

|                                                                                   |                                                  |                                                                                                   |                               |                                 |                       |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                       |

## APPENDIX C2: SAR DISTRIBUTION PLOTS FOR HOT SPOT CONFIGURATION

|                                                                                   |                                                  |                                                                                         |                               |                                 |                       |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                               | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                       |

## LTE Band 17

Date: 7/8/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEB280**

### Configuration: Mobile Hot Spot MSL - LTE Band 17

Communication System: LTE band 17 (0); Communication System Band: LTE 17; Frequency: 709 MHz

Medium Parameters used:  $f=709$  MHz;  $\sigma = 0.927$  S/m;  $\epsilon_r = 55.625$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

#### DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (6.28,6.28,6.28); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### Mobile Hot Spot MSL - LTE Band 17/10mm Device Back -LTE Band

**17\_chan23780\_10MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_23.5C\_liq\_temp\_22.1C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 21.557 V/m; **Power Drift = -0.144 dB**

**Fast SAR: SAR(1g) = 0.717 W/kg; SAR(10g) = 0.481 W/kg**

Maximum value of SAR (interpolated) = 0.810 W/kg

#### Mobile Hot Spot MSL - LTE Band 17/10mm Device Back -LTE Band

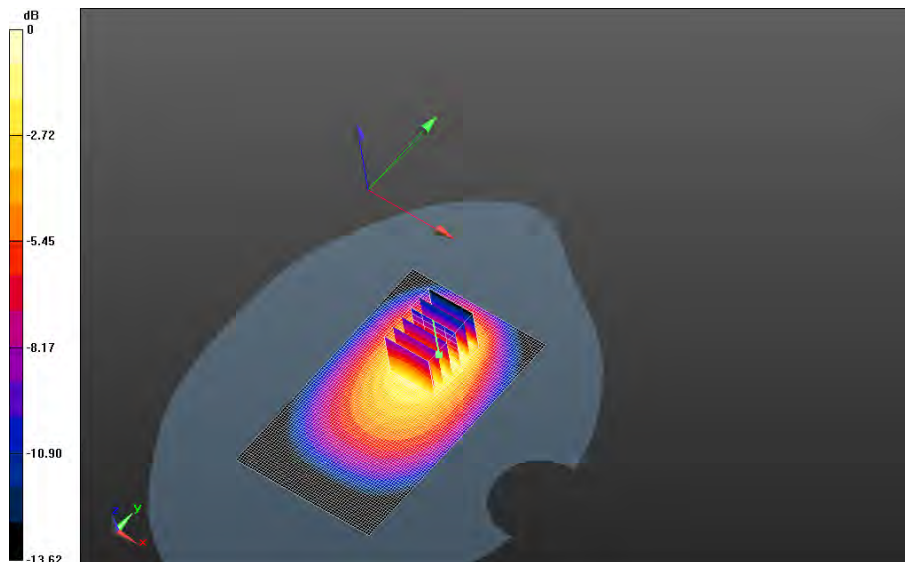
**17\_chan23780\_10MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_23.5C\_liq\_temp\_22.1C/Zoom Scan (21x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 21.557 V/m; **Power Drift = -0.144 dB**

**Averaged SAR: SAR(1g) = 0.727 W/kg; SAR(10g) = 0.461 W/kg**

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

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

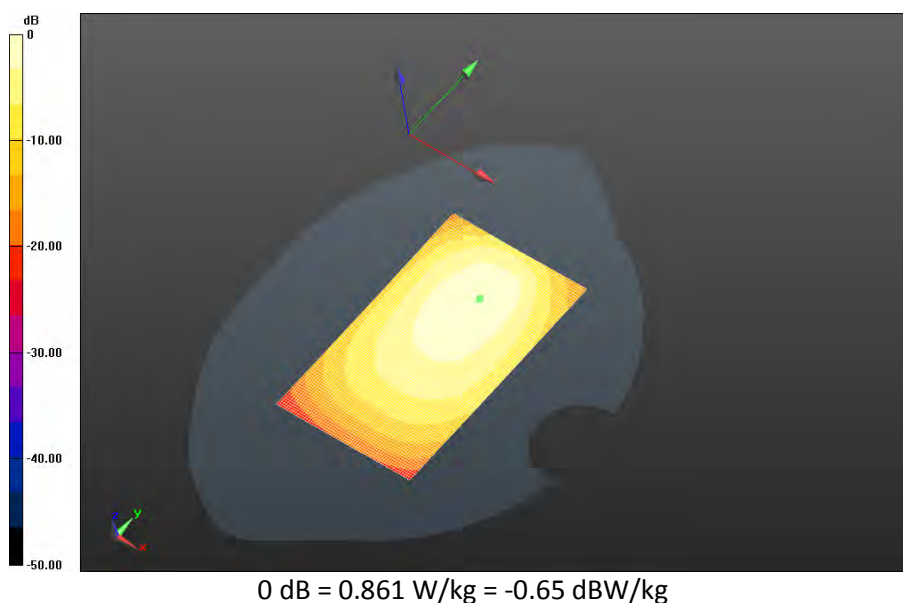


0 dB = 0.861 W/kg = -0.65 dBW/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |                       |
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**Mobile Hot Spot MSL - LTE Band 17/10mm Device Back -LTE Band**  
**17\_chan23790\_10MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_23.4C\_liq\_temp\_21.9C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 20.721 V/m; **Power Drift = 0.056 dB**

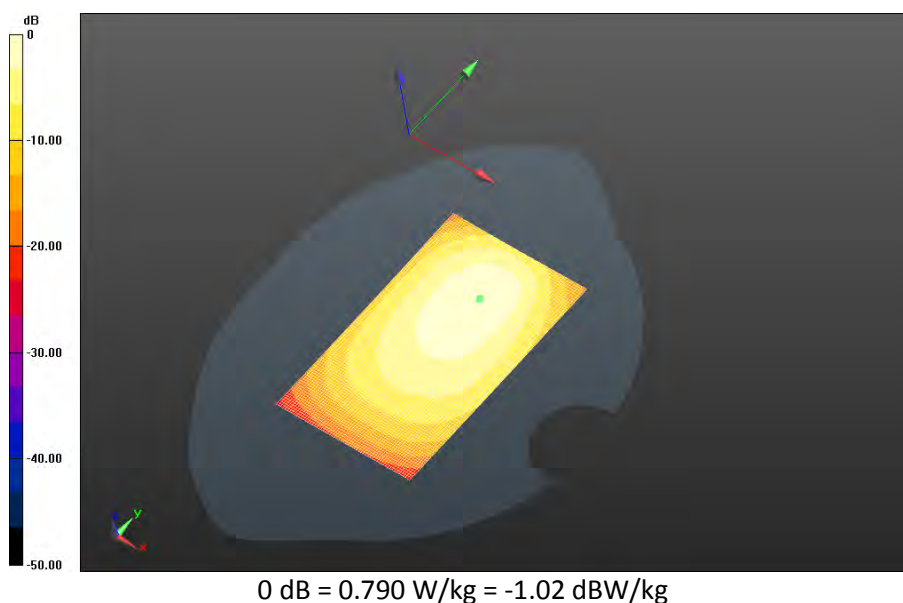
**Fast SAR: SAR(1g) = 0.698 W/kg; SAR(10g) = 0.468 W/kg**  
Maximum value of SAR (interpolated) = 0.790 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                       |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                       |

**Mobile Hot Spot MSL - LTE Band 17/10mm Device Back -LTE Band**  
**17\_chan23800\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.4C\_liq\_temp\_22.0C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 20.511 V/m; **Power Drift = 0.000316 dB**

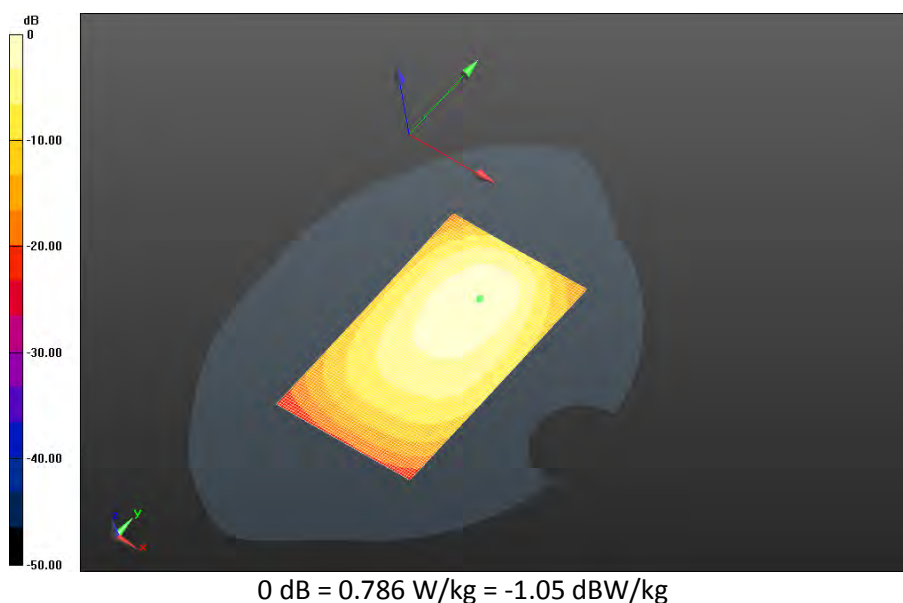
**Fast SAR: SAR(1g) = 0.695 W/kg; SAR(10g) = 0.466 W/kg**  
Maximum value of SAR (interpolated) = 0.786 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                       |
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**Mobile Hot Spot MSL - LTE Band 17/10mm Device Back -LTE Band**  
**17\_chan23780\_10MHz\_BW\_RB25\_Offset\_High\_amb\_temp\_23.3C\_liq\_temp\_22.0C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 18.325 V/m; **Power Drift = 0.00263 dB**

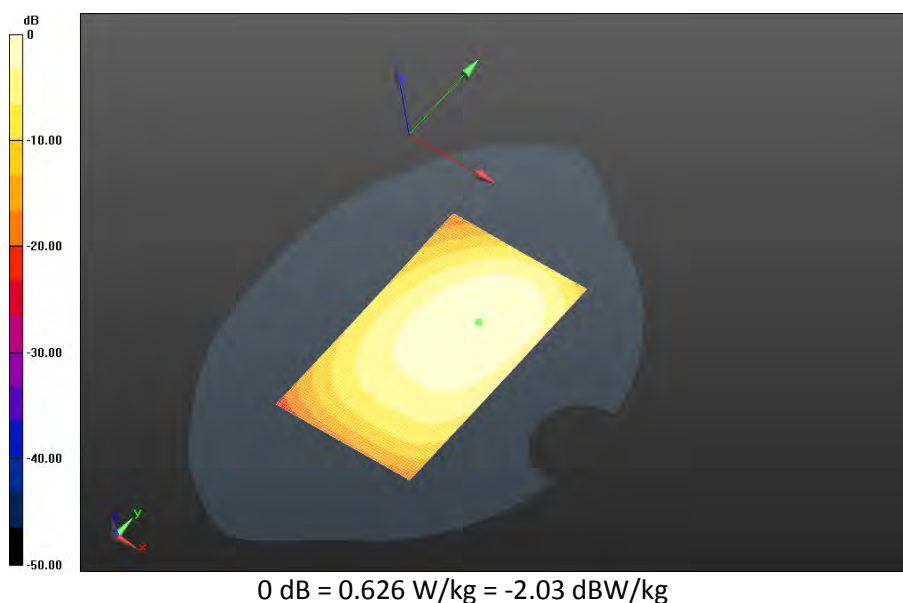
**Fast SAR: SAR(1g) = 0.555 W/kg; SAR(10g) = 0.373 W/kg**  
Maximum value of SAR (interpolated) = 0.626 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                       |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                       |

**Mobile Hot Spot MSL - LTE Band 17/10mm Device Front -LTE Band**  
**17\_chan23800\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.2C\_liq\_temp\_22.0C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 17.058 V/m; **Power Drift = -0.028 dB**

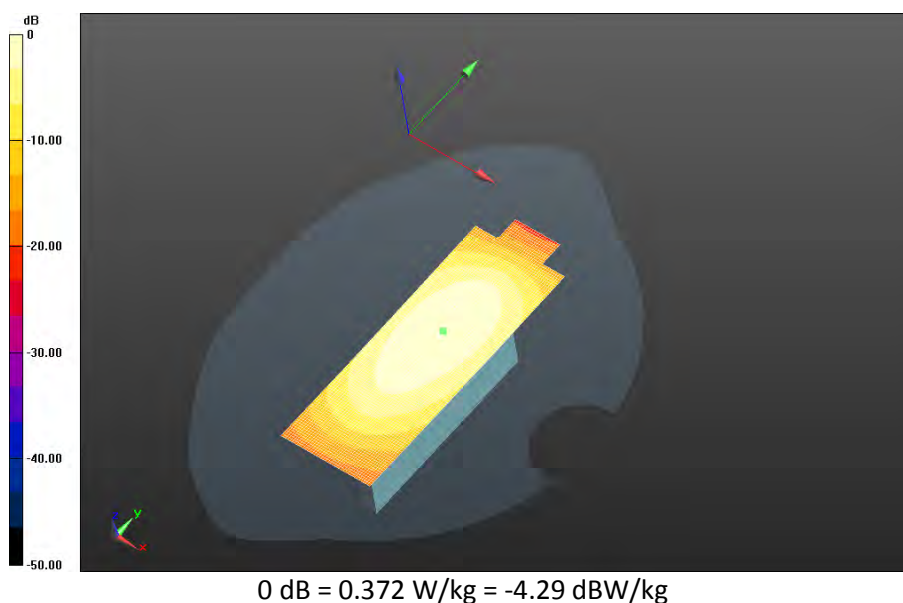
**Fast SAR: SAR(1g) = 0.339 W/kg; SAR(10g) = 0.237 W/kg**  
Maximum value of SAR (interpolated) = 0.372 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                       |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                       |

**Mobile Hot Spot MSL - LTE Band 17/10mm Device Left -LTE Band**  
**17\_chan23800\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.2C\_liq\_temp\_21.9C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 18.538 V/m; **Power Drift = -0.041 dB**

**Fast SAR: SAR(1g) = 0.290 W/kg; SAR(10g) = 0.196 W/kg**  
Maximum value of SAR (interpolated) = 0.326 W/kg

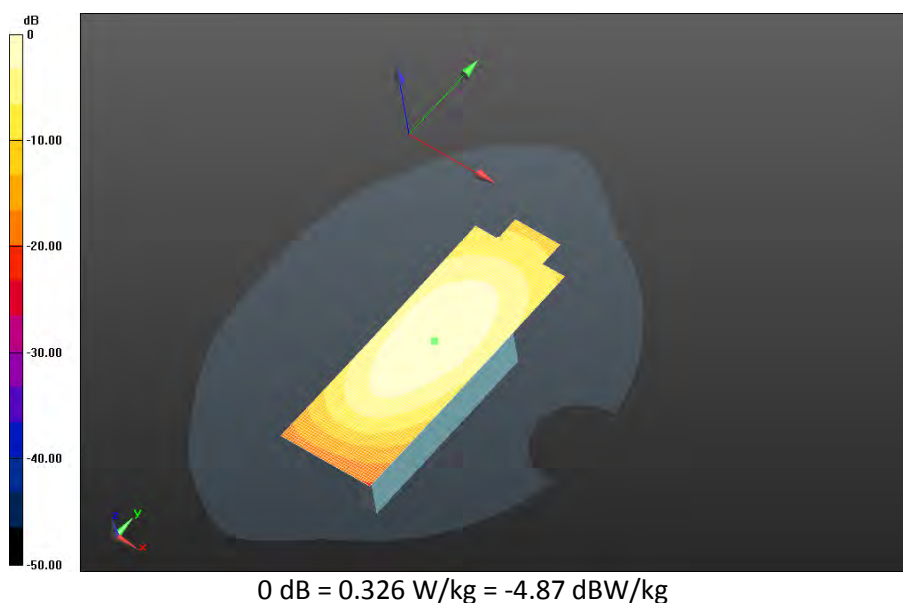




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**Mobile Hot Spot MSL - LTE Band 17/10mm Device Right -LTE Band**  
**17\_chan23800\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.4C\_liq\_temp\_21.9C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 13.387 V/m; **Power Drift = 0.142 dB**

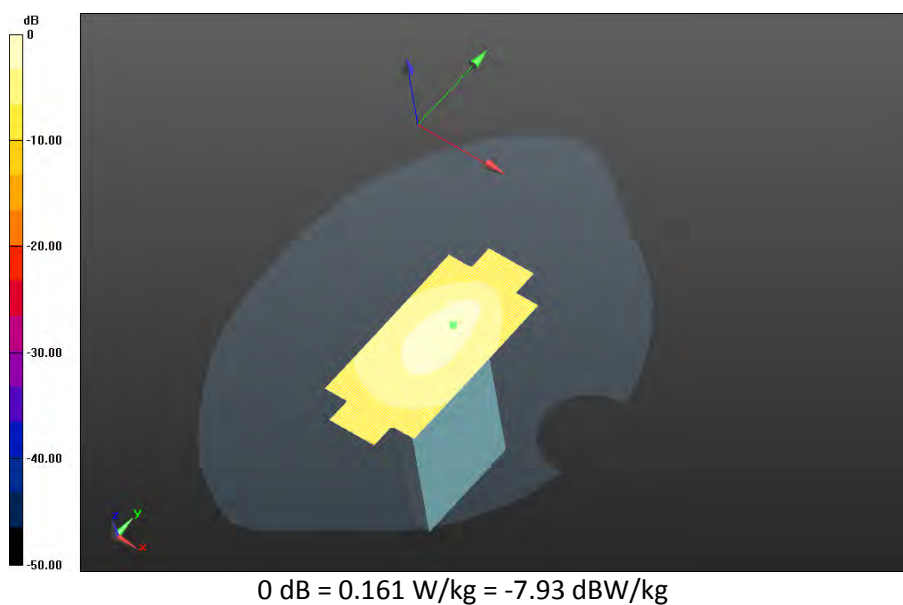
**Fast SAR: SAR(1g) = 0.143 W/kg; SAR(10g) = 0.0973 W/kg**  
Maximum value of SAR (interpolated) = 0.161 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 17/10mm Device Bottom -LTE Band**  
**17\_chan23800\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.4C\_liq\_temp\_21.9C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 12.103 V/m; **Power Drift = -0.035 dB**

**Fast SAR: SAR(1g) = 0.132 W/kg; SAR(10g) = 0.0801 W/kg**  
Maximum value of SAR (interpolated) = 0.162 W/kg



|                                                                                   |                                           |                                                                      |                        |                          |         |
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| Author Data<br>Andrew Becker                                                      | Dates of Test<br>June 23 – August 5, 2014 | Test Report No<br>RTS-6058-1408-04                                   | FCC ID:<br>L6ARHA110LW | IC ID:<br>2503A-RHA110LW |         |

## LTE Band 5

Date: 7/3/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEB280**

### Configuration: Mobile Hot Spot MSL - LTE Band 5

Communication System: LTE 5 (0); Communication System Band: LTE 5; Frequency: 829 MHz

Medium Parameters used:  $f=829$  MHz;  $\sigma = 0.991$  S/m;  $\epsilon_r = 57.559$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

### DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (6.09,6.09,6.09); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### Mobile Hot Spot MSL - LTE Band 5/10mm Device Back - LTE Band

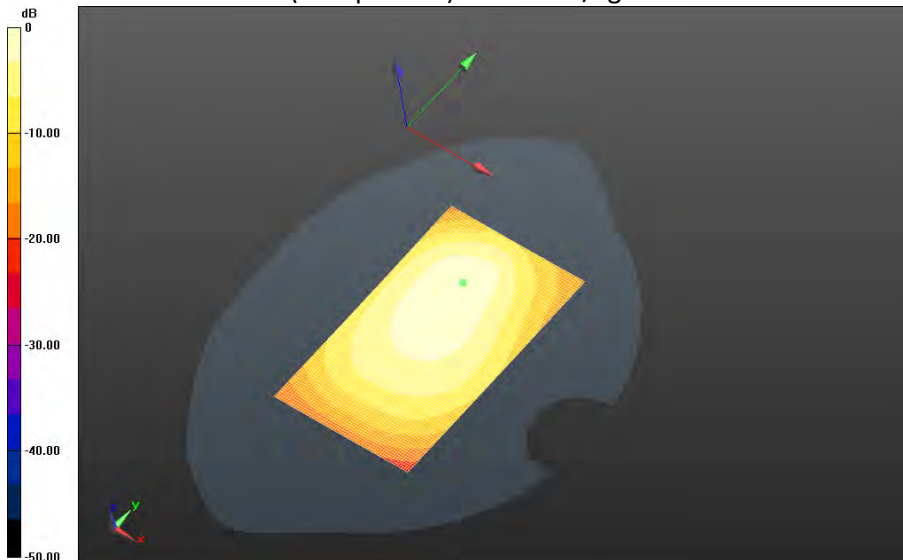
**5\_chan20450\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_24.1C\_liq\_temp\_22.0C/Area Scan**

**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 18.794 V/m; **Power Drift = 0.019 dB**

**Fast SAR: SAR(1g) = 0.485 W/kg; SAR(10g) = 0.325 W/kg**

Maximum value of SAR (interpolated) = 0.567 W/kg



0 dB = 0.567 W/kg = -2.46 dBW/kg

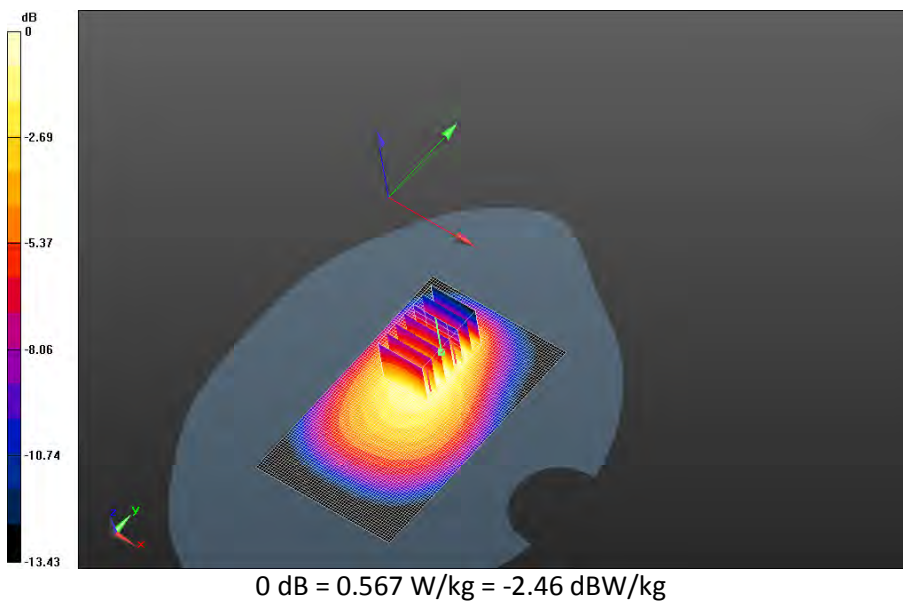
|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - LTE Band 5/10mm Device Back - LTE Band 5\_chan20525\_10MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_24.2C\_liq\_temp\_22.1C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 19.430 V/m; **Power Drift = -0.014 dB**

**Fast SAR: SAR(1g) = 0.493 W/kg; SAR(10g) = 0.331 W/kg**  
Maximum value of SAR (interpolated) = 0.578 W/kg

**Mobile Hot Spot MSL - LTE Band 5/10mm Device Back - LTE Band 5\_chan20525\_10MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_24.2C\_liq\_temp\_22.1C/Zoom Scan (21x31x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm  
Reference Value = 19.430 V/m; **Power Drift = -0.014 dB**

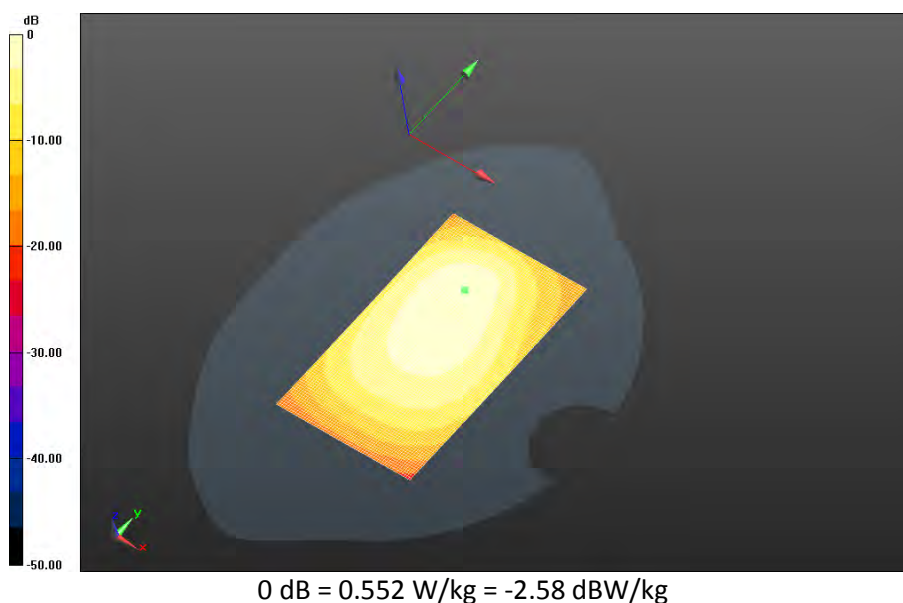
**Averaged SAR: SAR(1g) = 0.483 W/kg; SAR(10g) = 0.330 W/kg**  
Maximum value of SAR (interpolated) = 0.705 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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**Mobile Hot Spot MSL - LTE Band 5/10mm Device Back - LTE Band**  
**5\_chan20525\_5MHz\_BW\_16QAM\_RB1\_Offset\_Mid\_amb\_temp\_24.2C\_liq\_temp\_22.1C/Area**  
**Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 19.371 V/m; **Power Drift = 0.026 dB**

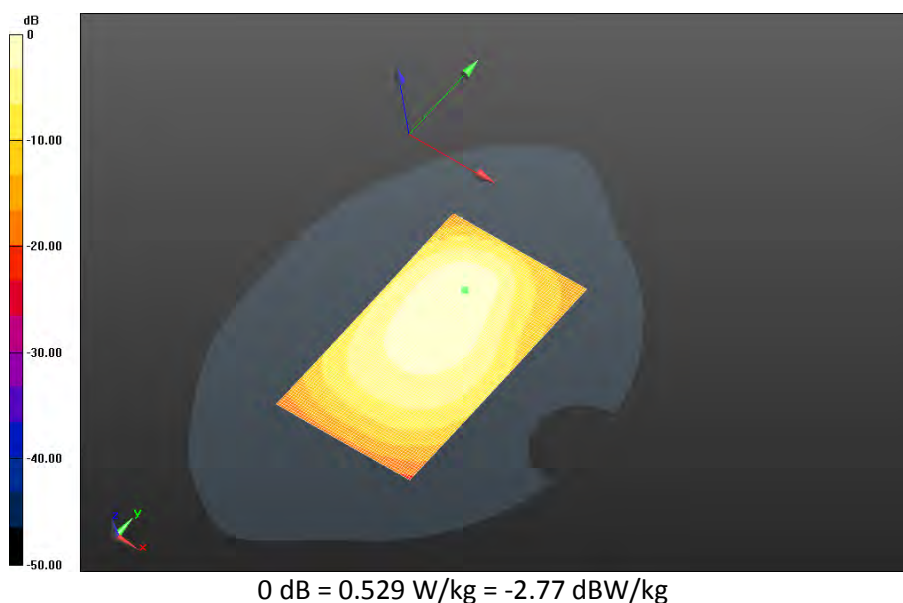
**Fast SAR: SAR(1g) = 0.455 W/kg; SAR(10g) = 0.307 W/kg**  
Maximum value of SAR (interpolated) = 0.529 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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**Mobile Hot Spot MSL - LTE Band 5/10mm Device Back - LTE Band**  
**5\_chan20600\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_24.3C\_liq\_temp\_22.1C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 19.301 V/m; **Power Drift = 0.081 dB**

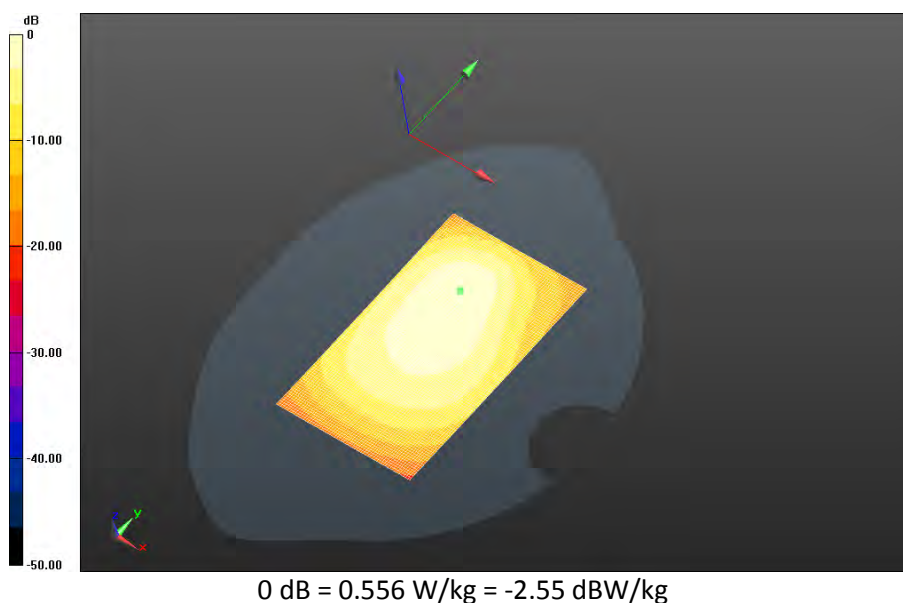
**Fast SAR: SAR(1g) = 0.477 W/kg; SAR(10g) = 0.322 W/kg**  
Maximum value of SAR (interpolated) = 0.556 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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**Mobile Hot Spot MSL - LTE Band 5/10mm Device Back - LTE Band**  
**5\_chan20600\_10MHz\_BW\_16QAM\_RB1\_Offset\_Low\_amb\_temp\_24.3C\_liq\_temp\_22.1C/Area**  
**Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 18.853 V/m; **Power Drift = -0.013 dB**

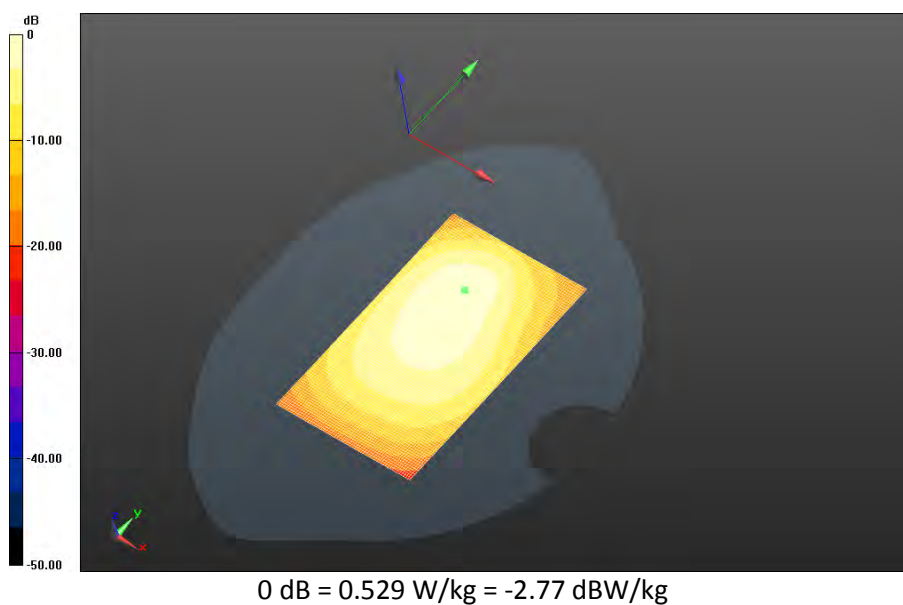
**Fast SAR: SAR(1g) = 0.457 W/kg; SAR(10g) = 0.308 W/kg**  
Maximum value of SAR (interpolated) = 0.529 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 5/10mm Device Back - LTE Band**  
**5\_chan20450\_10MHz\_BW\_RB25\_Offset\_Low\_amb\_temp\_23.7C\_liq\_temp\_22.0C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 19.051 V/m; **Power Drift = -0.00408 dB**

**Fast SAR: SAR(1g) = 0.489 W/kg; SAR(10g) = 0.327 W/kg**  
Maximum value of SAR (interpolated) = 0.574 W/kg

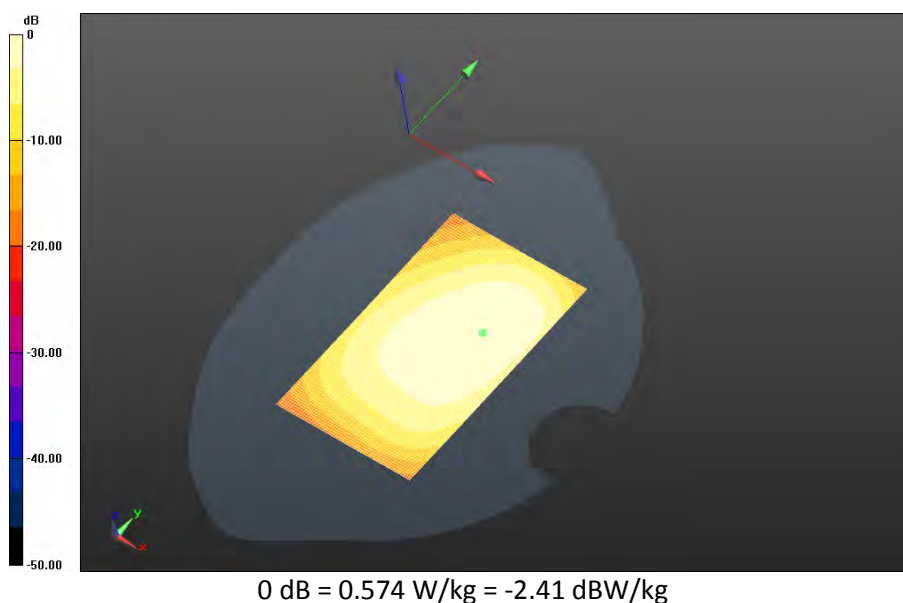




|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 5/10mm Device Front - LTE Band**  
**5\_chan20450\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.4C\_liq\_temp\_21.8C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 16.057 V/m; **Power Drift = 0.037 dB**

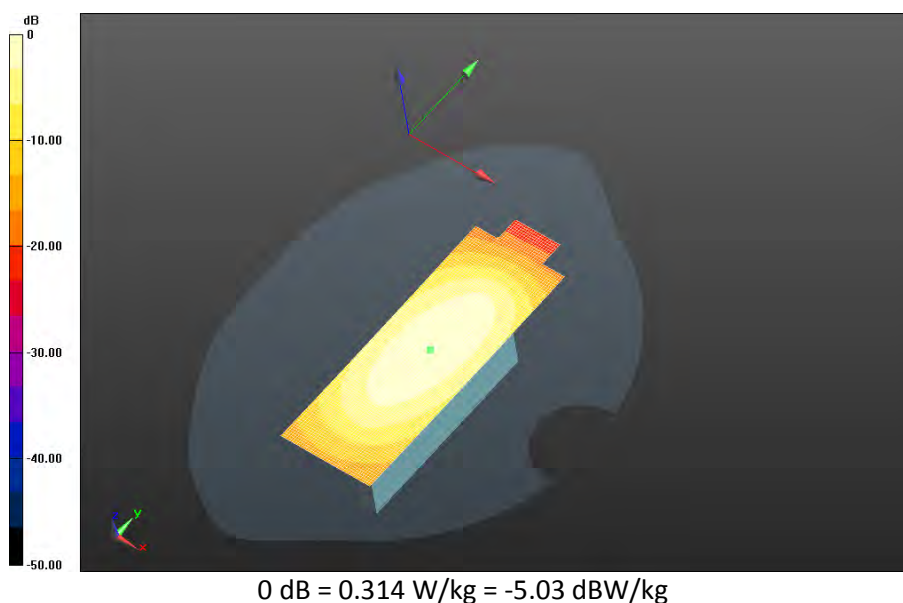
**Fast SAR: SAR(1g) = 0.278 W/kg; SAR(10g) = 0.194 W/kg**  
Maximum value of SAR (interpolated) = 0.314 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 5/10mm Device Left - LTE Band**  
**5\_chan20450\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.0C\_liq\_temp\_21.9C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 21.102 V/m; **Power Drift = 0.048 dB**

