1g) = 0.00543 W/kg; SAR(10g) = 0.00249 W/kg**

Maximum value of SAR (interpolated) = 0.0106 W/kg

#### **Body Worn MSL - Bluetooth/15mm Device Back -**

**Bluetooth\_chan39\_amb\_temp\_23.5C\_liq\_temp\_22.4C/Zoom Scan 2 (31x46x36)/Cube 0:**

Interpolated grid: dx=1.000 mm, dy=1.000 mm, dz=1.000 mm

Reference Value = 1.937 V/m; **Power Drift = 0.012 dB**

**Averaged SAR: SAR(1g) = 0.00540 W/kg; SAR(10g) = 0.00243 W/kg**

Maximum value of SAR (interpolated) = 0.0121 W/kg

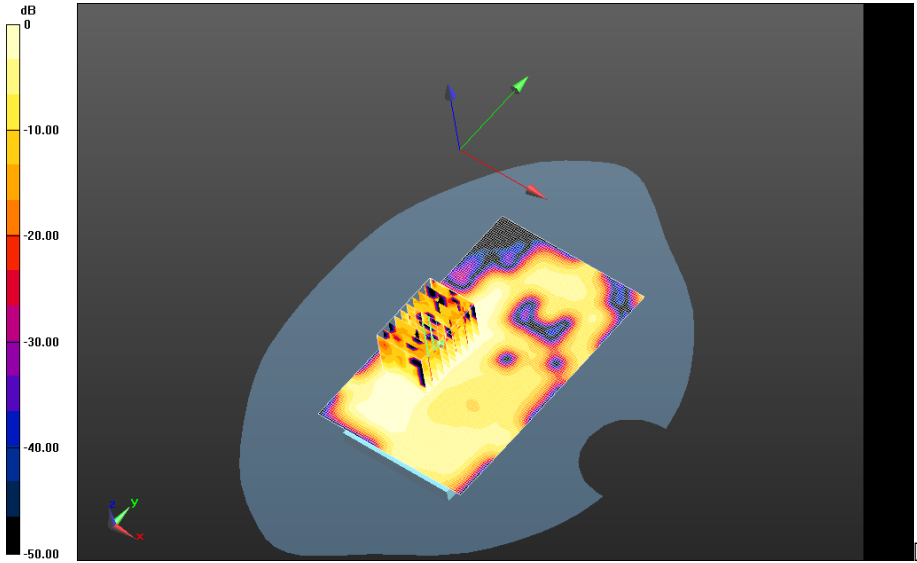


Author Data  
**Andrew Becker**


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0 dB = 0.00734 W/kg = -21.34 dBW/kg

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802.11a

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Date: 10/11/2013

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFF7DAD**

**Configuration: Body Worn MSL - 802.11a 5200 MHz**

Communication System: 802.11a; Communication System Band: Low and Mid Bands; Frequency: 5180 MHz

Medium Parameters used:  $f=5180$  MHz;  $\sigma = 5.451$  S/m;  $\epsilon_r = 47.075$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (4.68,4.68,4.68); Calibrated: 1/15/2013;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - 802.11a 5200 MHz/15mm Device Back -**

**802.11a\_chan36\_low\_band\_Amb\_Temp\_23.4C\_Liquid\_Temp\_21.7C/Area Scan (91x151x1):**

Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.609 W/kg

**Body Worn MSL - 802.11a 5200 MHz/15mm Device Back -**

**802.11a\_chan36\_low\_band\_Amb\_Temp\_23.4C\_Liquid\_Temp\_21.7C/Zoom Scan**

**(36x36x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm

Reference Value = 1.152 V/m; **Power Drift = 0.561 dB**

**Averaged SAR: SAR(1g) = 0.328 W/kg; SAR(10g) = 0.115 W/kg**

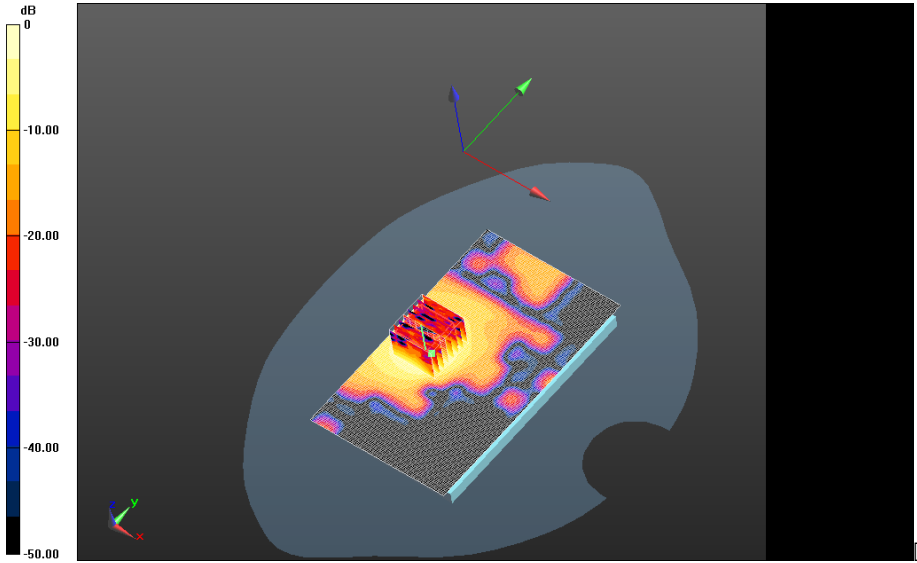
Maximum value of SAR (interpolated) = 1.14 W/kg

