

|                                                                                   |                                                  |                                                                                        |                               |                                 |                       |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-----------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>1(121)</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> |                       |

## APPENDIX B: SAR DISTRIBUTION PLOTS FOR HEAD CONFIGURATION

|                                                                                   |                                                  |                                                                                        |                               |                                 |                       |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-----------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>2(121)</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> |                       |

## LTE Band 17

Date: 7/8/2014

Test Lab: BlackBerry RTS

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

### Configuration: Right-Hand-Side HSL - LTE Band 17

Communication System: LTE band 17 (0); Communication System Band: LTE 17; Frequency: 711 MHz

Medium Parameters used:  $f=711$  MHz;  $\sigma = 0.872$  S/m;  $\epsilon_r = 42.939$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

### DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (6.36,6.36,6.36); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### Right-Hand-Side HSL - LTE Band 17/Touch Position -LTE Band

**17\_chan23800\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.4C\_liq\_temp\_22.1C/Area Scan**

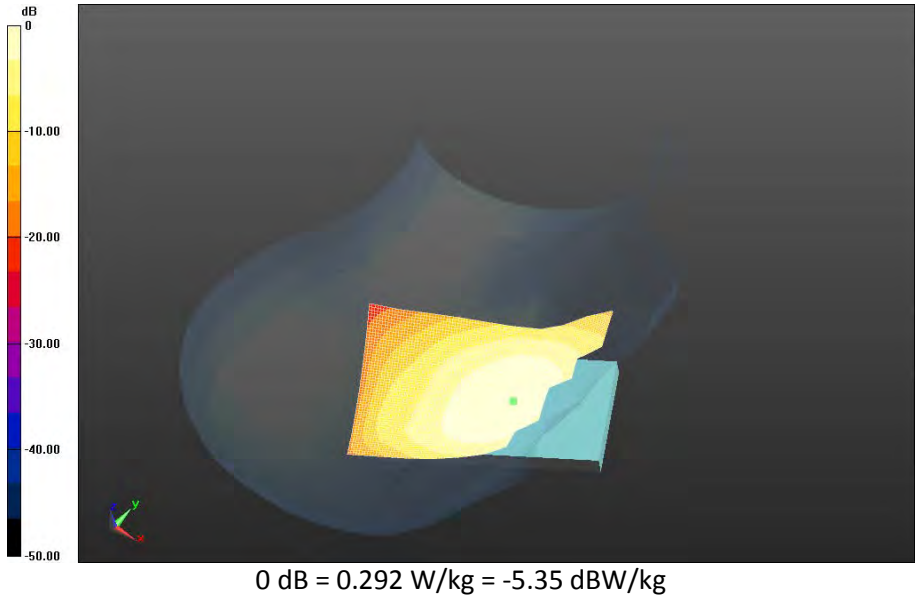
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 7.040 V/m; **Power Drift = 0.176 dB**

**Fast SAR: SAR(1g) = 0.264 W/kg; SAR(10g) = 0.182 W/kg**

Maximum value of SAR (interpolated) = 0.292 W/kg

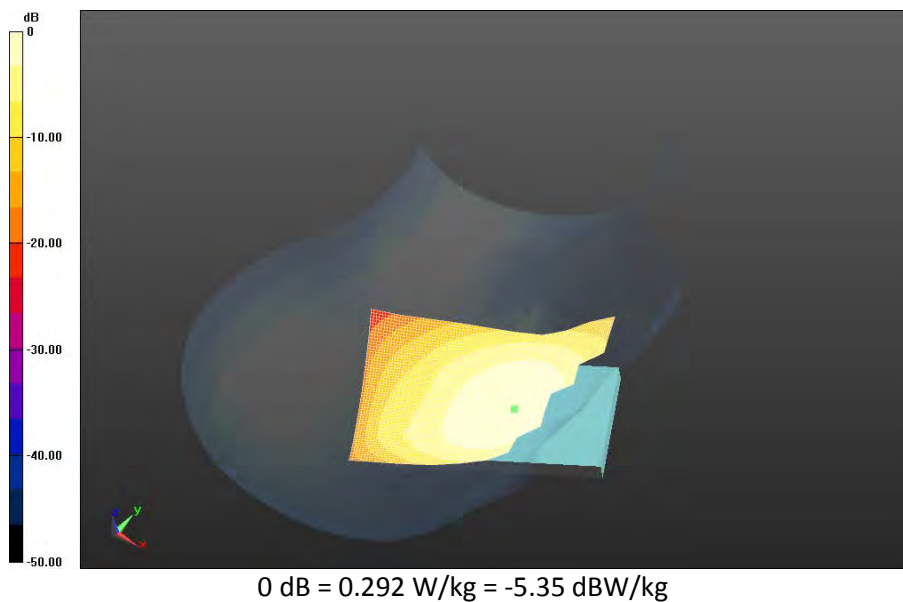
|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>3(121)</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> |



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|-----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|---------------------------------|
|  |  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                                           |                               | Page<br><b>4(121)</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> |

**Right-Hand-Side HSL - LTE Band 17/Touch Position -LTE Band 17\_chan23780\_10MHz\_BW\_RB25\_Offset\_High\_amb\_temp\_23.4C\_liq\_temp\_22.1C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 6.571 V/m; **Power Drift = 0.077 dB**

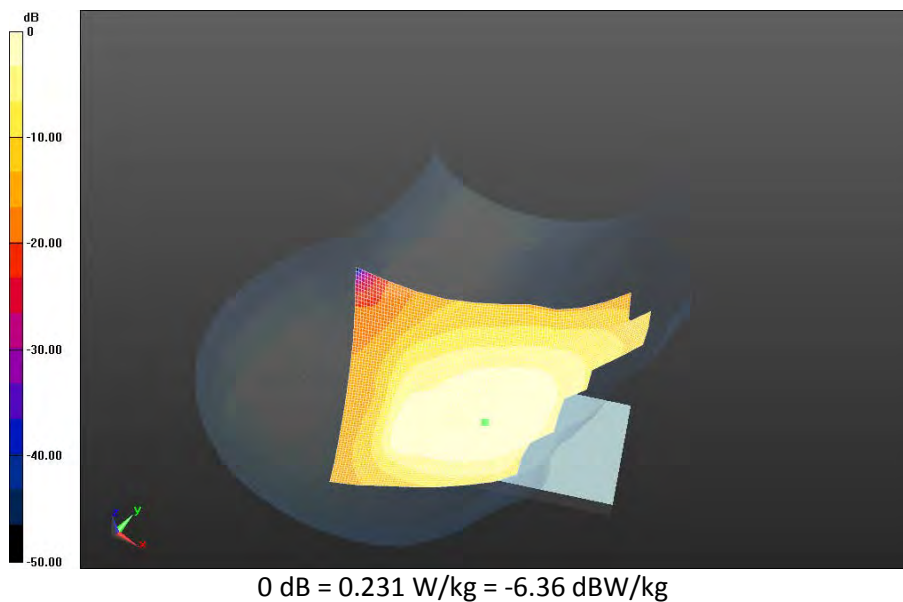
**Fast SAR: SAR(1g) = 0.209 W/kg; SAR(10g) = 0.145 W/kg**  
Maximum value of SAR (interpolated) = 0.231 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |                       |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-----------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>5(121)</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> |                       |

**Right-Hand-Side HSL - LTE Band 17/Tilt Position -LTE Band 17\_chan23800\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.4C\_liq\_temp\_22.1C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 11.127 V/m; **Power Drift = -0.145 dB**

**Fast SAR: SAR(1g) = 0.162 W/kg; SAR(10g) = 0.114 W/kg**  
Maximum value of SAR (interpolated) = 0.179 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |                       |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-----------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>6(121)</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> |                       |

Date: 7/8/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - LTE Band 17**

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

Medium Parameters used:  $f=709$  MHz;  $\sigma = 0.870$  S/m;  $\epsilon_r = 42.959$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

#### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (6.36,6.36,6.36); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Left-Hand-Side HSL - LTE Band 17/Touch Position -LTE Band**