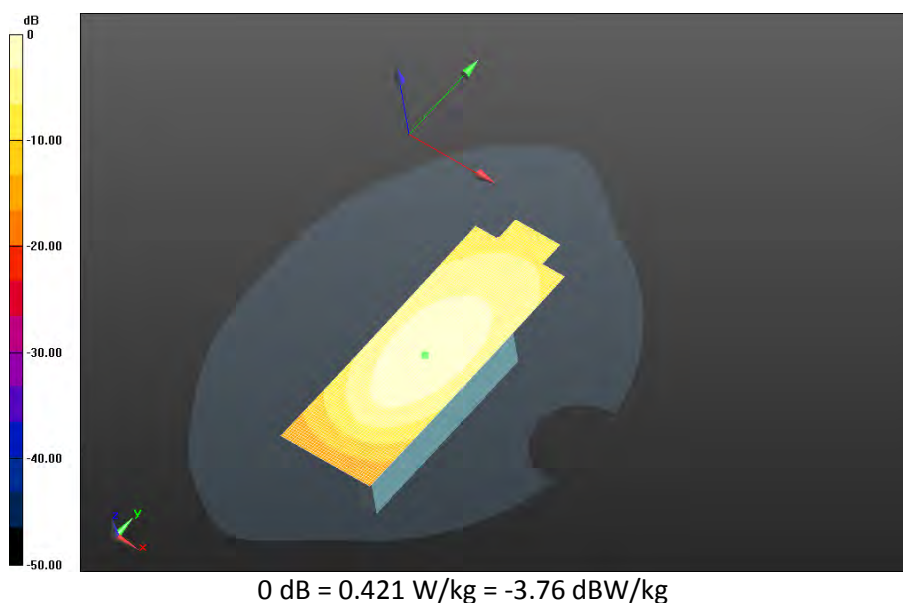
**Fast SAR: SAR(1g) = 0.364 W/kg; SAR(10g) = 0.241 W/kg**  
Maximum value of SAR (interpolated) = 0.421 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 5/10mm Device Right - LTE Band**  
**5\_chan20450\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_22.9C\_liq\_temp\_22.0C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 13.306 V/m; **Power Drift = -0.126 dB**

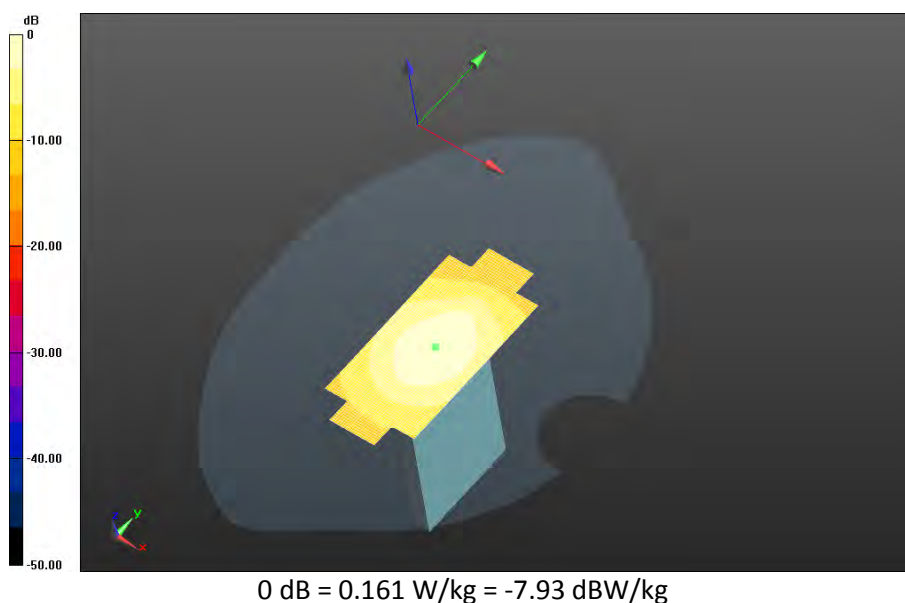
**Fast SAR: SAR(1g) = 0.140 W/kg; SAR(10g) = 0.0935 W/kg**  
Maximum value of SAR (interpolated) = 0.161 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 5/10mm Device Bottom - LTE Band**  
**5\_chan20450\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_22.9C\_liq\_temp\_21.8C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 10.725 V/m; **Power Drift = 0.038 dB**

**Fast SAR: SAR(1g) = 0.0976 W/kg; SAR(10g) = 0.0632 W/kg**  
Maximum value of SAR (interpolated) = 0.114 W/kg



|                                                                                   |                                                  |                                                                                         |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                               | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

## LTE Band 5 Rev 2

Date: 7/25/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEC30B**

### **Configuration: Mobile Hot Spot MSL - LTE Band 5**

Communication System: LTE 5 (0); Communication System Band: LTE 5; Frequency: 829 MHz

Medium Parameters used:  $f=829$  MHz;  $\sigma = 0.976$  S/m;  $\epsilon_r = 53.660$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (6.09,6.09,6.09); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Mobile Hot Spot MSL - LTE Band 5/10mm Device Back - LTE Band**

**5\_chan20450\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_24.1C\_liq\_temp\_22.0C/Area Scan**

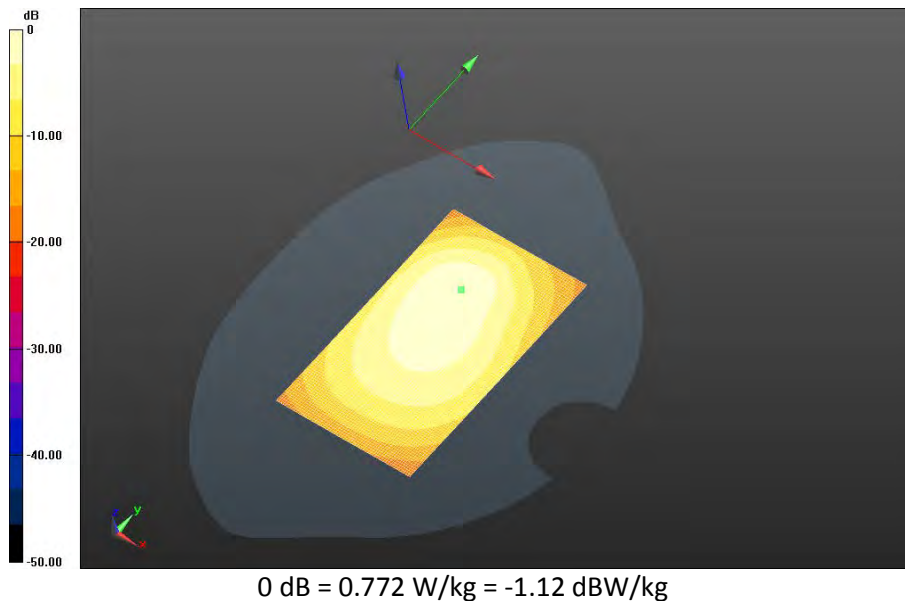
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 23.189 V/m; **Power Drift = -0.014 dB**

**Fast SAR: SAR(1g) = 0.669 W/kg; SAR(10g) = 0.451 W/kg**

Maximum value of SAR (interpolated) = 0.772 W/kg

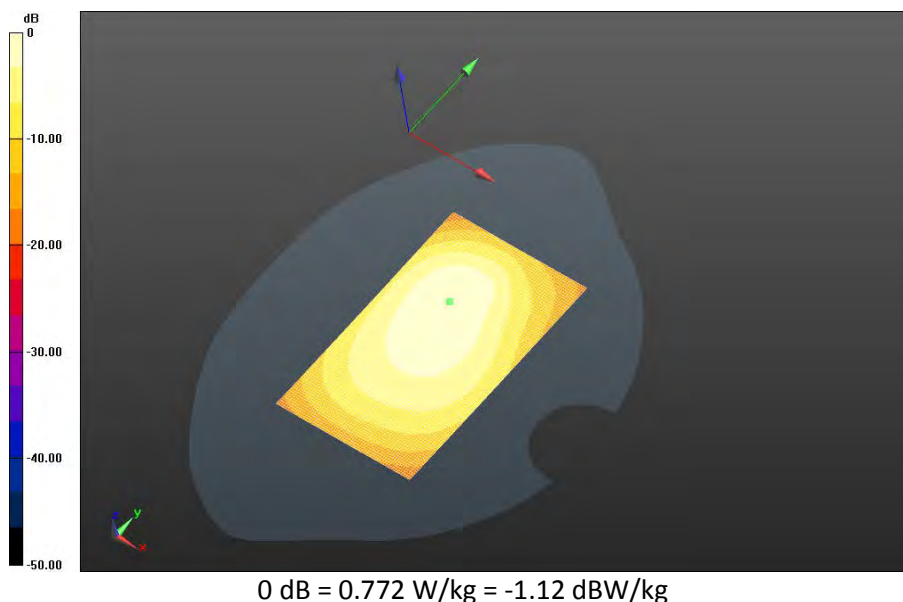
|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |



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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - LTE Band 5/10mm Device Back - LTE Band**  
**5\_chan20525\_10MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_24.2C\_liq\_temp\_22.1C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 23.368 V/m; **Power Drift = 0.042 dB**

**Fast SAR: SAR(1g) = 0.679 W/kg; SAR(10g) = 0.456 W/kg**  
Maximum value of SAR (interpolated) = 0.783 W/kg



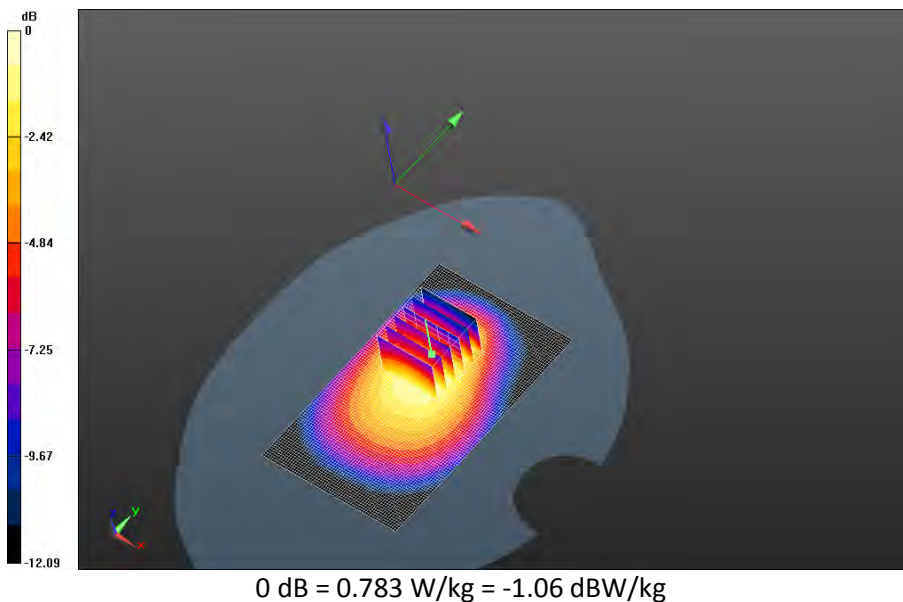
|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - LTE Band 5/10mm Device Back - LTE Band 5\_chan20600\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_24.3C\_liq\_temp\_22.1C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 24.079 V/m; **Power Drift = 0.063 dB**

**Fast SAR: SAR(1g) = 0.695 W/kg; SAR(10g) = 0.467 W/kg**  
Maximum value of SAR (interpolated) = 0.800 W/kg

**Mobile Hot Spot MSL - LTE Band 5/10mm Device Back - LTE Band 5\_chan20600\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_24.3C\_liq\_temp\_22.1C/Zoom Scan (26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm  
Reference Value = 24.079 V/m; **Power Drift = 0.063 dB**

**Averaged SAR: SAR(1g) = 0.682 W/kg; SAR(10g) = 0.474 W/kg**  
Maximum value of SAR (interpolated) = 0.984 W/kg





|                                                                                   |                                           |                                                                      |                        |                          |         |
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| Author Data<br>Andrew Becker                                                      | Dates of Test<br>June 23 – August 5, 2014 | Test Report No<br>RTS-6058-1408-04                                   | FCC ID:<br>L6ARHA110LW | IC ID:<br>2503A-RHA110LW |         |

## EDGE/GPRS 850

Date: 7/4/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone R139, Type: Sample, Serial: 2FFEB280**

### Configuration: Mobile Hot Spot MSL - GPRS 850

Communication System: GSM 850 (0); Communication System Band: GSM 850; Frequency: 824.2 MHz

Medium Parameters used:  $f=825$  MHz;  $\sigma = 0.986$  S/m;  $\epsilon_r = 57.621$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

### DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (6.09,6.09,6.09); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### Mobile Hot Spot MSL - GPRS 850/10mm Device Back - GPRS 850\_1-slot

**\_chan128\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Area Scan (121x171x1):** Interpolated grid:

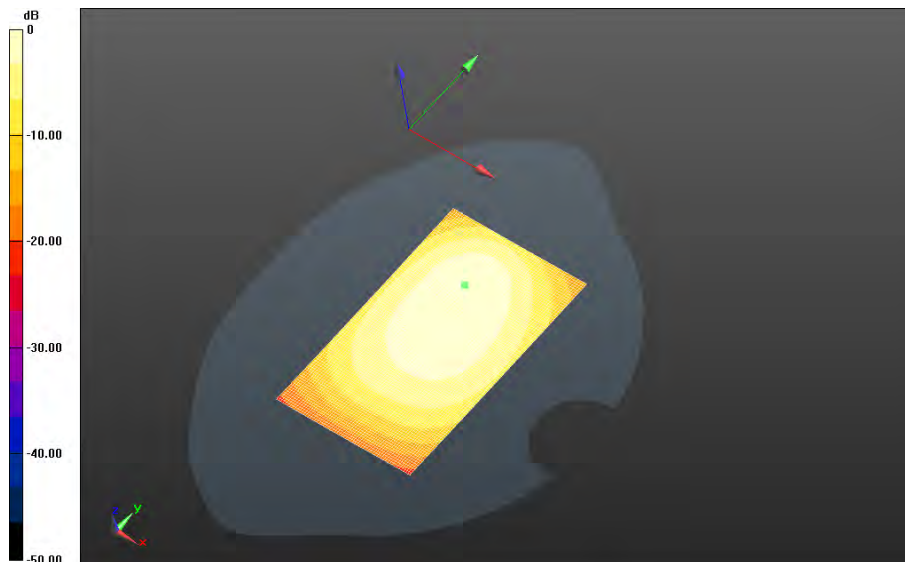
dx=1.500 mm, dy=1.500 mm

Reference Value = 18.079 V/m; **Power Drift = -0.012 dB**

**Fast SAR: SAR(1g) = 0.364 W/kg; SAR(10g) = 0.251 W/kg**

Maximum value of SAR (interpolated) = 0.419 W/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |



0 dB = 0.419 W/kg = -3.78 dBW/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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**Mobile Hot Spot MSL - GPRS 850/10mm Device Back - GPRS 850\_1-slot**

**\_chan190\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 18.475 V/m; **Power Drift = 0.036 dB**

**Fast SAR: SAR(1g) = 0.370 W/kg; SAR(10g) = 0.257 W/kg**

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

**Mobile Hot Spot MSL - GPRS 850/10mm Device Back - GPRS 850\_1-slot**

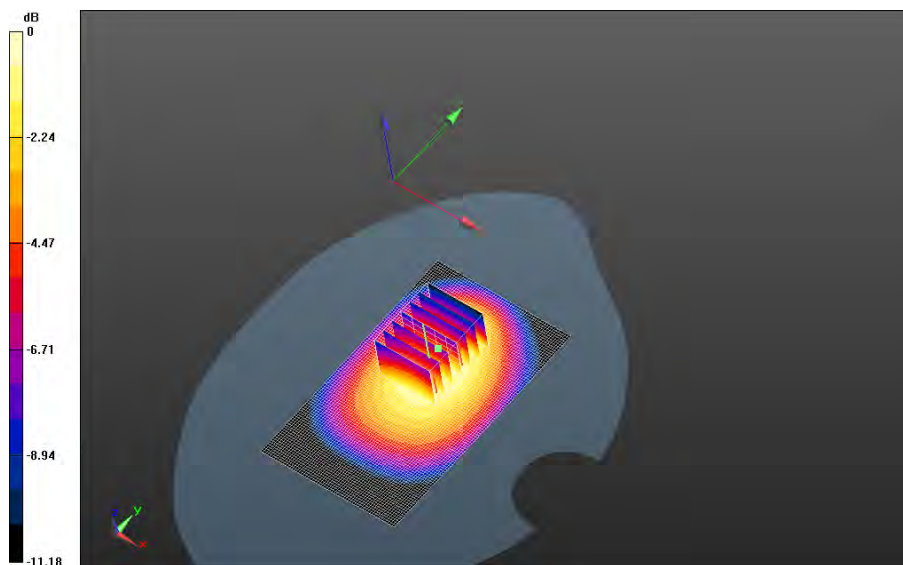
**\_chan190\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Zoom Scan (26x31x36)/Cube 0:** Interpolated

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

Reference Value = 18.475 V/m; **Power Drift = 0.036 dB**

**Averaged SAR: SAR(1g) = 0.390 W/kg; SAR(10g) = 0.285 W/kg**

Maximum value of SAR (interpolated) = 0.545 W/kg



0 dB = 0.419 W/kg = -3.78 dBW/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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**Mobile Hot Spot MSL - GPRS 850/10mm Device Back - GPRS 850\_1-slot**

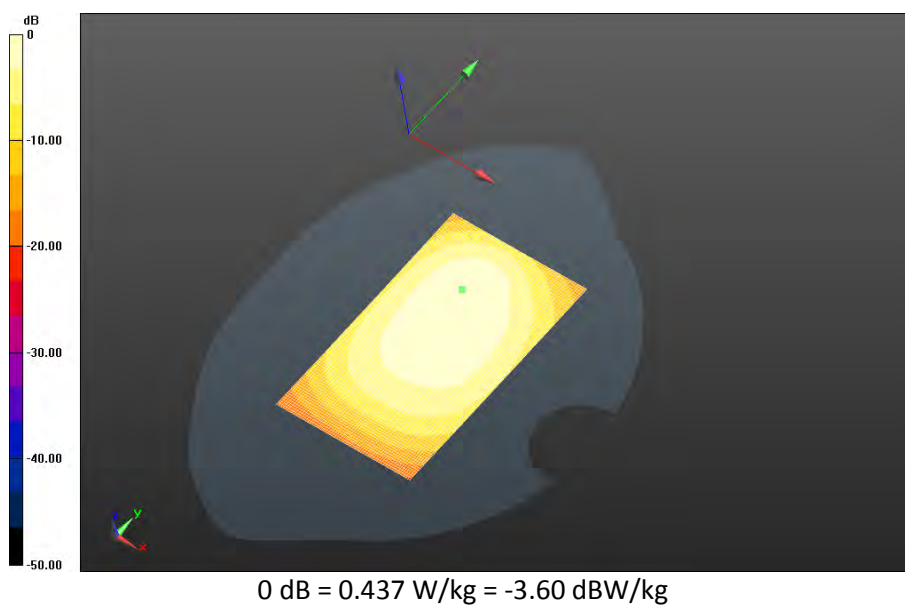
**\_chan251\_amb\_temp\_23.2C\_liq\_temp\_21.6C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 17.716 V/m; **Power Drift = 0.039 dB**

**Fast SAR: SAR(1g) = 0.337 W/kg; SAR(10g) = 0.233 W/kg**

Maximum value of SAR (interpolated) = 0.387 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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**Mobile Hot Spot MSL - GPRS 850/10mm Device Back - GPRS 850\_2-slot**

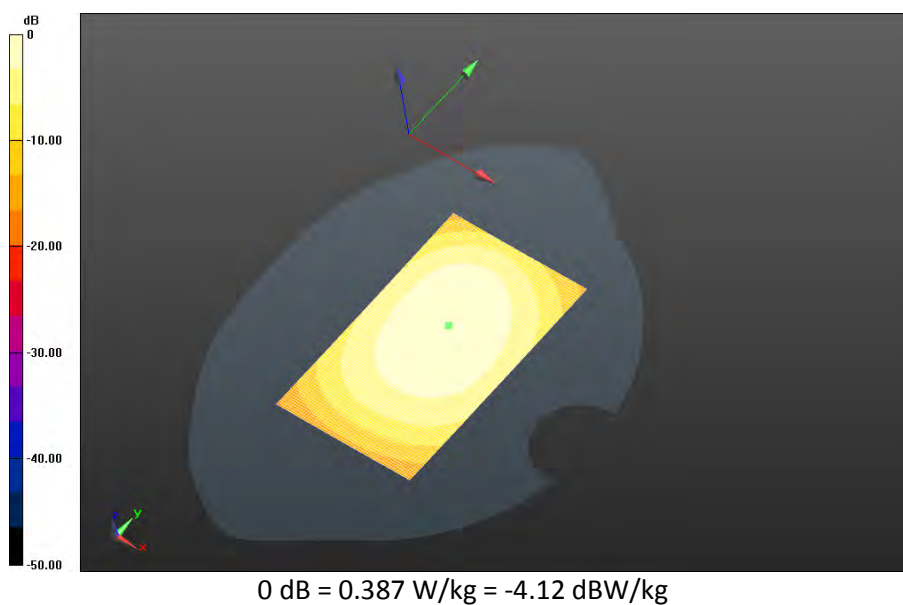
**\_chan190\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 16.134 V/m; **Power Drift = -0.015 dB**

**Fast SAR: SAR(1g) = 0.250 W/kg; SAR(10g) = 0.175 W/kg**

Maximum value of SAR (interpolated) = 0.283 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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**Mobile Hot Spot MSL - GPRS 850/10mm Device Back - GPRS 850\_3-slot**

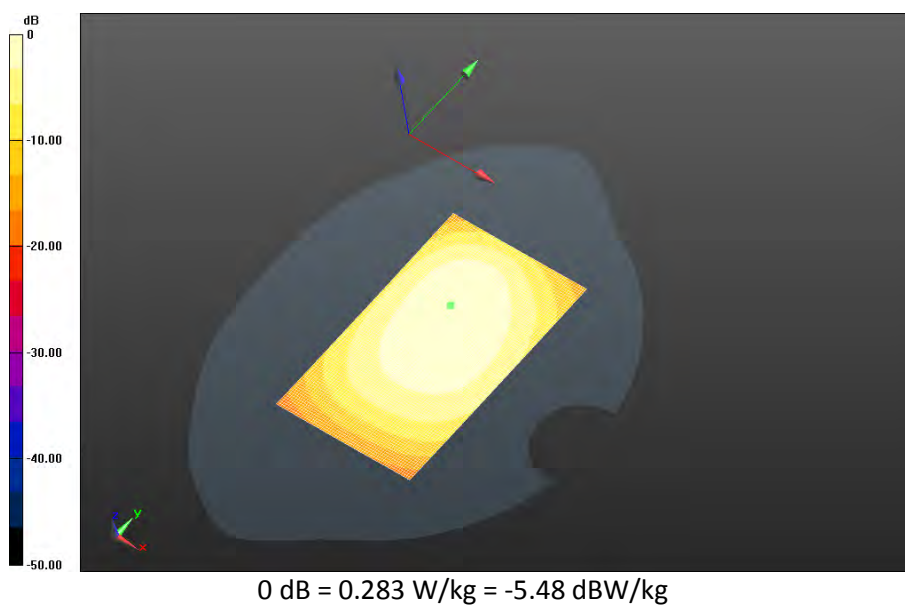
**\_chan190\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Area Scan (121x171x1): Interpolated grid:**

dx=1.500 mm, dy=1.500 mm

Reference Value = 17.403 V/m; **Power Drift = -0.072 dB**

**Fast SAR: SAR(1g) = 0.318 W/kg; SAR(10g) = 0.222 W/kg**

Maximum value of SAR (interpolated) = 0.359 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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**Mobile Hot Spot MSL - GPRS 850/10mm Device Back - GPRS 850\_4-slot**

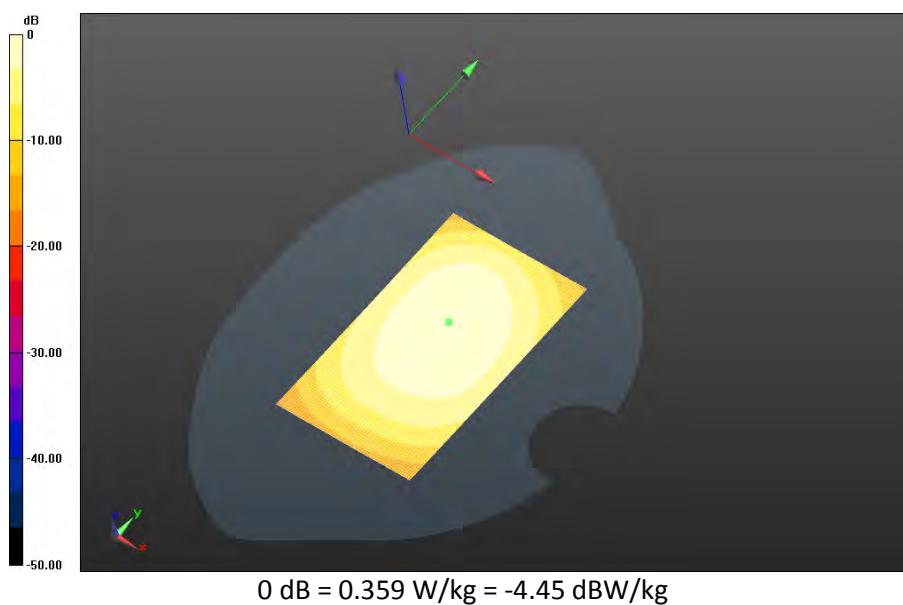
**\_chan190\_amb\_temp\_23.2C\_liq\_temp\_21.7C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 15.960 V/m; **Power Drift = -0.025 dB**

**Fast SAR: SAR(1g) = 0.245 W/kg; SAR(10g) = 0.172 W/kg**

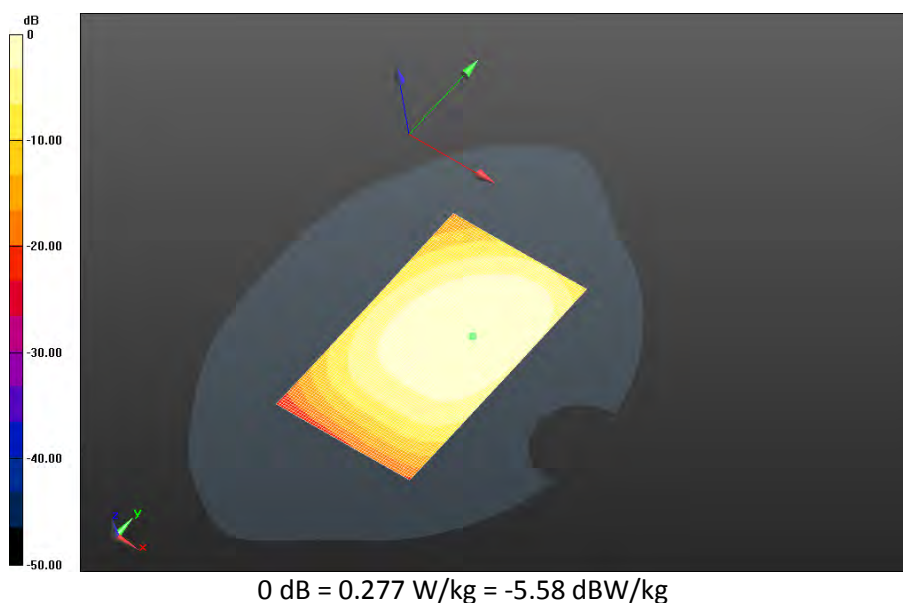
Maximum value of SAR (interpolated) = 0.277 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - GPRS 850/10mm Device Front - GPRS 850\_1-slot**  
**\_chan190\_amb\_temp\_22.8C\_liq\_temp\_21.7/Area Scan (121x171x1): Interpolated grid:**  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 16.110 V/m; **Power Drift = -0.00793 dB**

**Fast SAR: SAR(1g) = 0.265 W/kg; SAR(10g) = 0.187 W/kg**  
Maximum value of SAR (interpolated) = 0.300 W/kg





|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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**Mobile Hot Spot MSL - GPRS 850/10mm Device Left - GPRS 850\_1-slot**

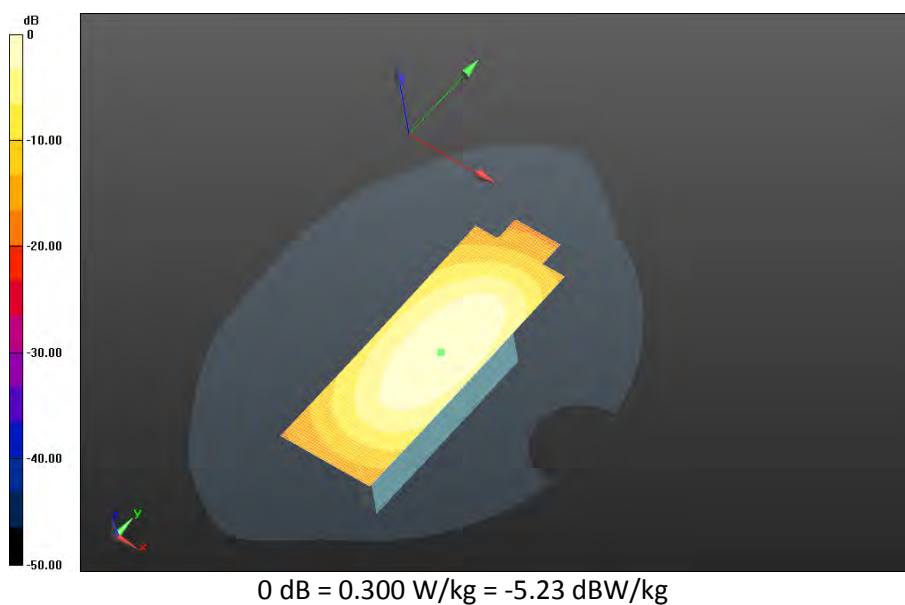
**\_chan190\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 18.666 V/m; **Power Drift = -0.022 dB**

**Fast SAR: SAR(1g) = 0.298 W/kg; SAR(10g) = 0.203 W/kg**

Maximum value of SAR (interpolated) = 0.348 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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**Mobile Hot Spot MSL - GPRS 850/10mm Device Right -GPRS 850\_1-slot**

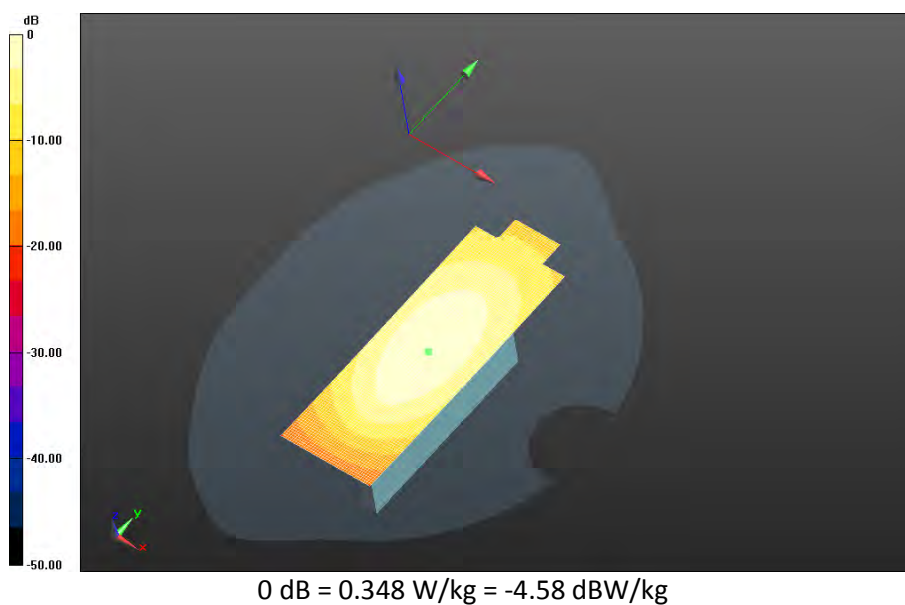
**\_chan190\_amb\_temp\_23.4C\_liq\_temp\_21.9C/Area Scan (121x171x1): Interpolated grid:**

dx=1.500 mm, dy=1.500 mm

Reference Value = 15.388 V/m; **Power Drift = 0.056 dB**

**Fast SAR: SAR(1g) = 0.189 W/kg; SAR(10g) = 0.126 W/kg**

Maximum value of SAR (interpolated) = 0.218 W/kg

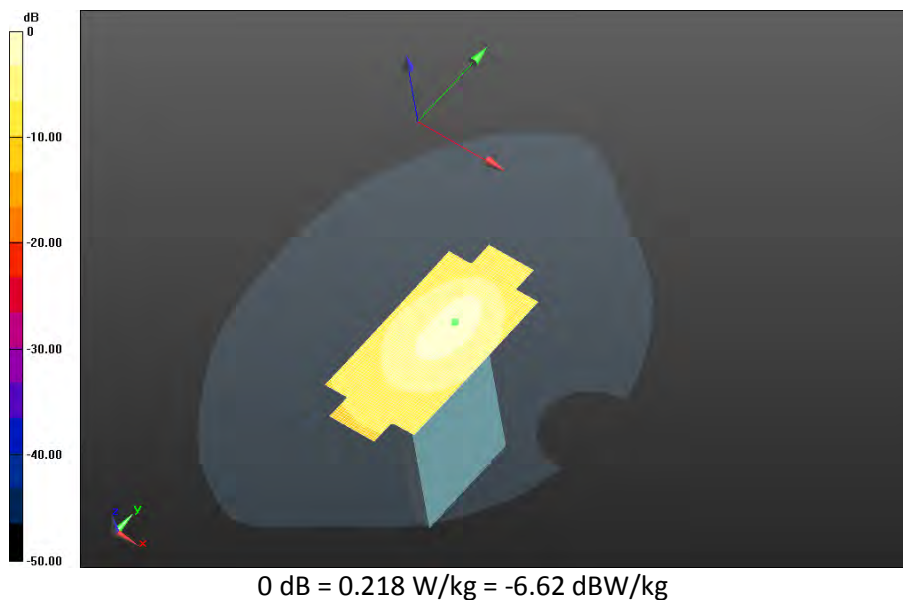


|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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|  |                                                  | Document<br><b>Appendix C2 for the BlackBerry® Smartphone Model RHA111LW</b><br><b>SAR Report</b> |                               |                                 | Page<br><b>35(141)</b> |
| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - GPRS 850/10mm Device Bottom -GPRS 850\_1-slot**  
**\_chan190\_amb\_temp\_23.8C\_liq\_temp\_21.9C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm

Reference Value = 8.646 V/m; **Power Drift = -0.067 dB**

**Fast SAR: SAR(1g) = 0.0781 W/kg; SAR(10g) = 0.0459 W/kg**  
Maximum value of SAR (interpolated) = 0.0987 W/kg



|                                                                                   |                                                  |                                                                                         |                               |                                 |                        |
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|  |                                                  | Document<br><b>Appendix C2 for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>36(141)</b> |
| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                               | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

## GPRS 850 Rev 2

Date: 7/25/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone R139, Type: Sample, Serial: 2FFEC30B**

### Configuration: Mobile Hot Spot MSL - GPRS 850

Communication System: GSM 850 (0); Communication System Band: GSM 850; Frequency: 824.2 MHz

Medium Parameters used:  $f=825$  MHz;  $\sigma = 0.971$  S/m;  $\epsilon_r = 53.691$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

### DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (6.09,6.09,6.09); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### Mobile Hot Spot MSL - GPRS 850/10mm Device Back - GPRS 850\_1-slot

**\_chan128\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 26.356 V/m; **Power Drift = 0.064 dB**

**Fast SAR: SAR(1g) = 0.748 W/kg; SAR(10g) = 0.514 W/kg**

Maximum value of SAR (interpolated) = 0.855 W/kg

### Mobile Hot Spot MSL - GPRS 850/10mm Device Back - GPRS 850\_1-slot

**\_chan128\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Zoom Scan (26x31x36)/Cube 0:** Interpolated

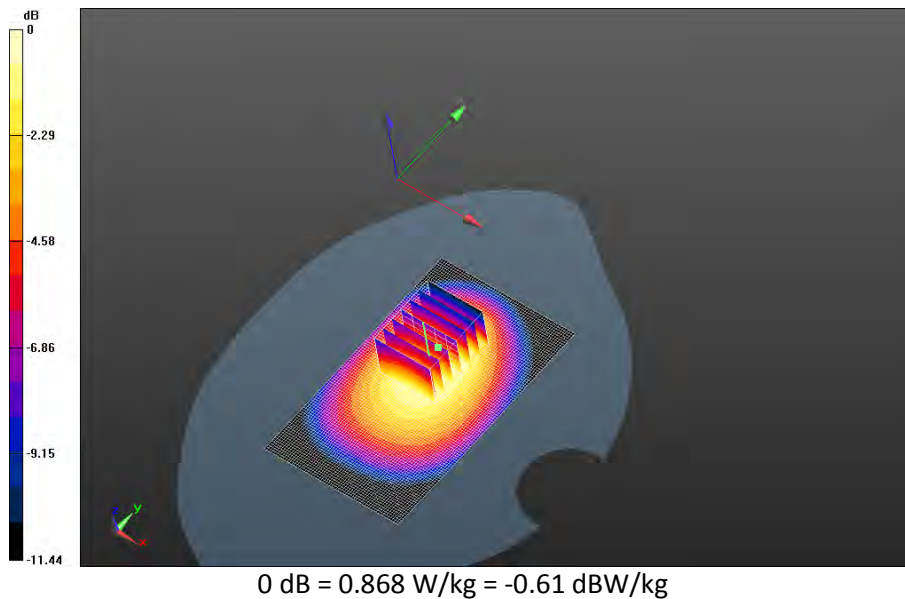
grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 26.356 V/m; **Power Drift = 0.064 dB**