Author Data  
**Andrew Becker**


Dates of Test  
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**RTS-6046-1310-25**

FCC ID:  
**L6ARFV120LW**



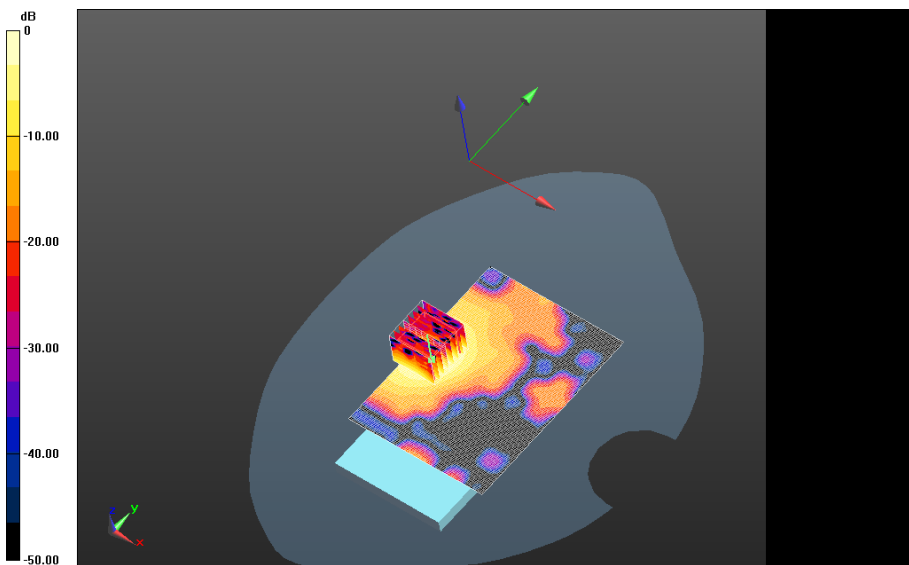
0 dB = 0.596 W/kg = -2.25 dBW/kg

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**Body Worn MSL - 802.11a 5200 MHz/Holster Device Back -**  
**802.11a\_chan52\_low\_band\_Amb\_Temp\_23.4C\_Liquid\_Temp\_21.7C/Area Scan (91x121x1):**  
Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.829 W/kg

**Body Worn MSL - 802.11a 5200 MHz/Holster Device Back -**  
**802.11a\_chan52\_low\_band\_Amb\_Temp\_23.4C\_Liquid\_Temp\_21.7C/Zoom Scan**  
**(36x36x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm**  
Reference Value = 1.898 V/m; **Power Drift = -0.106 dB**

**Averaged SAR: SAR(1g) = 0.447 W/kg; SAR(10g) = 0.157 W/kg**  
Maximum value of SAR (interpolated) = 1.60 W/kg



0 dB = 0.596 W/kg = -2.25 dBW/kg

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Date: 10/15/2013

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFF7DAD**

**Configuration: Body Worn MSL - 802.11a 5500 MHz**

Communication System: 802.11a; Communication System Band: Low and Mid Bands; Frequency: 5520 MHz

Medium Parameters used:  $f=5520$  MHz;  $\sigma = 5.808$  S/m;  $\epsilon_r = 48.773$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (4.15,4.15,4.15); Calibrated: 1/15/2013;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - 802.11a 5500 MHz/15mm Device Back -**