**17\_chan23780\_10MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_23.4C\_liq\_temp\_22.1C/Area Scan**

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

Reference Value = 7.564 V/m; **Power Drift = -0.022 dB**

**Fast SAR: SAR(1g) = 0.371 W/kg; SAR(10g) = 0.253 W/kg**

Maximum value of SAR (interpolated) = 0.414 W/kg

#### **Left-Hand-Side HSL - LTE Band 17/Touch Position -LTE Band**

**17\_chan23780\_10MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_23.4C\_liq\_temp\_22.1C/Zoom Scan**

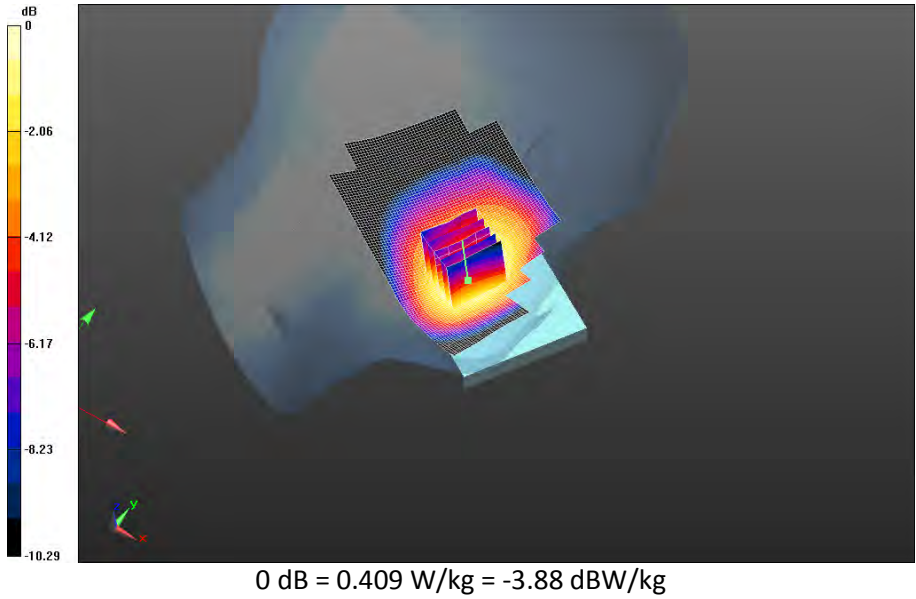
**(21x21x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 7.564 V/m; **Power Drift = -0.022 dB**

**Averaged SAR: SAR(1g) = 0.382 W/kg; SAR(10g) = 0.280 W/kg**

Maximum value of SAR (interpolated) = 0.481 W/kg

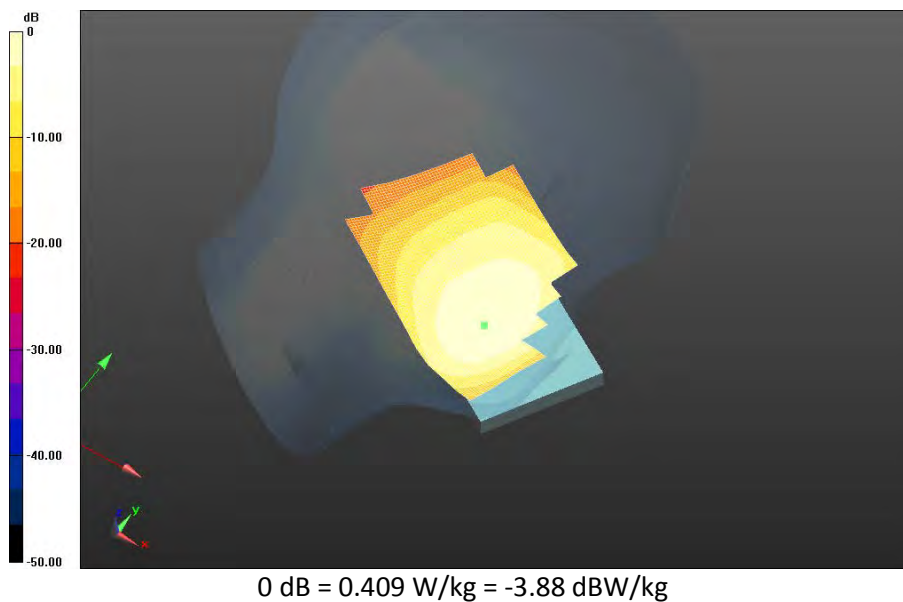
|                                                                                   |  |                                                                                        |                                           |                               |                                 |
|-----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|---------------------------------|
|  |  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                                           |                               | Page<br><b>7(121)</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> |



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>8(121)</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> |

**Left-Hand-Side HSL - LTE Band 17/Touch Position -LTE Band 17\_chan23790\_10MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_23.1C\_liq\_temp\_22.1C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 7.510 V/m; **Power Drift = 0.213 dB**

**Fast SAR: SAR(1g) = 0.369 W/kg; SAR(10g) = 0.252 W/kg**  
Maximum value of SAR (interpolated) = 0.413 W/kg

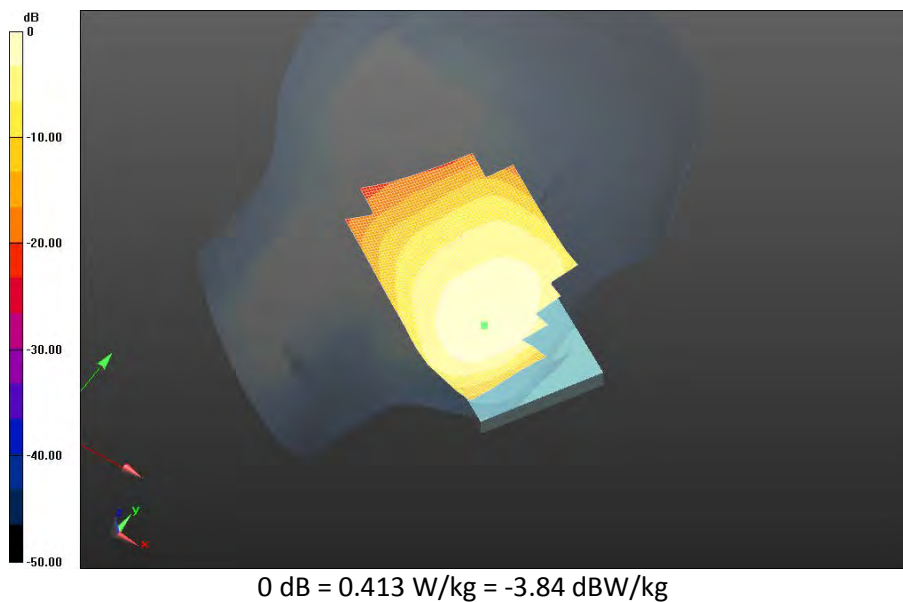




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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>9(121)</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> |

**Left-Hand-Side HSL - LTE Band 17/Touch Position -LTE Band 17\_chan23800\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.1C\_liq\_temp\_22.1C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 7.495 V/m; **Power Drift = 0.056 dB**

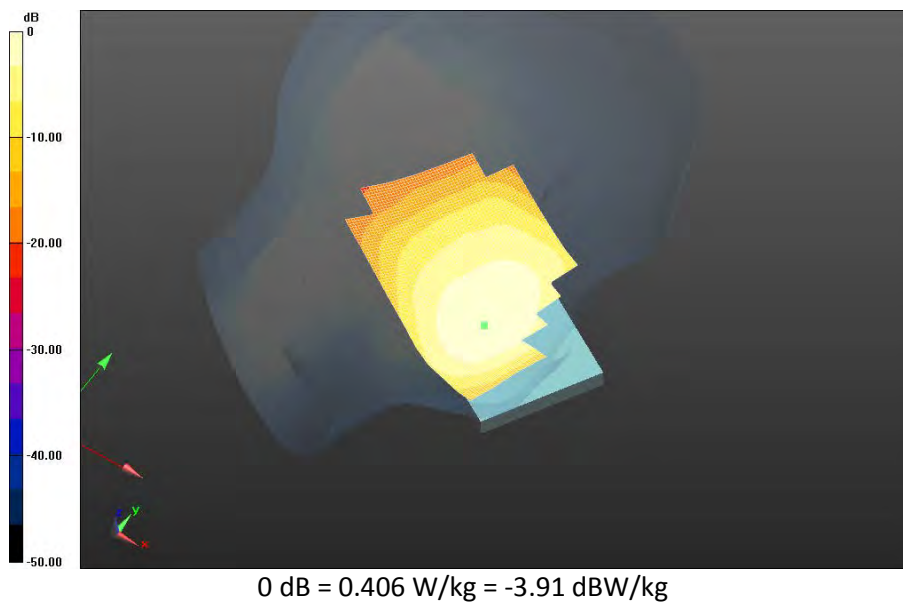
**Fast SAR: SAR(1g) = 0.364 W/kg; SAR(10g) = 0.249 W/kg**  
Maximum value of SAR (interpolated) = 0.406 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>10(121)</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> |

**Left-Hand-Side HSL - LTE Band 17/Touch Position -LTE Band 17\_chan23780\_10MHz\_BW\_RB25\_Offset\_High\_amb\_temp\_23.1C\_liq\_temp\_22.1C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 6.477 V/m; **Power Drift = 0.181 dB**