**Averaged SAR: SAR(1g) = 0.772 W/kg; SAR(10g) = 0.565 W/kg**

Maximum value of SAR (interpolated) = 1.07 W/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - GPRS 850/10mm Device Back - GPRS 850\_1-slot**

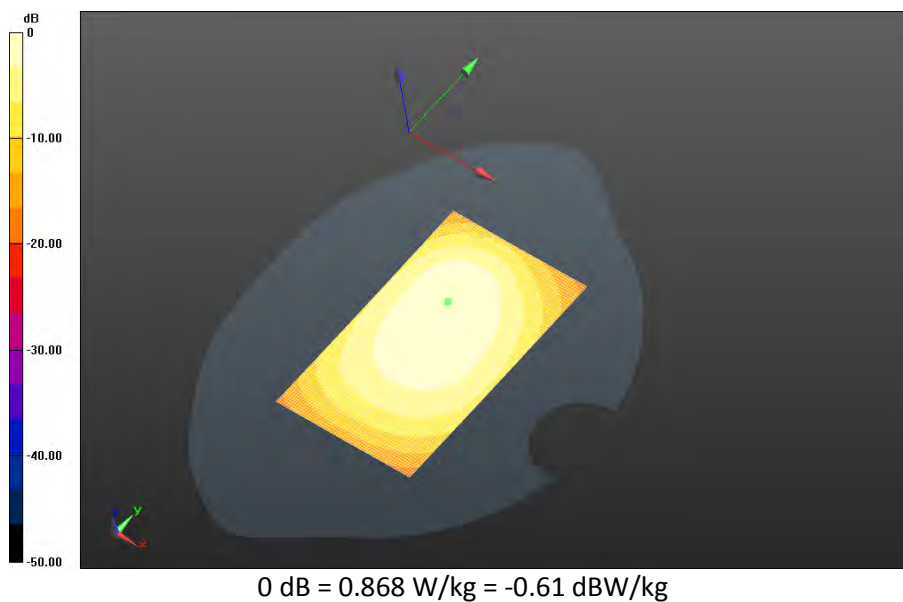
**\_chan190\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Area Scan (121x171x1): Interpolated grid:**

dx=1.500 mm, dy=1.500 mm

Reference Value = 27.427 V/m; **Power Drift = 0.011 dB**

**Fast SAR: SAR(1g) = 0.744 W/kg; SAR(10g) = 0.515 W/kg**

Maximum value of SAR (interpolated) = 0.846 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - GPRS 850/10mm Device Back - GPRS 850\_1-slot**

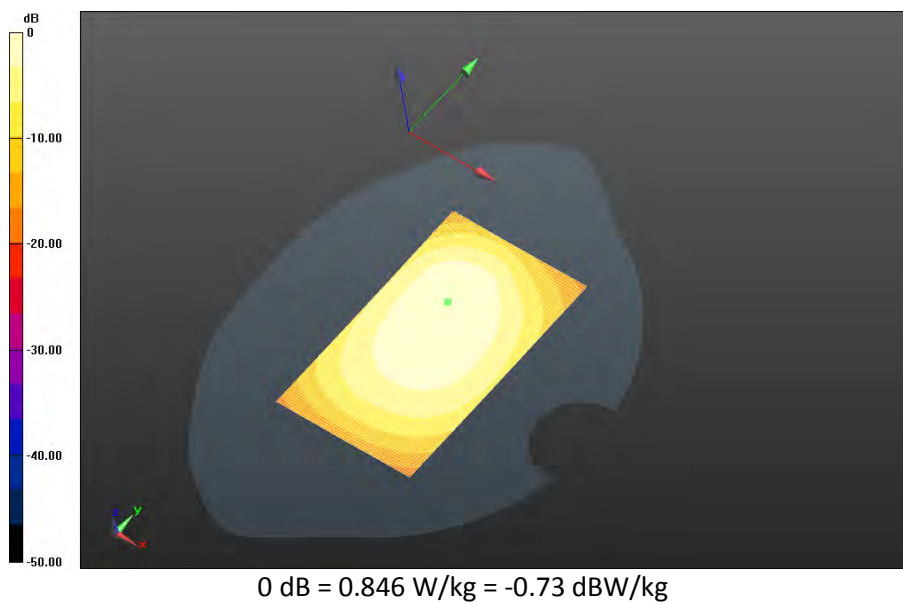
**\_chan251\_amb\_temp\_23.2C\_liq\_temp\_21.6C/Area Scan (121x171x1): Interpolated grid:**

dx=1.500 mm, dy=1.500 mm

Reference Value = 25.452 V/m; **Power Drift = -0.00255 dB**

**Fast SAR: SAR(1g) = 0.648 W/kg; SAR(10g) = 0.449 W/kg**

Maximum value of SAR (interpolated) = 0.736 W/kg



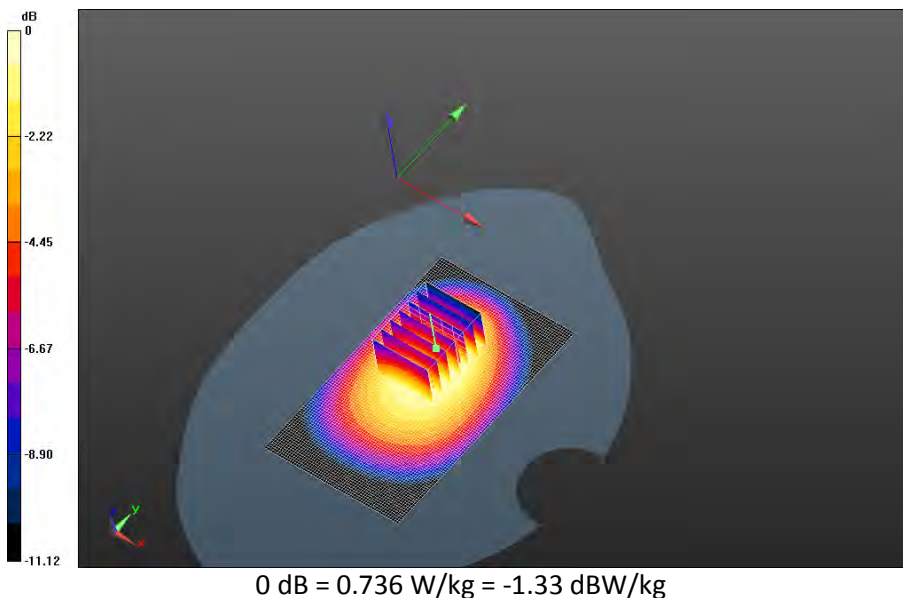
|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - GPRS 850/10mm Device Back 2nd Scan - GPRS 850\_1-slot**  
**\_chan128\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 27.764 V/m; **Power Drift = -0.011 dB**

**Fast SAR: SAR(1g) = 0.777 W/kg; SAR(10g) = 0.536 W/kg**  
Maximum value of SAR (interpolated) = 0.884 W/kg

**Mobile Hot Spot MSL - GPRS 850/10mm Device Back 2nd Scan - GPRS 850\_1-slot**  
**\_chan128\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Zoom Scan (26x31x36)/Cube 0:** Interpolated  
grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm  
Reference Value = 27.764 V/m; **Power Drift = -0.011 dB**

**Averaged SAR: SAR(1g) = 0.765 W/kg; SAR(10g) = 0.562 W/kg**  
Maximum value of SAR (interpolated) = 1.07 W/kg





|                                                                                   |                                           |                                                                      |                        |                          |                 |
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| Author Data<br>Andrew Becker                                                      | Dates of Test<br>June 23 – August 5, 2014 | Test Report No<br>RTS-6058-1408-04                                   | FCC ID:<br>L6ARHA110LW | IC ID:<br>2503A-RHA110LW |                 |

## UMTS Band V

Date: 7/3/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEB280**

### **Configuration: Mobile Hot Spot MSL - UMTS band V**

Communication System: WCDMA FDD V (0); Communication System Band: UMTS band V;

Frequency: 826.4 MHz

Medium Parameters used:  $f=826.4$  MHz;  $\sigma = 0.988$  S/m;  $\epsilon_r = 57.599$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (6.09,6.09,6.09); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Mobile Hot Spot MSL - UMTS band V/10mm Device Back - UMTS band**

**V\_chan4132\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Area Scan (121x171x1):** Interpolated grid:

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

Reference Value = 21.974 V/m; **Power Drift = 0.00406 dB**

**Fast SAR: SAR(1g) = 0.611 W/kg; SAR(10g) = 0.411 W/kg**

Maximum value of SAR (interpolated) = 0.719 W/kg

Mobile Hot Spot MSL - UMTS band V/10mm Device Back - UMTS band

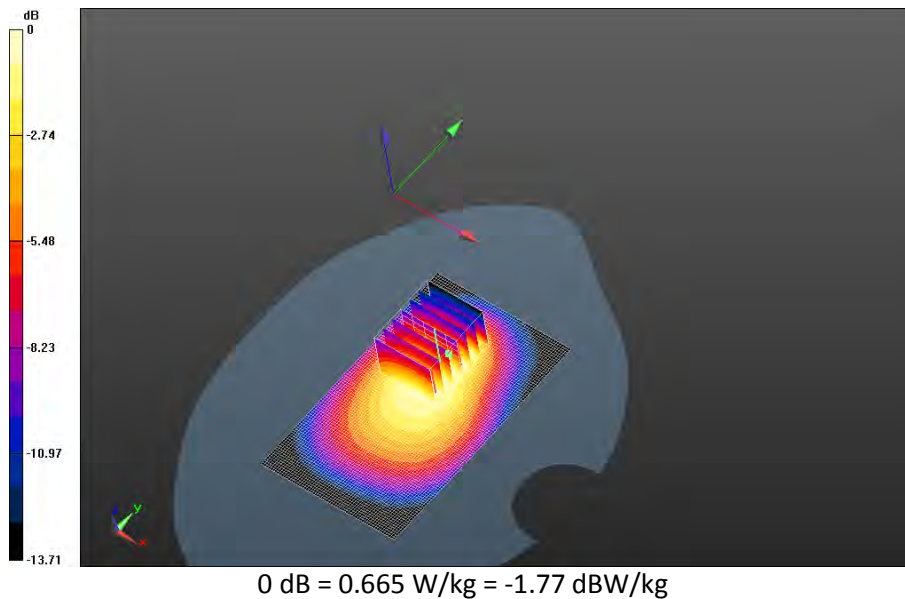
**V\_chan4132\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Zoom Scan (26x31x36)/Cube 0:** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm,  $dz=1.000$  mm

Reference Value = 21.974 V/m; **Power Drift = 0.00406 dB**

**Averaged SAR: SAR(1g) = 0.586 W/kg; SAR(10g) = 0.401 W/kg**

Maximum value of SAR (interpolated) = 0.865 W/kg

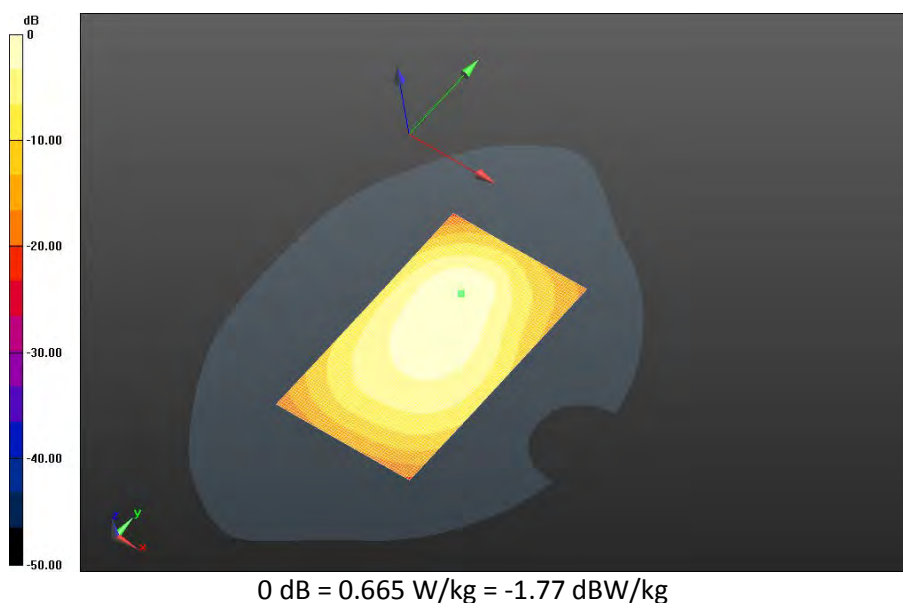
|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - UMTS band V/10mm Device Back - UMTS band**  
**V\_chan4182\_amb\_temp\_22.8C\_liq\_temp\_21.8C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 22.150 V/m; **Power Drift = 0.076 dB**

**Fast SAR: SAR(1g) = 0.600 W/kg; SAR(10g) = 0.403 W/kg**  
Maximum value of SAR (interpolated) = 0.697 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - UMTS band V/10mm Device Back - UMTS band**

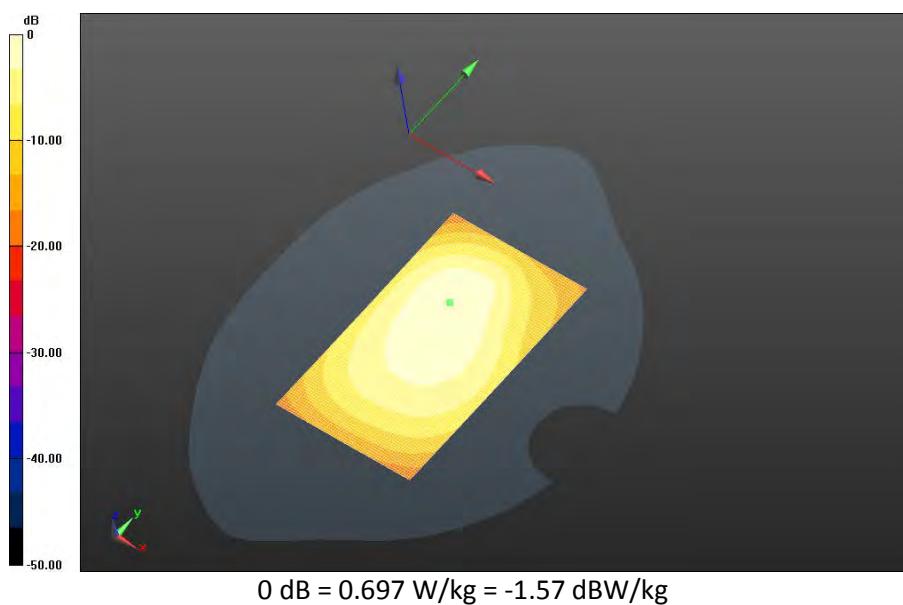
**V\_chan4233\_amb\_temp\_22.8C\_liq\_temp\_21.8C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 22.632 V/m; **Power Drift = 0.086 dB**

**Fast SAR: SAR(1g) = 0.593 W/kg; SAR(10g) = 0.398 W/kg**

Maximum value of SAR (interpolated) = 0.685 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - UMTS band V/10mm Device Front - UMTS band**

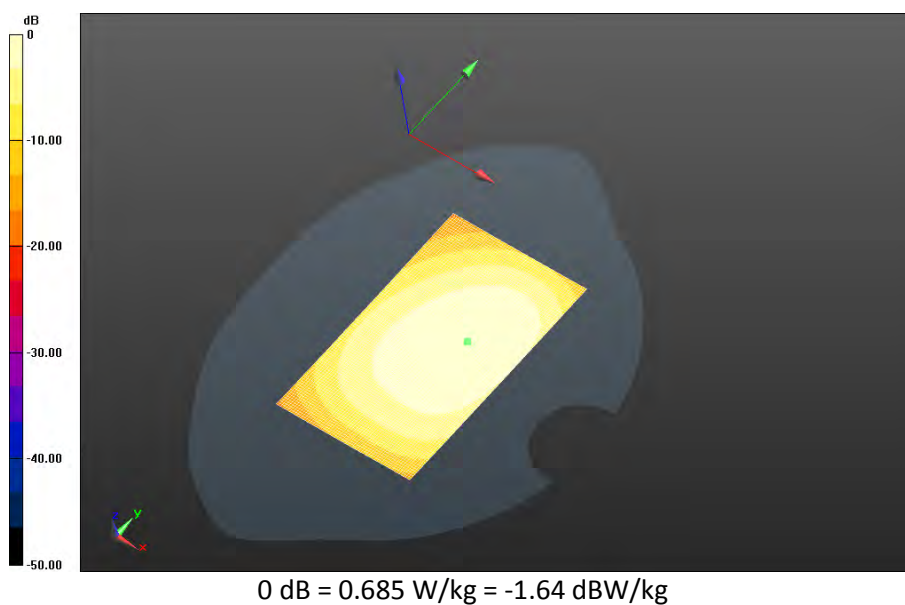
**V\_chan4182\_amb\_temp\_22.8C\_liq\_temp\_21.8C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 17.500 V/m; **Power Drift = -0.019 dB**

**Fast SAR: SAR(1g) = 0.282 W/kg; SAR(10g) = 0.198 W/kg**

Maximum value of SAR (interpolated) = 0.320 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - UMTS band V/10mm Device Left - UMTS band**

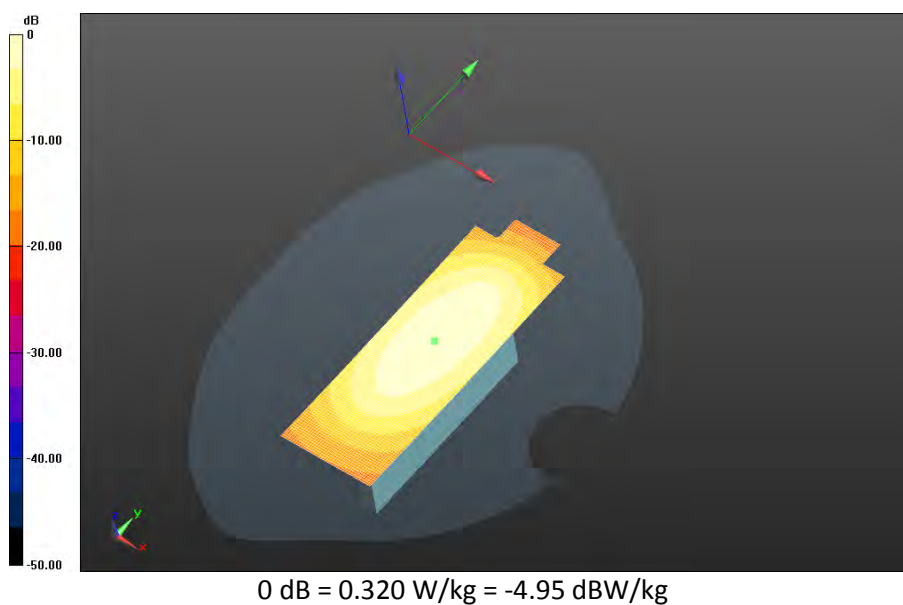
**V\_chan4182\_amb\_temp\_23.0C\_liq\_temp\_21.9C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 23.075 V/m; **Power Drift = 0.029 dB**

**Fast SAR: SAR(1g) = 0.453 W/kg; SAR(10g) = 0.302 W/kg**

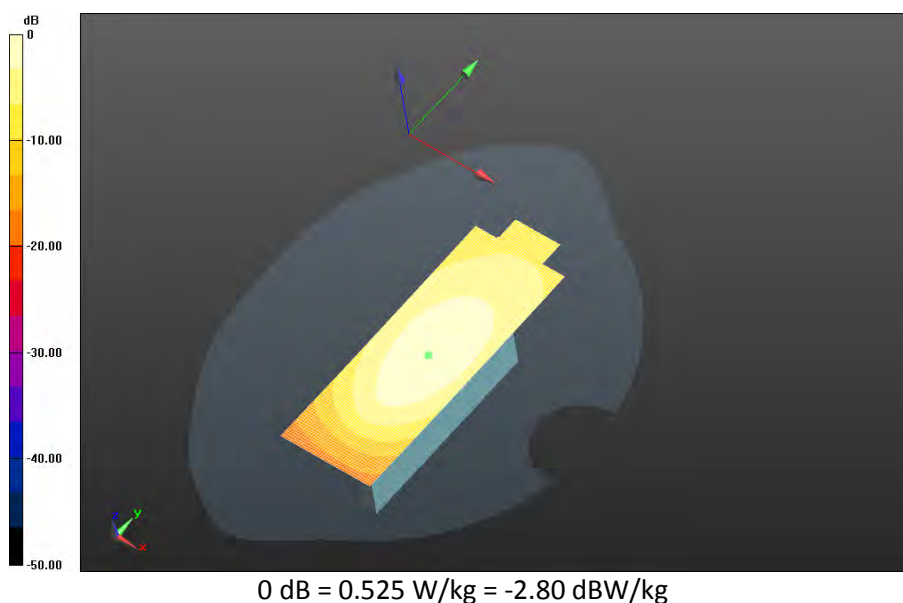
Maximum value of SAR (interpolated) = 0.525 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - UMTS band V/10mm Device Right -UMTS band**  
**V\_chan4182\_amb\_temp\_22.9C\_liq\_temp\_22.0C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 14.782 V/m; **Power Drift = -0.012 dB**

**Fast SAR: SAR(1g) = 0.179 W/kg; SAR(10g) = 0.119 W/kg**  
Maximum value of SAR (interpolated) = 0.207 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - UMTS band V/10mm Device Bottom -UMTS band**

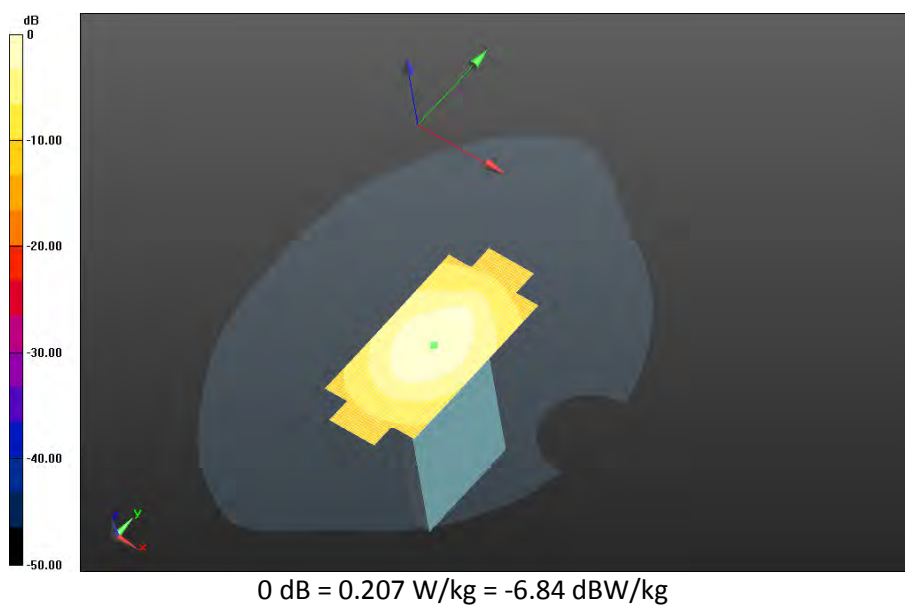
**V\_chan4182amb\_temp\_22.9C\_liq\_temp\_21.8C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 12.633 V/m; **Power Drift = -0.021 dB**

**Fast SAR: SAR(1g) = 0.135 W/kg; SAR(10g) = 0.0878 W/kg**

Maximum value of SAR (interpolated) = 0.157 W/kg





|                                                                                   |                                                  |                                                                                         |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                               | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

## UMTS Band V Rev 2

Date: 7/25/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEC30B**

### **Configuration: Mobile Hot Spot MSL - UMTS band V**

Communication System: WCDMA FDD V (0); Communication System Band: UMTS band V;

Frequency: 826.4 MHz

Medium Parameters used:  $f=826.4$  MHz;  $\sigma = 0.973$  S/m;  $\epsilon_r = 53.680$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (6.09,6.09,6.09); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Mobile Hot Spot MSL - UMTS band V/10mm Device Back - UMTS band**

**V\_chan4132\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 26.182 V/m; **Power Drift = -0.00962 dB**

**Fast SAR: SAR(1g) = 0.881 W/kg; SAR(10g) = 0.593 W/kg**

Maximum value of SAR (interpolated) = 1.03 W/kg

### **Mobile Hot Spot MSL - UMTS band V/10mm Device Back - UMTS band**

**V\_chan4132\_amb\_temp\_22.8C\_liq\_temp\_21.7C/Zoom Scan (26x26x36)/Cube 0:** Interpolated

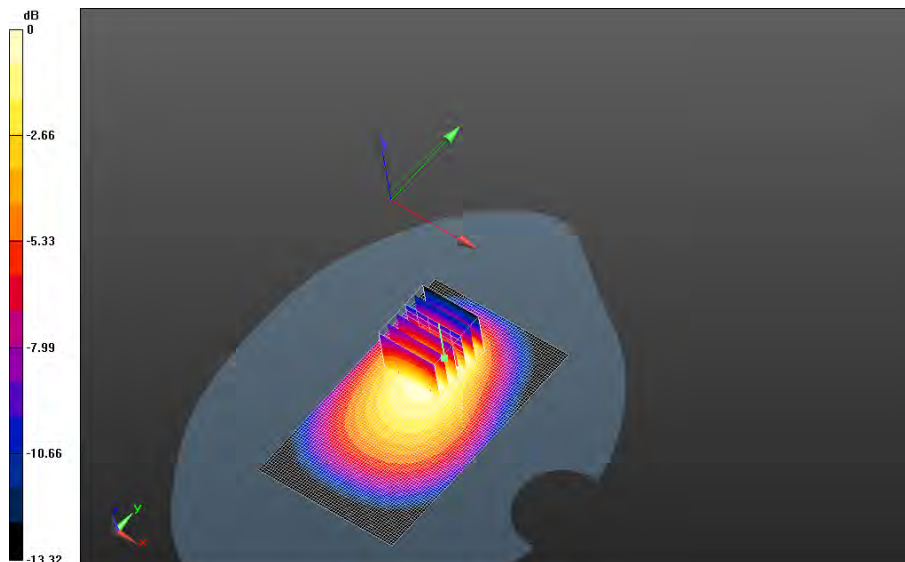
grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 26.182 V/m; **Power Drift = -0.00962 dB**

**Averaged SAR: SAR(1g) = 0.841 W/kg; SAR(10g) = 0.573 W/kg**

Maximum value of SAR (interpolated) = 1.26 W/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

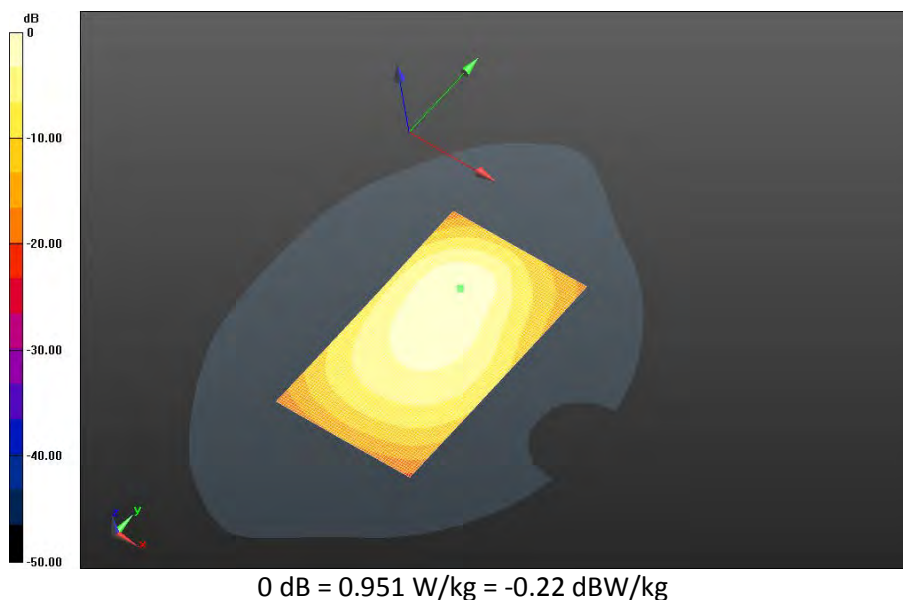


0 dB = 0.951 W/kg = -0.22 dBW/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - UMTS band V/10mm Device Back - UMTS band**  
**V\_chan4182\_amb\_temp\_22.8C\_liq\_temp\_21.8C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 26.829 V/m; **Power Drift = -0.090 dB**

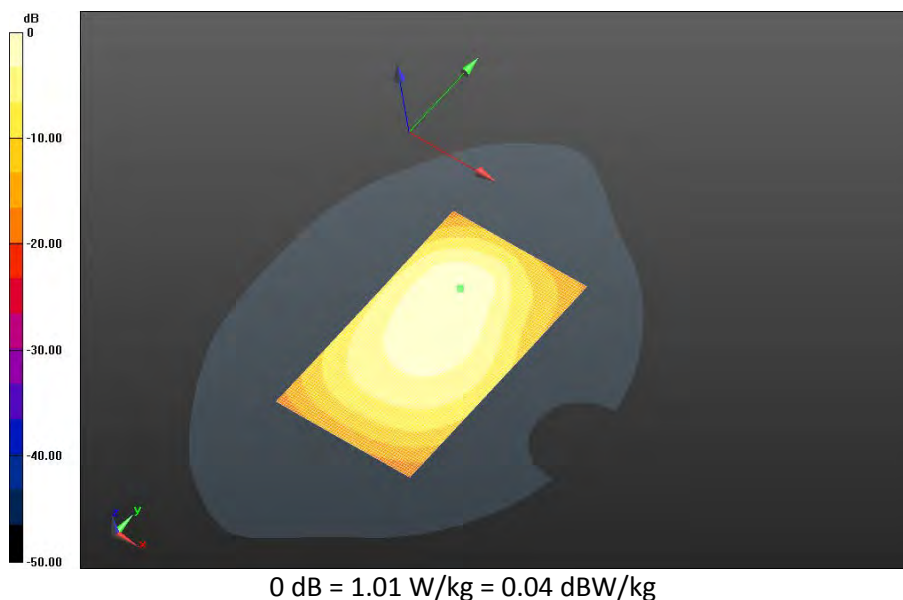
**Fast SAR: SAR(1g) = 0.866 W/kg; SAR(10g) = 0.583 W/kg**  
Maximum value of SAR (interpolated) = 1.01 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - UMTS band V/10mm Device Back - UMTS band**  
**V\_chan4233\_amb\_temp\_22.8C\_liq\_temp\_21.8C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 26.739 V/m; **Power Drift = -0.0021 dB**

**Fast SAR: SAR(1g) = 0.842 W/kg; SAR(10g) = 0.571 W/kg**  
Maximum value of SAR (interpolated) = 0.976 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - UMTS band V/10mm Device Back 2nd Scan - UMTS band**

**V\_chan4182\_amb\_temp\_22.8C\_liq\_temp\_21.8C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 25.758 V/m; **Power Drift = 0.00498 dB**

**Fast SAR: SAR(1g) = 0.828 W/kg; SAR(10g) = 0.559 W/kg**

Maximum value of SAR (interpolated) = 0.965 W/kg

**Mobile Hot Spot MSL - UMTS band V/10mm Device Back 2nd Scan - UMTS band**

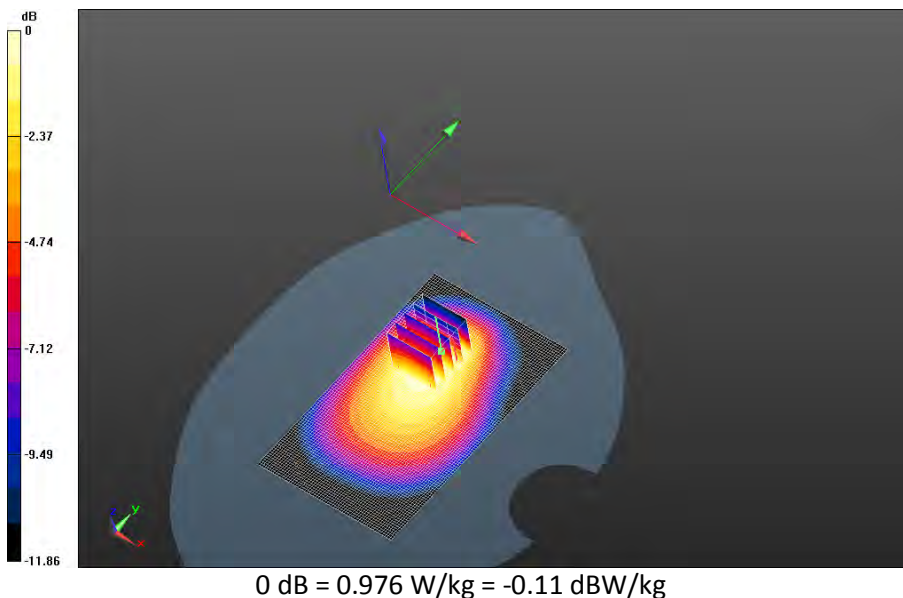
**V\_chan4182\_amb\_temp\_22.8C\_liq\_temp\_21.8C/Zoom Scan (21x21x36)/Cube 0:** Interpolated

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

Reference Value = 25.758 V/m; **Power Drift = 0.00498 dB**

**Averaged SAR: SAR(1g) = 0.809 W/kg; SAR(10g) = 0.556 W/kg**

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



|                                                                                   |                                                  |                                                                                         |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                               | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

## LTE Band 4

Date: 6/25/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEB280**

### Configuration: Mobile Hot Spot MSL - LTE Band 4

Communication System: LTE 4 (0); Communication System Band: LTE 4; Frequency: 1720 MHz

Medium Parameters used:  $f=1720$  MHz;  $\sigma = 1.503$  S/m;  $\epsilon_r = 50.905$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

### DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (4.93,4.93,4.93); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### Mobile Hot Spot MSL - LTE Band 4/10mm Device Back - LTE Band

**4\_chan20050\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_22.9C\_liq\_temp\_22.8C/Area Scan**

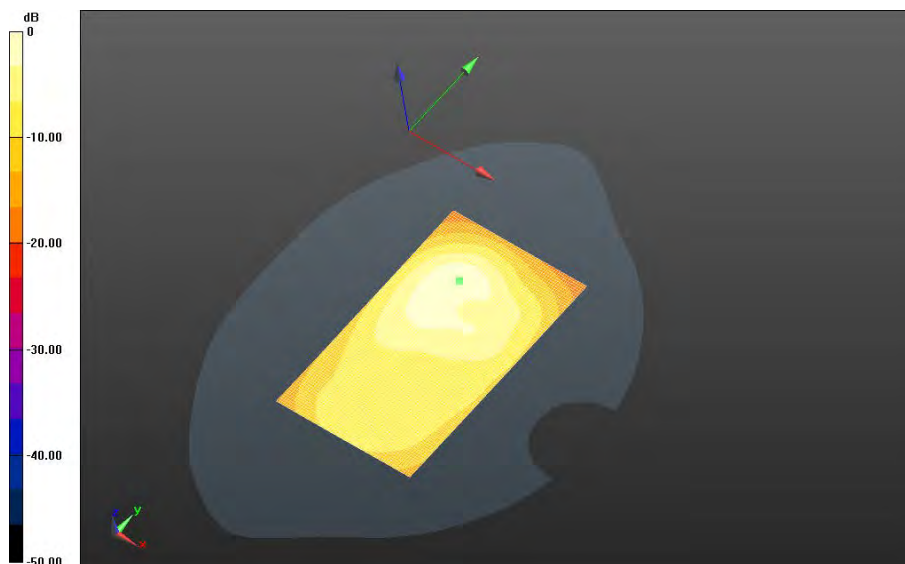
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 16.158 V/m; **Power Drift = 0.00737 dB**

**Fast SAR: SAR(1g) = 1.16 W/kg; SAR(10g) = 0.641 W/kg**

Maximum value of SAR (interpolated) = 1.53 W/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |



0 dB = 1.53 W/kg = 1.85 dBW/kg

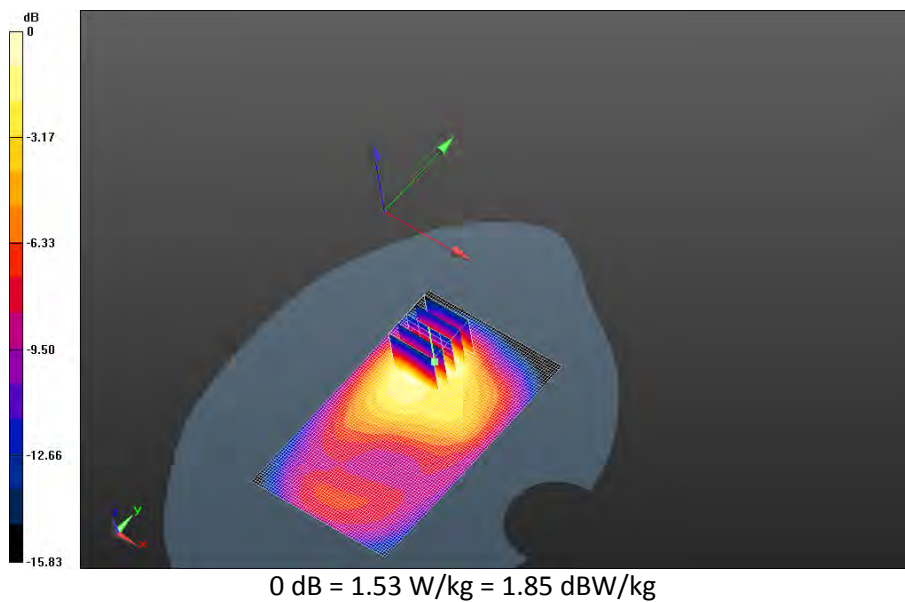
|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - LTE Band 4/10mm Device Back - LTE Band 4\_chan20175\_20MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_23.6C\_liq\_temp\_22.8C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 16.348 V/m; **Power Drift = 0.026 dB**

**Fast SAR: SAR(1g) = 1.17 W/kg; SAR(10g) = 0.647 W/kg**  
Maximum value of SAR (interpolated) = 1.55 W/kg

**Mobile Hot Spot MSL - LTE Band 4/10mm Device Back - LTE Band 4\_chan20175\_20MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_23.6C\_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 = 16.348 V/m; **Power Drift = 0.026 dB**

**Averaged SAR: SAR(1g) = 1.09 W/kg; SAR(10g) = 0.603 W/kg**  
Maximum value of SAR (interpolated) = 1.86 W/kg

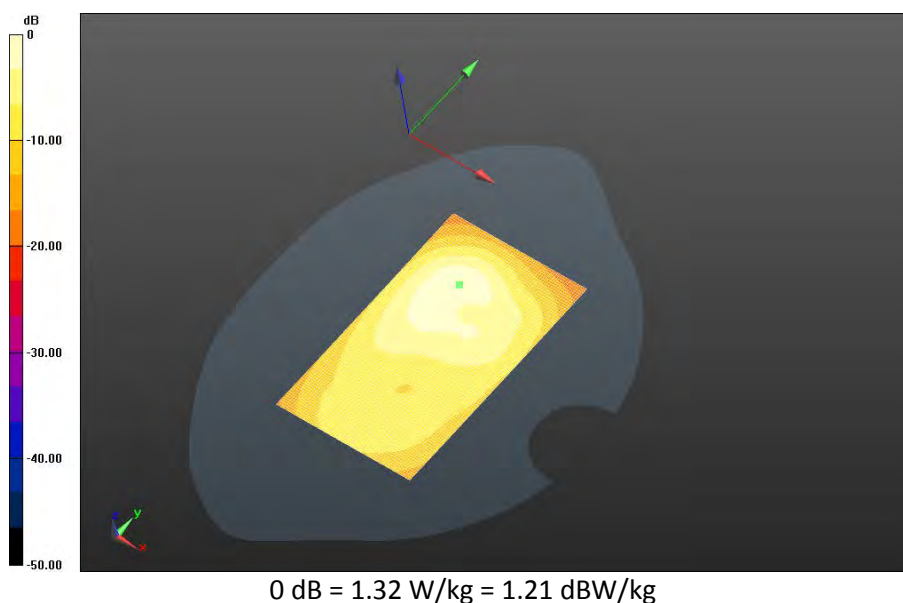




|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 4/10mm Device Back - LTE Band**  
**4\_chan20300\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.6C\_liq\_temp\_23.0C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 15.984 V/m; **Power Drift = 0.011 dB**

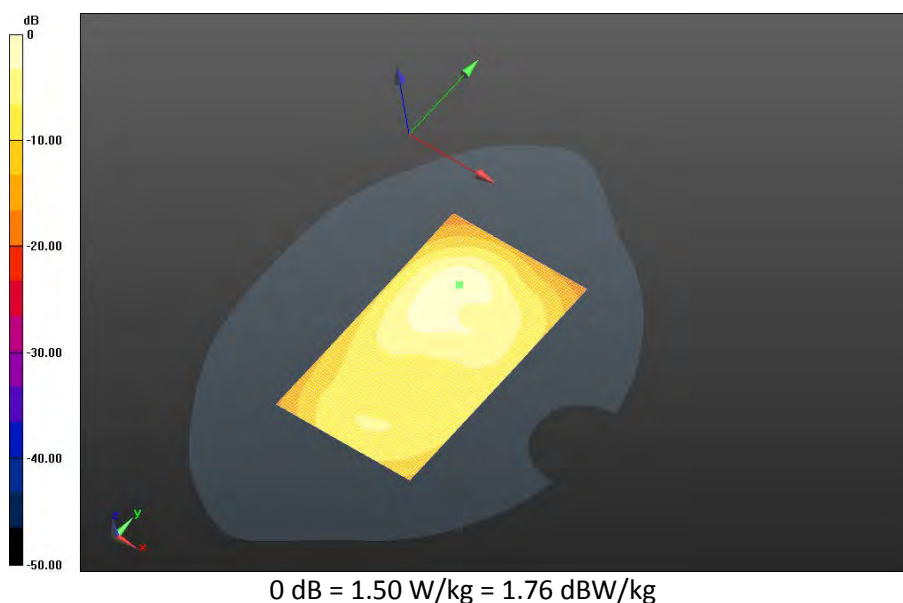
**Fast SAR: SAR(1g) = 1.14 W/kg; SAR(10g) = 0.626 W/kg**  
Maximum value of SAR (interpolated) = 1.50 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 4/10mm Device Back - LTE Band**  
**4\_chan20050\_20MHz\_BW\_RB50\_Offset\_High\_amb\_temp\_22.9C\_liq\_temp\_22.8C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 14.982 V/m; **Power Drift = -0.0015 dB**

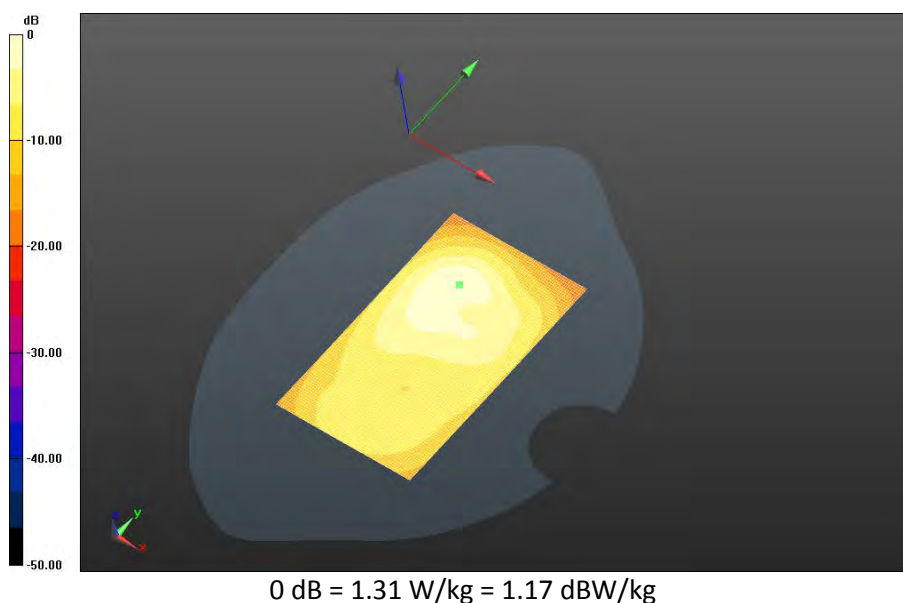
**Fast SAR: SAR(1g) = 0.992 W/kg; SAR(10g) = 0.549 W/kg**  
Maximum value of SAR (interpolated) = 1.31 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 4/10mm Device Back - LTE Band**  
**4\_chan20175\_20MHz\_BW\_RB50\_Offset\_Low\_amb\_temp\_23.3C\_liq\_temp\_22.8C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 15.287 V/m; **Power Drift = 0.020 dB**

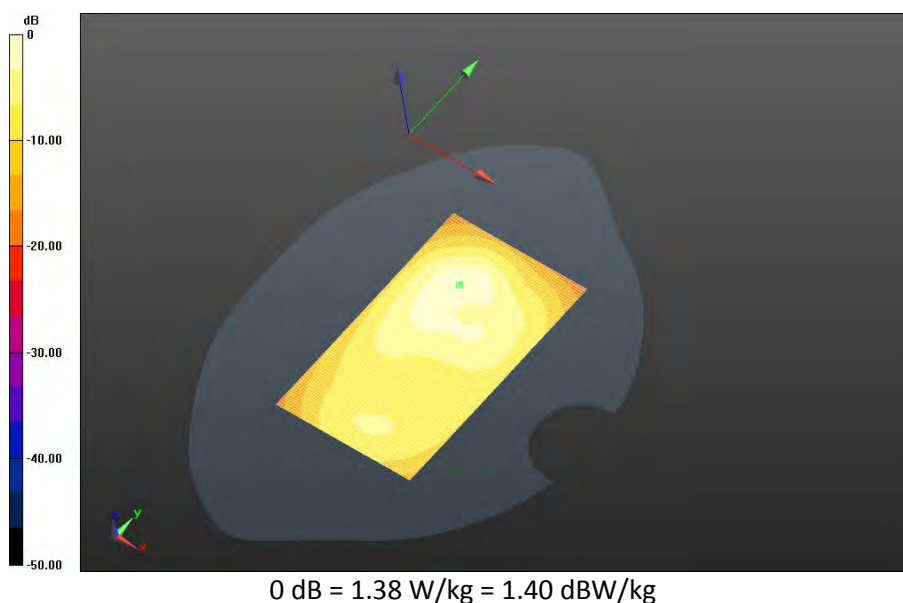
**Fast SAR: SAR(1g) = 1.05 W/kg; SAR(10g) = 0.580 W/kg**  
Maximum value of SAR (interpolated) = 1.38 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 4/10mm Device Back - LTE Band**  
**4\_chan20300\_20MHz\_BW\_RB50\_Offset\_High\_amb\_temp\_22.9C\_liq\_temp\_22.6C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 14.413 V/m; **Power Drift = 0.081 dB**

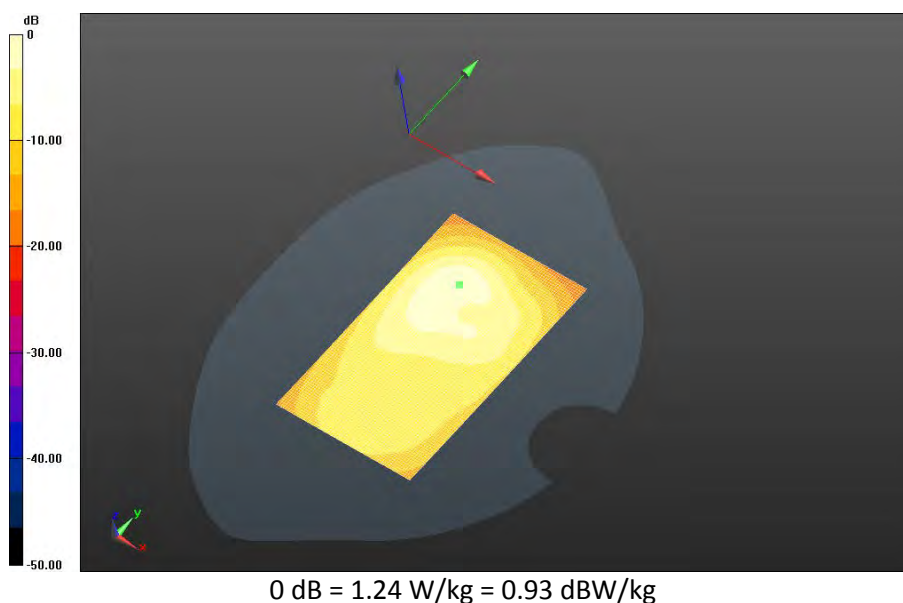
**Fast SAR: SAR(1g) = 0.945 W/kg; SAR(10g) = 0.513 W/kg**  
Maximum value of SAR (interpolated) = 1.24 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 4/10mm Device Back - LTE Band**  
**4\_chan20175\_20MHz\_BW\_RB100\_Offset\_Low\_amb\_temp\_22.9C\_liq\_temp\_22.8C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 15.483 V/m; **Power Drift = -0.025 dB**

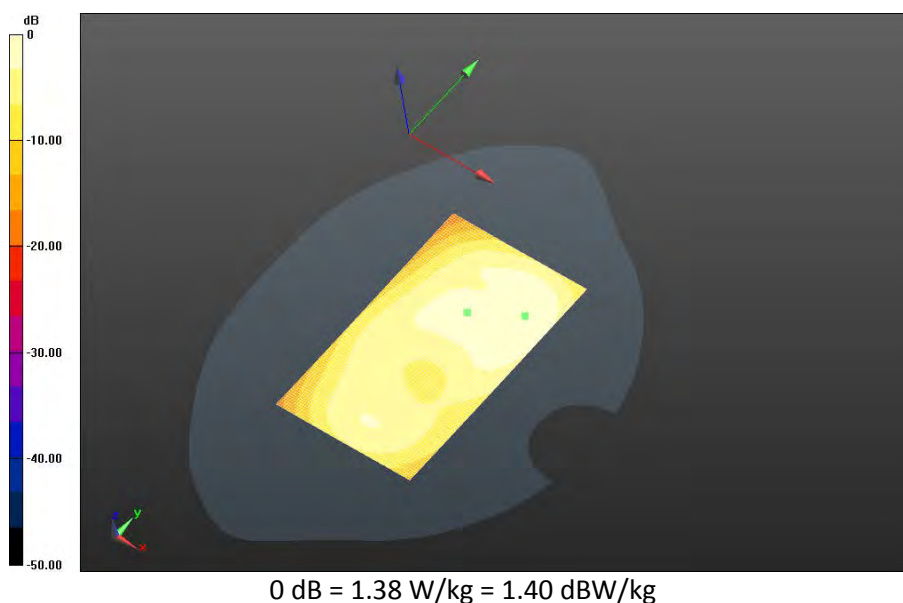
**Fast SAR: SAR(1g) = 1.05 W/kg; SAR(10g) = 0.578 W/kg**  
Maximum value of SAR (interpolated) = 1.38 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 4/10mm Device Front - LTE Band**  
**4\_chan20175\_20MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_22.7C\_liq\_temp\_22.6C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 12.343 V/m; **Power Drift = -0.013 dB**

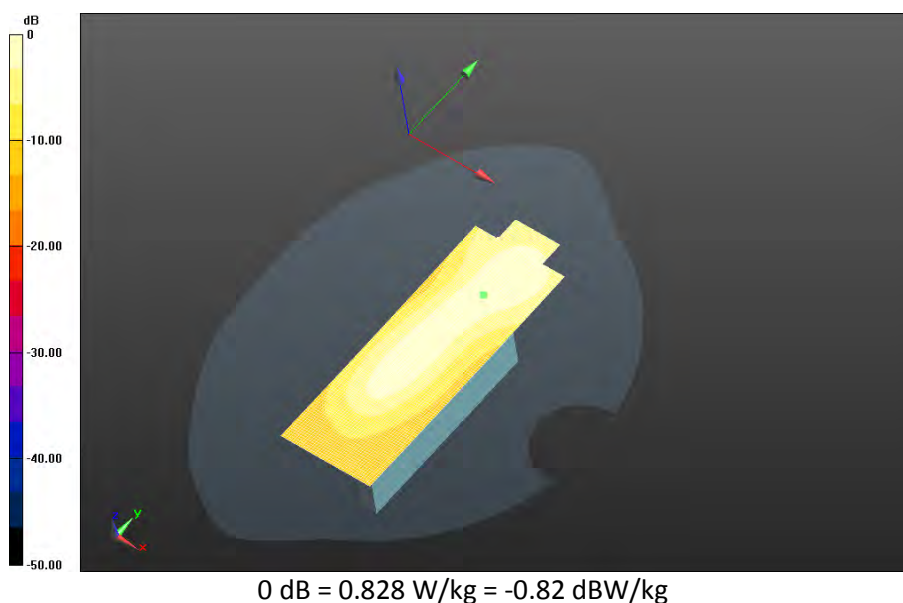
**Fast SAR: SAR(1g) = 0.675 W/kg; SAR(10g) = 0.398 W/kg**  
Maximum value of SAR (interpolated) = 0.828 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 4/10mm Device Left - LTE Band**  
**4\_chan20175\_20MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_22.7C\_liq\_temp\_22.6C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 14.250 V/m; **Power Drift = 0.082 dB**

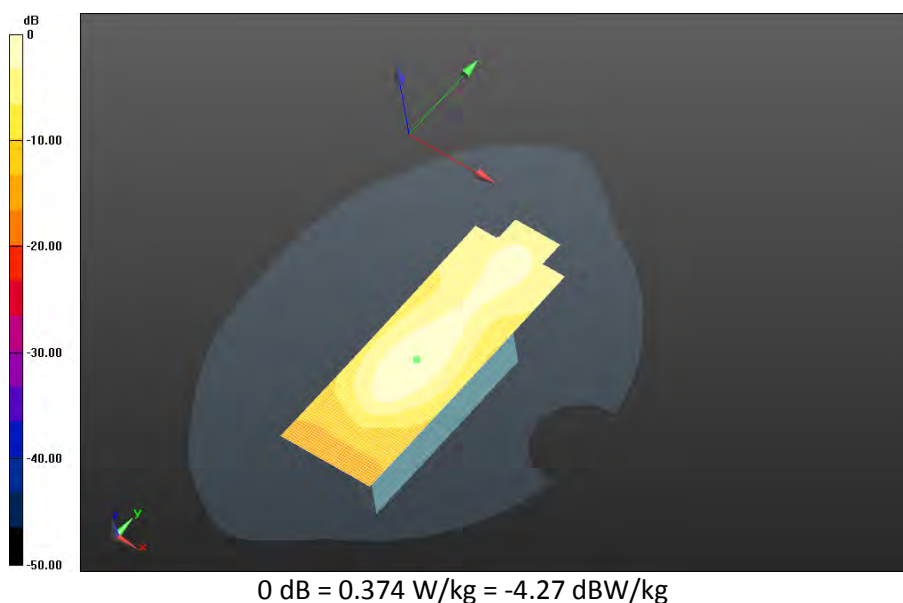
**Fast SAR: SAR(1g) = 0.300 W/kg; SAR(10g) = 0.172 W/kg**  
Maximum value of SAR (interpolated) = 0.374 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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**Mobile Hot Spot MSL - LTE Band 4/10mm Device Right -LTE Band**  
**4\_chan20175\_20MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_22.6C\_liq\_temp\_22.5C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 13.364 V/m; **Power Drift = 0.00678 dB**

**Fast SAR: SAR(1g) = 0.215 W/kg; SAR(10g) = 0.124 W/kg**  
Maximum value of SAR (interpolated) = 0.266 W/kg

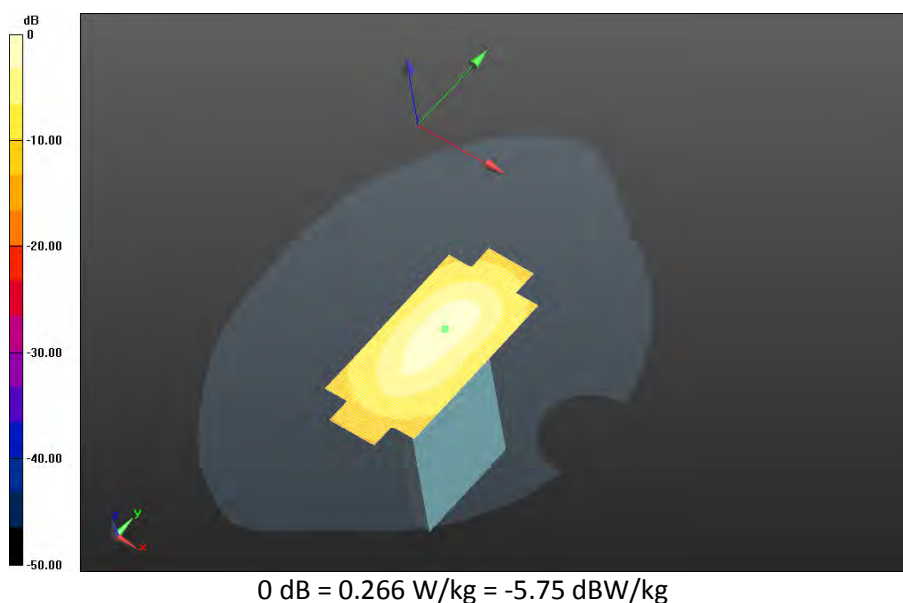




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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 4/10mm Device Bottom - LTE Band**  
**4\_chan20175\_20MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_22.6C\_liq\_temp\_22.5C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 23.690 V/m; **Power Drift = 0.039 dB**

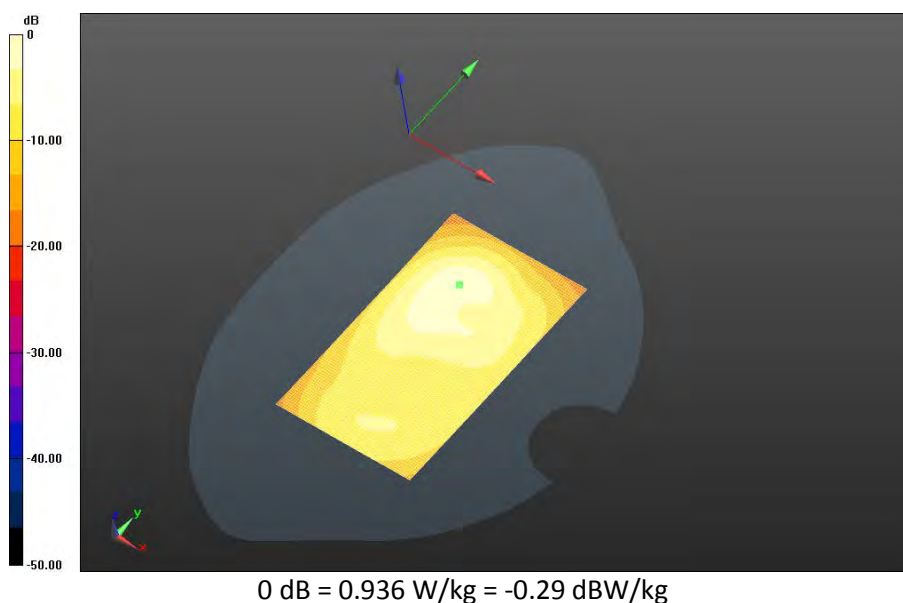
**Fast SAR: SAR(1g) = 0.738 W/kg; SAR(10g) = 0.405 W/kg**  
Maximum value of SAR (interpolated) = 0.936 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 4/Headset 10mm Device Back - LTE Band**  
**4\_chan20050\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_22.9C\_liq\_temp\_22.8C 2/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 15.868 V/m; **Power Drift = 0.034 dB**

**Fast SAR: SAR(1g) = 1.09 W/kg; SAR(10g) = 0.608 W/kg**  
Maximum value of SAR (interpolated) = 1.43 W/kg



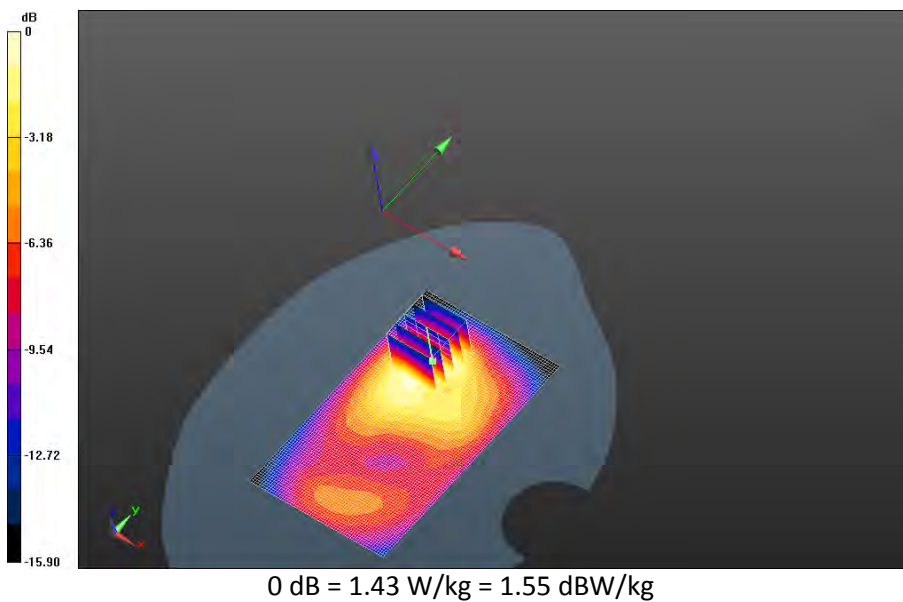
|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - LTE Band 4/10mm 2nd Scan\_Device Back - LTE Band 4\_chan20050\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_22.9C\_liq\_temp\_22.8C 2/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 15.740 V/m; **Power Drift = -0.034 dB**

**Fast SAR: SAR(1g) = 1.08 W/kg; SAR(10g) = 0.599 W/kg**  
Maximum value of SAR (interpolated) = 1.40 W/kg

**Mobile Hot Spot MSL - LTE Band 4/10mm 2nd Scan\_Device Back - LTE Band 4\_chan20050\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_22.9C\_liq\_temp\_22.8C 2/Zoom Scan (21x21x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm  
Reference Value = 15.740 V/m; **Power Drift = -0.034 dB**

**Averaged SAR: SAR(1g) = 1.02 W/kg; SAR(10g) = 0.573 W/kg**  
Maximum value of SAR (interpolated) = 1.74 W/kg



|                                                                                   |                                                  |                                                                                         |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                               | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

Date: 7/28/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEB280**

### **Configuration: Mobile Hot Spot MSL - LTE Band 4 (2)**

Communication System: LTE 4 (0); Communication System Band: LTE 4; Frequency: 1720 MHz

Medium Parameters used:  $f=1720$  MHz;  $\sigma = 1.500$  S/m;  $\epsilon_r = 50.885$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (4.93,4.93,4.93); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Mobile Hot Spot MSL - LTE Band 4 (2)/10mm Device Front - LTE Band**

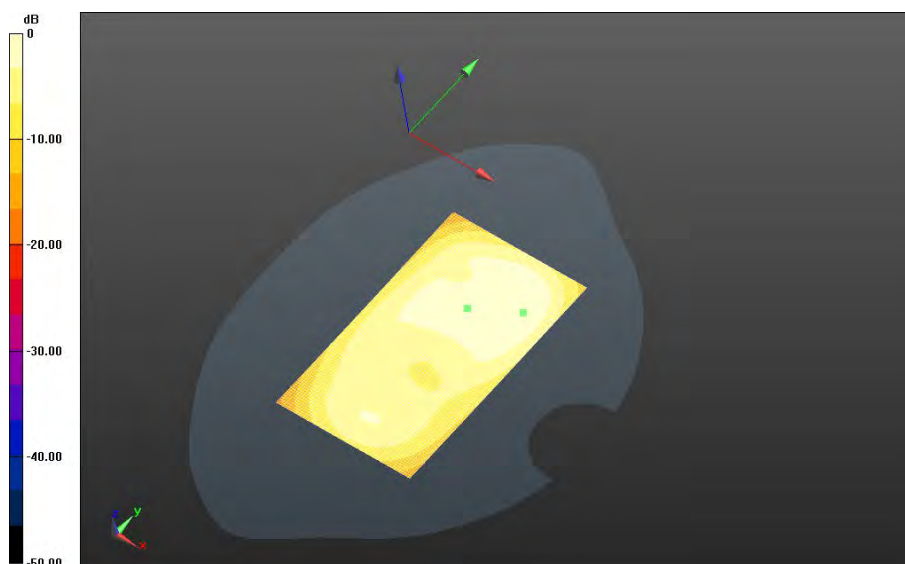
**4\_chan20050\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_22.7C\_liq\_temp\_22.6C/Area Scan**

**(121x171x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 13.242 V/m; **Power Drift = 0.088 dB**

**Fast SAR: SAR(1g) = 0.784 W/kg; SAR(10g) = 0.470 W/kg; Secondary SAR(1g) = 0.771 W/kg**

Maximum value of SAR (interpolated) = 0.983 W/kg

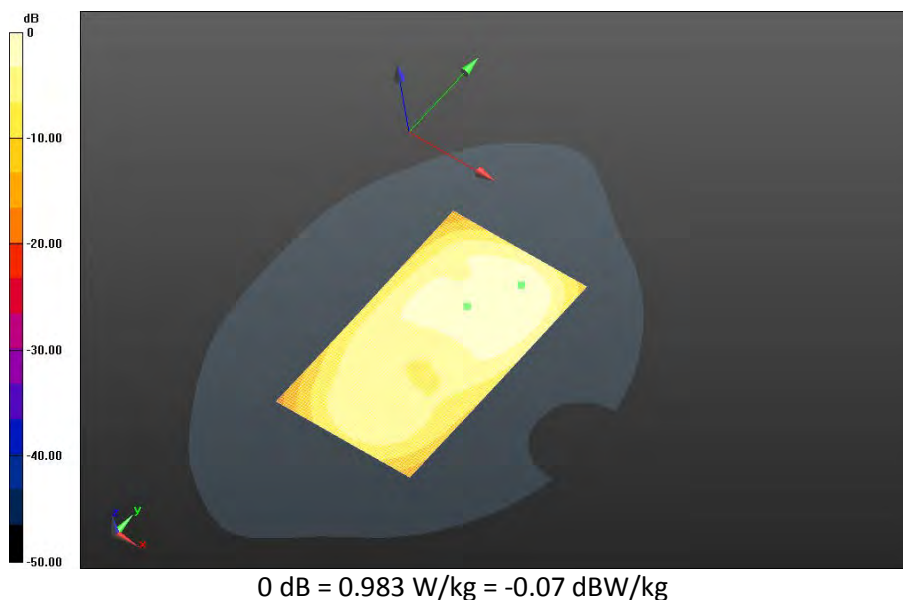


0 dB = 0.983 W/kg = -0.07 dBW/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 4 (2)/10mm Device Front - LTE Band**  
**4\_chan20300\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_22.7C\_liq\_temp\_22.6C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 12.955 V/m; **Power Drift = 0.019 dB**

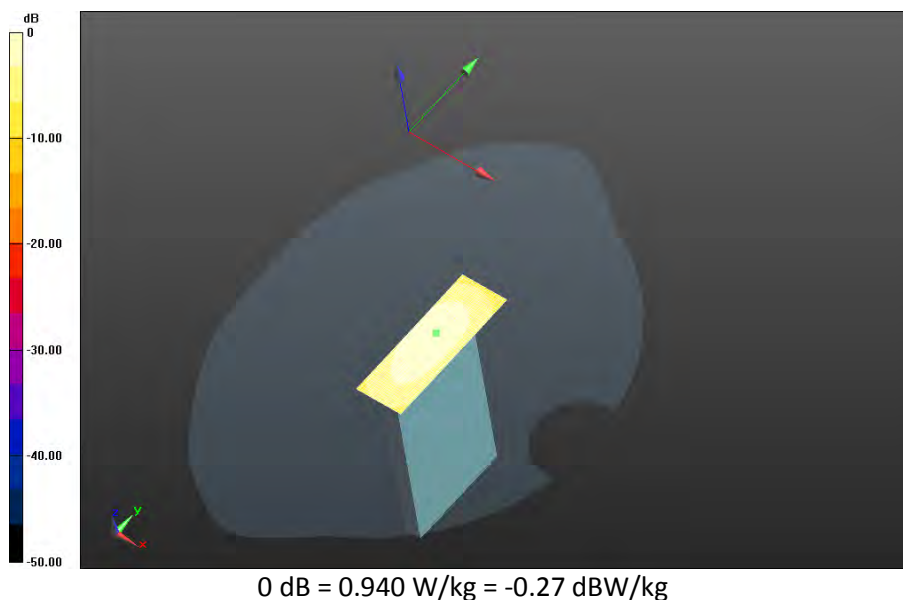
**Fast SAR: SAR(1g) = 0.743 W/kg; SAR(10g) = 0.446 W/kg; Secondary SAR(1g) = 0.738 W/kg**  
Maximum value of SAR (interpolated) = 0.940 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 4 (2)/10mm Device Bottom - LTE Band**  
**4\_chan20050\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_22.7C\_liq\_temp\_22.6C 2/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 24.015 V/m; **Power Drift = -0.079 dB**

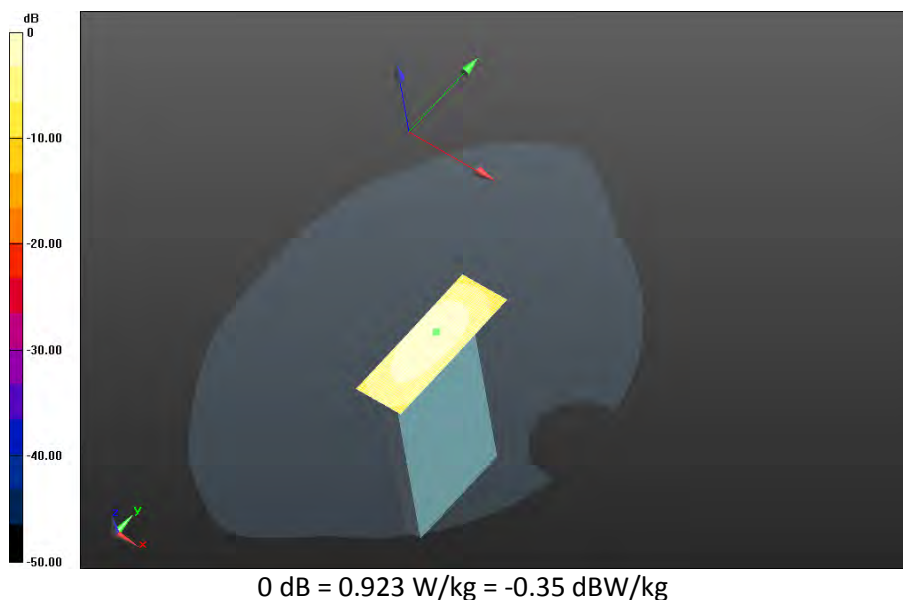
**Fast SAR: SAR(1g) = 0.719 W/kg; SAR(10g) = 0.424 W/kg; Secondary SAR(1g) = 0.738 W/kg**  
Maximum value of SAR (interpolated) = 0.923 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 4 (2)/10mm Device Bottom - LTE Band**  
**4\_chan20300\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_22.7C\_liq\_temp\_22.6C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 23.965 V/m; **Power Drift = -0.092 dB**

**Fast SAR: SAR(1g) = 0.741 W/kg; SAR(10g) = 0.436 W/kg; Secondary SAR(1g) = 0.738 W/kg**  
Maximum value of SAR (interpolated) = 0.957 W/kg



|                                                                                   |                                           |                                                                      |                        |                          |         |
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| Author Data<br>Andrew Becker                                                      | Dates of Test<br>June 23 – August 5, 2014 | Test Report No<br>RTS-6058-1408-04                                   | FCC ID:<br>L6ARHA110LW | IC ID:<br>2503A-RHA110LW |         |

## LTE Band 4 Rev 2

Date: 7/28/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEC30B**

### Configuration: Mobile Hot Spot MSL - LTE Band 4 Rev 2

Communication System: LTE 4 (0); Communication System Band: LTE 4; Frequency: 1720 MHz

Medium Parameters used:  $f=1720$  MHz;  $\sigma = 1.500$  S/m;  $\epsilon_r = 50.885$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

#### DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (4.93,4.93,4.93); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### Mobile Hot Spot MSL - LTE Band 4 Rev 2/10mm Device Back - LTE Band

**4\_chan20050\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_23.0C\_liq\_temp\_22.8C/Area Scan**

**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 16.425 V/m; **Power Drift = -0.135 dB**

**Fast SAR: SAR(1g) = 1.28 W/kg; SAR(10g) = 0.772 W/kg**

Maximum value of SAR (interpolated) = 1.52 W/kg

#### Mobile Hot Spot MSL - LTE Band 4 Rev 2/10mm Device Back - LTE Band

**4\_chan20050\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_23.0C\_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 = 16.425 V/m; **Power Drift = -0.135 dB**