**802.11a\_chan104\_upper\_band1\_Amb\_Temp\_23.7C\_Liquid\_Temp\_21.7C/Area Scan**

**(91x141x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.38 W/kg

**Body Worn MSL - 802.11a 5500 MHz/15mm Device Back -**

**802.11a\_chan104\_upper\_band1\_Amb\_Temp\_23.7C\_Liquid\_Temp\_21.7C/Zoom Scan**

**(36x36x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm

Reference Value = 3.471 V/m; **Power Drift = 0.084 dB**

**Averaged SAR: SAR(1g) = 0.734 W/kg; SAR(10g) = 0.264 W/kg**

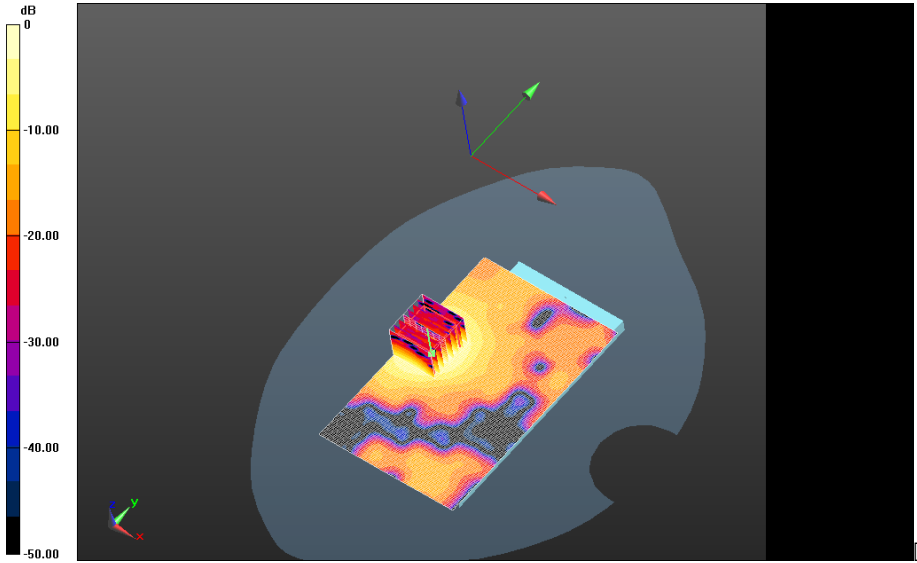
Maximum value of SAR (interpolated) = 2.57 W/kg

Author Data  
**Andrew Becker**


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FCC ID:  
**L6ARFV120LW**



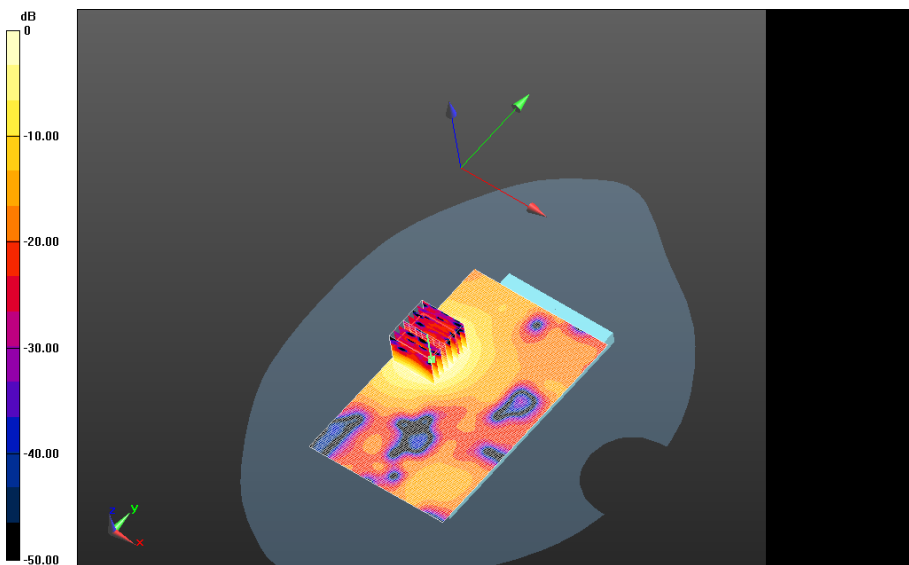
0 dB = 1.36 W/kg = 1.34 dBW/kg

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**Body Worn MSL - 802.11a 5500 MHz/15mm Device Back 2nd-802.11a\_chan104\_upper\_bandI\_Amb\_Temp\_23.7C\_Liquid\_Temp\_21.7C/Area Scan (91x141x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 1.38 W/kg


**Body Worn MSL - 802.11a 5500 MHz/15mm Device Back 2nd-802.11a\_chan104\_upper\_bandI\_Amb\_Temp\_23.7C\_Liquid\_Temp\_21.7C/Zoom Scan (36x36x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 3.623 V/m; **Power Drift = -0.069 dB**

**Averaged SAR: SAR(1g) = 0.733 W/kg; SAR(10g) = 0.268 W/kg**  
Maximum value of SAR (interpolated) = 2.61 W/kg



0 dB = 1.36 W/kg = 1.34 dBW/kg

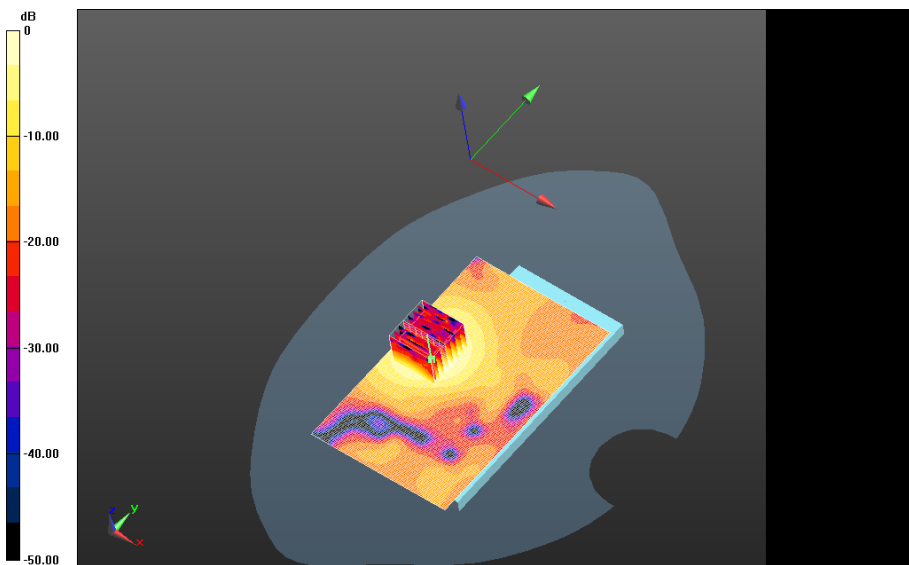


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**Body Worn MSL - 802.11a 5500 MHz/15mm Device Back - 802.11a\_chan116\_upper\_bandI\_Amb\_Temp\_23.7C\_Liquid\_Temp\_22.0C/Area Scan (91x141x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 1.24 W/kg