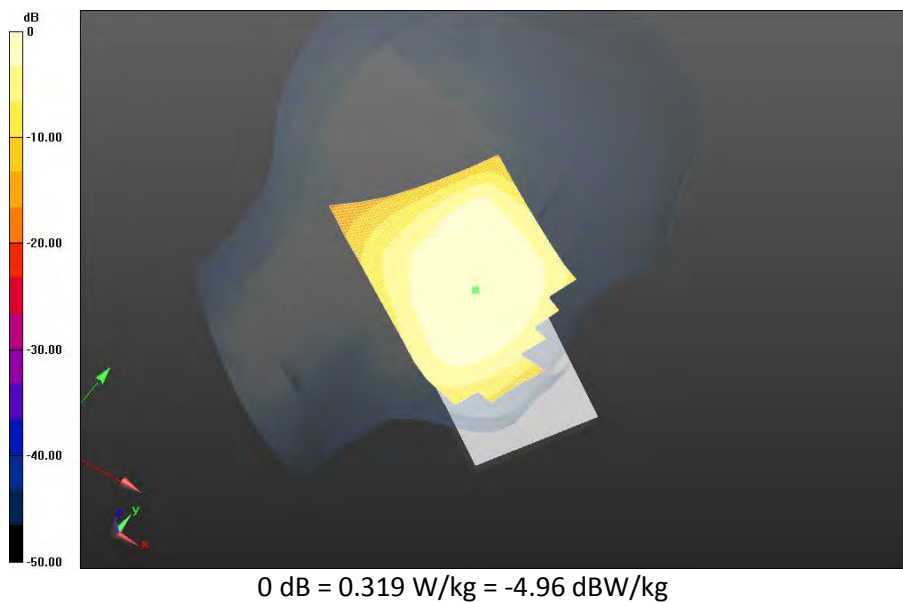
**Fast SAR: SAR(1g) = 0.286 W/kg; SAR(10g) = 0.195 W/kg**  
Maximum value of SAR (interpolated) = 0.319 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |                        |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>11(121)</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> |                        |

**Left-Hand-Side HSL - LTE Band 17/Tilt Position -LTE Band**  
**17\_chan23800\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.1C\_liq\_temp\_22.1C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 11.854 V/m; **Power Drift = 0.259 dB**

**Fast SAR: SAR(1g) = 0.180 W/kg; SAR(10g) = 0.126 W/kg**  
Maximum value of SAR (interpolated) = 0.200 W/kg



|                                                                                   |  |                                                                                        |                                           |                               |                                 |
|-----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|---------------------------------|
|  |  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                                           |                               | Page<br><b>12(121)</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> |

## LTE Band 5

Date: 7/3/2014

Test Lab: BlackBerry RTS

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

### Configuration: Right-Hand-Side HSL - LTE Band 5

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

Medium Parameters used:  $f=829$  MHz;  $\sigma = 0.899$  S/m;  $\epsilon_r = 40.972$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

### DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (6.05,6.05,6.05); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### Right-Hand-Side HSL - LTE Band 5/Touch Position -LTE Band

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

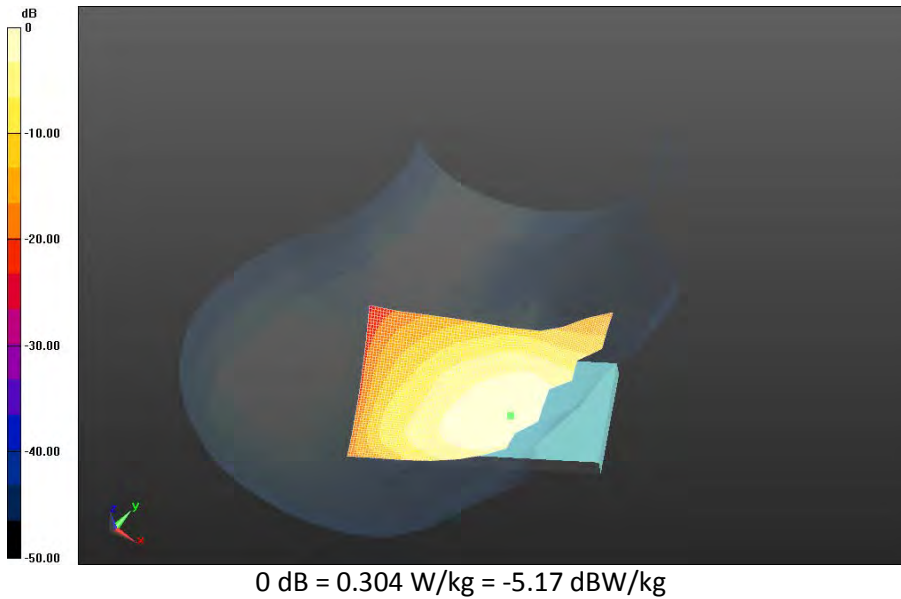
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 6.431 V/m; **Power Drift = -0.017 dB**

**Fast SAR: SAR(1g) = 0.266 W/kg; SAR(10g) = 0.181 W/kg**

Maximum value of SAR (interpolated) = 0.304 W/kg

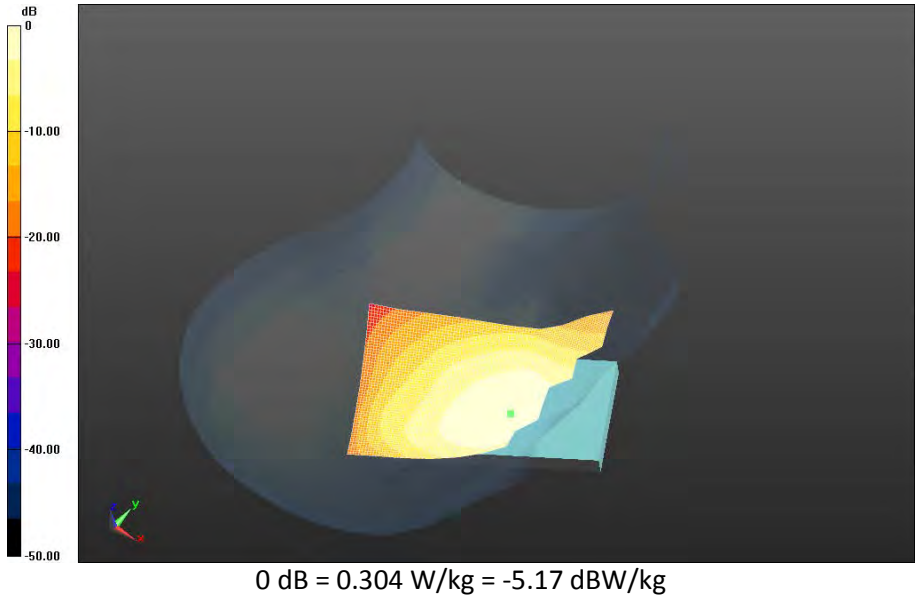
|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>13(121)</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> |



**Right-Hand-Side HSL - LTE Band 5/Touch Position -LTE Band 5\_chan20450\_10MHz\_BW\_RB25\_Offset\_Low\_amb\_temp\_24.2C\_liq\_temp\_21.9C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 5.712 V/m; **Power Drift = 0.109 dB**

**Fast SAR: SAR(1g) = 0.213 W/kg; SAR(10g) = 0.145 W/kg**  
Maximum value of SAR (interpolated) = 0.243 W/kg

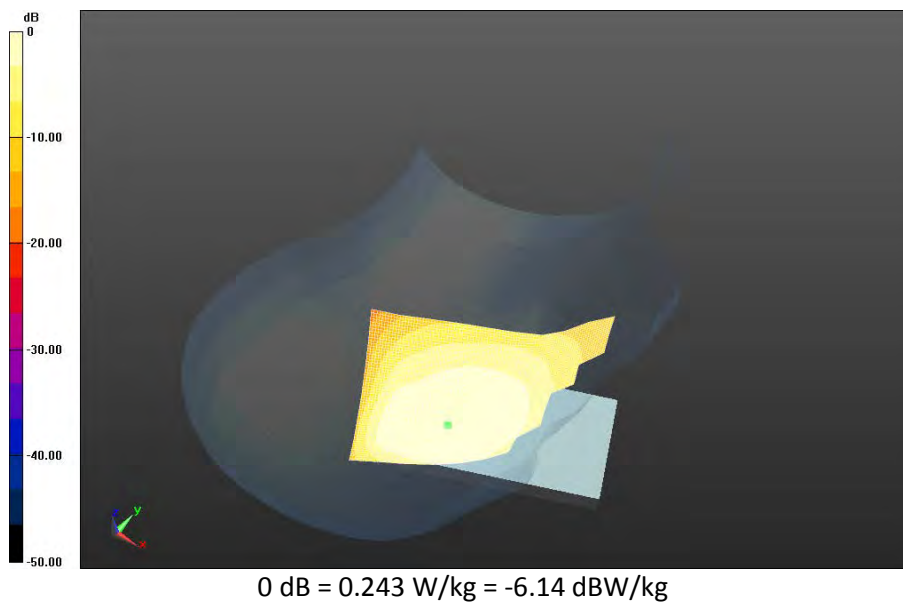
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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>14(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>15(121)</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> |