**Averaged SAR: SAR(1g) = 1.30 W/kg; SAR(10g) = 0.738 W/kg**

Maximum value of SAR (interpolated) = 2.22 W/kg

#### Mobile Hot Spot MSL - LTE Band 4 Rev 2/10mm Device Back - LTE Band

**4\_chan20050\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_23.0C\_liq\_temp\_22.8C/Zoom Scan 2**

**(41x36x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 16.425 V/m; **Power Drift = -0.179 dB**

**Averaged SAR: SAR(1g) = 1.30 W/kg; SAR(10g) = 0.737 W/kg**

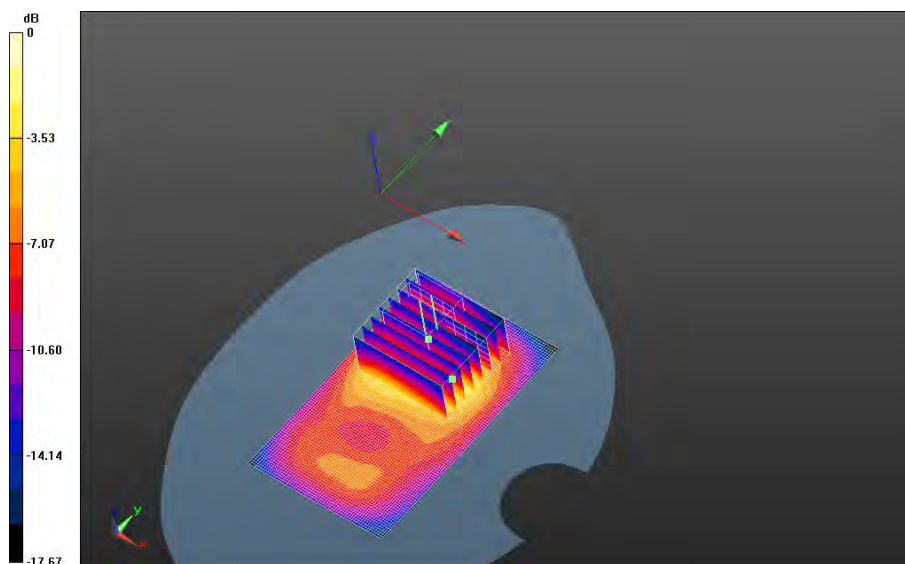
Maximum value of SAR (interpolated) = 2.22 W/kg

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|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |



0 dB = 1.55 W/kg = 1.90 dBW/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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**Mobile Hot Spot MSL - LTE Band 4 Rev 2/10mm Device Back - LTE Band 4\_chan20175\_20MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_23.0C\_liq\_temp\_22.8C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 16.356 V/m; **Power Drift = 0.019 dB**

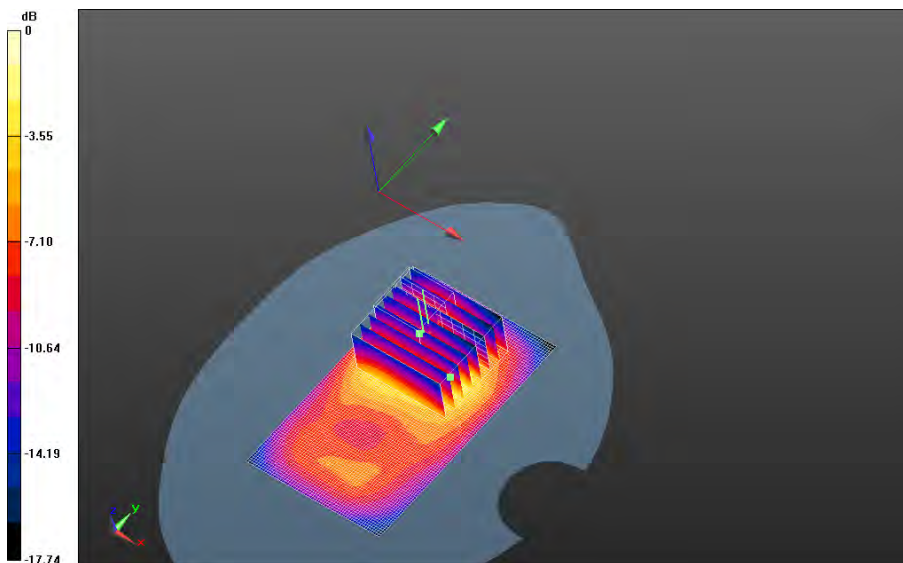
**Fast SAR: SAR(1g) = 1.28 W/kg; SAR(10g) = 0.774 W/kg; Secondary SAR(1g) = 0.880 W/kg**  
Maximum value of SAR (interpolated) = 1.52 W/kg

**Mobile Hot Spot MSL - LTE Band 4 Rev 2/10mm Device Back - LTE Band 4\_chan20175\_20MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_23.0C\_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 = 16.356 V/m; **Power Drift = 0.019 dB**

**Averaged SAR: SAR(1g) = 1.30 W/kg; SAR(10g) = 0.747 W/kg**  
Maximum value of SAR (interpolated) = 2.23 W/kg

**Mobile Hot Spot MSL - LTE Band 4 Rev 2/10mm Device Back - LTE Band 4\_chan20175\_20MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_23.0C\_liq\_temp\_22.8C/Zoom Scan 2 (41x36x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm  
Reference Value = 16.356 V/m; **Power Drift = -0.140 dB**

**Averaged SAR: SAR(1g) = 1.31 W/kg; SAR(10g) = 0.744 W/kg**  
Maximum value of SAR (interpolated) = 2.24 W/kg



0 dB = 1.55 W/kg = 1.90 dBW/kg

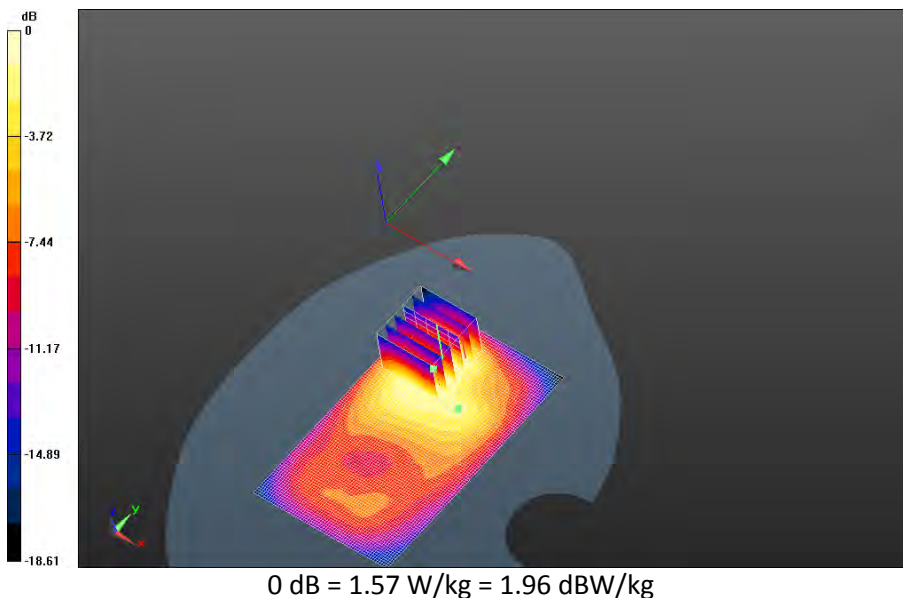
|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - LTE Band 4 Rev 2/10mm Device Back - LTE Band 4\_chan20300\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.6C\_liq\_temp\_23.0C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 16.245 V/m; **Power Drift = -0.075 dB**

**Fast SAR: SAR(1g) = 1.33 W/kg; SAR(10g) = 0.806 W/kg; Secondary SAR(1g) = 0.880 W/kg**  
Maximum value of SAR (interpolated) = 1.58 W/kg

**Mobile Hot Spot MSL - LTE Band 4 Rev 2/10mm Device Back - LTE Band 4\_chan20300\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.6C\_liq\_temp\_23.0C/Zoom Scan (26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm  
Reference Value = 16.245 V/m; **Power Drift = -0.075 dB**

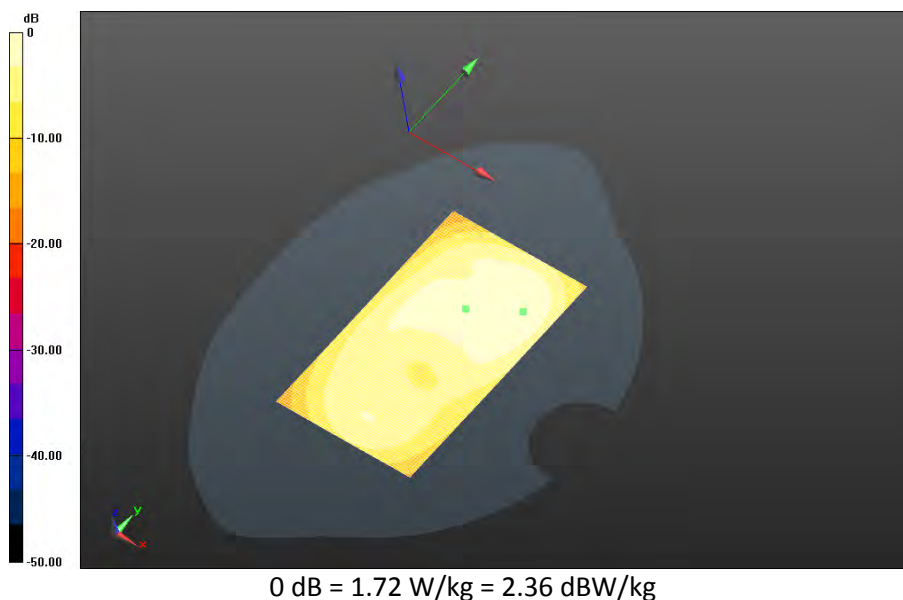
**Averaged SAR: SAR(1g) = 1.38 W/kg; SAR(10g) = 0.773 W/kg**  
Maximum value of SAR (interpolated) = 2.36 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - LTE Band 4 Rev 2/10mm Device Front - LTE Band**  
**4\_chan20175\_20MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_22.7C\_liq\_temp\_22.6C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 13.831 V/m; **Power Drift = 0.131 dB**

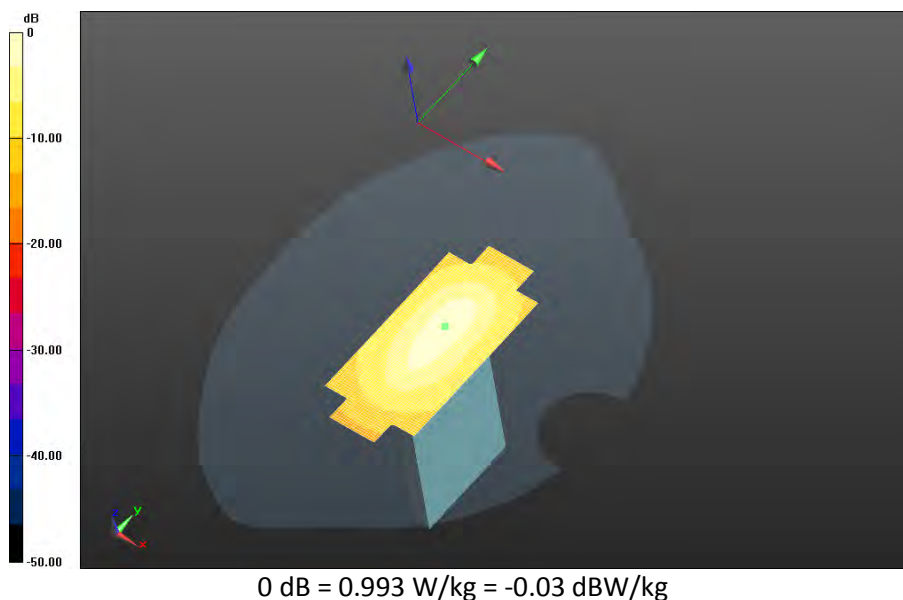
**Fast SAR: SAR(1g) = 0.795 W/kg; SAR(10g) = 0.470 W/kg; Secondary SAR(1g) = 0.640 W/kg**  
Maximum value of SAR (interpolated) = 0.993 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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**Mobile Hot Spot MSL - LTE Band 4 Rev 2/10mm Device Bottom - LTE Band**  
**4\_chan20175\_20MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_22.6C\_liq\_temp\_22.5C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 28.902 V/m; **Power Drift = -0.019 dB**

**Fast SAR: SAR(1g) = 1.03 W/kg; SAR(10g) = 0.547 W/kg; Secondary SAR(1g) = 0.640 W/kg**  
Maximum value of SAR (interpolated) = 1.32 W/kg



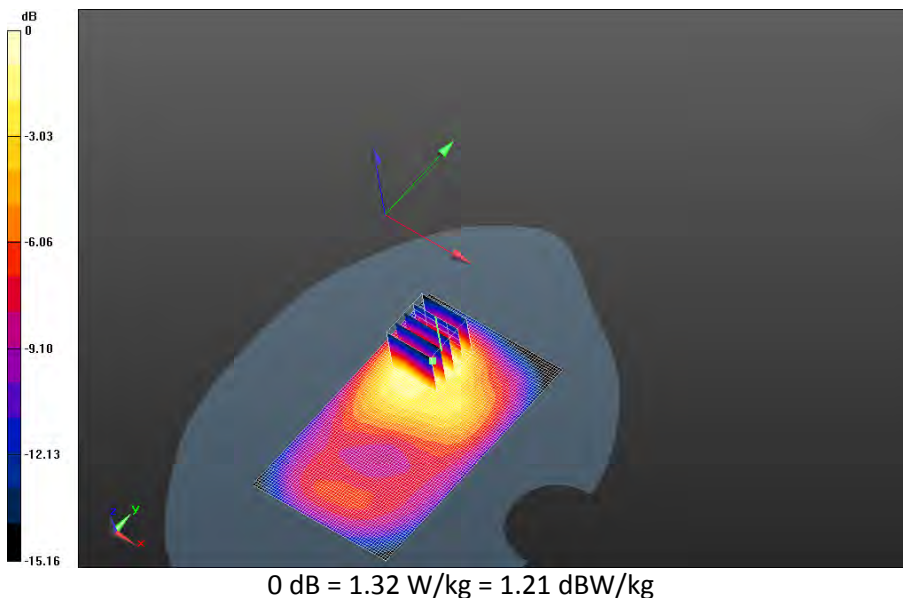
|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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**Mobile Hot Spot MSL - LTE Band 4 Rev 2/10mm 2nd Scan Device Back - LTE Band 4\_chan20300\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_22.9C\_liq\_temp\_22.8C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 16.083 V/m; **Power Drift = 0.011 dB**

**Fast SAR: SAR(1g) = 1.36 W/kg; SAR(10g) = 0.778 W/kg; Secondary SAR(1g) = 0.640 W/kg**  
Maximum value of SAR (interpolated) = 1.68 W/kg

**Mobile Hot Spot MSL - LTE Band 4 Rev 2/10mm 2nd Scan Device Back - LTE Band 4\_chan20300\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_22.9C\_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 = 16.083 V/m; **Power Drift = 0.011 dB**

**Averaged SAR: SAR(1g) = 1.35 W/kg; SAR(10g) = 0.754 W/kg**  
Maximum value of SAR (interpolated) = 2.31 W/kg



|                                                                                   |                                                  |                                                                                         |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                               | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

## LTE Band 2

Date: 7/8/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEB280**

### Configuration: Mobile Hot Spot MSL - LTE Band 2

Communication System: LTE 2 (0); Communication System Band: LTE Band 2; Frequency: 1860 MHz

Medium Parameters used:  $f=1860$  MHz;  $\sigma = 1.478$  S/m;  $\epsilon_r = 50.829$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

#### DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (4.93,4.93,4.93); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### Mobile Hot Spot MSL - LTE Band 2/10mm Device Back - LTE Band

**2\_chan18700\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_22.9C\_liq\_temp\_22.8C/Area Scan**

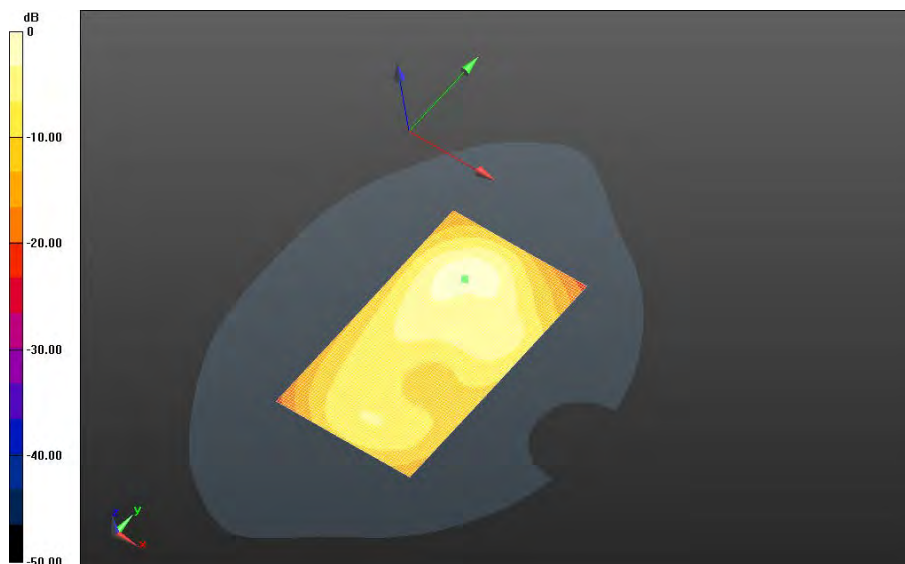
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 12.145 V/m; **Power Drift = 0.115 dB**

**Fast SAR: SAR(1g) = 1.00 W/kg; SAR(10g) = 0.517 W/kg**

Maximum value of SAR (interpolated) = 1.30 W/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |



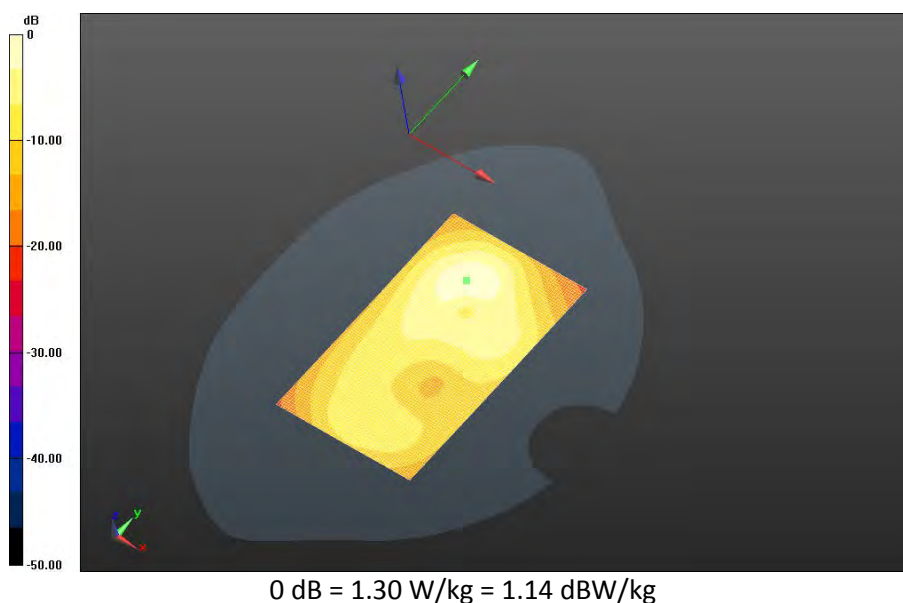
0 dB = 1.30 W/kg = 1.14 dBW/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 2/10mm Device Back - LTE Band**  
**2\_chan18900\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_23.6C\_liq\_temp\_22.8C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 11.840 V/m; **Power Drift = 0.00229 dB**

**Fast SAR: SAR(1g) = 1.08 W/kg; SAR(10g) = 0.556 W/kg**  
Maximum value of SAR (interpolated) = 1.42 W/kg



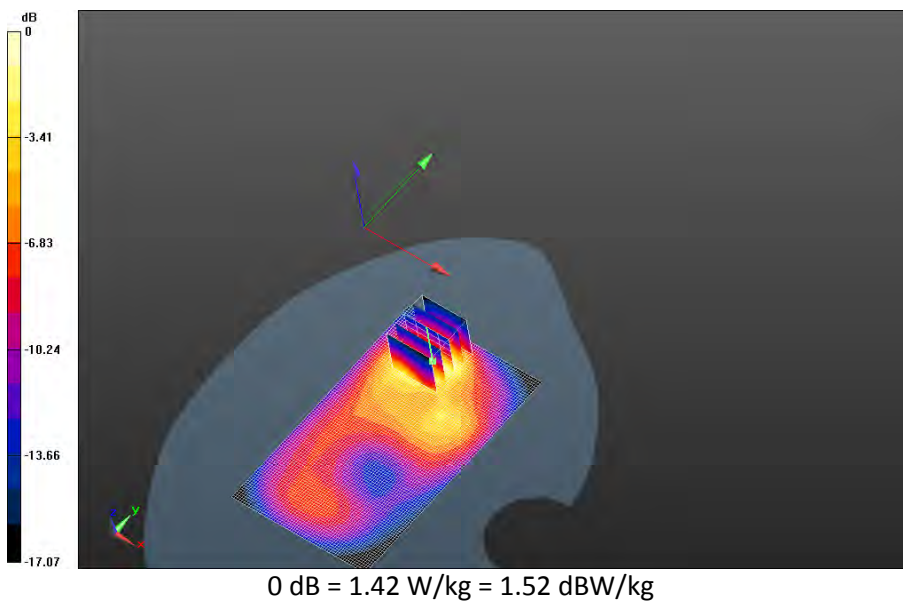
|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - LTE Band 2/10mm Device Back - LTE Band 2\_chan19100\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_23.6C\_liq\_temp\_23.0C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 10.518 V/m; **Power Drift = -0.024 dB**

**Fast SAR: SAR(1g) = 1.09 W/kg; SAR(10g) = 0.586 W/kg**  
Maximum value of SAR (interpolated) = 1.44 W/kg

**Mobile Hot Spot MSL - LTE Band 2/10mm Device Back - LTE Band 2\_chan19100\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_23.6C\_liq\_temp\_23.0C/Zoom Scan (21x21x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm  
Reference Value = 10.518 V/m; **Power Drift = -0.024 dB**

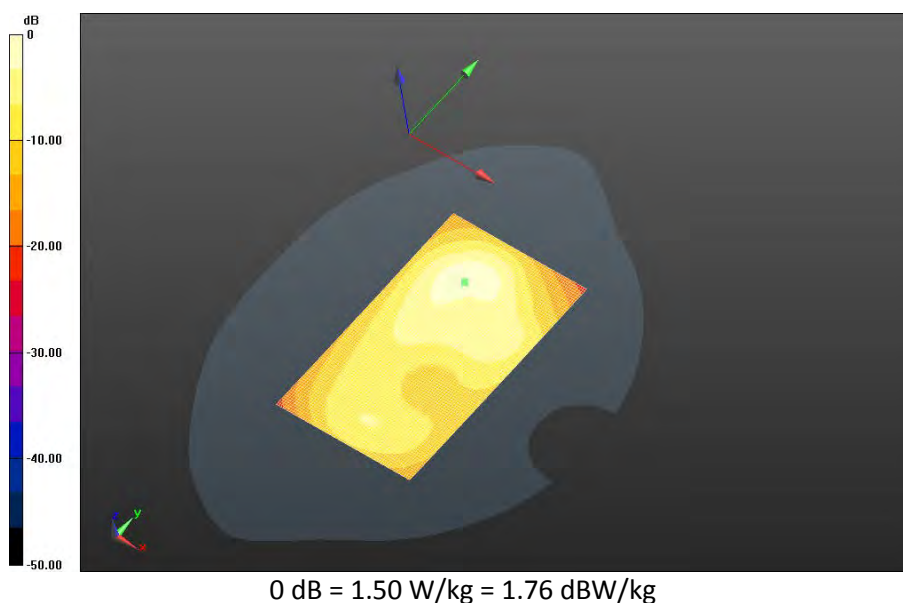
**Averaged SAR: SAR(1g) = 1.18 W/kg; SAR(10g) = 0.619 W/kg**  
Maximum value of SAR (interpolated) = 2.09 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 2/10mm Device Back - LTE Band**  
**2\_chan18700\_20MHz\_BW\_RB50\_Offset\_Low\_amb\_temp\_22.9C\_liq\_temp\_22.8C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 10.719 V/m; **Power Drift = 0.045 dB**

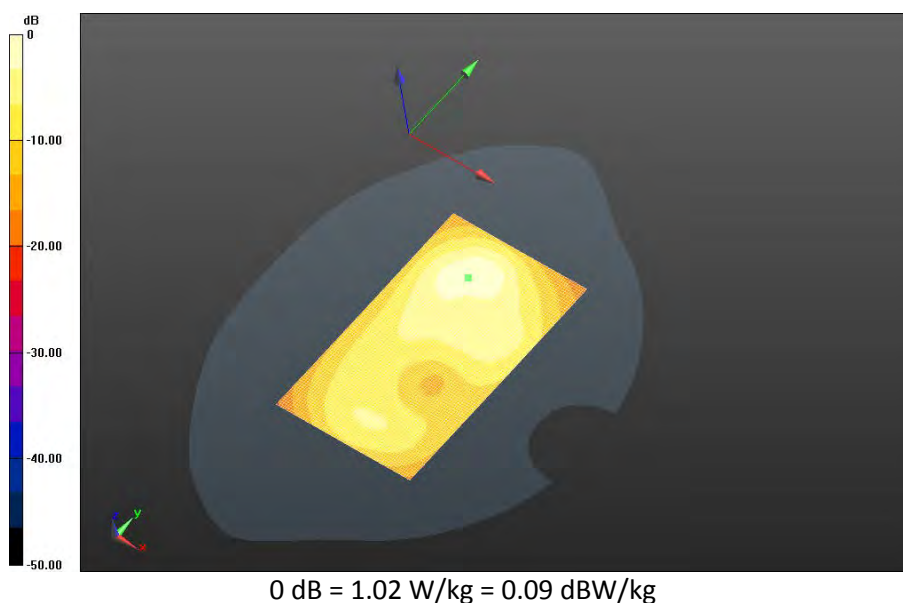
**Fast SAR: SAR(1g) = 0.792 W/kg; SAR(10g) = 0.411 W/kg**  
Maximum value of SAR (interpolated) = 1.02 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 2/10mm Device Back - LTE Band**  
**2\_chan19100\_20MHz\_BW\_RB100\_Offset\_Low\_amb\_temp\_22.9C\_liq\_temp\_22.8C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 9.971 V/m; **Power Drift = 0.108 dB**

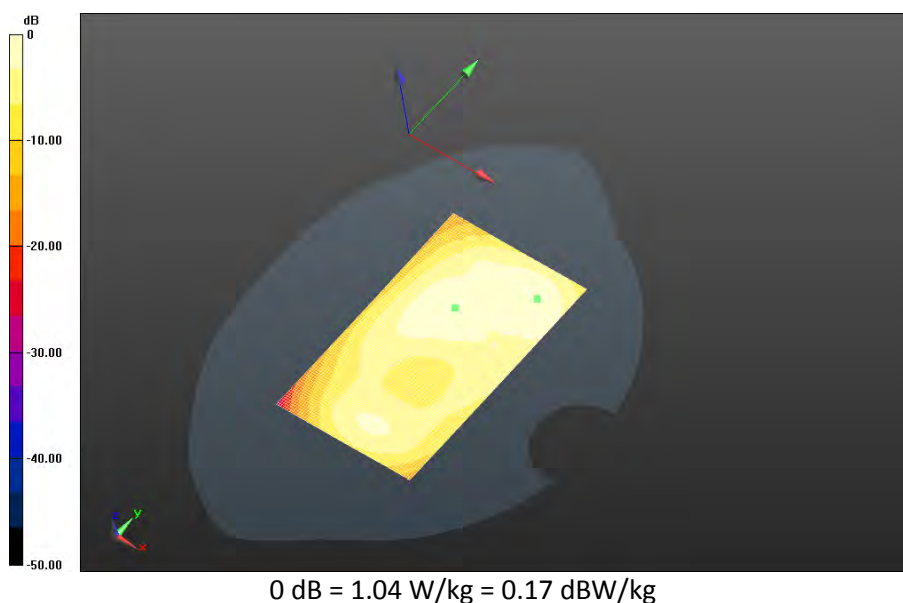
**Fast SAR: SAR(1g) = 0.811 W/kg; SAR(10g) = 0.429 W/kg**  
Maximum value of SAR (interpolated) = 1.04 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 2/10mm Device Front - LTE Band**  
**2\_chan18700\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_22.7C\_liq\_temp\_22.6C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 10.193 V/m; **Power Drift = 0.014 dB**

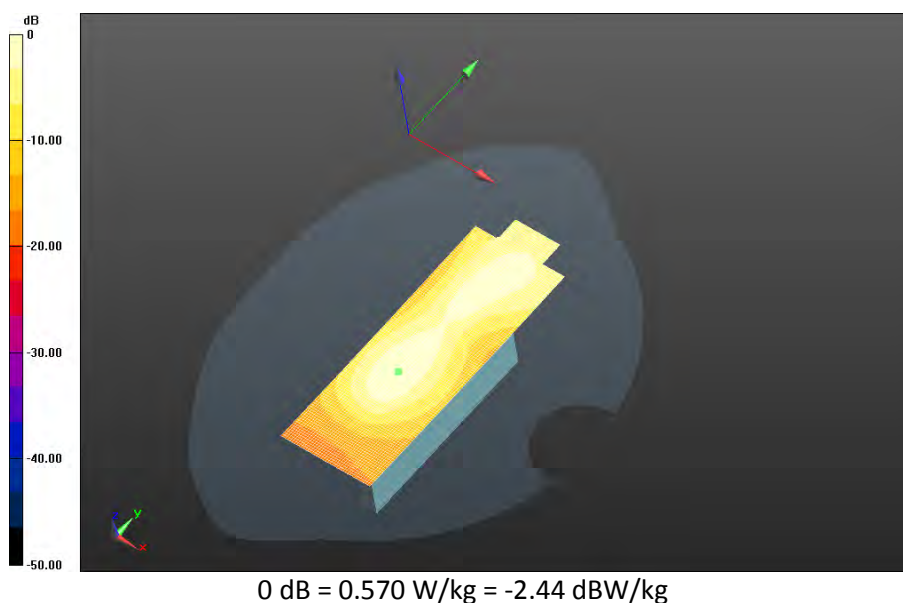
**Fast SAR: SAR(1g) = 0.470 W/kg; SAR(10g) = 0.278 W/kg**  
Maximum value of SAR (interpolated) = 0.570 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 2/10mm Device Left - LTE Band**  
**2\_chan18700\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_22.7C\_liq\_temp\_22.6C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 11.084 V/m; **Power Drift = -0.014 dB**

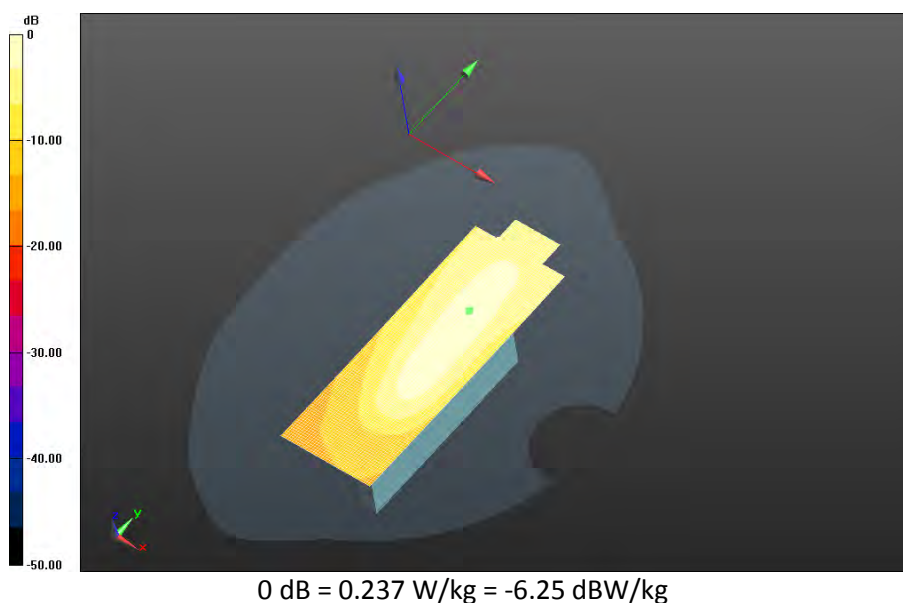
**Fast SAR: SAR(1g) = 0.175 W/kg; SAR(10g) = 0.101 W/kg**  
Maximum value of SAR (interpolated) = 0.237 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 2/10mm Device Right -LTE Band**  
**2\_chan18700\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_22.6C\_liq\_temp\_22.5C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 11.049 V/m; **Power Drift = 0.013 dB**

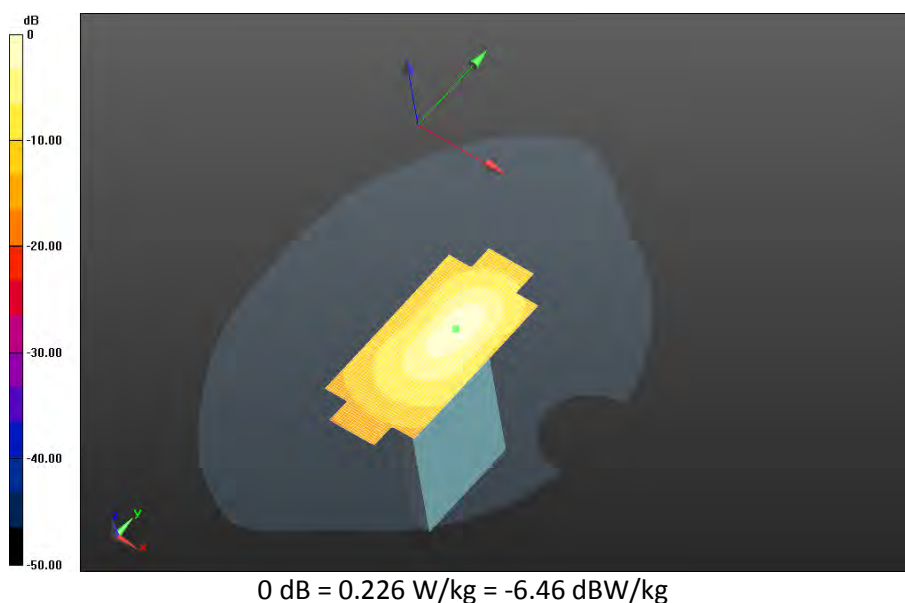
**Fast SAR: SAR(1g) = 0.183 W/kg; SAR(10g) = 0.102 W/kg**  
Maximum value of SAR (interpolated) = 0.226 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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**Mobile Hot Spot MSL - LTE Band 2/10mm Device Bottom - LTE Band**  
**2\_chan18700\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_22.6C\_liq\_temp\_22.5C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 21.859 V/m; **Power Drift = -0.00874 dB**

**Fast SAR: SAR(1g) = 0.737 W/kg; SAR(10g) = 0.380 W/kg**  
Maximum value of SAR (interpolated) = 0.981 W/kg

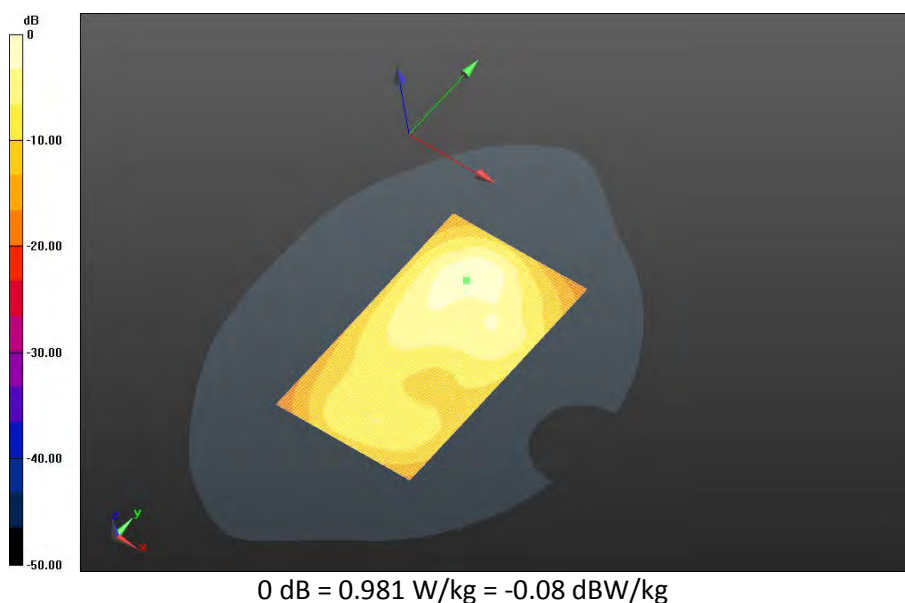




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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 2/Headset 10mm Device Back - LTE Band**  
**2\_chan18700\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_22.9C\_liq\_temp\_22.8C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 12.318 V/m; **Power Drift = 0.023 dB**