**Body Worn MSL - 802.11a 5500 MHz/15mm Device Back - 802.11a\_chan116\_upper\_bandI\_Amb\_Temp\_23.7C\_Liquid\_Temp\_22.0C/Zoom Scan (36x36x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 3.782 V/m; **Power Drift = 0.038 dB**

**Averaged SAR: SAR(1g) = 0.658 W/kg; SAR(10g) = 0.238 W/kg**  
Maximum value of SAR (interpolated) = 2.30 W/kg



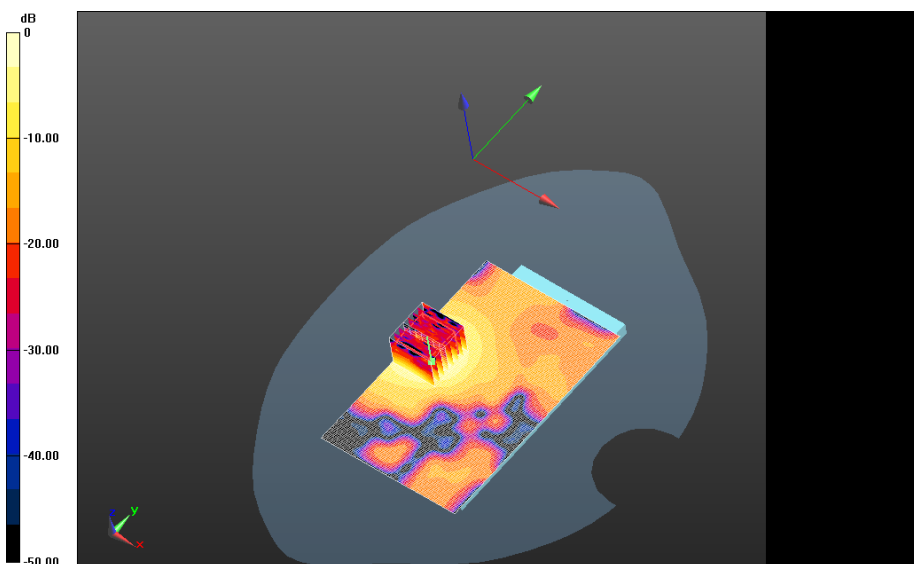
0 dB = 1.38 W/kg = 1.40 dBW/kg

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**Body Worn MSL - 802.11a 5500 MHz/15mm Device Back - 802.11a\_chan124\_upper\_bandl\_Amb\_Temp\_23.2C\_Liquid\_Temp\_21.7C/Area Scan (91x141x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 1.20 W/kg

**Body Worn MSL - 802.11a 5500 MHz/15mm Device Back - 802.11a\_chan124\_upper\_bandl\_Amb\_Temp\_23.2C\_Liquid\_Temp\_21.7C/Zoom Scan (36x36x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 14.621 V/m; **Power Drift = -0.051 dB**

**Averaged SAR: SAR(1g) = 0.618 W/kg; SAR(10g) = 0.221 W/kg**  
Maximum value of SAR (interpolated) = 2.34 W/kg



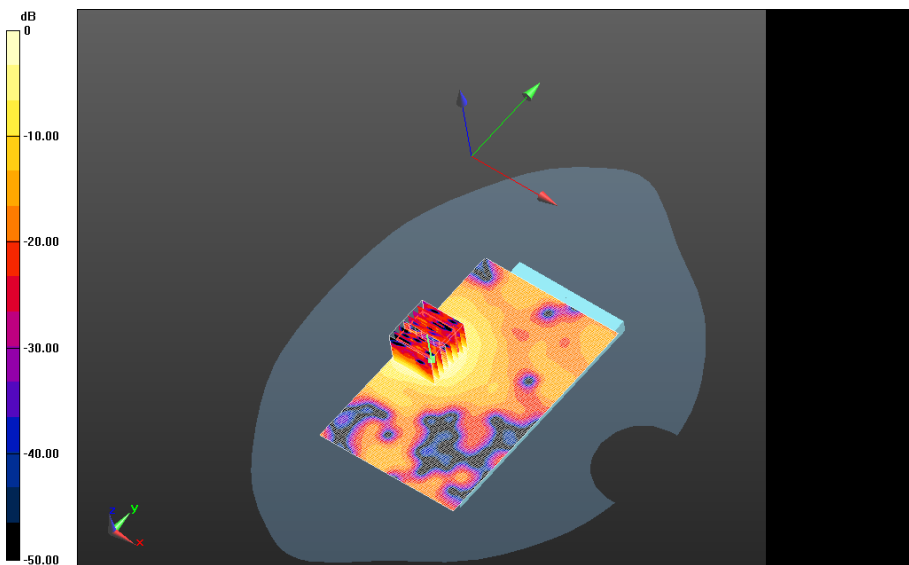
0 dB = 1.23 W/kg = 0.90 dBW/kg

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**Body Worn MSL - 802.11a 5500 MHz/15mm Device Back - 802.11a\_chan136\_upper\_bandI\_Amb\_Temp\_23.2C\_Liquid\_Temp\_22.0C/Area Scan (91x141x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 1.00 W/kg