**Right-Hand-Side HSL - LTE Band 5/Tilt Position -LTE Band**  
**5\_chan20450\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_24.2C\_liq\_temp\_22.0C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 11.098 V/m; **Power Drift = 0.233 dB**

**Fast SAR: SAR(1g) = 0.164 W/kg; SAR(10g) = 0.114 W/kg**  
Maximum value of SAR (interpolated) = 0.187 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |                        |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>16(121)</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> |                        |

Date: 7/3/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - LTE Band 5**

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

Medium Parameters used:  $f=829$  MHz;  $\sigma = 0.899$  S/m;  $\epsilon_r = 40.972$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

#### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (6.05,6.05,6.05); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Left-Hand-Side HSL - LTE Band 5/Touch Position -LTE Band**

**5\_chan20450\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.9C\_liq\_temp\_21.8C/Area Scan**

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

Reference Value = 6.872 V/m; **Power Drift = 0.324 dB**

**Fast SAR: SAR(1g) = 0.415 W/kg; SAR(10g) = 0.275 W/kg**

Maximum value of SAR (interpolated) = 0.480 W/kg

#### **Left-Hand-Side HSL - LTE Band 5/Touch Position -LTE Band**

**5\_chan20450\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.9C\_liq\_temp\_21.8C/Zoom Scan**

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

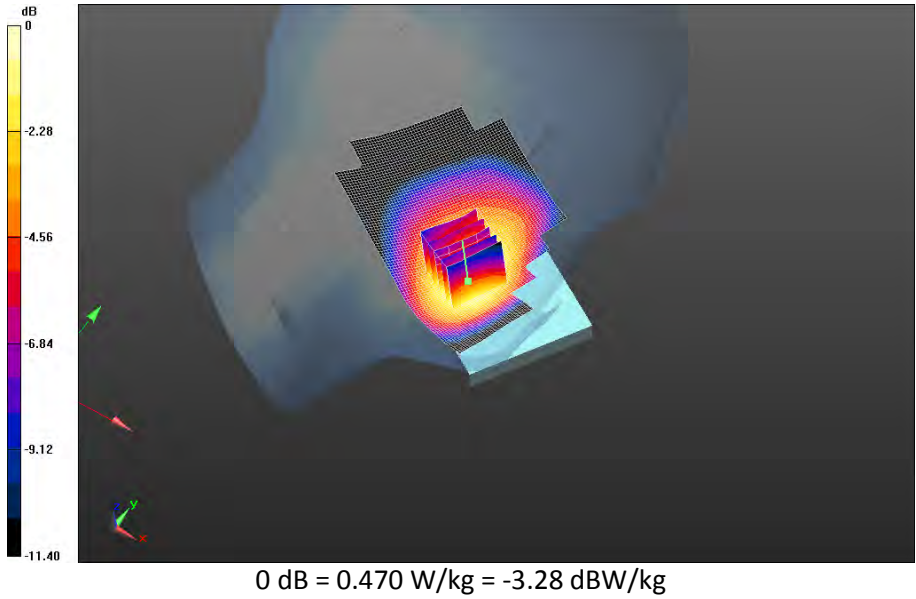
Reference Value = 6.872 V/m; **Power Drift = 0.324 dB**

**Averaged SAR: SAR(1g) = 0.421 W/kg; SAR(10g) = 0.303 W/kg**

Maximum value of SAR (interpolated) = 0.557 W/kg



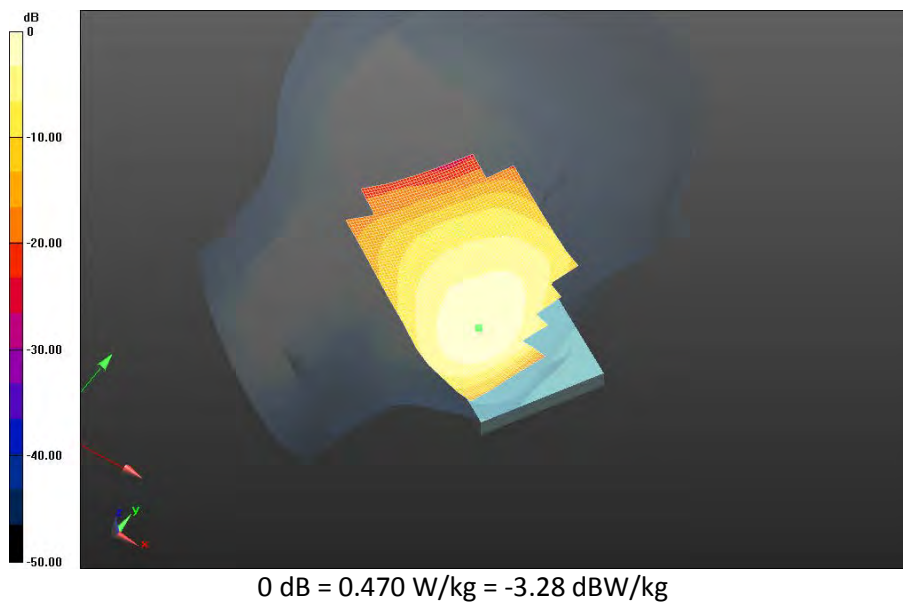
|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>17(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>18(121)</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> |

**Left-Hand-Side HSL - LTE Band 5/Touch Position -LTE Band**  
**5\_chan20525\_10MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_23.9C\_liq\_temp\_21.8C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 7.225 V/m; **Power Drift = 0.248 dB**

**Fast SAR: SAR(1g) = 0.452 W/kg; SAR(10g) = 0.299 W/kg**  
Maximum value of SAR (interpolated) = 0.524 W/kg



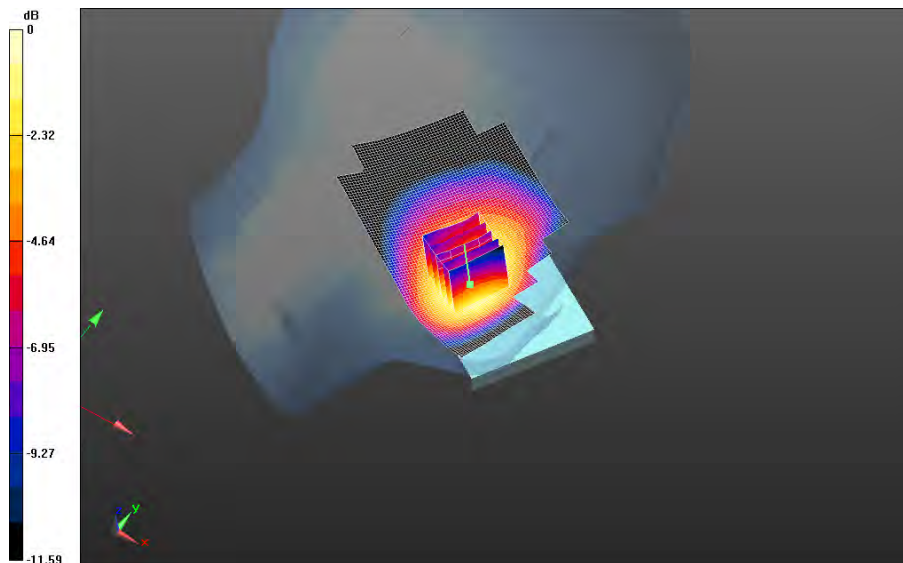
|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>19(121)</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> |

**Left-Hand-Side HSL - LTE Band 5/Touch Position -LTE Band 5\_chan20600\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_24.0C\_liq\_temp\_21.8C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 7.171 V/m; **Power Drift = 0.158 dB**

**Fast SAR: SAR(1g) = 0.457 W/kg; SAR(10g) = 0.303 W/kg**  
Maximum value of SAR (interpolated) = 0.526 W/kg

**Left-Hand-Side HSL - LTE Band 5/Touch Position -LTE Band 5\_chan20600\_10MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_24.0C\_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 = 7.171 V/m; **Power Drift = 0.158 dB**