**Fast SAR: SAR(1g) = 0.944 W/kg; SAR(10g) = 0.506 W/kg**  
Maximum value of SAR (interpolated) = 1.20 W/kg



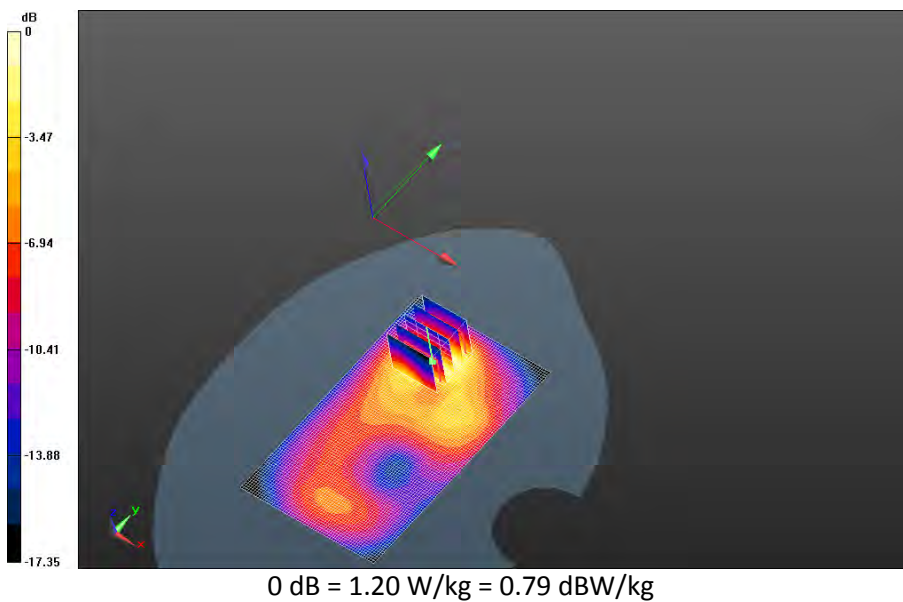
|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - LTE Band 2/10mm 2nd Scan\_Device Back - LTE Band 2\_chan19100\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_22.9C\_liq\_temp\_22.8C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 11.616 V/m; **Power Drift = -0.079 dB**

**Fast SAR: SAR(1g) = 1.09 W/kg; SAR(10g) = 0.575 W/kg**  
Maximum value of SAR (interpolated) = 1.40 W/kg

**Mobile Hot Spot MSL - LTE Band 2/10mm 2nd Scan\_Device Back - LTE Band 2\_chan19100\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_22.9C\_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 = 11.616 V/m; **Power Drift = -0.079 dB**

**Averaged SAR: SAR(1g) = 1.18 W/kg; SAR(10g) = 0.611 W/kg**  
Maximum value of SAR (interpolated) = 2.10 W/kg



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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

Date: 7/28/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEB280**

### **Configuration: Mobile Hot Spot MSL - LTE Band 2 (2)**

Communication System: LTE 2 (0); Communication System Band: LTE Band 2; Frequency: 1880 MHz

Medium Parameters used:  $f=1880$  MHz;  $\sigma = 1.507$  S/m;  $\epsilon_r = 50.837$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (4.93,4.93,4.93); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

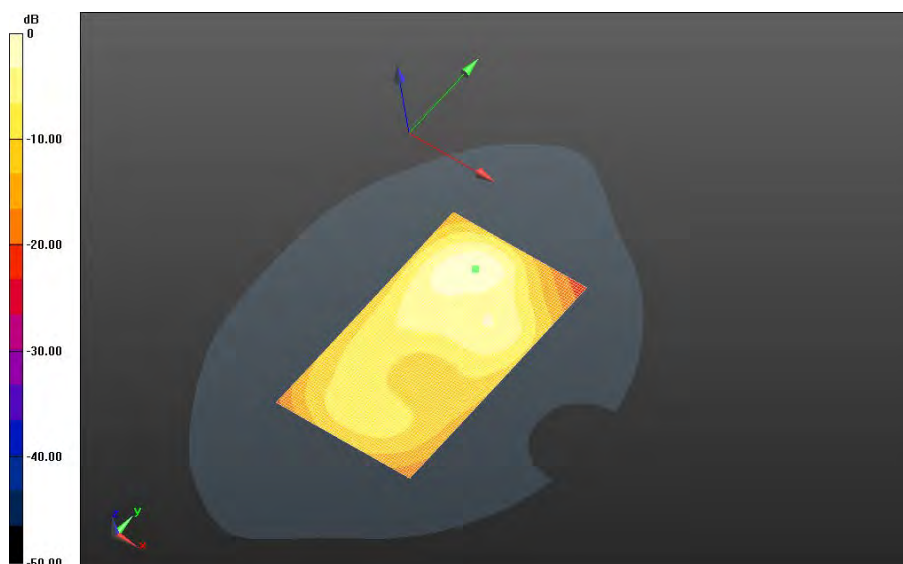
### **Mobile Hot Spot MSL - LTE Band 2 (2)/10mm Device Back - LTE Band 2\_chan18900\_20MHz\_BW\_RB50\_Offset\_Low\_amb\_temp\_24.3C\_liq\_temp\_22.8C/Area Scan (121x171x1):**

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

Reference Value = 8.991 V/m; **Power Drift = -0.010 dB**

**Fast SAR: SAR(1g) = 0.806 W/kg; SAR(10g) = 0.444 W/kg**

Maximum value of SAR (interpolated) = 1.05 W/kg

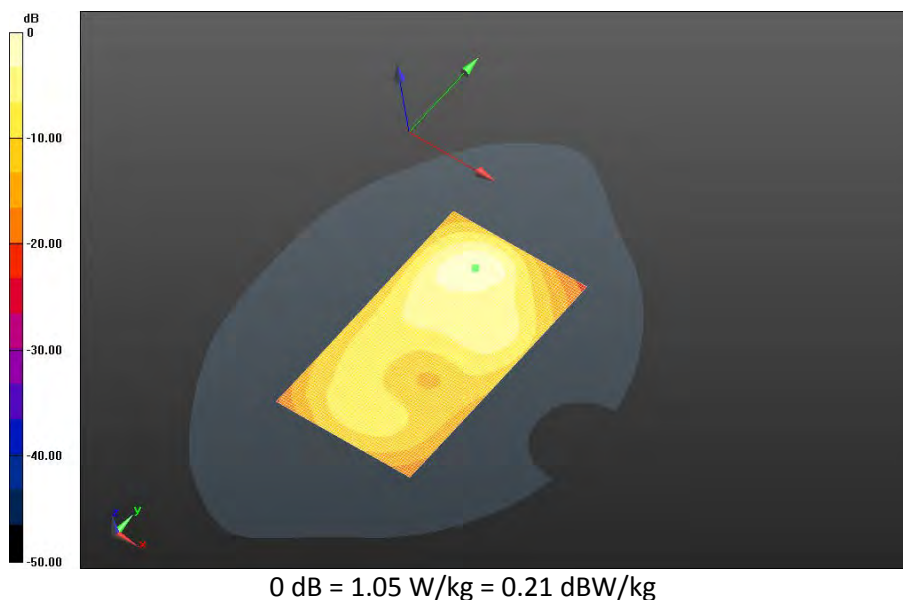


0 dB = 1.05 W/kg = 0.21 dBW/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 2 (2)/10mm Device Back - LTE Band**  
**2\_chan19100\_20MHz\_BW\_RB50\_Offset\_Low\_amb\_temp\_23.9C\_liq\_temp\_22.8C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 9.021 V/m; **Power Drift = 0.00968 dB**

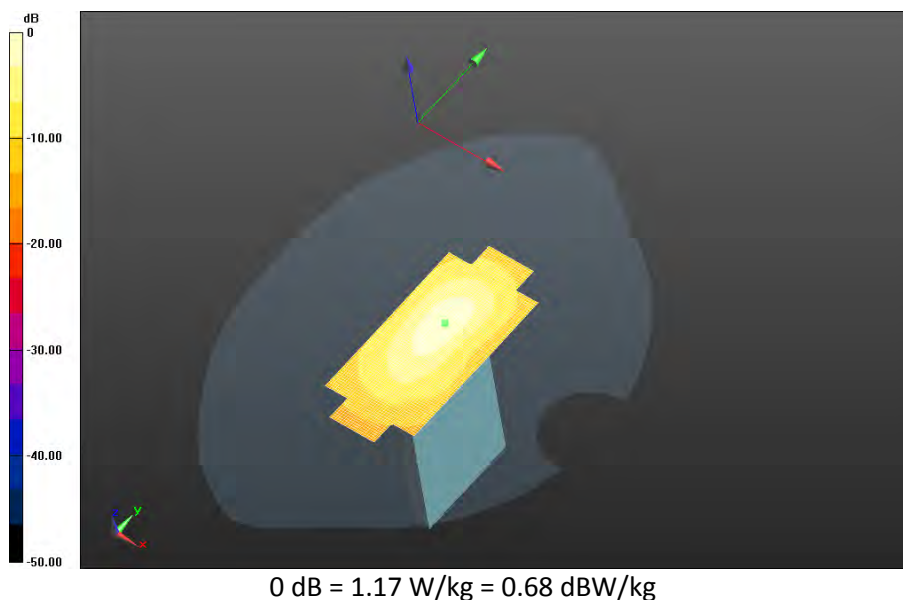
**Fast SAR: SAR(1g) = 0.893 W/kg; SAR(10g) = 0.483 W/kg**  
Maximum value of SAR (interpolated) = 1.17 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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**Mobile Hot Spot MSL - LTE Band 2 (2)/10mm Device Bottom - LTE Band**  
**2\_chan18900\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_24.2C\_liq\_temp\_22.5C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 22.752 V/m; **Power Drift = -0.021 dB**

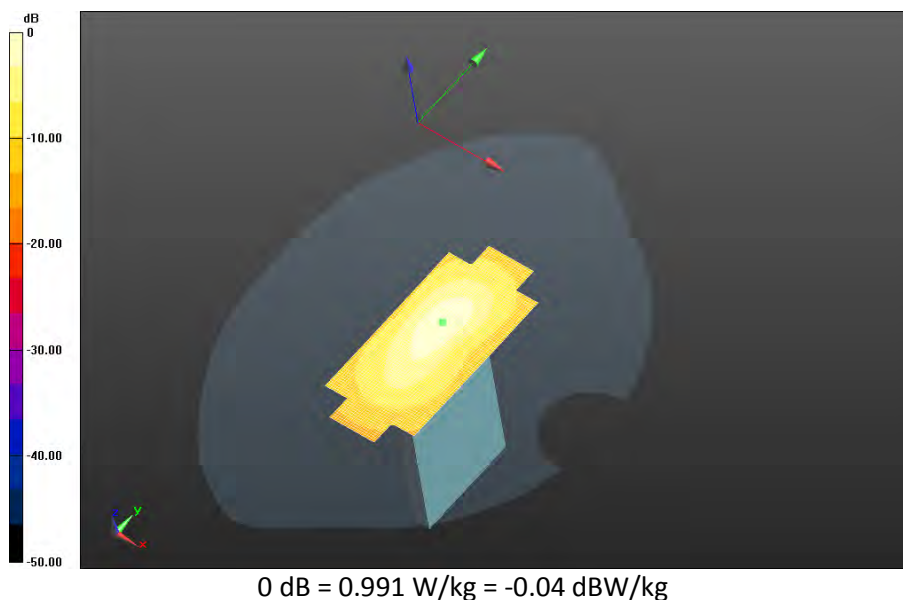
**Fast SAR: SAR(1g) = 0.749 W/kg; SAR(10g) = 0.395 W/kg**  
Maximum value of SAR (interpolated) = 0.991 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - LTE Band 2 (2)/10mm Device Bottom - LTE Band**  
**2\_chan19100\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_24.3C\_liq\_temp\_22.5C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 24.000 V/m; **Power Drift = 0.00911 dB**

**Fast SAR: SAR(1g) = 0.856 W/kg; SAR(10g) = 0.449 W/kg**  
Maximum value of SAR (interpolated) = 1.14 W/kg



|                                                                                   |                                           |                                                                      |                        |                          |         |
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| Author Data<br>Andrew Becker                                                      | Dates of Test<br>June 23 – August 5, 2014 | Test Report No<br>RTS-6058-1408-04                                   | FCC ID:<br>L6ARHA110LW | IC ID:<br>2503A-RHA110LW |         |

## GPRS 1900

Date: 7/9/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEB280**

### **Configuration: Mobile Hot Spot MSL - GPRS 1900**

Communication System: GSM 1900 (0); Communication System Band: GSM 1900; Frequency: 1880 MHz

Medium Parameters used:  $f=1880$  MHz;  $\sigma = 1.496$  S/m;  $\epsilon_r = 50.779$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

#### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (4.93,4.93,4.93); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Mobile Hot Spot MSL - GPRS 1900/10mm Device Back - GPRS 1900\_1-slot**

**\_chan661\_amb\_temp\_23.8C\_liq\_temp\_22.7C/Area Scan (121x171x1):** Interpolated grid:

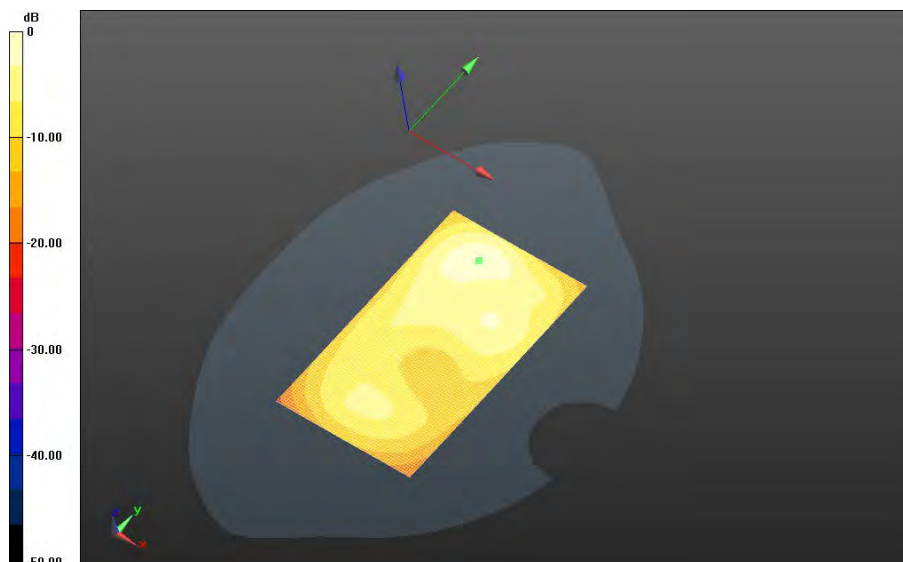
$dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 6.187 V/m; **Power Drift = 0.063 dB**

**Fast SAR: SAR(1g) = 0.473 W/kg; SAR(10g) = 0.244 W/kg**

Maximum value of SAR (interpolated) = 0.632 W/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |



0 dB = 0.632 W/kg = -1.99 dBW/kg



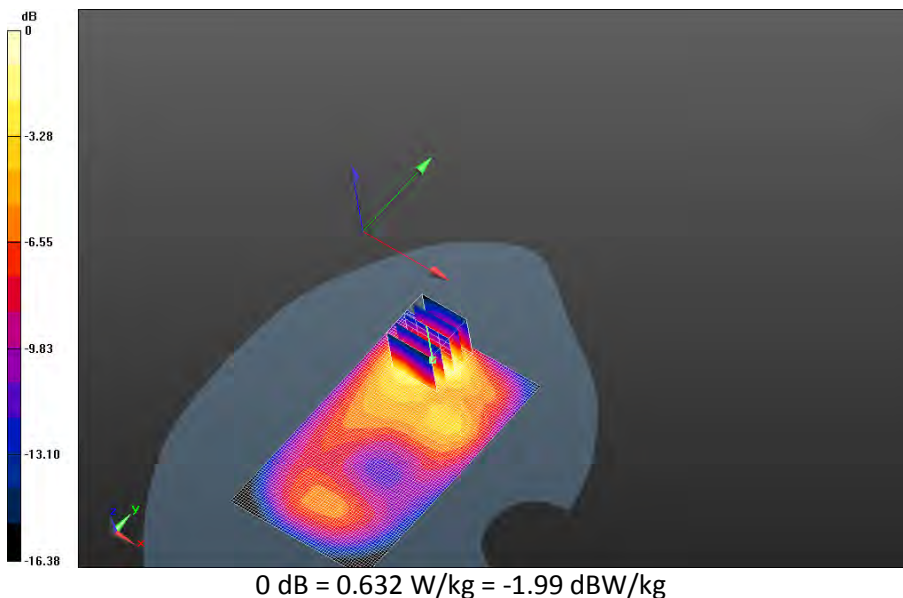
|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - GPRS 1900/10mm Device Back - GPRS 1900\_2-slot**  
**\_chan512\_amb\_temp\_23.8C\_liq\_temp\_22.4C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 9.131 V/m; **Power Drift = 0.047 dB**

**Fast SAR: SAR(1g) = 0.872 W/kg; SAR(10g) = 0.458 W/kg**  
Maximum value of SAR (interpolated) = 1.14 W/kg

**Mobile Hot Spot MSL - GPRS 1900/10mm Device Back - GPRS 1900\_2-slot**  
**\_chan512\_amb\_temp\_23.8C\_liq\_temp\_22.4C/Zoom Scan (21x21x36)/Cube 0:** Interpolated  
grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm  
Reference Value = 9.131 V/m; **Power Drift = 0.047 dB**

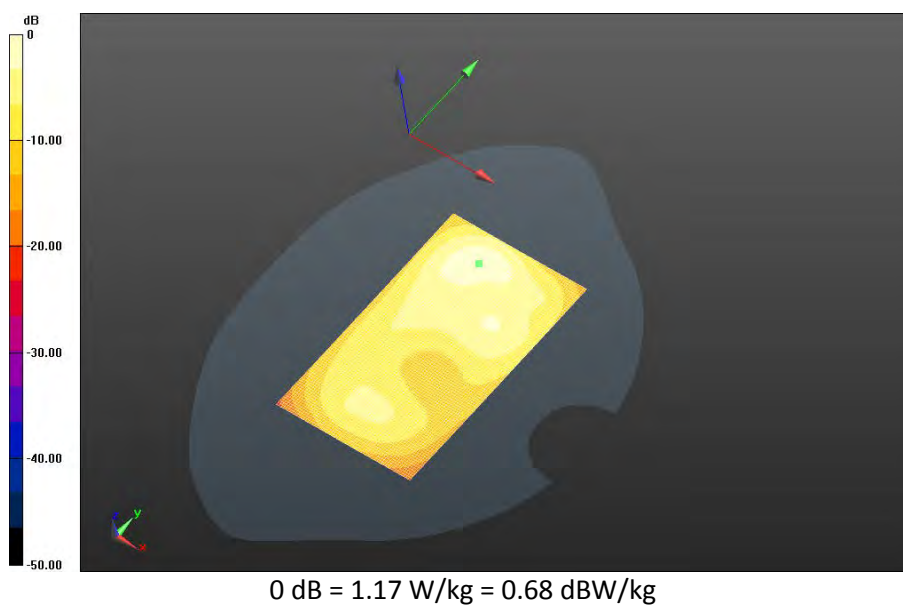
**Averaged SAR: SAR(1g) = 0.928 W/kg; SAR(10g) = 0.499 W/kg**  
Maximum value of SAR (interpolated) = 1.61 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - GPRS 1900/10mm Device Back - GPRS 1900\_2-slot**  
**\_chan661\_amb\_temp\_23.8C\_liq\_temp\_22.4C/Area Scan (121x171x1): Interpolated grid:**  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 8.314 V/m; **Power Drift = 0.00211 dB**

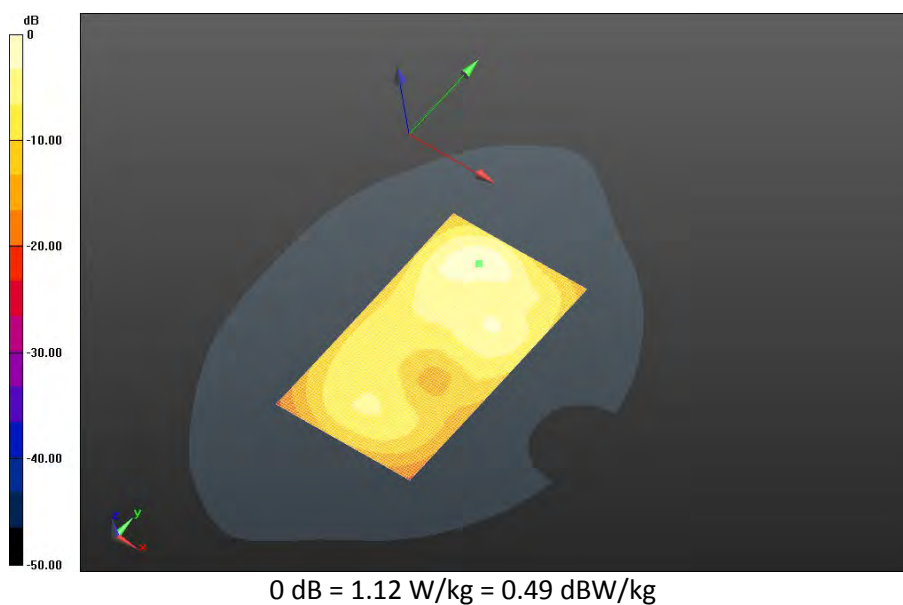
**Fast SAR: SAR(1g) = 0.842 W/kg; SAR(10g) = 0.434 W/kg**  
Maximum value of SAR (interpolated) = 1.12 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                        |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                        |

**Mobile Hot Spot MSL - GPRS 1900/10mm Device Back - GPRS 1900\_2-slot**  
**\_chan810\_amb\_temp\_23.8C\_liq\_temp\_22.4C/Area Scan (121x171x1): Interpolated grid:**  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 7.561 V/m; **Power Drift = 0.036 dB**

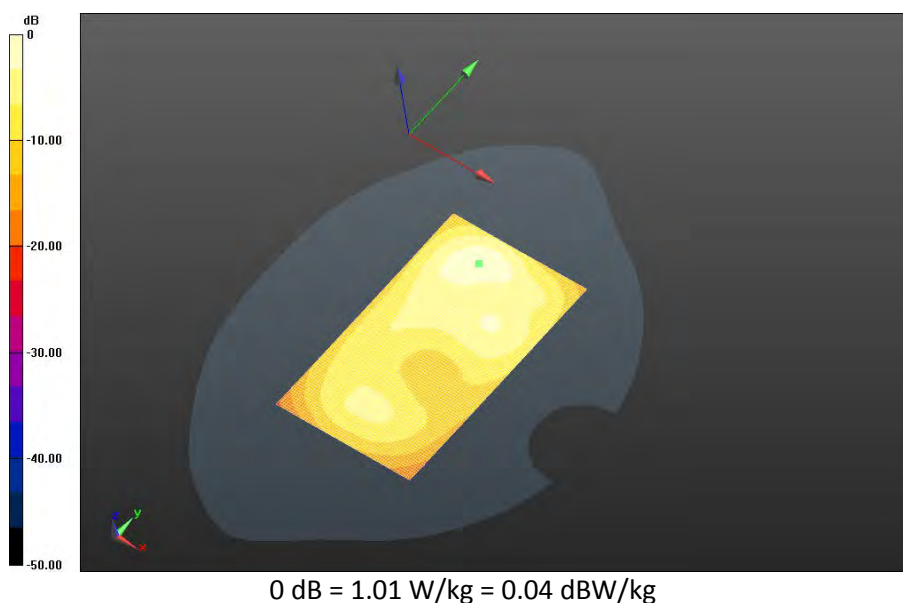
**Fast SAR: SAR(1g) = 0.751 W/kg; SAR(10g) = 0.382 W/kg**  
Maximum value of SAR (interpolated) = 1.01 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                         |

**Mobile Hot Spot MSL - GPRS 1900/10mm Device Back - GPRS 1900\_3-slot**  
**\_chan661\_amb\_temp\_24.3C\_liq\_temp\_22.7C/Area Scan (121x171x1): Interpolated grid:**  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 7.678 V/m; **Power Drift = -0.056 dB**

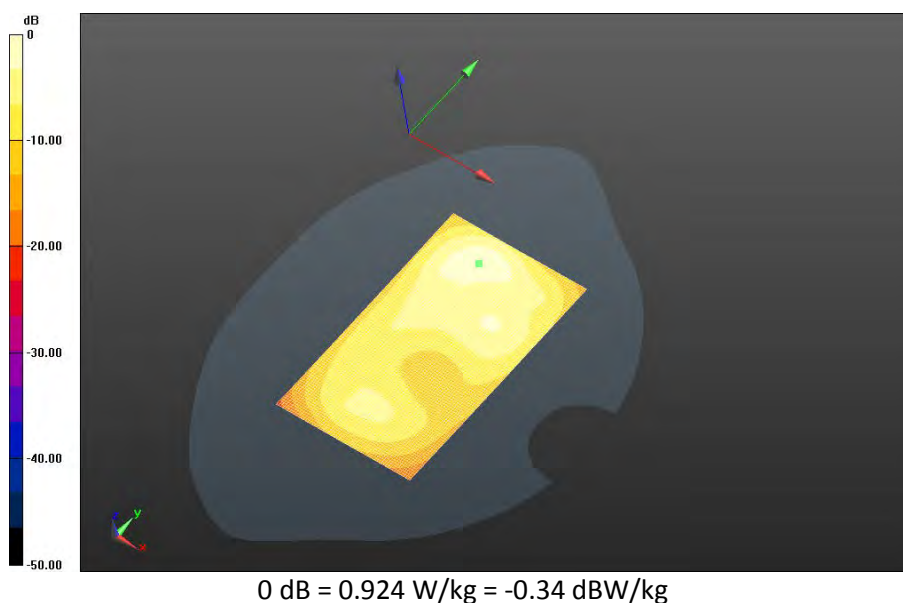
**Fast SAR: SAR(1g) = 0.693 W/kg; SAR(10g) = 0.358 W/kg**  
Maximum value of SAR (interpolated) = 0.924 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - GPRS 1900/10mm Device Back - GPRS 1900\_4-slot**  
**\_chan661\_amb\_temp\_23.2C\_liq\_temp\_22.7C/Area Scan (121x171x1): Interpolated grid:**  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 7.986 V/m; **Power Drift = 0.00964 dB**

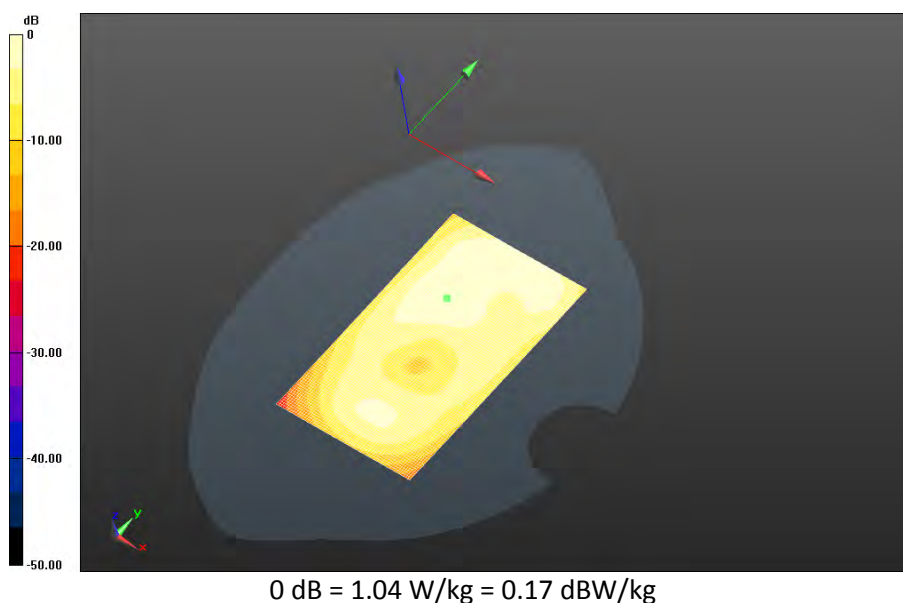
**Fast SAR: SAR(1g) = 0.775 W/kg; SAR(10g) = 0.398 W/kg**  
Maximum value of SAR (interpolated) = 1.04 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - GPRS 1900/10mm Device Front - GPRS 1900\_2-slot**  
**\_chan190\_amb\_temp\_23.8C\_liq\_temp\_23.0/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 6.033 V/m; **Power Drift = 0.189 dB**

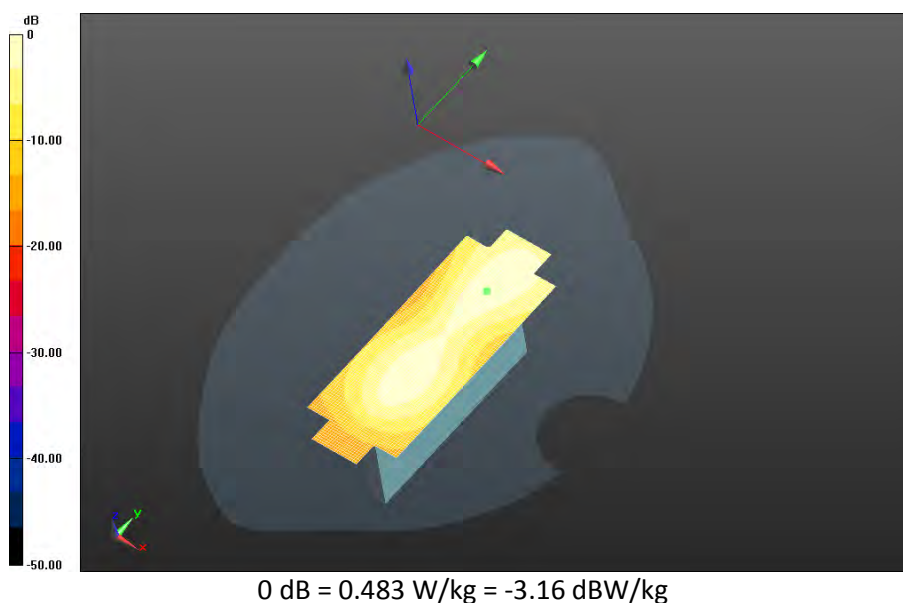
**Fast SAR: SAR(1g) = 0.390 W/kg; SAR(10g) = 0.226 W/kg**  
Maximum value of SAR (interpolated) = 0.483 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                         |

**Mobile Hot Spot MSL - GPRS 1900/10mm Device Left - GPRS 1900\_2-slot**  
**\_chan661\_amb\_temp\_24.1C\_liq\_temp\_23.0C/Area Scan (121x171x1): Interpolated grid:**  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 9.734 V/m; **Power Drift = -0.082 dB**

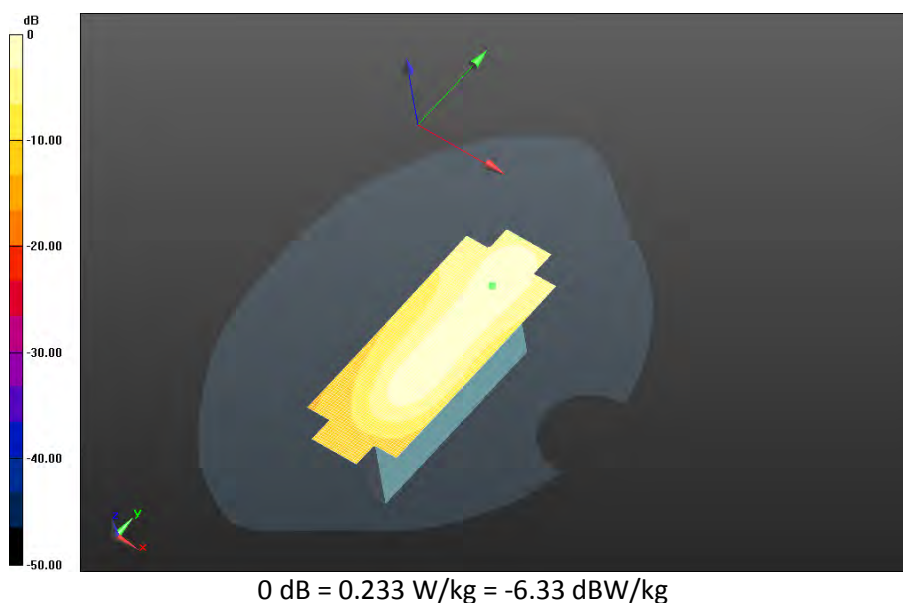
**Fast SAR: SAR(1g) = 0.185 W/kg; SAR(10g) = 0.101 W/kg**  
Maximum value of SAR (interpolated) = 0.233 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - GPRS 1900/10mm Device Right -GPRS 1900\_2-slot**  
**\_chan661\_amb\_temp\_23.4C\_liq\_temp\_22.9C/Area Scan (121x171x1): Interpolated grid:**  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 11.169 V/m; **Power Drift = 0.043 dB**

**Fast SAR: SAR(1g) = 0.180 W/kg; SAR(10g) = 0.101 W/kg**  
Maximum value of SAR (interpolated) = 0.227 W/kg

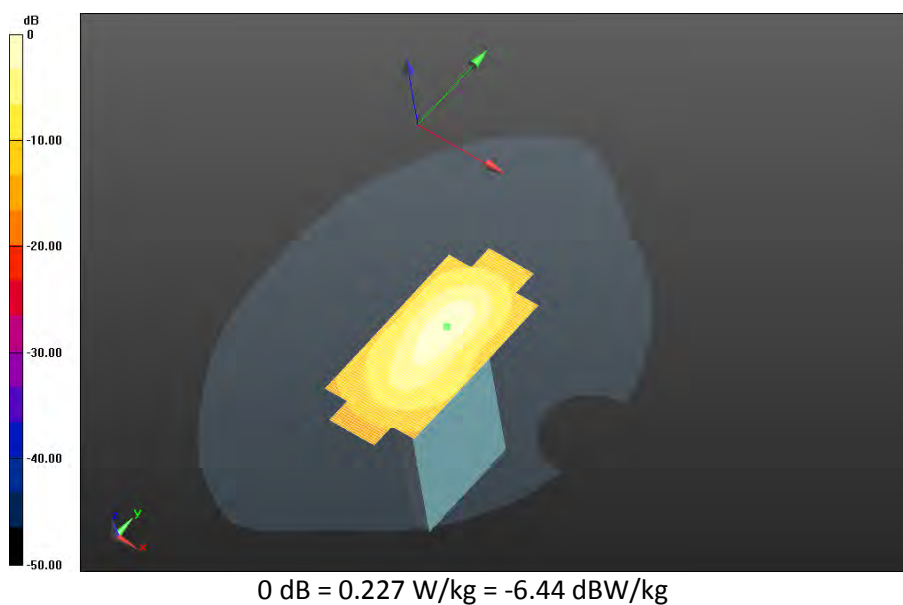




|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - GPRS 1900/10mm Device Bottom -GPRS 1900\_2-slot**  
**\_chan661\_amb\_temp\_23.8C\_liq\_temp\_22.9C/Area Scan (121x171x1): Interpolated grid:**  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 25.580 V/m; **Power Drift = -0.037 dB**

**Fast SAR: SAR(1g) = 0.884 W/kg; SAR(10g) = 0.456 W/kg**  
Maximum value of SAR (interpolated) = 1.17 W/kg



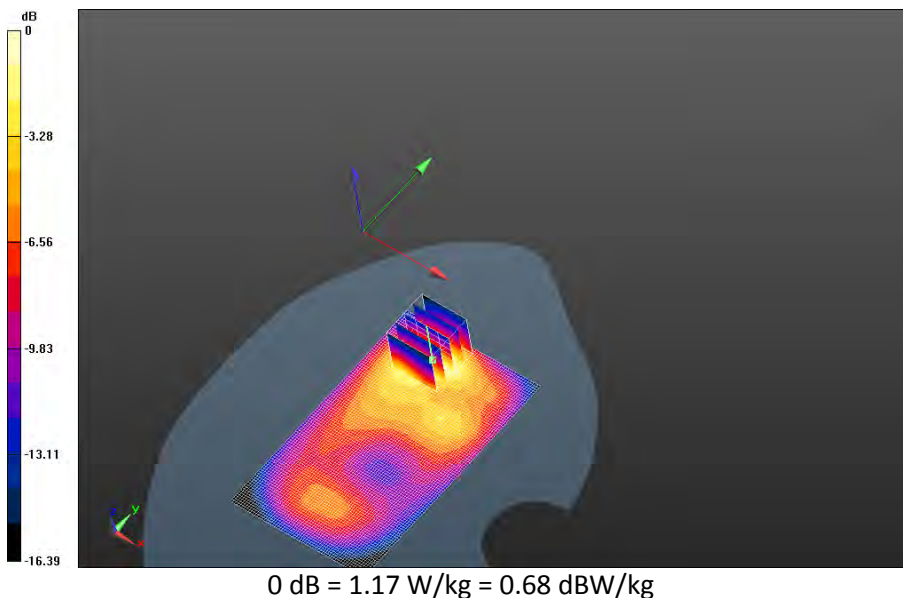
|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - GPRS 1900/10mm Device Back 2nd scan - GPRS 1900\_2-slot  
\_chan512\_amb\_temp\_23.8C\_liq\_temp\_22.4C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 9.359 V/m; **Power Drift = 0.017 dB**

**Fast SAR: SAR(1g) = 0.897 W/kg; SAR(10g) = 0.467 W/kg**  
Maximum value of SAR (interpolated) = 1.18 W/kg

**Mobile Hot Spot MSL - GPRS 1900/10mm Device Back 2nd scan - GPRS 1900\_2-slot  
\_chan512\_amb\_temp\_23.8C\_liq\_temp\_22.4C/Zoom Scan (21x21x36)/Cube 0:** Interpolated  
grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm  
Reference Value = 9.359 V/m; **Power Drift = 0.017 dB**