**Body Worn MSL - 802.11a 5500 MHz/15mm Device Back - 802.11a\_chan136\_upper\_bandI\_Amb\_Temp\_23.2C\_Liquid\_Temp\_22.0C/Zoom Scan (36x36x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 3.117 V/m; **Power Drift = 0.493 dB**

**Averaged SAR: SAR(1g) = 0.501 W/kg; SAR(10g) = 0.176 W/kg**  
Maximum value of SAR (interpolated) = 1.81 W/kg



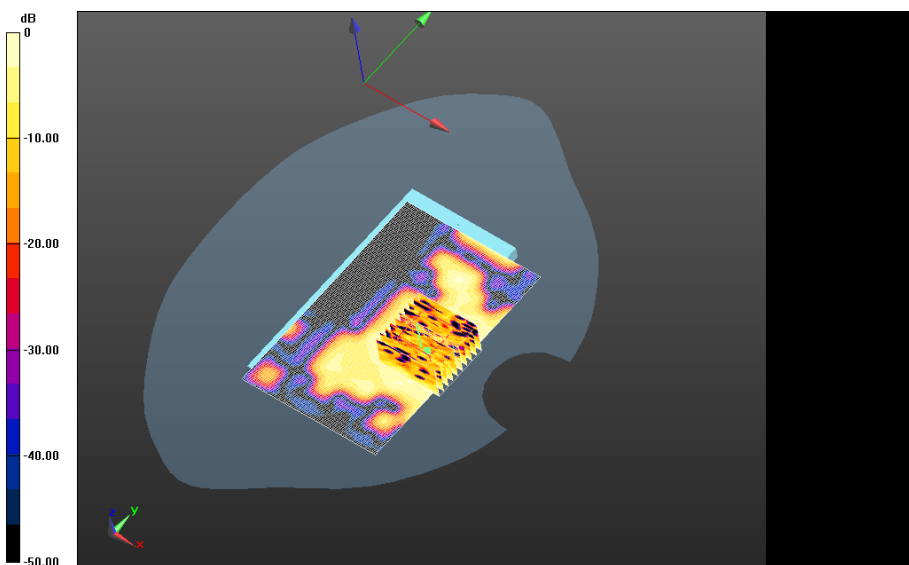
0 dB = 1.19 W/kg = 0.76 dBW/kg

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**Body Worn MSL - 802.11a 5500 MHz/15mm Device Front - 802.11a\_chan104\_upper\_bandI\_Amb\_Temp\_23.4C\_Liquid\_Temp\_21.7C/Area Scan (91x141x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.0798 W/kg

**Body Worn MSL - 802.11a 5500 MHz/15mm Device Front - 802.11a\_chan104\_upper\_bandI\_Amb\_Temp\_23.4C\_Liquid\_Temp\_21.7C/Zoom Scan (51x46x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 4.343 V/m; **Power Drift = 0.132 dB**

**Averaged SAR: SAR(1g) = 0.0378 W/kg; SAR(10g) = 0.0160 W/kg**  
Maximum value of SAR (interpolated) = 0.184 W/kg



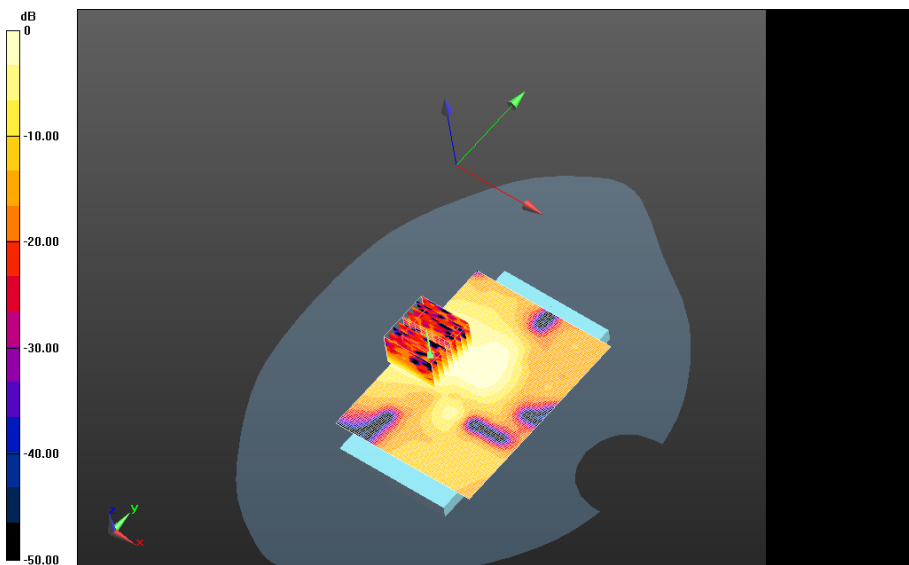
0 dB = 0.935 W/kg = -0.29 dBW/kg

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**Body Worn MSL - 802.11a 5500 MHz/Holster Device Back - 802.11a\_chan104\_upper\_bandI\_Amb\_Temp\_23.4C\_Liquid\_Temp\_21.0C/Area Scan (91x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.545 W/kg