**Averaged SAR: SAR(1g) = 0.471 W/kg; SAR(10g) = 0.338 W/kg**  
Maximum value of SAR (interpolated) = 0.640 W/kg

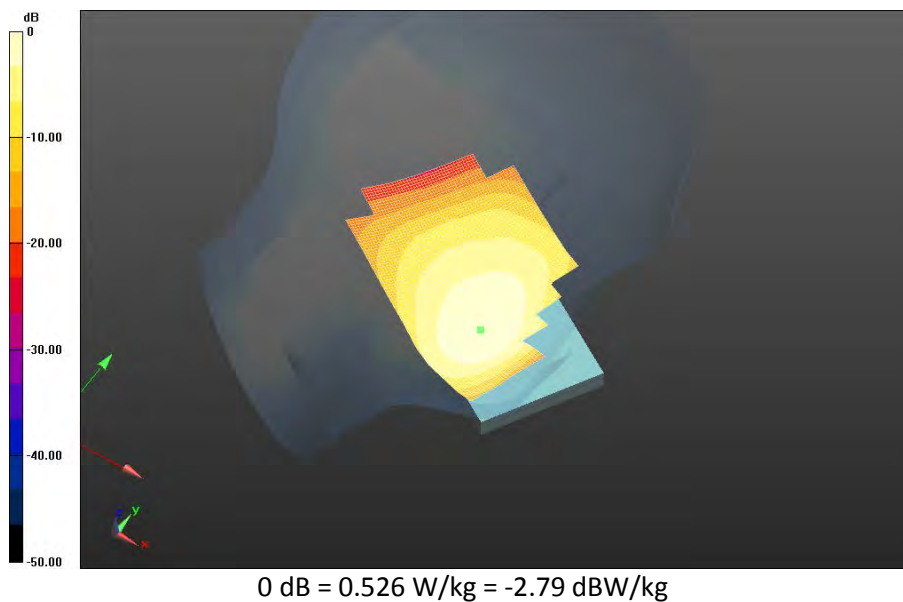


0 dB = 0.524 W/kg = -2.81 dBW/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>20(121)</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> |

**Left-Hand-Side HSL - LTE Band 5/Touch Position -LTE Band**  
**5\_chan20450\_10MHz\_BW\_RB25\_Offset\_Low\_amb\_temp\_24.1C\_liq\_temp\_21.9C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 6.016 V/m; **Power Drift = 0.033 dB**

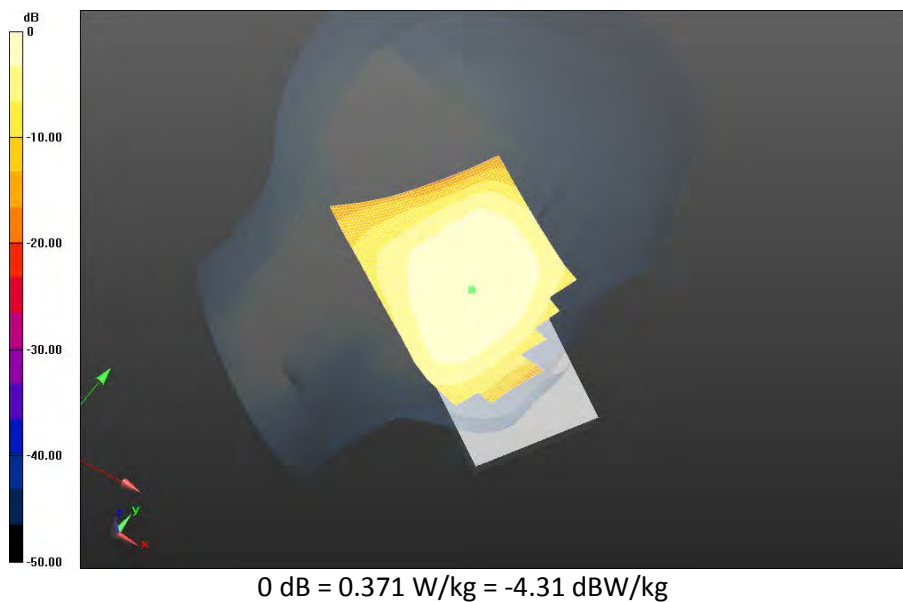
**Fast SAR: SAR(1g) = 0.321 W/kg; SAR(10g) = 0.213 W/kg**  
Maximum value of SAR (interpolated) = 0.371 W/kg



|                                                                                   |  |                                                                                        |                                           |                               |                                 |
|-----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|---------------------------------|
|  |  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                                           |                               | Page<br><b>21(121)</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> |

**Left-Hand-Side HSL - LTE Band 5/Tilt Position -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 = 11.403 V/m; **Power Drift = -0.013 dB**

**Fast SAR: SAR(1g) = 0.173 W/kg; SAR(10g) = 0.119 W/kg**  
Maximum value of SAR (interpolated) = 0.198 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>22(121)</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> |

## DTM 850

Date: 7/4/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Right-Hand-Side HSL - DTM 850**

Communication System: GSM 850 (0); Communication System Band: GSM 850; Frequency: 836.8 MHz

Medium Parameters used:  $f=836.8$  MHz;  $\sigma = 0.907$  S/m;  $\epsilon_r = 40.840$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (6.05,6.05,6.05); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Right-Hand-Side HSL - DTM 850/Touch Position - GSM850\_1-**

**slot\_chan190\_amb\_temp\_22.8C\_liq\_temp\_21.9C/Area Scan (121x171x1):** Interpolated grid:

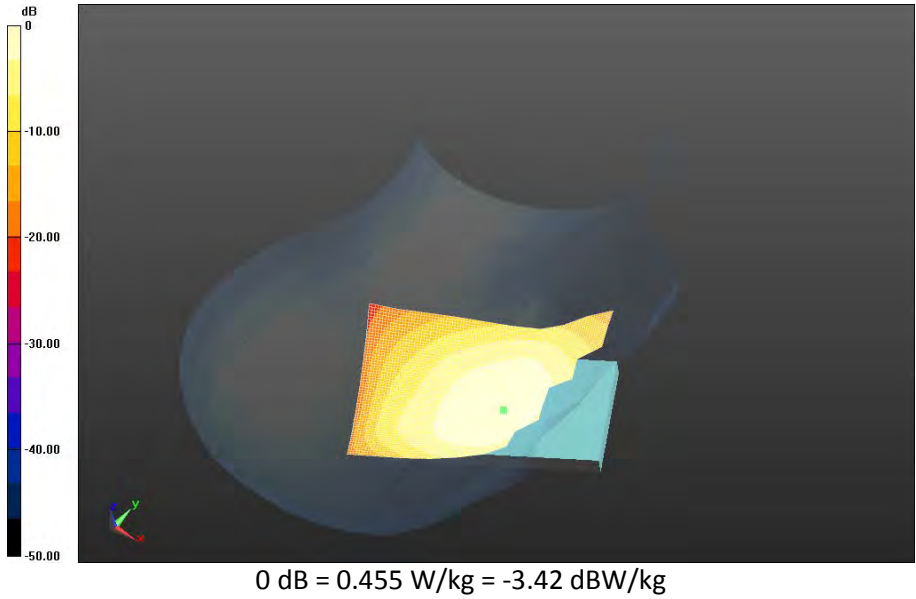
dx=1.500 mm, dy=1.500 mm

Reference Value = 9.336 V/m; **Power Drift = 0.063 dB**

**Fast SAR: SAR(1g) = 0.399 W/kg; SAR(10g) = 0.274 W/kg**

Maximum value of SAR (interpolated) = 0.455 W/kg

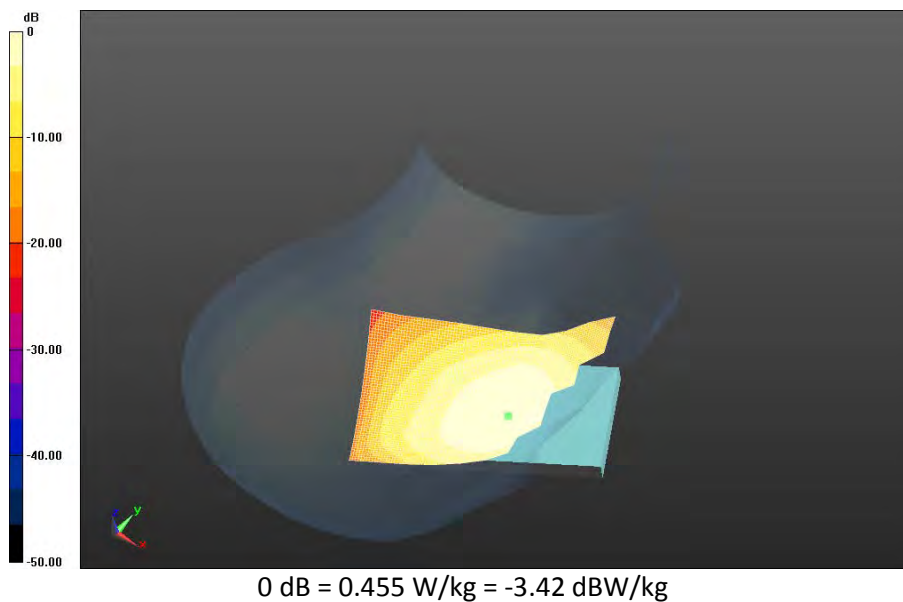
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|-----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|---------------------------------|
|  |  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                                           |                               | Page<br><b>23(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>24(121)</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> |