**Averaged SAR: SAR(1g) = 0.925 W/kg; SAR(10g) = 0.498 W/kg**  
Maximum value of SAR (interpolated) = 1.59 W/kg



|                                                                                   |                          |                                                                         |             |                |          |
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| Andrew Becker                                                                     | June 23 – August 5, 2014 | RTS-6058-1408-04                                                        | L6ARHA110LW | 2503A-RHA110LW |          |

Date: 7/28/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone R139, Type: Sample, Serial: 2FFEB280**

### Configuration: Mobile Hot Spot MSL - GPRS 1900 (2)

Communication System: GPRS 1900 (2-slots) (0); Communication System Band: GPRS 1900;

Frequency: 1850.2 MHz

Medium Parameters used:  $f=1850.2$  MHz;  $\sigma = 1.473$  S/m;  $\epsilon_r = 50.855$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

### DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (4.93,4.93,4.93); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### Mobile Hot Spot MSL - GPRS 1900 (2)/10mm Device Bottom -GPRS 1900\_2-slot

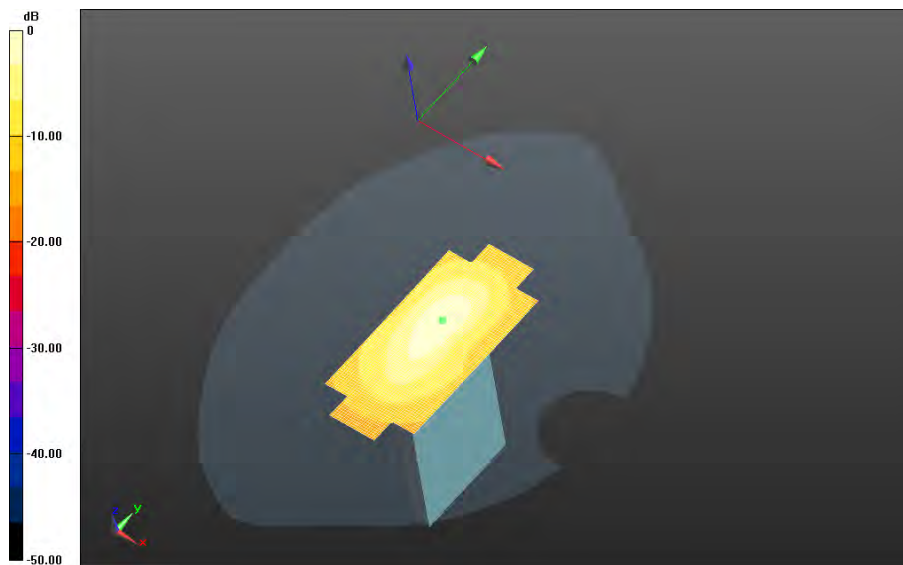
**\_chan512\_amb\_temp\_23.8C\_liq\_temp\_22.9C/Area Scan (121x171x1):** Interpolated grid:

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

Reference Value = 24.016 V/m; **Power Drift = 0.013 dB**

**Fast SAR: SAR(1g) = 0.812 W/kg; SAR(10g) = 0.429 W/kg**

Maximum value of SAR (interpolated) = 1.07 W/kg

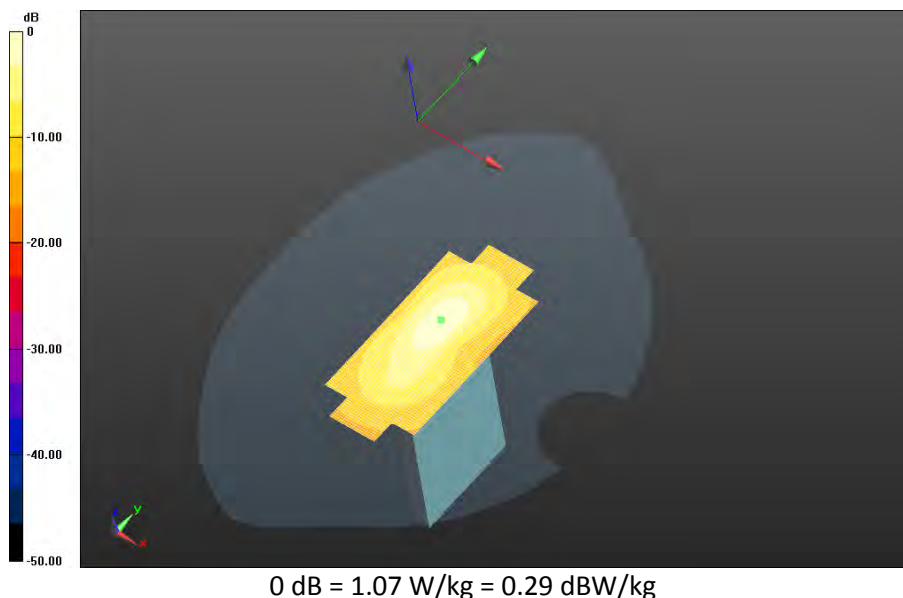


0 dB = 1.07 W/kg = 0.29 dBW/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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**Mobile Hot Spot MSL - GPRS 1900 (2)/10mm Device Bottom -GPRS 1900\_2-slot**  
**\_chan810\_amb\_temp\_23.9C\_liq\_temp\_22.9C/Area Scan (121x171x1): Interpolated grid:**  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 20.627 V/m; **Power Drift = -0.010 dB**

**Fast SAR: SAR(1g) = 0.721 W/kg; SAR(10g) = 0.366 W/kg**  
Maximum value of SAR (interpolated) = 1.00 W/kg



|                                                                                   |                                                  |                                                                                         |                               |                                 |                         |
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## UMTS Band II

Date: 7/9/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEB280**

### **Configuration: Mobile Hot Spot MSL - UMTS Band II**

Communication System: WCDMA FDD II (0); Communication System Band: UMTS FDD II;

Frequency: 1852.4 MHz

Medium Parameters used:  $f=1852.4$  MHz;  $\sigma = 1.473$  S/m;  $\epsilon_r = 50.853$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (4.93,4.93,4.93); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Mobile Hot Spot MSL - UMTS Band II/10mm Device Back -UMTS Band**

**II\_chan9262\_amb\_temp\_22.9C\_liq\_temp\_21.1C/Area Scan (121x171x1):** Interpolated grid:

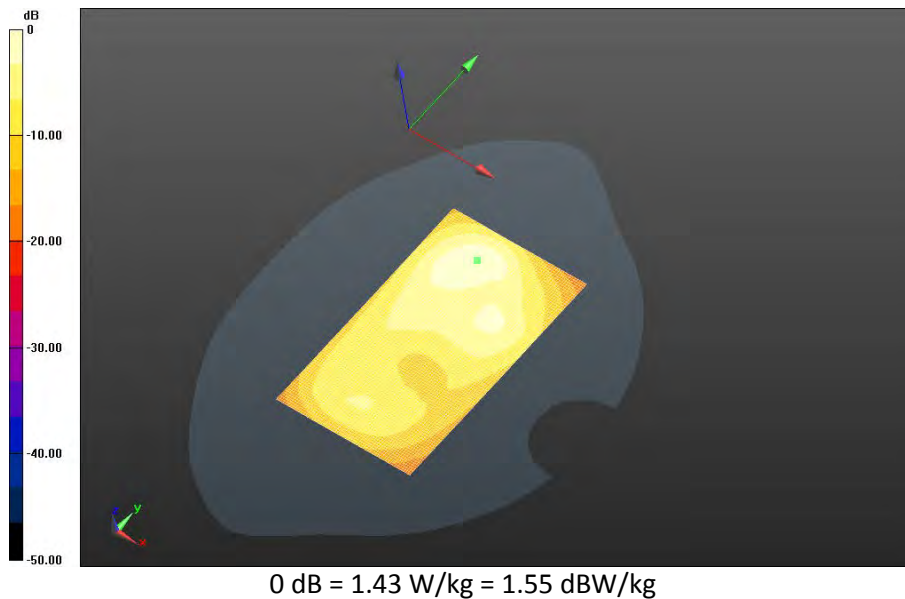
$dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 11.366 V/m; **Power Drift = -0.158 dB**

**Fast SAR: SAR(1g) = 1.10 W/kg; SAR(10g) = 0.597 W/kg**

Maximum value of SAR (interpolated) = 1.43 W/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - UMTS Band II/10mm Device Back -UMTS Band**

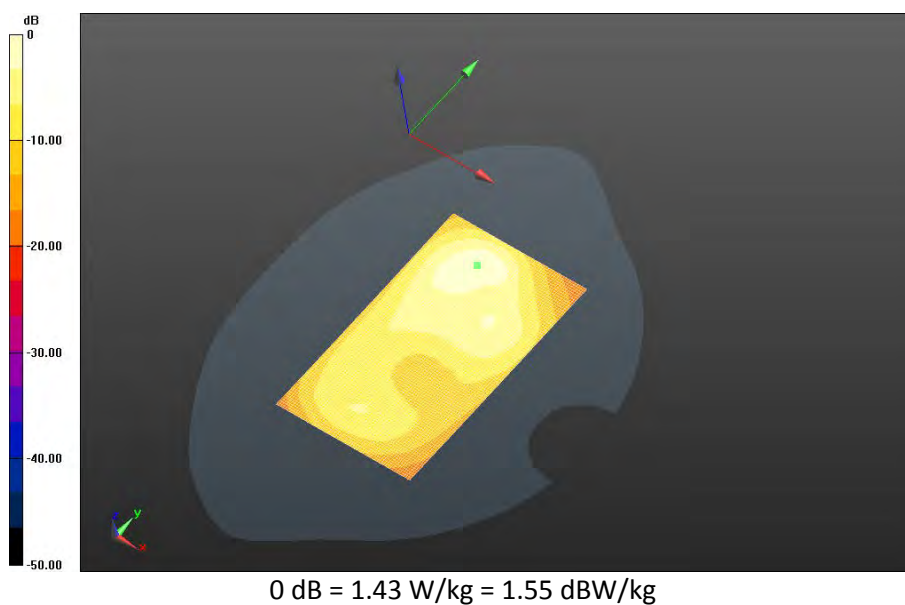
**II\_chan9400\_amb\_temp\_22.9C\_liq\_temp\_21.1C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 10.266 V/m; **Power Drift = 0.084 dB**

**Fast SAR: SAR(1g) = 1.06 W/kg; SAR(10g) = 0.570 W/kg**

Maximum value of SAR (interpolated) = 1.40 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |

**Mobile Hot Spot MSL - UMTS Band II/10mm Device Back -UMTS Band**

**II\_chan9538\_amb\_temp\_22.9C\_liq\_temp\_21.1C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 10.747 V/m; **Power Drift = 0.131 dB**

**Fast SAR: SAR(1g) = 1.26 W/kg; SAR(10g) = 0.664 W/kg**

Maximum value of SAR (interpolated) = 1.68 W/kg

**Mobile Hot Spot MSL - UMTS Band II/10mm Device Back -UMTS Band**

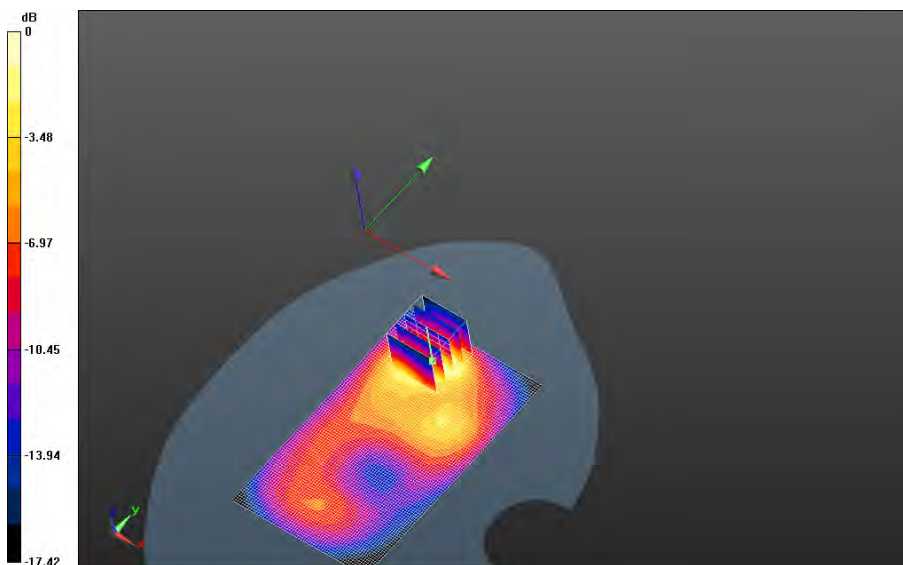
**II\_chan9538\_amb\_temp\_22.9C\_liq\_temp\_21.1C/Zoom Scan (21x21x36)/Cube 0:** Interpolated

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

Reference Value = 10.747 V/m; **Power Drift = 0.131 dB**

**Averaged SAR: SAR(1g) = 1.35 W/kg; SAR(10g) = 0.707 W/kg**

Maximum value of SAR (interpolated) = 2.39 W/kg



0 dB = 1.40 W/kg = 1.46 dBW/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                         |

**Mobile Hot Spot MSL - UMTS Band II/10mm Device Front -UMTS Band**

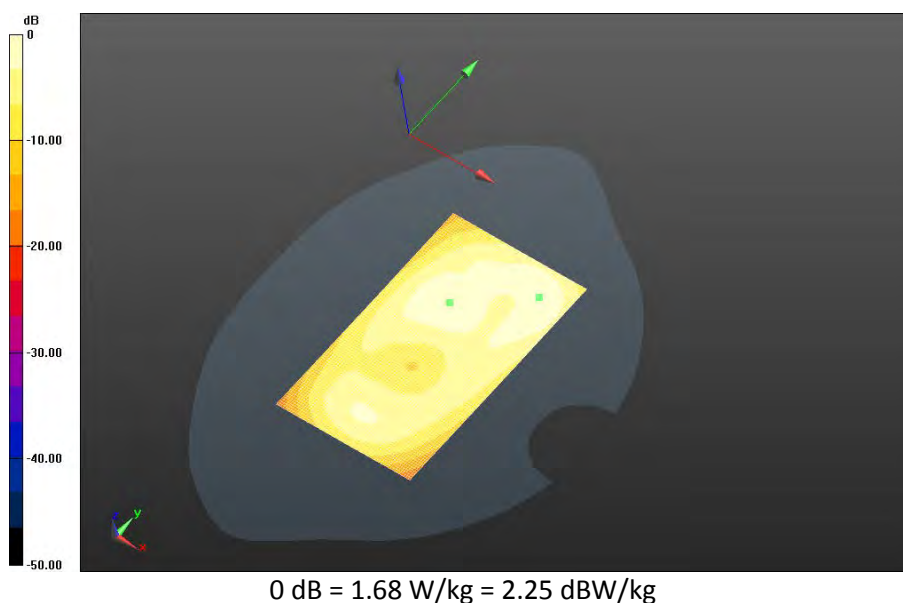
**II\_chan9400\_amb\_temp\_22.8C\_liq\_temp\_21.2C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 8.012 V/m; **Power Drift = 0.031 dB**

**Fast SAR: SAR(1g) = 0.485 W/kg; SAR(10g) = 0.269 W/kg**

Maximum value of SAR (interpolated) = 0.617 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - UMTS Band II/10mm Device Left -UMTS Band**

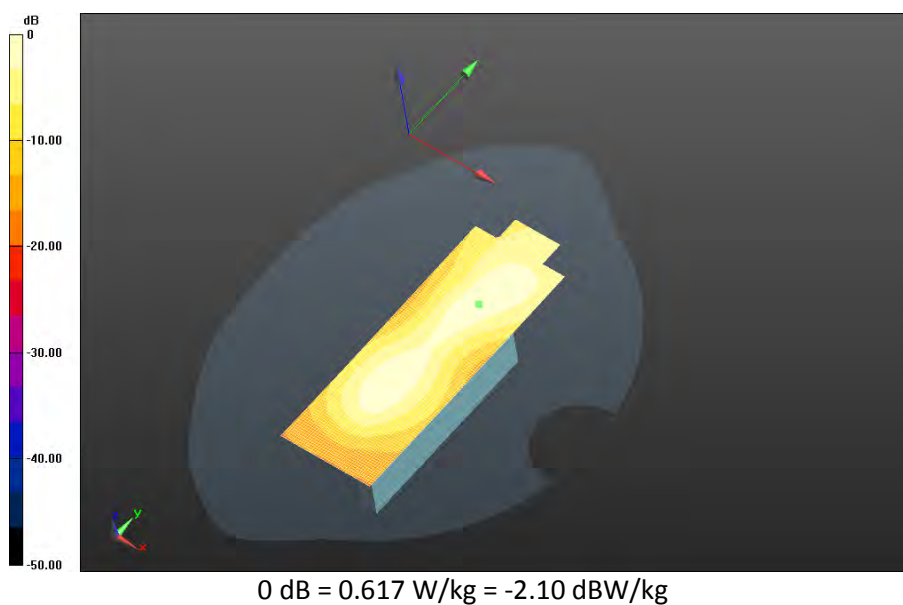
**II\_chan9400\_amb\_temp\_23.4C\_liq\_temp\_21.2C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 11.064 V/m; **Power Drift = 0.061 dB**

**Fast SAR: SAR(1g) = 0.242 W/kg; SAR(10g) = 0.134 W/kg**

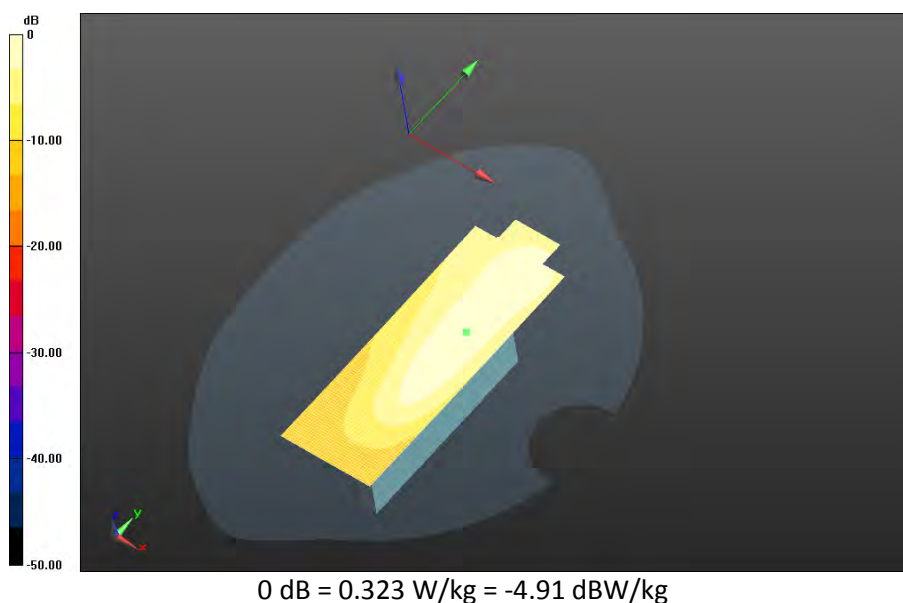
Maximum value of SAR (interpolated) = 0.323 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                         |

**Mobile Hot Spot MSL - UMTS Band II/10mm Device Right -UMTS Band**  
**II\_chan9400\_amb\_temp\_23.1C\_liq\_temp\_22.1C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 8.816 V/m; **Power Drift = -0.055 dB**

**Fast SAR: SAR(1g) = 0.126 W/kg; SAR(10g) = 0.0760 W/kg**  
Maximum value of SAR (interpolated) = 0.168 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                         |

**Mobile Hot Spot MSL - UMTS Band II/10mm Device Bottom -UMTS Band**

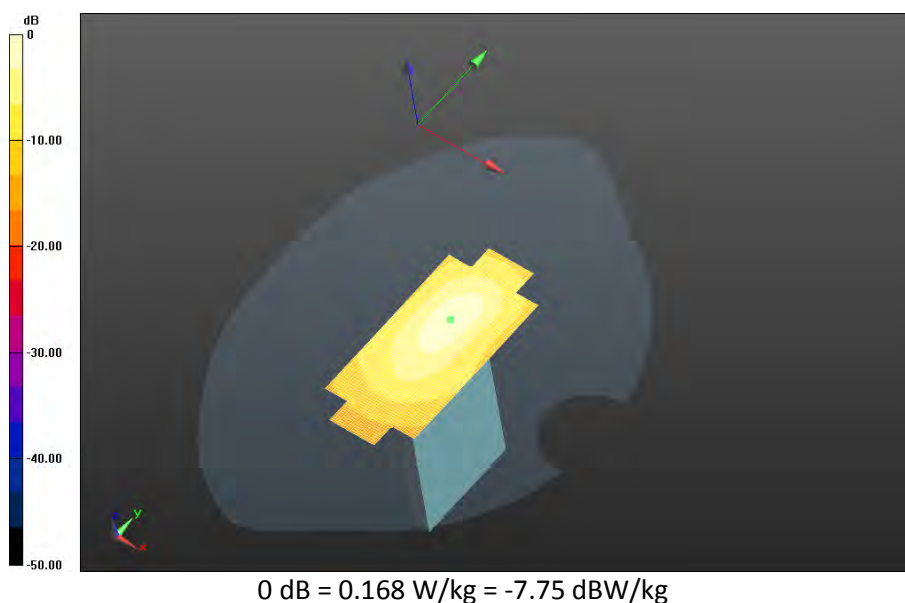
**II\_chan9262\_amb\_temp\_23.0C\_liq\_temp\_21.1C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 21.436 V/m; **Power Drift = -0.061 dB**

**Fast SAR: SAR(1g) = 0.805 W/kg; SAR(10g) = 0.416 W/kg**

Maximum value of SAR (interpolated) = 1.05 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - UMTS Band II/10mm Device Bottom -UMTS Band**

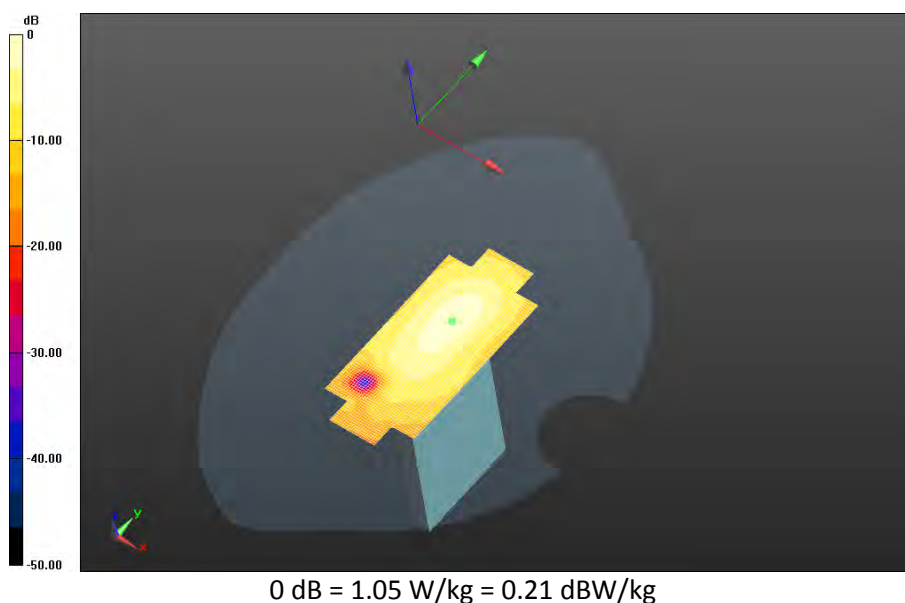
**II\_chan9400\_amb\_temp\_23.4C\_liq\_temp\_21.2C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 22.036 V/m; **Power Drift = -0.124 dB**

**Fast SAR: SAR(1g) = 0.857 W/kg; SAR(10g) = 0.439 W/kg**

Maximum value of SAR (interpolated) = 1.12 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - UMTS Band II/10mm Device Bottom -UMTS Band**

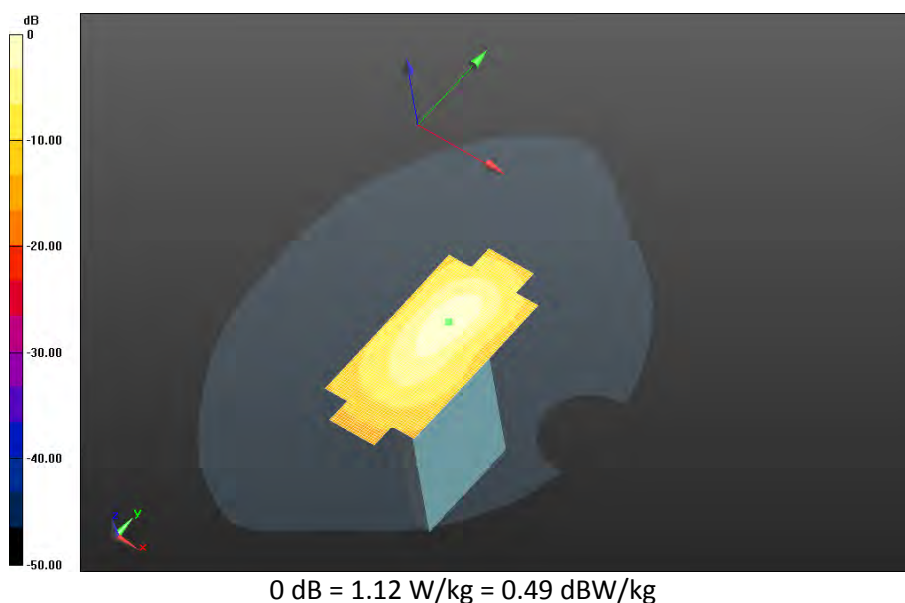
**II\_chan9538\_amb\_temp\_23.1C\_liq\_temp\_21.0C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 24.471 V/m; **Power Drift = 0.093 dB**

**Fast SAR: SAR(1g) = 1.01 W/kg; SAR(10g) = 0.524 W/kg**

Maximum value of SAR (interpolated) = 1.33 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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| Author Data<br><b>Andrew Becker</b>                                               | Dates of Test<br><b>June 23 – August 5, 2014</b> | Test Report No<br><b>RTS-6058-1408-04</b>                                                         | FCC ID:<br><b>L6ARHA110LW</b> | IC ID:<br><b>2503A-RHA110LW</b> |                         |

**Mobile Hot Spot MSL - UMTS Band II/10mm Device Back HSUPA -UMTS Band**

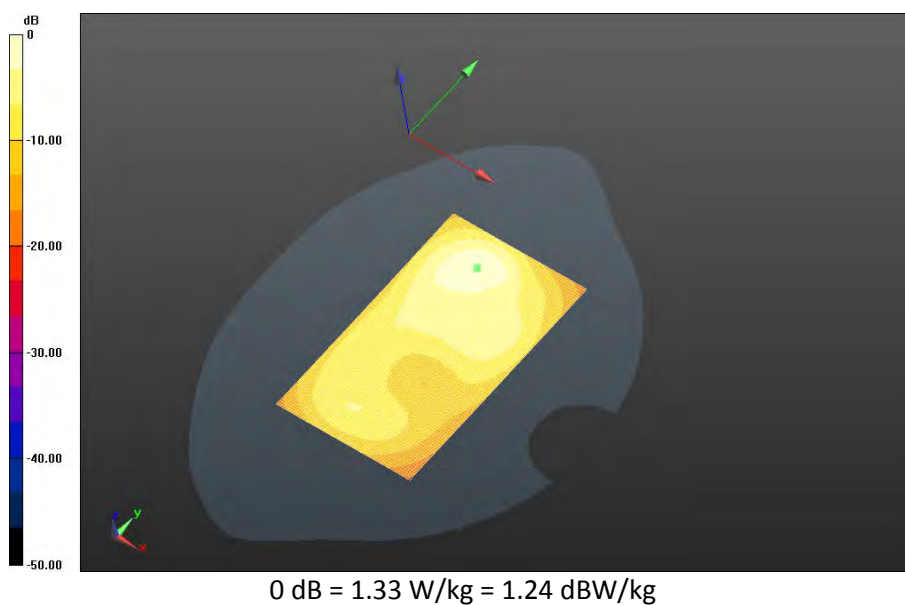
**II\_chan9538\_amb\_temp\_22.6C\_liq\_temp\_21.1C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 10.067 V/m; **Power Drift = 0.340 dB**

**Fast SAR: SAR(1g) = 1.12 W/kg; SAR(10g) = 0.603 W/kg**

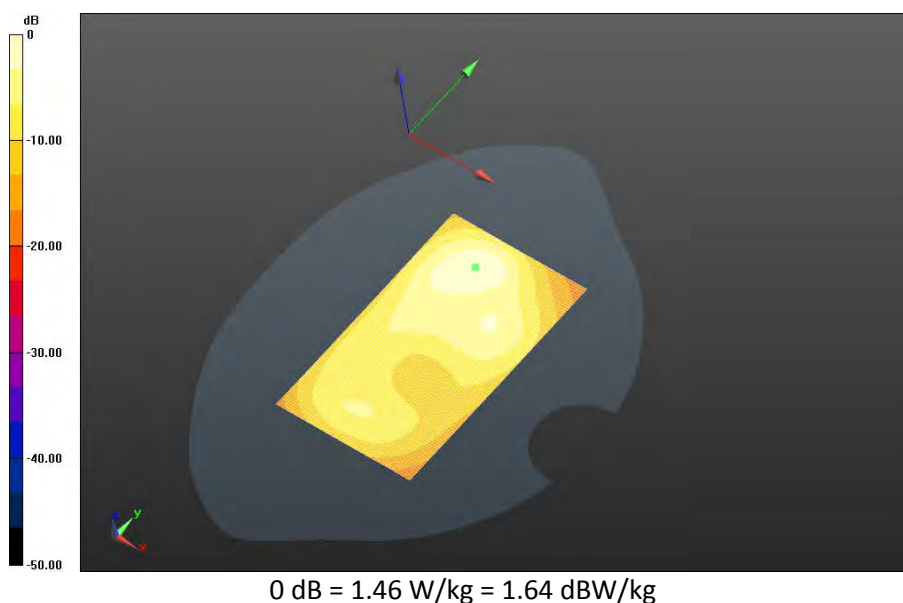
Maximum value of SAR (interpolated) = 1.46 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - UMTS Band II/10mm Device Back HSDPA+ -UMTS Band**  
**II\_chan9538\_amb\_temp\_22.6C\_liq\_temp\_21.1C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 10.009 V/m; **Power Drift = 0.157 dB**

**Fast SAR: SAR(1g) = 1.03 W/kg; SAR(10g) = 0.562 W/kg**  
Maximum value of SAR (interpolated) = 1.35 W/kg





|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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**Mobile Hot Spot MSL - UMTS Band II/10mm Device Back Headset -UMTS Band**

**II\_chan9538\_amb\_temp\_23.9C\_liq\_temp\_21.2C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 11.309 V/m; **Power Drift = 0.00508 dB**

**Fast SAR: SAR(1g) = 1.19 W/kg; SAR(10g) = 0.604 W/kg**

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

**Mobile Hot Spot MSL - UMTS Band II/10mm Device Back Headset -UMTS Band**

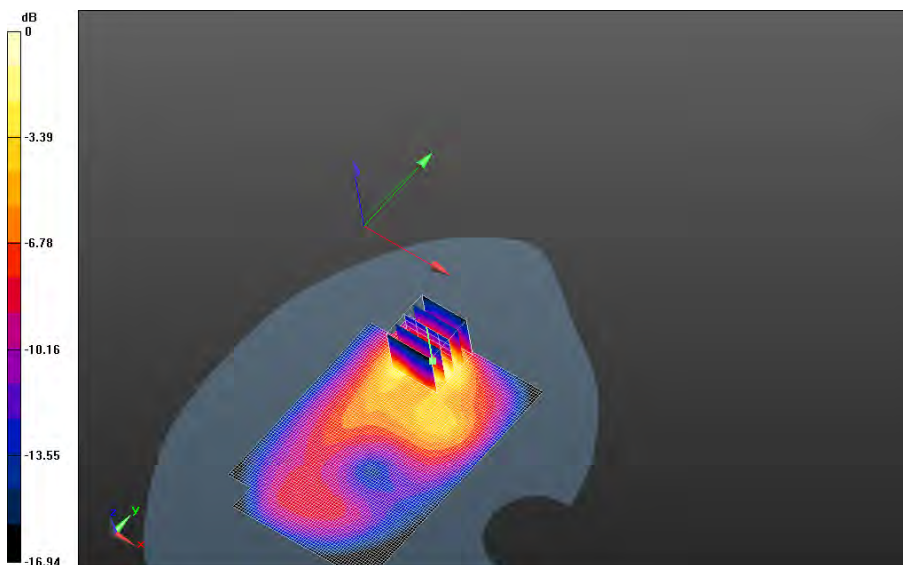
**II\_chan9538\_amb\_temp\_23.9C\_liq\_temp\_21.2C/Zoom Scan (21x21x36)/Cube 0:** Interpolated

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

Reference Value = 11.309 V/m; **Power Drift = 0.00508 dB**

**Averaged SAR: SAR(1g) = 1.28 W/kg; SAR(10g) = 0.668 W/kg**

Maximum value of SAR (interpolated) = 2.26 W/kg



0 dB = 1.35 W/kg = 1.30 dBW/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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**Mobile Hot Spot MSL - UMTS Band II/10mm Device Back 2nd Scan -UMTS Band**

**II\_chan9538\_amb\_temp\_23.1C\_liq\_temp\_21.1C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 11.308 V/m; **Power Drift = -0.145 dB**

**Fast SAR: SAR(1g) = 1.28 W/kg; SAR(10g) = 0.654 W/kg**

Maximum value of SAR (interpolated) = 1.71 W/kg

**Mobile Hot Spot MSL - UMTS Band II/10mm Device Back 2nd Scan -UMTS Band**

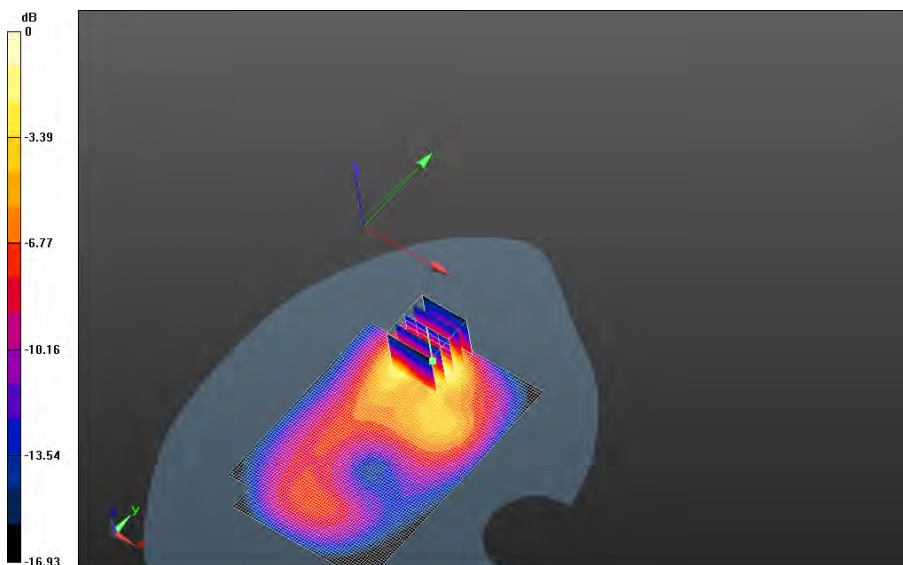
**II\_chan9538\_amb\_temp\_23.1C\_liq\_temp\_21.1C/Zoom Scan (21x21x36)/Cube 0:** Interpolated

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

Reference Value = 11.308 V/m; **Power Drift = -0.145 dB**

**Averaged SAR: SAR(1g) = 1.38 W/kg; SAR(10g) = 0.723 W/kg**

Maximum value of SAR (interpolated) = 2.43 W/kg



0 dB = 1.61 W/kg = 2.07 dBW/kg

|                                                                                   |                                                  |                                                                                         |                               |                                 |                         |
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## 802.11b

Date: 7/18/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEC30B**

### **Configuration: Mobile Hot Spot MSL - 802.11b**

Communication System: 802.11 b (2450) (0); Communication System Band: 802.11 b;

Frequency: 2412 MHz

Medium Parameters used:  $f=2412$  MHz;  $\sigma = 1.952$  S/m;  $\epsilon_r = 50.540$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (4.28,4.28,4.28); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Mobile Hot Spot MSL - 802.11b/10mm Device Back -**