**Body Worn MSL - 802.11a 5500 MHz/Holster Device Back - 802.11a\_chan104\_upper\_bandI\_Amb\_Temp\_23.4C\_Liquid\_Temp\_21.0C/Zoom Scan (41x41x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 10.410 V/m; **Power Drift = -0.153 dB**

**Averaged SAR: SAR(1g) = 0.302 W/kg; SAR(10g) = 0.121 W/kg**  
Maximum value of SAR (interpolated) = 1.01 W/kg



0 dB = 0.0779 W/kg = -11.08 dBW/kg

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Date: 10/11/2013

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFF7DAD**

**Configuration: Body Worn MSL - 802.11a 5800 MHz**

Communication System: 802.11a; Communication System Band: Low and Mid Bands; Frequency: 5765 MHz

Medium Parameters used:  $f=5765$  MHz;  $\sigma = 6.307$  S/m;  $\epsilon_r = 46.961$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (4.19,4.19,4.19); Calibrated: 1/15/2013;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - 802.11a 5800 MHz/15mm Device Back -**

**802.11a\_chan153\_upper\_bandII\_Amb\_Temp\_23.6C\_Liquid\_Temp\_21.7C/Area Scan**

**(91x141x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.684 W/kg

**Body Worn MSL - 802.11a 5800 MHz/15mm Device Back -**

**802.11a\_chan153\_upper\_bandII\_Amb\_Temp\_23.6C\_Liquid\_Temp\_21.7C/Zoom Scan**

**(36x36x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm

Reference Value = 2.990 V/m; **Power Drift = -0.147 dB**

**Averaged SAR: SAR(1g) = 0.353 W/kg; SAR(10g) = 0.125 W/kg**

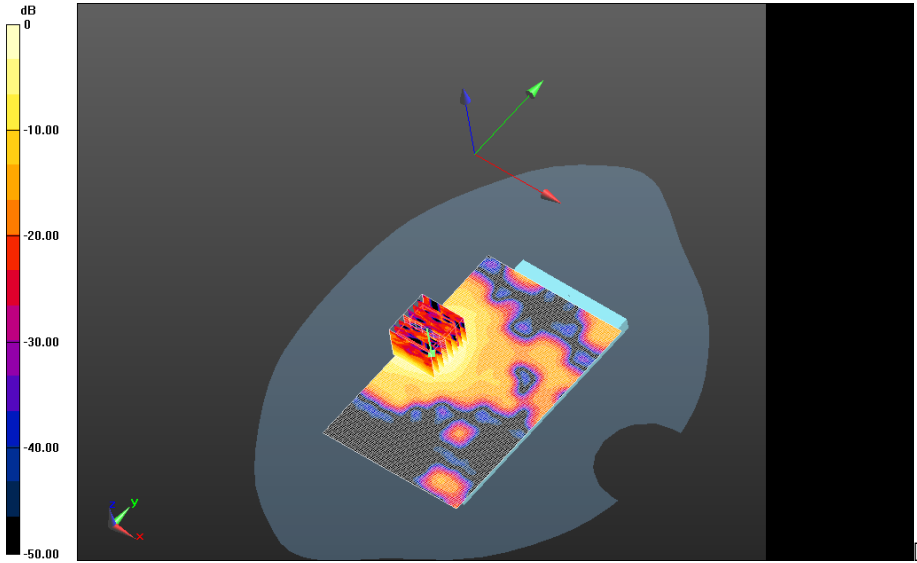
Maximum value of SAR (interpolated) = 1.28 W/kg

Author Data  
**Andrew Becker**


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0 dB = 0.658 W/kg = -1.82 dBW/kg

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Date: 10/16/2013

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFF7DAD**

**Configuration: Body Worn MSL - 802.11a 5500 MHz Lower power level in simultaneous transmission mode**

Communication System: 802.11a; Communication System Band: Low and Mid Bands; Frequency: 5520 MHz

Medium Parameters used:  $f=5520$  MHz;  $\sigma = 5.808$  S/m;  $\epsilon_r = 48.773$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

**DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (4.15,4.15,4.15); Calibrated: 1/15/2013;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