**Right-Hand-Side HSL - DTM 850/Touch Position - DTM850\_3-  
slot\_chan190\_amb\_temp\_22.8C\_liq\_temp\_21.9C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 8.680 V/m; **Power Drift = -0.074 dB**

**Fast SAR: SAR(1g) = 0.382 W/kg; SAR(10g) = 0.261 W/kg**  
Maximum value of SAR (interpolated) = 0.435 W/kg

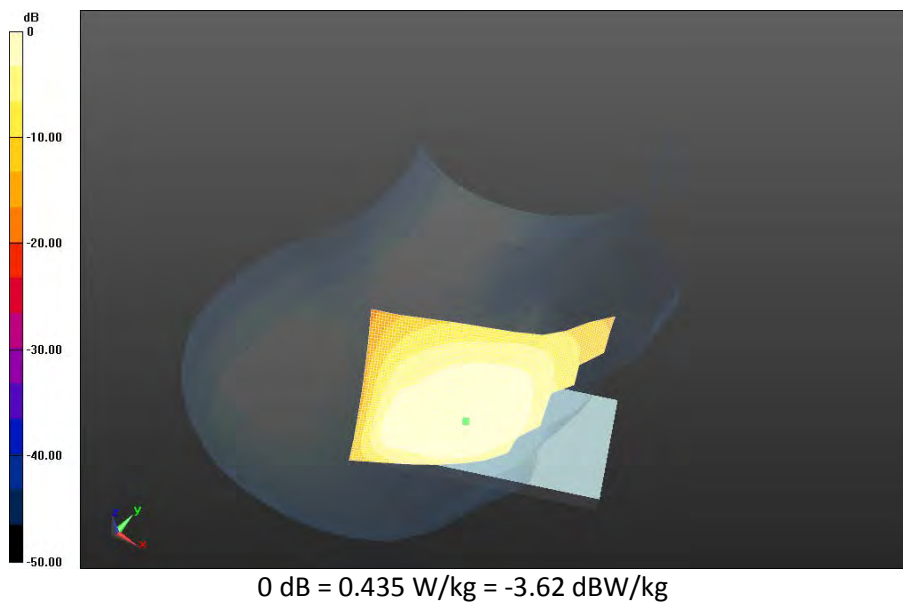




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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>25(121)</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> |

**Right-Hand-Side HSL - DTM 850/Tilt Position - GSM850\_1-slot\_chan190\_amb\_temp\_22.8C\_liq\_temp\_21.9C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 15.143 V/m; **Power Drift = 0.059 dB**

**Fast SAR: SAR(1g) = 0.331 W/kg; SAR(10g) = 0.230 W/kg**  
Maximum value of SAR (interpolated) = 0.374 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |                        |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>26(121)</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> |                        |

Date: 7/4/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - DTM 850**

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

Medium Parameters used:  $f=825$  MHz;  $\sigma = 0.895$  S/m;  $\epsilon_r = 41.076$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

#### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (6.05,6.05,6.05); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Left-Hand-Side HSL - DTM 850/Touch Position - GSM850\_1-**

**slot\_chan128\_amb\_temp\_22.9C\_liq\_temp\_21.7C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 8.992 V/m; **Power Drift = -0.043 dB**

**Fast SAR: SAR(1g) = 0.479 W/kg; SAR(10g) = 0.325 W/kg**

Maximum value of SAR (interpolated) = 0.547 W/kg

#### **Left-Hand-Side HSL - DTM 850/Touch Position - GSM850\_1-**

**slot\_chan128\_amb\_temp\_22.9C\_liq\_temp\_21.7C/Zoom Scan (26x26x36)/Cube 0:** Interpolated

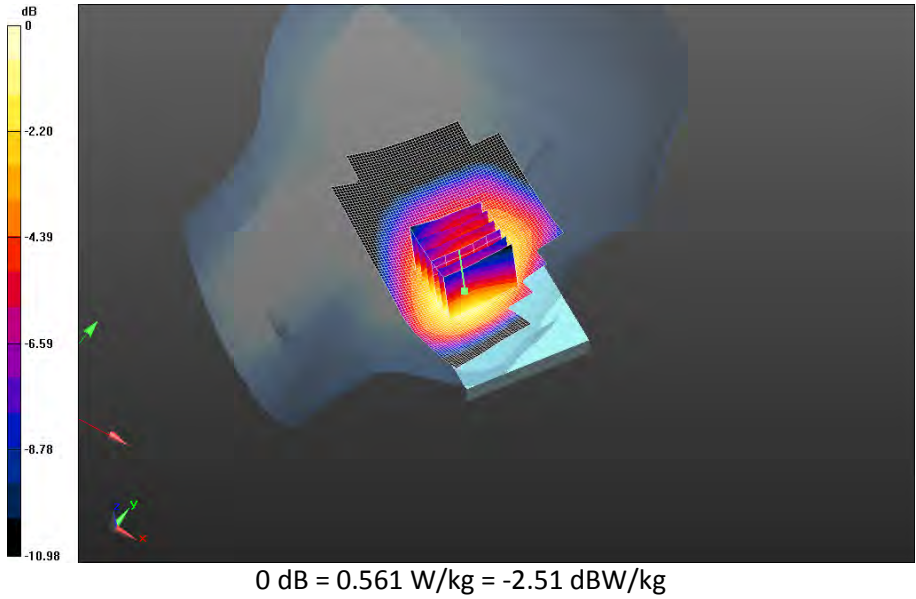
grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 8.992 V/m; **Power Drift = -0.043 dB**

**Averaged SAR: SAR(1g) = 0.503 W/kg; SAR(10g) = 0.370 W/kg**

Maximum value of SAR (interpolated) = 0.663 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>27(121)</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> |



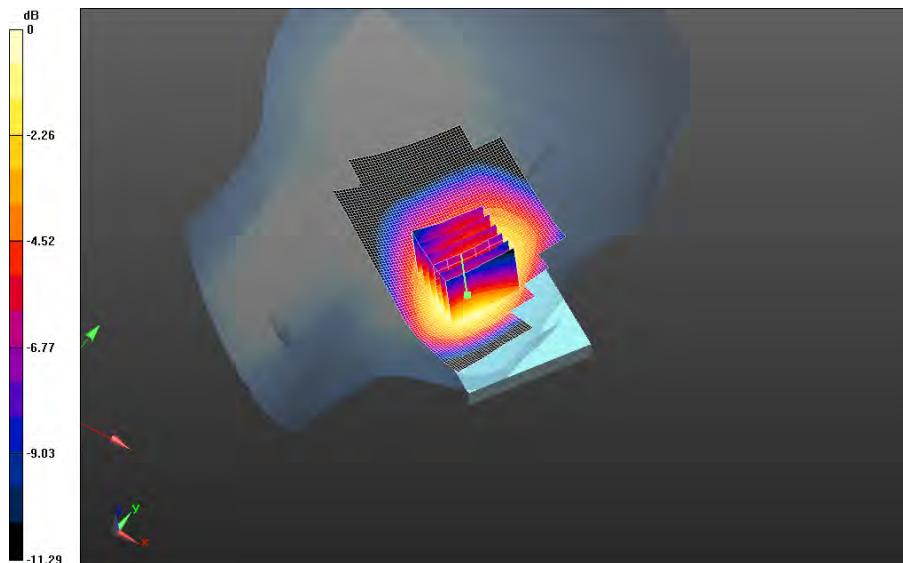
|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>28(121)</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> |

**Left-Hand-Side HSL - DTM 850/Touch Position - GSM850\_1-slot\_chan190\_amb\_temp\_22.9C\_liq\_temp\_21.8C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 9.306 V/m; **Power Drift = -0.156 dB**

**Fast SAR: SAR(1g) = 0.525 W/kg; SAR(10g) = 0.354 W/kg**  
Maximum value of SAR (interpolated) = 0.602 W/kg

**Left-Hand-Side HSL - DTM 850/Touch Position - GSM850\_1-slot\_chan190\_amb\_temp\_22.9C\_liq\_temp\_21.8C/Zoom Scan (26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm  
Reference Value = 9.306 V/m; **Power Drift = -0.156 dB**