**802.11b\_chan1\_amb\_temp\_24.2C\_liq\_temp\_22.8C/Area Scan (151x201x1):** Interpolated grid:

dx=1.200 mm, dy=1.200 mm

Reference Value = 6.544 V/m; **Power Drift = 0.028 dB**

**Fast SAR: SAR(1g) = 0.298 W/kg; SAR(10g) = 0.135 W/kg**

Maximum value of SAR (interpolated) = 0.432 W/kg

### **Mobile Hot Spot MSL - 802.11b/10mm Device Back -**

**802.11b\_chan1\_amb\_temp\_24.2C\_liq\_temp\_22.8C/Zoom Scan (31x31x36)/Cube 0:**

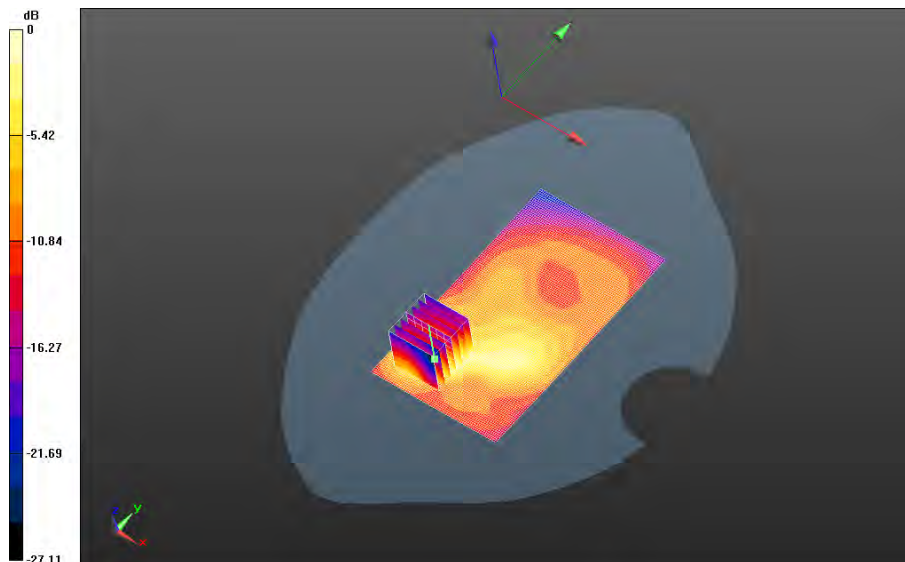
Interpolated grid: dx=1.000 mm, dy=1.000 mm, dz=1.000 mm

Reference Value = 6.544 V/m; **Power Drift = 0.028 dB**

**Averaged SAR: SAR(1g) = 0.307 W/kg; SAR(10g) = 0.142 W/kg**

Maximum value of SAR (interpolated) = 0.638 W/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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0 dB = 0.404 W/kg = -3.94 dBW/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - 802.11b/10mm Device Back -**

**802.11b\_chan6\_amb\_temp\_24.2C\_liq\_temp\_22.8C/Area Scan (151x201x1):** Interpolated grid:

dx=1.200 mm, dy=1.200 mm

Reference Value = 6.975 V/m; **Power Drift = 0.059 dB**

**Fast SAR: SAR(1g) = 0.365 W/kg; SAR(10g) = 0.167 W/kg**

Maximum value of SAR (interpolated) = 0.519 W/kg

**Mobile Hot Spot MSL - 802.11b/10mm Device Back -**

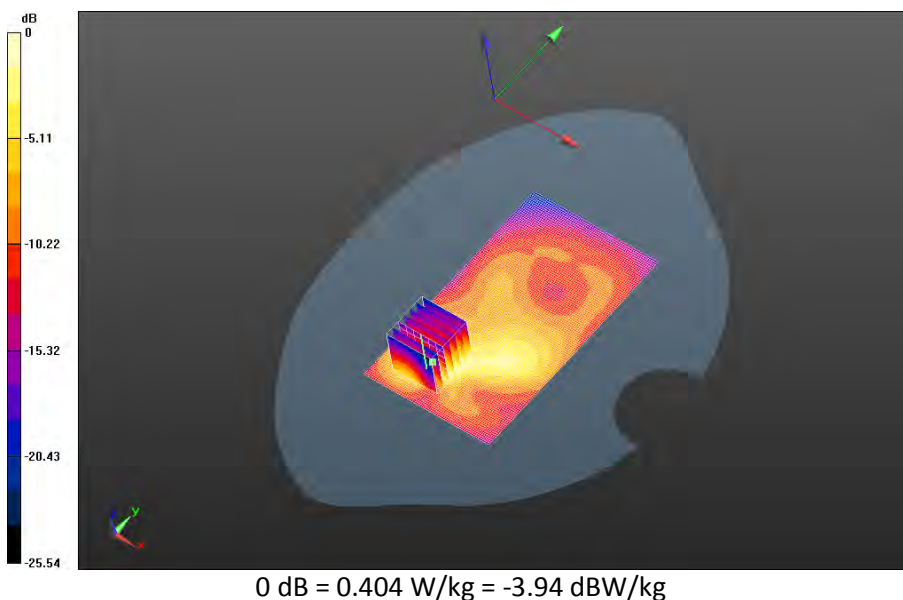
**802.11b\_chan6\_amb\_temp\_24.2C\_liq\_temp\_22.8C/Zoom Scan (31x31x36)/Cube 0:**

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

Reference Value = 6.975 V/m; **Power Drift = 0.059 dB**

**Averaged SAR: SAR(1g) = 0.380 W/kg; SAR(10g) = 0.176 W/kg**

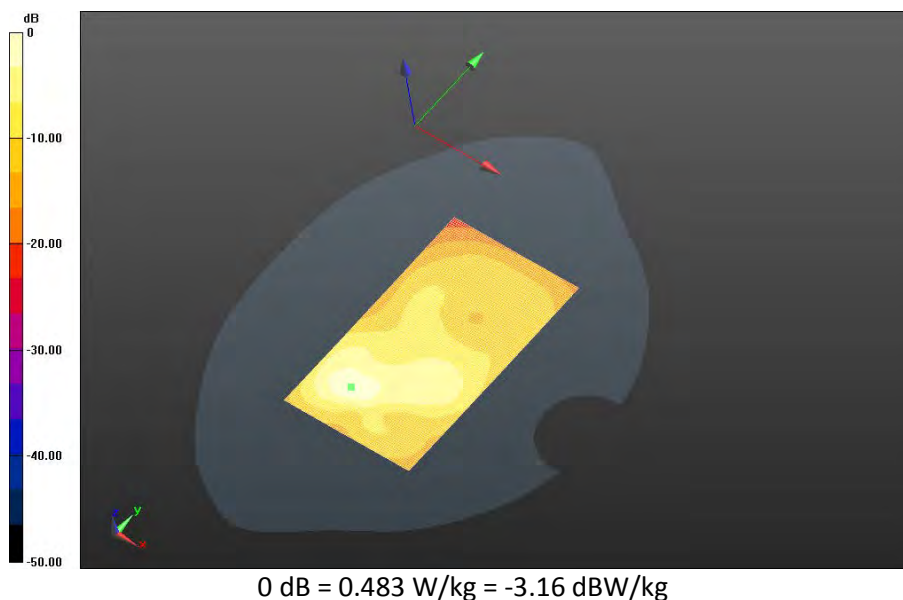
Maximum value of SAR (interpolated) = 0.794 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - 802.11b/10mm Device Back -**  
**802.11b\_chan11\_amb\_temp\_24.2C\_liq\_temp\_22.8C/Area Scan (151x201x1):** Interpolated grid:  
dx=1.200 mm, dy=1.200 mm  
Reference Value = 6.698 V/m; **Power Drift = 0.012 dB**

**Fast SAR: SAR(1g) = 0.362 W/kg; SAR(10g) = 0.163 W/kg**  
Maximum value of SAR (interpolated) = 0.535 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - 802.11b/10mm Device Front -**

**802.11b\_chan6\_amb\_temp\_24.1C\_liq\_temp\_22.8C/Area Scan (151x201x1):** Interpolated grid:

dx=1.200 mm, dy=1.200 mm

Reference Value = 4.416 V/m; **Power Drift = 0.117 dB**

**Fast SAR: SAR(1g) = 0.0895 W/kg; SAR(10g) = 0.0444 W/kg**

Maximum value of SAR (interpolated) = 0.116 W/kg

**Mobile Hot Spot MSL - 802.11b/10mm Device Front -**

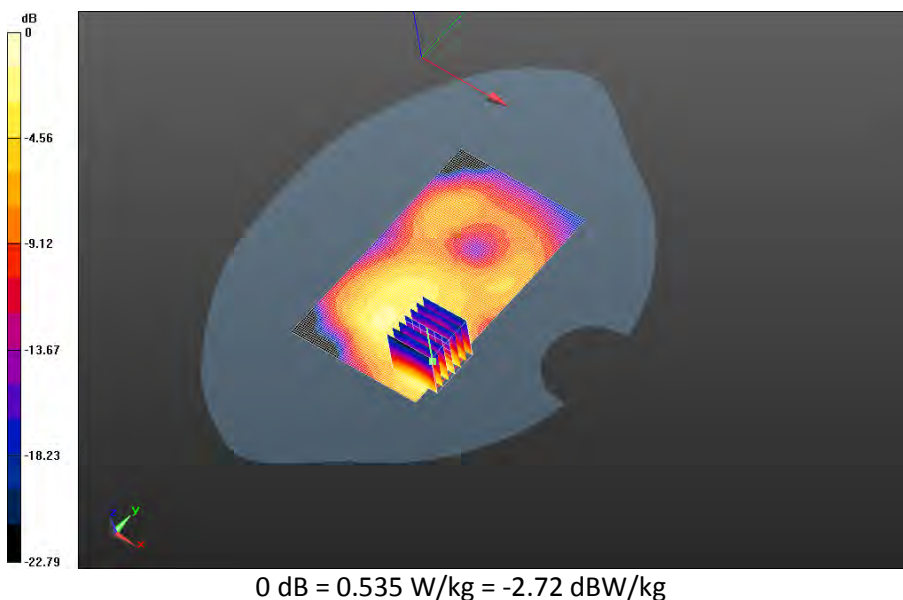
**802.11b\_chan6\_amb\_temp\_24.1C\_liq\_temp\_22.8C/Zoom Scan (31x31x36)/Cube 0:**

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

Reference Value = 4.416 V/m; **Power Drift = 0.117 dB**

**Averaged SAR: SAR(1g) = 0.0907 W/kg; SAR(10g) = 0.0445 W/kg**

Maximum value of SAR (interpolated) = 0.187 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - 802.11b/10mm Device Left -**

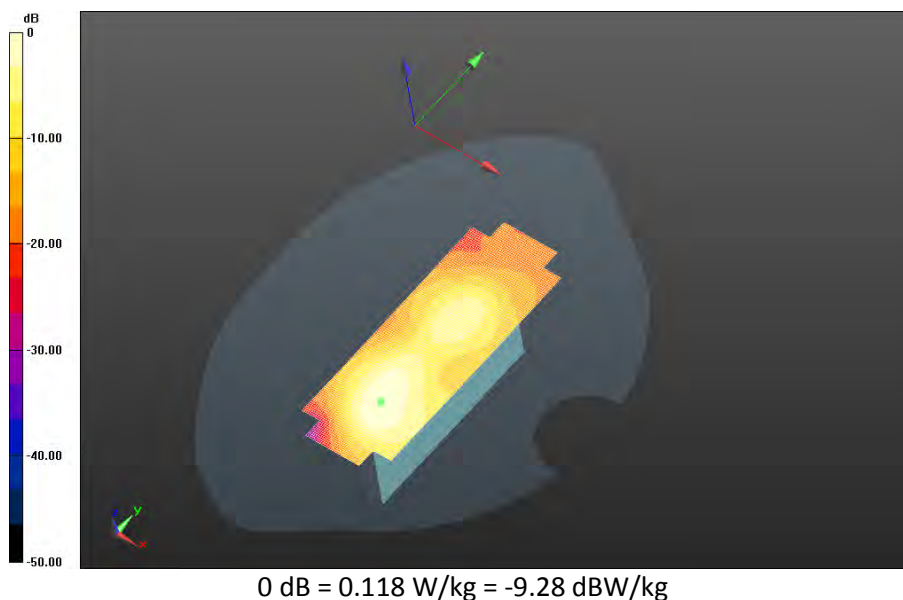
**802.11b\_chan6\_amb\_temp\_24.1C\_liq\_temp\_23.0C/Area Scan (151x201x1):** Interpolated grid:

dx=1.200 mm, dy=1.200 mm

Reference Value = 4.900 V/m; **Power Drift = 0.00475 dB**

**Fast SAR: SAR(1g) = 0.154 W/kg; SAR(10g) = 0.0781 W/kg**

Maximum value of SAR (interpolated) = 0.205 W/kg





|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - 802.11b/10mm Device Right -**

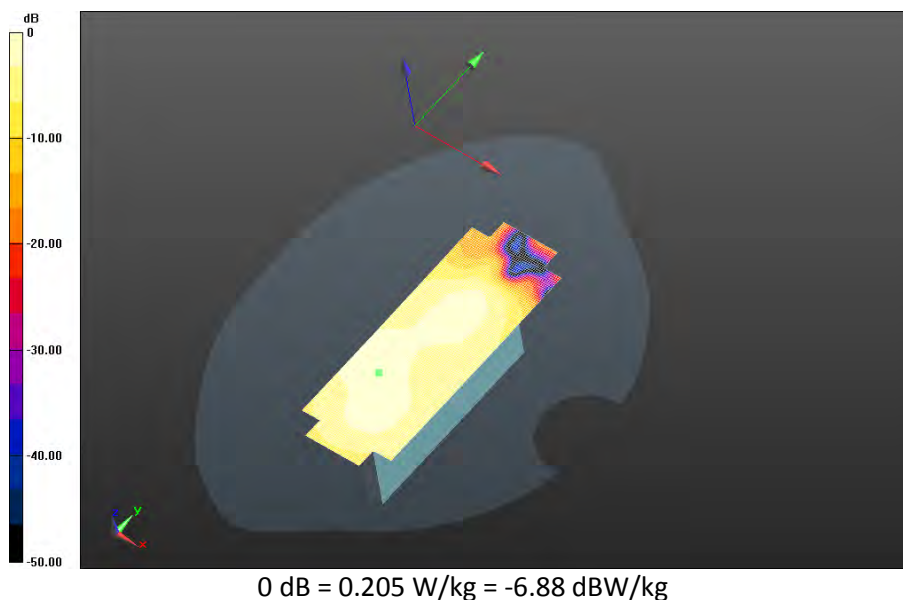
**802.11b\_chan6\_amb\_temp\_24.0C\_liq\_temp\_22.7C/Area Scan (151x201x1):** Interpolated grid:

dx=1.200 mm, dy=1.200 mm

Reference Value = 2.719 V/m; **Power Drift = 0.065 dB**

**Fast SAR: SAR(1g) = 0.0212 W/kg; SAR(10g) = 0.0120 W/kg**

Maximum value of SAR (interpolated) = 0.0265 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - 802.11b/10mm Device Top -**

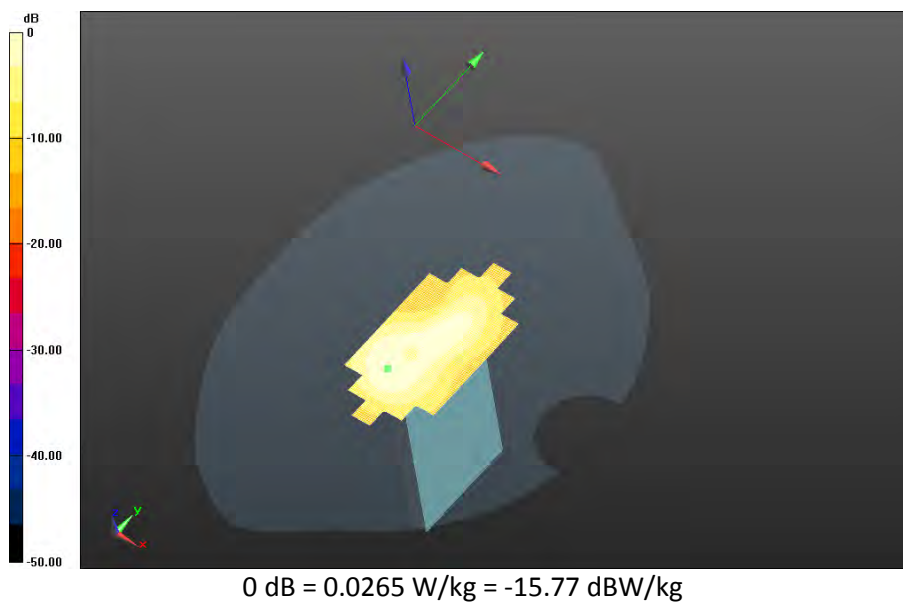
**802.11b\_chan6\_amb\_temp\_24.0C\_liq\_temp\_22.7C/Area Scan (151x201x1):** Interpolated grid:

dx=1.200 mm, dy=1.200 mm

Reference Value = 8.593 V/m; **Power Drift = 0.027 dB**

**Fast SAR: SAR(1g) = 0.144 W/kg; SAR(10g) = 0.0732 W/kg**

Maximum value of SAR (interpolated) = 0.187 W/kg



|                                                                                   |                          |                                                                         |             |                |          |
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| Andrew Becker                                                                     | June 23 – August 5, 2014 | RTS-6058-1408-04                                                        | L6ARHA110LW | 2503A-RHA110LW |          |

# Bluetooth

Date: 7/18/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEC30B**

## Configuration: Mobile Hot Spot MSL - BT

Communication System: Bluetooth (0); Communication System Band: Exported from older format (data unavailable - please correct).; Frequency: 2441 MHz

Medium Parameters used:  $f=2441$  MHz;  $\sigma = 1.992$  S/m;  $\epsilon_r = 50.443$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

### DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (4.28,4.28,4.28); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### Mobile Hot Spot MSL - BT/10mm Device Back -

**Bluetooth\_chan39\_amb\_temp\_23.1C\_liq\_temp\_22.0C/Area Scan (151x201x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0388 W/kg

### Mobile Hot Spot MSL - BT/10mm Device Back -

**Bluetooth\_chan39\_amb\_temp\_23.1C\_liq\_temp\_22.0C/Zoom Scan (31x31x36)/Cube 0:**

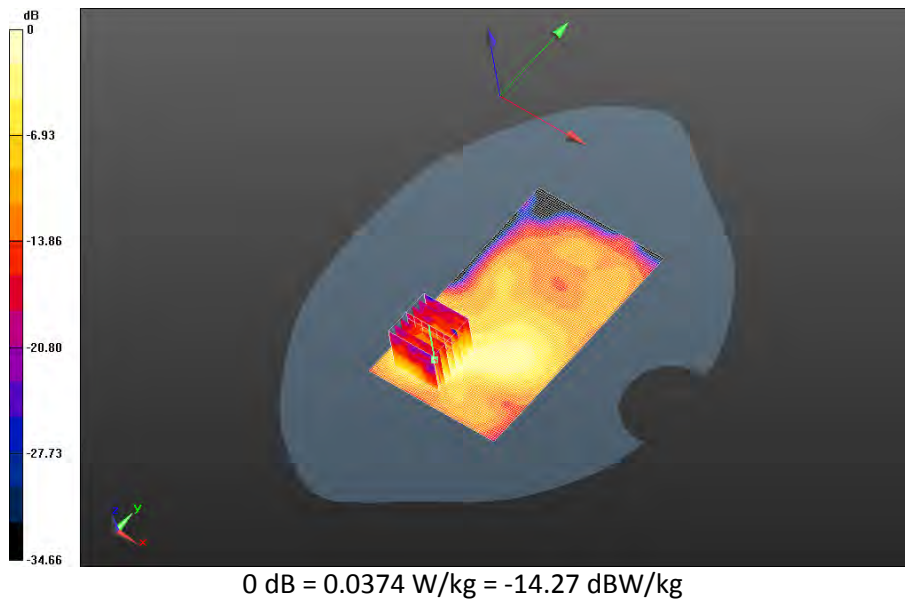
Interpolated grid: dx=1.000 mm, dy=1.000 mm, dz=1.000 mm

Reference Value = 1.546 V/m; **Power Drift = -0.122 dB**

**Averaged SAR: SAR(1g) = 0.0282 W/kg; SAR(10g) = 0.0129 W/kg**

Maximum value of SAR (interpolated) = 0.0589 W/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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## 802.11a

Date: 7/31/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEC30B**

### **Configuration: Mobile Hot Spot MSL - 802.11a 5200 MHz**

Communication System: 802.11a (0); Communication System Band: Low and Mid Bands;

Frequency: 5180 MHz

Medium Parameters used:  $f=5180$  MHz;  $\sigma = 5.352$  S/m;  $\epsilon_r = 47.252$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

#### **DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (4.83,4.83,4.83); Calibrated: 1/17/2014;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Mobile Hot Spot MSL - 802.11a 5200 MHz/10mm Device Back -**

**802.11a\_chan36\_low\_band\_Amb\_Temp\_24.0C\_Liquid\_Temp\_21.9C/Area Scan (181x241x1):**

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

Maximum value of SAR (interpolated) = 0.482 W/kg

#### **Mobile Hot Spot MSL - 802.11a 5200 MHz/10mm Device Back -**

**802.11a\_chan36\_low\_band\_Amb\_Temp\_24.0C\_Liquid\_Temp\_21.9C/Zoom Scan**

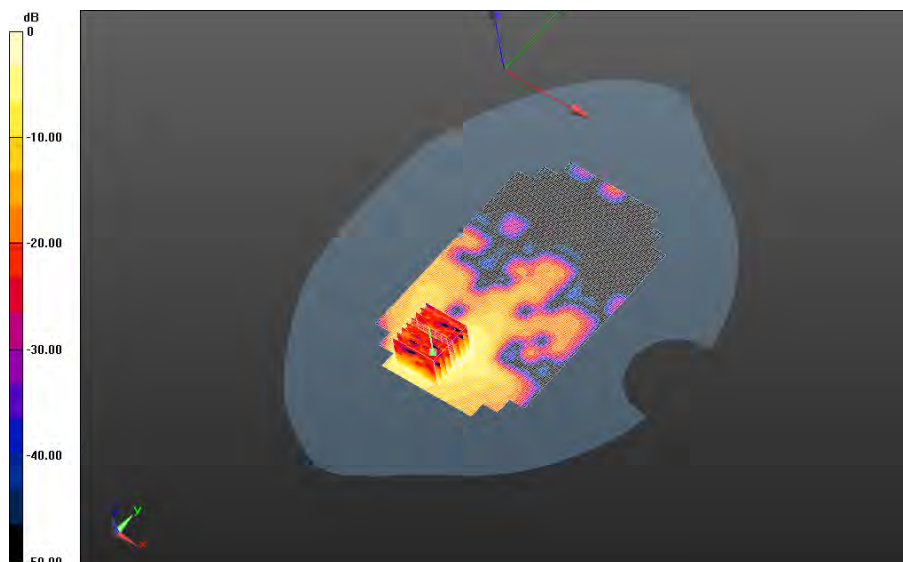
**(36x36x61)/Cube 0:** Interpolated grid:  $dx=0.800$  mm,  $dy=0.800$  mm,  $dz=0.400$  mm

Reference Value = 2.052 V/m; **Power Drift = 0.030 dB**

**Averaged SAR: SAR(1g) = 0.257 W/kg; SAR(10g) = 0.0859 W/kg**

Maximum value of SAR (interpolated) = 1.12 W/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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0 dB = 0.510 W/kg = -2.92 dBW/kg

|                                                                                   |                                                  |                                                                                         |                               |                                 |                         |
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Date: 8/1/2014

Test Lab: BlackBerry RTS

**DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFEC30B**

### **Configuration: Mobile Hot Spot MSL - 802.11a 5800 MHz**

Communication System: 802.11a; Communication System Band: Low and Mid Bands; Frequency: 5745 MHz

Medium Parameters used:  $f=5745$  MHz;  $\sigma = 6.060$  S/m;  $\epsilon_r = 47.036$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Flat Section

#### **DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (4.36,4.36,4.36); Calibrated: 1/17/2014;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Mobile Hot Spot MSL - 802.11a 5800 MHz/10mm Device Back -**

**802.11a\_chan149\_upper\_bandII\_Amb\_Temp\_22.9C\_Liquid\_Temp\_22.1C/Area Scan**

**(181x241x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.575 W/kg

#### **Mobile Hot Spot MSL - 802.11a 5800 MHz/10mm Device Back -**

**802.11a\_chan149\_upper\_bandII\_Amb\_Temp\_22.9C\_Liquid\_Temp\_22.1C/Zoom Scan**

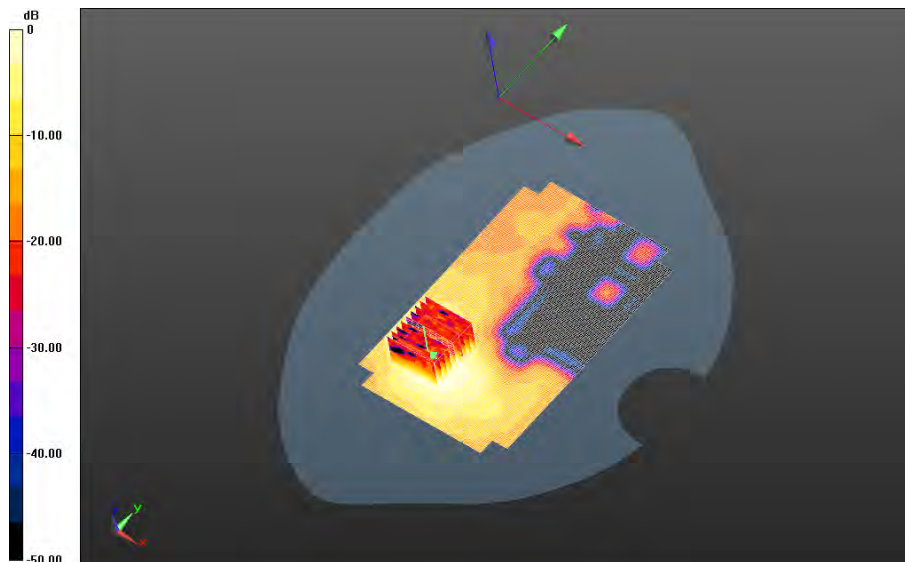
**(41x41x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm

Reference Value = 1.585 V/m; **Power Drift = -0.072 dB**

**Averaged SAR: SAR(1g) = 0.297 W/kg; SAR(10g) = 0.114 W/kg**

Maximum value of SAR (interpolated) = 1.21 W/kg

|                                                                                   |                                                  |                                                                                                   |                               |                                 |
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0 dB = 0.557 W/kg = -2.54 dBW/kg

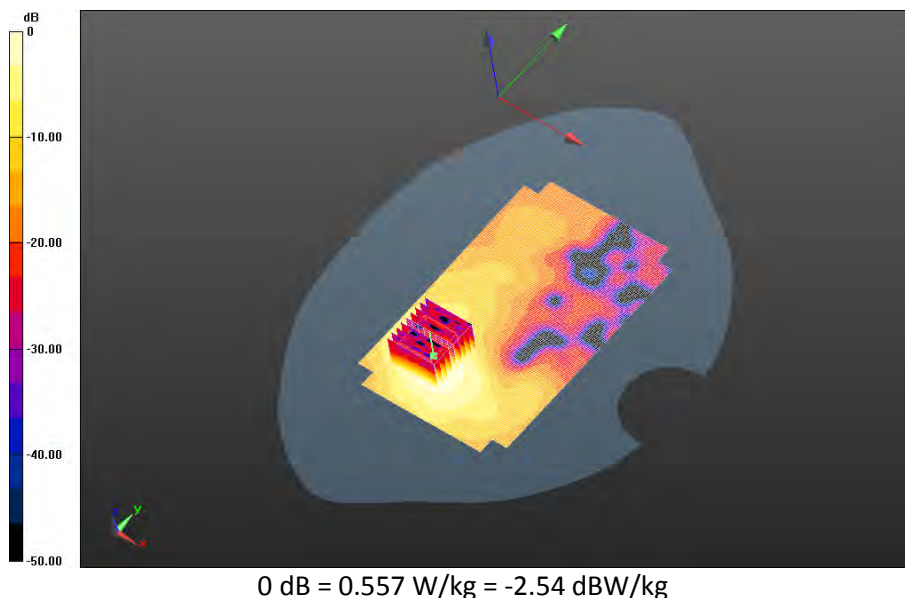


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**Mobile Hot Spot MSL - 802.11a 5800 MHz/10mm Device Back -**  
**802.11a\_chan157\_upper\_bandII\_Amb\_Temp\_23.0C\_Liquid\_Temp\_22.0C/Area Scan**  
**(181x241x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 1.78 W/kg

**Mobile Hot Spot MSL - 802.11a 5800 MHz/10mm Device Back -**  
**802.11a\_chan157\_upper\_bandII\_Amb\_Temp\_23.0C\_Liquid\_Temp\_22.0C/Zoom Scan**  
**(41x41x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 2.800 V/m; **Power Drift = 0.156 dB**

**Averaged SAR: SAR(1g) = 0.955 W/kg; SAR(10g) = 0.366 W/kg**  
Maximum value of SAR (interpolated) = 3.79 W/kg

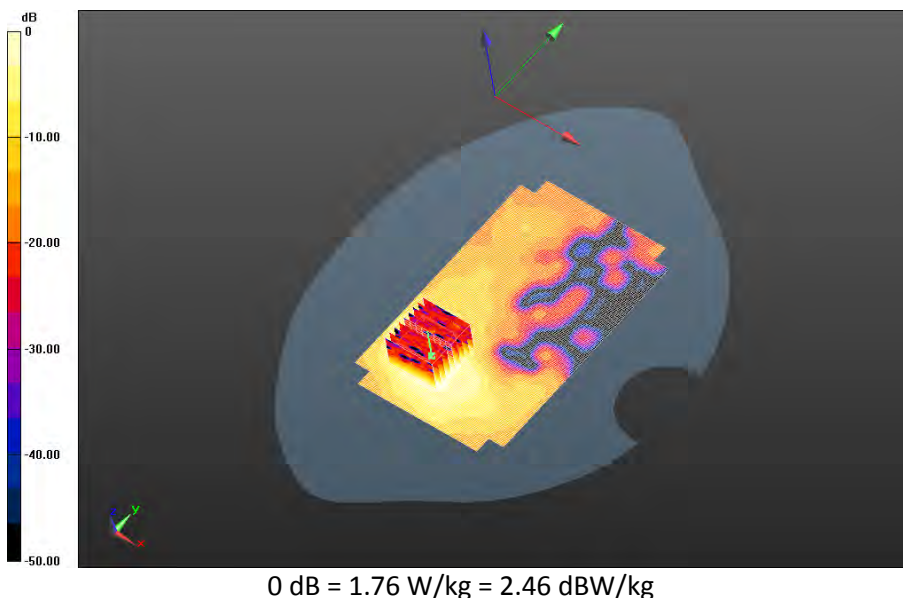


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**Mobile Hot Spot MSL - 802.11a 5800 MHz/10mm Device Back -**  
**802.11a\_chan165\_upper\_bandII\_Amb\_Temp\_22.8C\_Liquid\_Temp\_21.9C/Area Scan**  
**(181x241x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.737 W/kg

**Mobile Hot Spot MSL - 802.11a 5800 MHz/10mm Device Back -**  
**802.11a\_chan165\_upper\_bandII\_Amb\_Temp\_22.8C\_Liquid\_Temp\_21.9C/Zoom Scan**  
**(41x41x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 1.935 V/m; **Power Drift = 0.045 dB**

**Averaged SAR: SAR(1g) = 0.388 W/kg; SAR(10g) = 0.144 W/kg**  
Maximum value of SAR (interpolated) = 1.59 W/kg

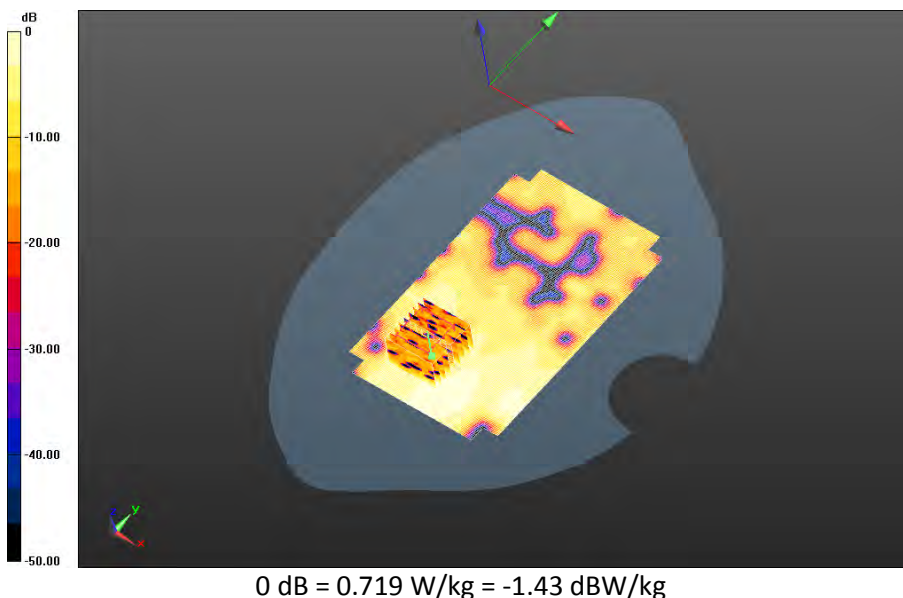


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**Mobile Hot Spot MSL - 802.11a 5800 MHz/10mm Device Front -**  
**802.11a\_chan157\_upper\_bandII\_Amb\_Temp\_22.9C\_Liquid\_Temp\_21.7C/Area Scan**  
**(181x241x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.121 W/kg

**Mobile Hot Spot MSL - 802.11a 5800 MHz/10mm Device Front -**  
**802.11a\_chan157\_upper\_bandII\_Amb\_Temp\_22.9C\_Liquid\_Temp\_21.7C/Zoom Scan**  
**(41x41x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 2.003 V/m; **Power Drift = -0.279 dB**

**Averaged SAR: SAR(1g) = 0.0551 W/kg; SAR(10g) = 0.0179 W/kg**  
Maximum value of SAR (interpolated) = 0.212 W/kg

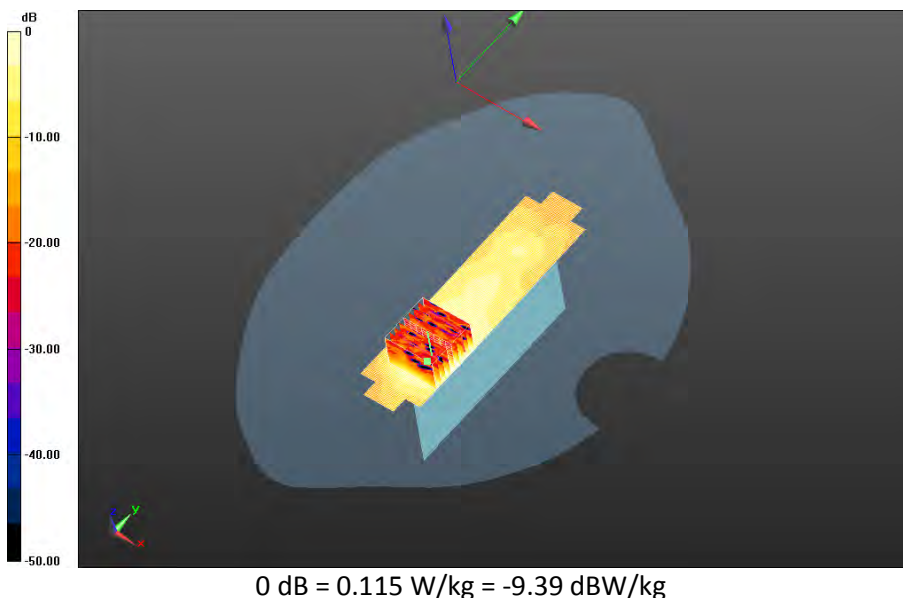


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**Mobile Hot Spot MSL - 802.11a 5800 MHz/10mm Device Left -**  
**802.11a\_chan157\_upper\_bandII\_Amb\_Temp\_22.9C\_Liquid\_Temp\_21.7C/Area Scan**  
**(181x241x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.497 W/kg

**Mobile Hot Spot MSL - 802.11a 5800 MHz/10mm Device Left -**  
**802.11a\_chan157\_upper\_bandII\_Amb\_Temp\_22.9C\_Liquid\_Temp\_21.7C/Zoom Scan**  
**(41x41x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 5.338 V/m; **Power Drift = 0.192 dB**

**Averaged SAR: SAR(1g) = 0.263 W/kg; SAR(10g) = 0.104 W/kg**  
Maximum value of SAR (interpolated) = 1.09 W/kg



|                                                                                   |                                                  |                                                                                                   |                               |                                 |                         |
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**Mobile Hot Spot MSL - 802.11a 5800 MHz/10mm Device Top -**  
**802.11a\_chan149\_upper\_bandII\_Amb\_Temp\_23.1C\_Liquid\_Temp\_22.0C/Area Scan**  
**(181x241x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.875 W/kg

**Mobile Hot Spot MSL - 802.11a 5800 MHz/10mm Device Top -**  
**802.11a\_chan149\_upper\_bandII\_Amb\_Temp\_23.1C\_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 = 8.903 V/m; **Power Drift = -0.032 dB**

**Averaged SAR: SAR(1g) = 0.425 W/kg; SAR(10g) = 0.145 W/kg**  
Maximum value of SAR (interpolated) = 1.91 W/kg