**Body Worn MSL - 802.11a 5500 MHz Lower power level in simultaneous transmission mode/15mm Device Back -**

**802.11a\_chan104\_upper\_band1\_Amb\_Temp\_23.3C\_Liquid\_Temp\_22.0C/Area Scan**

**(91x141x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.841 W/kg

**Body Worn MSL - 802.11a 5500 MHz Lower power level in simultaneous transmission mode/15mm Device Back -**

**802.11a\_chan104\_upper\_band1\_Amb\_Temp\_23.3C\_Liquid\_Temp\_22.0C/Zoom Scan**

**(36x36x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm

Reference Value = 2.783 V/m; **Power Drift = 0.019 dB**

**Averaged SAR: SAR(1g) = 0.449 W/kg; SAR(10g) = 0.161 W/kg**

Maximum value of SAR (interpolated) = 1.62 W/kg

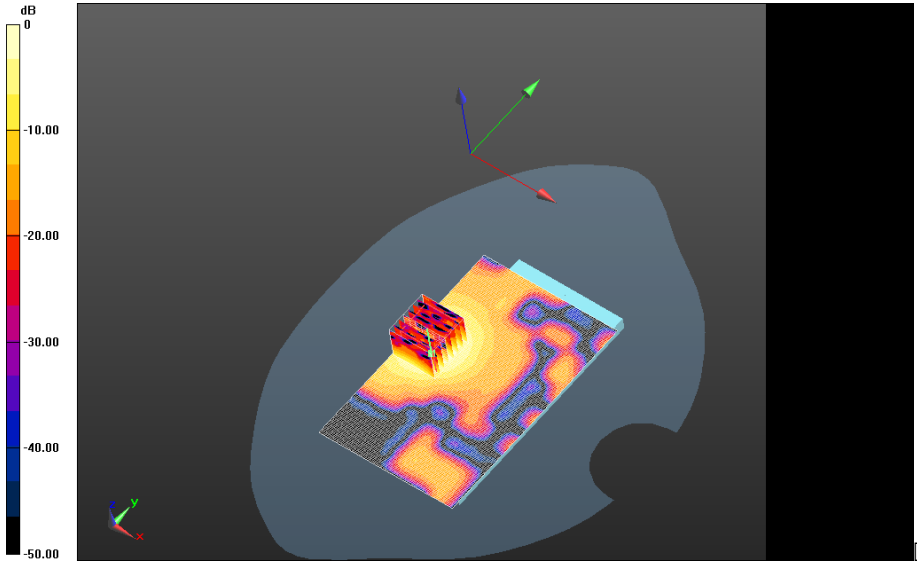


Author Data  
**Andrew Becker**


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FCC ID:  
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0 dB = 0.832 W/kg = -0.80 dBW/kg

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**Body Worn MSL - 802.11a 5500 MHz Lower power level in simultaneous transmission mode/15mm Device Back -**

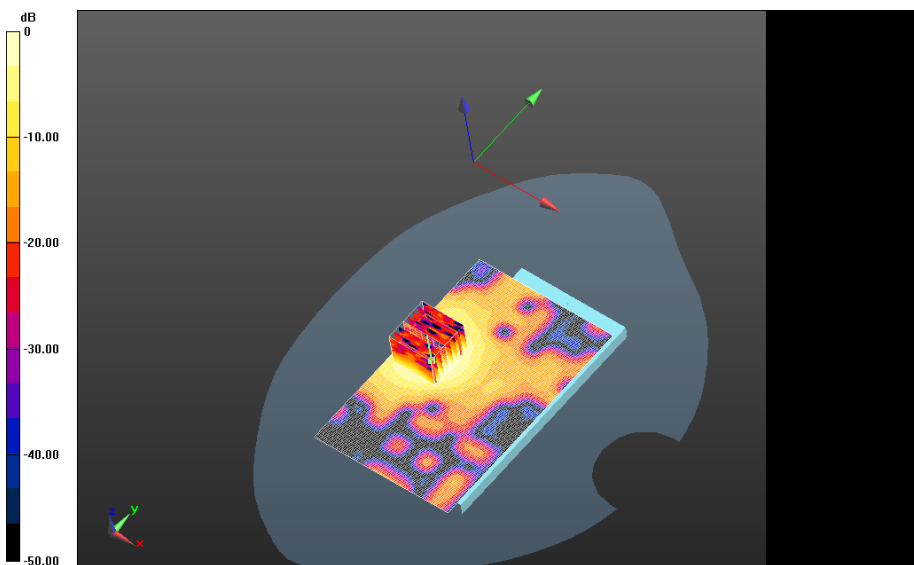
**802.11a\_chan116\_upper\_band1\_Amb\_Temp\_23.3C\_Liquid\_Temp\_22.0C/Area Scan (91x141x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.738 W/kg

**Body Worn MSL - 802.11a 5500 MHz Lower power level in simultaneous transmission mode/15mm Device Back -**


**802.11a\_chan116\_upper\_band1\_Amb\_Temp\_23.3C\_Liquid\_Temp\_22.0C/Zoom Scan (36x36x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 2.664 V/m; **Power Drift = 0.415 dB**

**Averaged SAR: SAR(1g) = 0.390 W/kg; SAR(10g) = 0.141 W/kg**

Maximum value of SAR (interpolated) = 1.39 W/kg



0 dB = 0.832 W/kg = -0.80 dBW/kg

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**Body Worn MSL - 802.11a 5500 MHz Lower power level in simultaneous transmission mode/15mm Device Back -**