**Averaged SAR: SAR(1g) = 0.522 W/kg; SAR(10g) = 0.381 W/kg**  
Maximum value of SAR (interpolated) = 0.689 W/kg

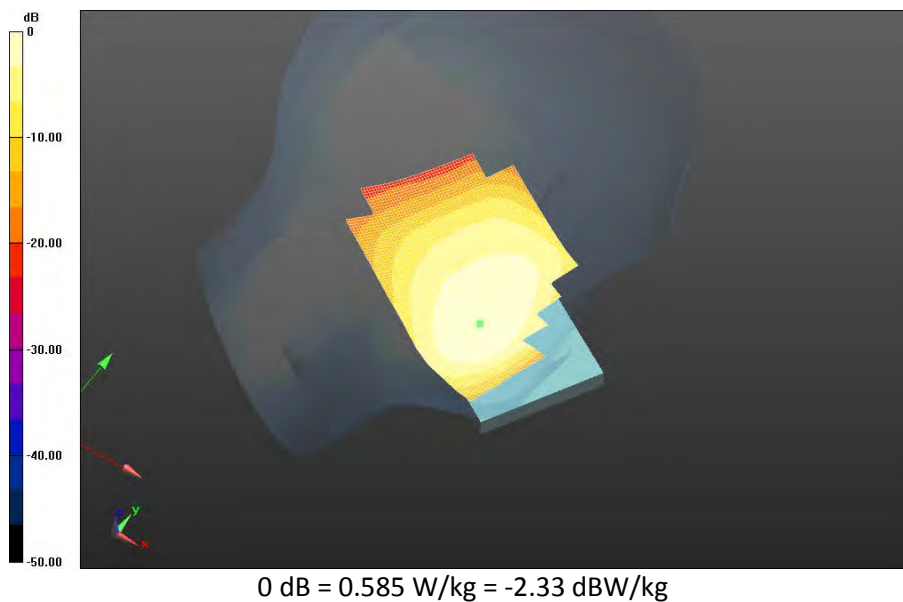


0 dB = 0.561 W/kg = -2.51 dBW/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>29(121)</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> |

**Left-Hand-Side HSL - DTM 850/Touch Position - GSM850\_1-  
slot\_chan251\_amb\_temp\_22.9C\_liq\_temp\_21.8C/Area Scan (121x171x1): Interpolated grid:**  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 8.865 V/m; **Power Drift = -0.048 dB**

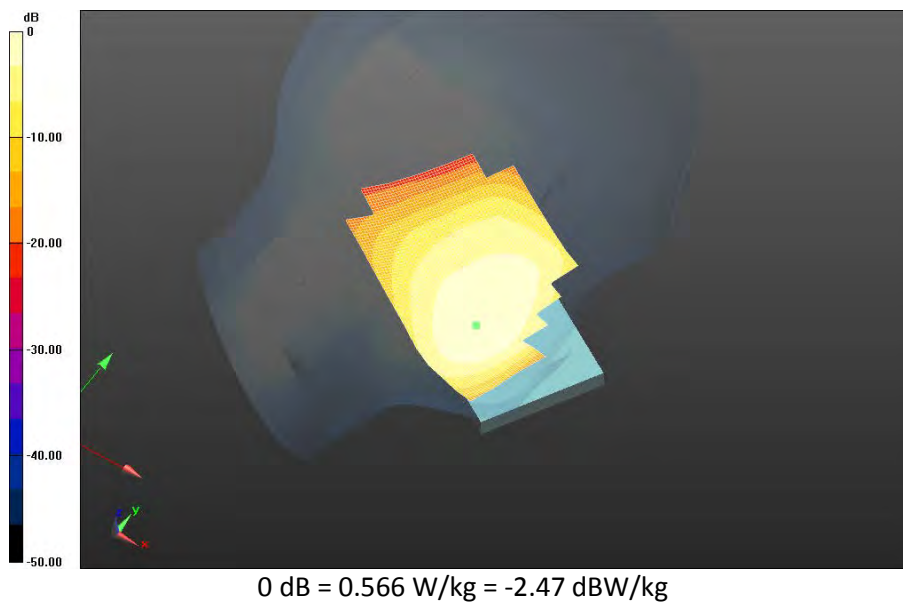
**Fast SAR: SAR(1g) = 0.493 W/kg; SAR(10g) = 0.333 W/kg**  
Maximum value of SAR (interpolated) = 0.566 W/kg



|                                                                                   |  |                                                                                        |                                           |                               |                                 |
|-----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|---------------------------------|
|  |  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                                           |                               | Page<br><b>30(121)</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> |

**Left-Hand-Side HSL - DTM 850/Touch Position - DTM850\_2-**  
**slot\_chan190\_amb\_temp\_22.9C\_liq\_temp\_21.9C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 8.381 V/m; **Power Drift = -0.014 dB**

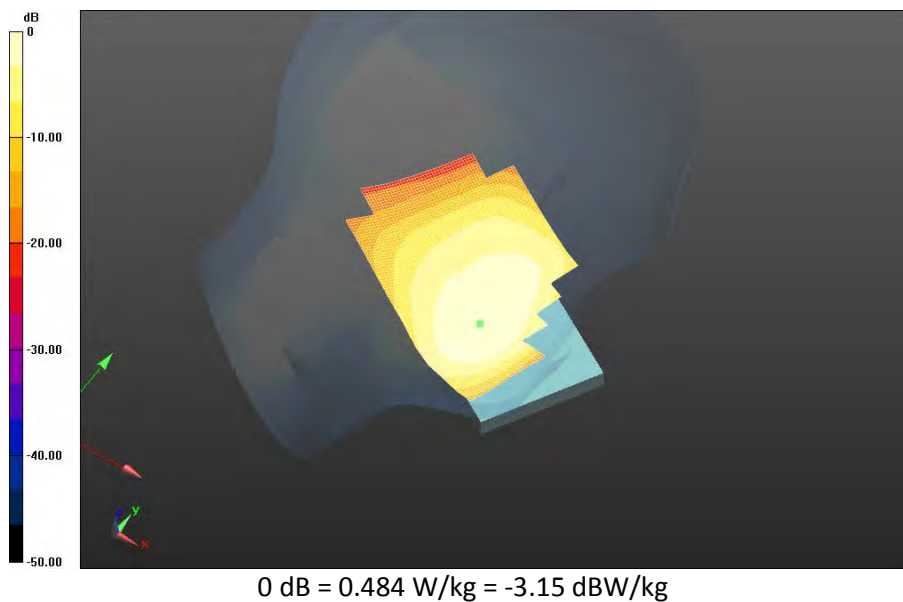
**Fast SAR: SAR(1g) = 0.422 W/kg; SAR(10g) = 0.286 W/kg**  
Maximum value of SAR (interpolated) = 0.484 W/kg



|                                                                                   |  |                                                                                        |                                           |                               |                                 |
|-----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|---------------------------------|
|  |  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                                           |                               | Page<br><b>31(121)</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> |

**Left-Hand-Side HSL - DTM 850/Touch Position - DTM850\_3-  
slot\_chan190\_amb\_temp\_22.9C\_liq\_temp\_21.8C/Area Scan (121x171x1): Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 8.873 V/m; **Power Drift = -0.033 dB****

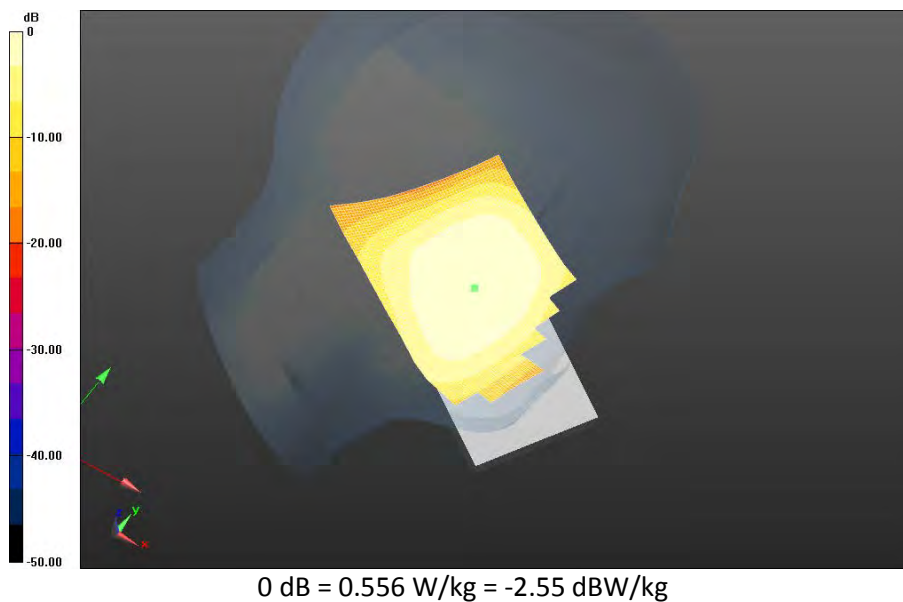
**Fast SAR: SAR(1g) = 0.485 W/kg; SAR(10g) = 0.328 W/kg  
Maximum value of SAR (interpolated) = 0.556 W/kg**