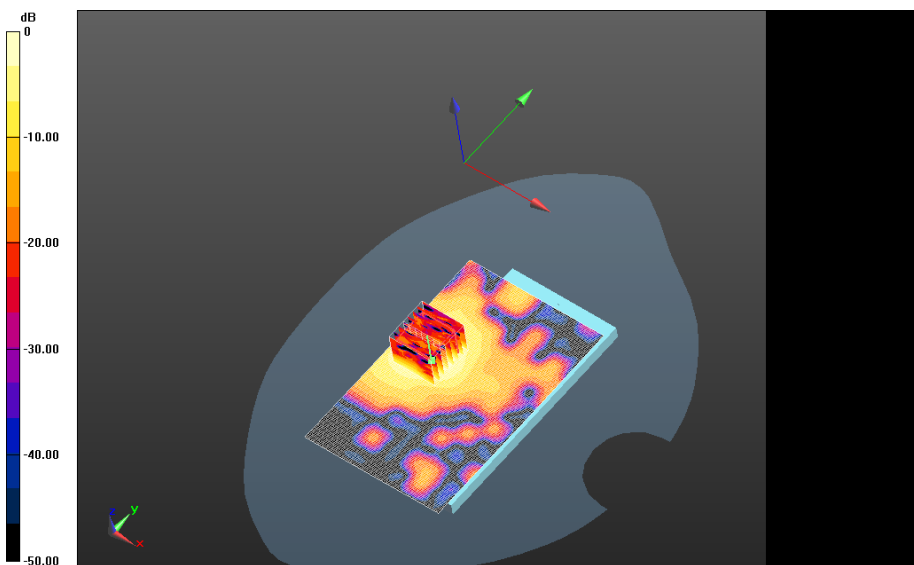
**802.11a\_chan124\_upper\_band1\_Amb\_Temp\_23.2C\_Liquid\_Temp\_21.7C/Area Scan (91x141x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.612 W/kg

**Body Worn MSL - 802.11a 5500 MHz Lower power level in simultaneous transmission mode/15mm Device Back -**


**802.11a\_chan124\_upper\_band1\_Amb\_Temp\_23.2C\_Liquid\_Temp\_21.7C/Zoom Scan (36x36x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 10.609 V/m; **Power Drift = 0.144 dB**

**Averaged SAR: SAR(1g) = 0.324 W/kg; SAR(10g) = 0.114 W/kg**

Maximum value of SAR (interpolated) = 1.19 W/kg



0 dB = 0.729 W/kg = -1.37 dBW/kg

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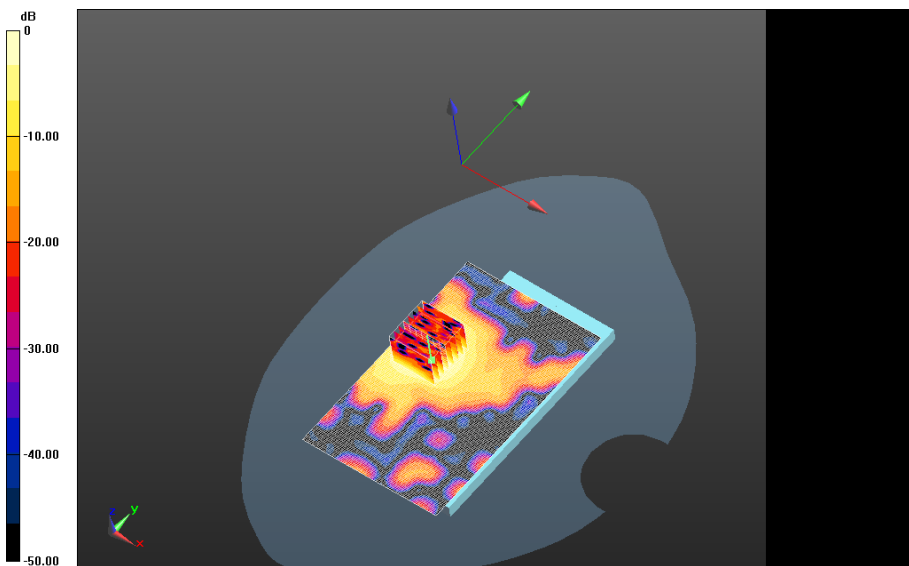
**Body Worn MSL - 802.11a 5500 MHz Lower power level in simultaneous transmission mode/15mm Device Back -**

**802.11a\_chan136\_upper\_band1\_Amb\_Temp\_23.2C\_Liquid\_Temp\_22.0C/Area Scan (91x141x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.550 W/kg

**Body Worn MSL - 802.11a 5500 MHz Lower power level in simultaneous transmission mode/15mm Device Back -**

**802.11a\_chan136\_upper\_band1\_Amb\_Temp\_23.2C\_Liquid\_Temp\_22.0C/Zoom Scan (36x36x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 10.341 V/m; **Power Drift = 0.026 dB**

**Averaged SAR: SAR(1g) = 0.279 W/kg; SAR(10g) = 0.0987 W/kg**  
Maximum value of SAR (interpolated) = 1.01 W/kg



0 dB = 0.615 W/kg = -2.11 dBW/kg