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>32(121)</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> |

**Left-Hand-Side HSL - DTM 850/Tilt Position -GSM850\_1-  
slot\_chan190\_amb\_temp\_22.8C\_liq\_temp\_21.8C/Area Scan (121x171x1): Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 14.529 V/m; **Power Drift = 0.075 dB****

**Fast SAR: SAR(1g) = 0.292 W/kg; SAR(10g) = 0.202 W/kg**  
Maximum value of SAR (interpolated) = 0.335 W/kg





|                                                                                   |                                                  |                                                                                        |                               |                                 |                        |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>33(121)</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> |                        |

# UMTS Band V

Date: 7/3/2014

Test Lab: BlackBerry RTS

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

## Configuration: Right-Hand-Side HSL - UMTS band V

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

Frequency: 836.4 MHz

Medium Parameters used:  $f=836.4$  MHz;  $\sigma = 0.907$  S/m;  $\epsilon_r = 40.845$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

### DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (6.05,6.05,6.05); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### Right-Hand-Side HSL - UMTS band V/Touch Position - UMTS band

**V\_chan4182\_amb\_temp\_23.8C\_liq\_temp\_21.8C/Area Scan (121x171x1):** Interpolated grid:

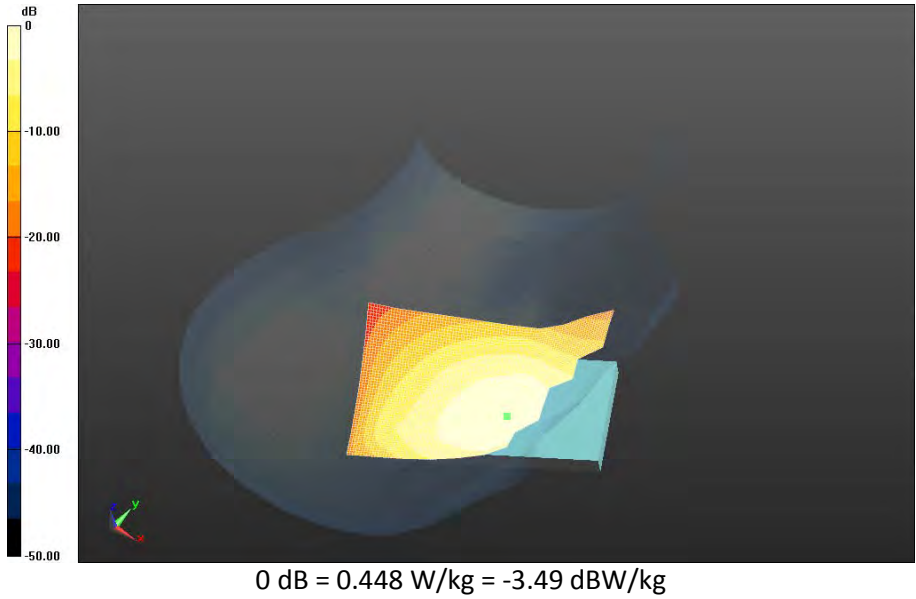
dx=1.500 mm, dy=1.500 mm

Reference Value = 8.255 V/m; **Power Drift = 0.050 dB**

**Fast SAR: SAR(1g) = 0.394 W/kg; SAR(10g) = 0.269 W/kg**

Maximum value of SAR (interpolated) = 0.448 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>34(121)</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> |



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|-----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|---------------------------------|
|  |  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                                           |                               | Page<br><b>35(121)</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> |

**Right-Hand-Side HSL - UMTS band V/Tilt Position - UMTS band**

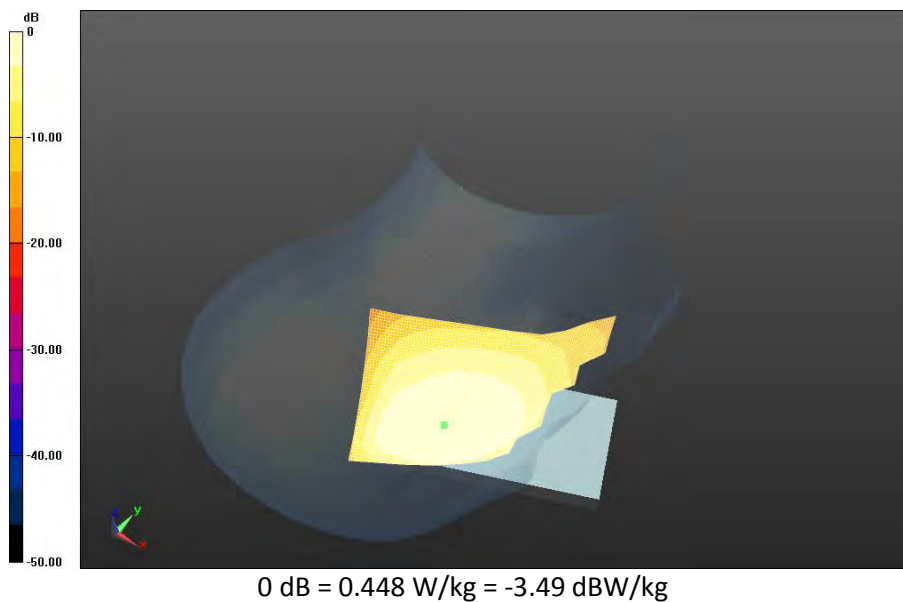
**V\_chan4182\_amb\_temp\_23.7C\_liq\_temp\_21.9C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 14.047 V/m; **Power Drift = 0.063 dB**

**Fast SAR: SAR(1g) = 0.281 W/kg; SAR(10g) = 0.193 W/kg**

Maximum value of SAR (interpolated) = 0.324 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>36(121)</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> |

Date: 7/3/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - 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;  $\sigma = 0.897$  S/m;  $\epsilon_r = 41.039$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (6.05,6.05,6.05); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Left-Hand-Side HSL - UMTS band V/Touch Position -UMTS band**

**V\_chan4132\_amb\_temp\_23.6C\_liq\_temp\_21.9C/Area Scan (121x171x1):** Interpolated grid:

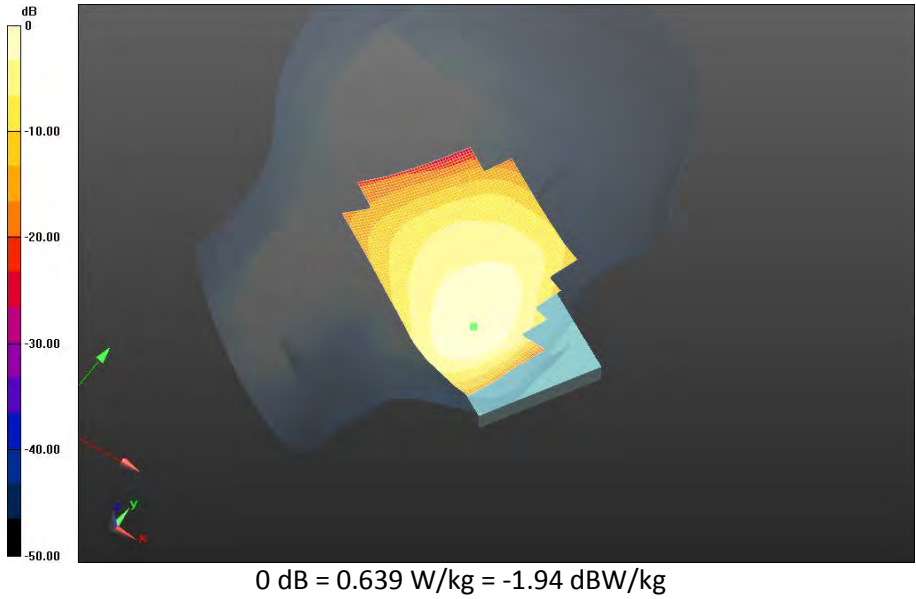
dx=1.500 mm, dy=1.500 mm

Reference Value = 10.212 V/m; **Power Drift = 0.037 dB**

**Fast SAR: SAR(1g) = 0.554 W/kg; SAR(10g) = 0.369 W/kg**

Maximum value of SAR (interpolated) = 0.639 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>37(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>38(121)</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> |

**Left-Hand-Side HSL - UMTS band V/Touch Position -UMTS band**

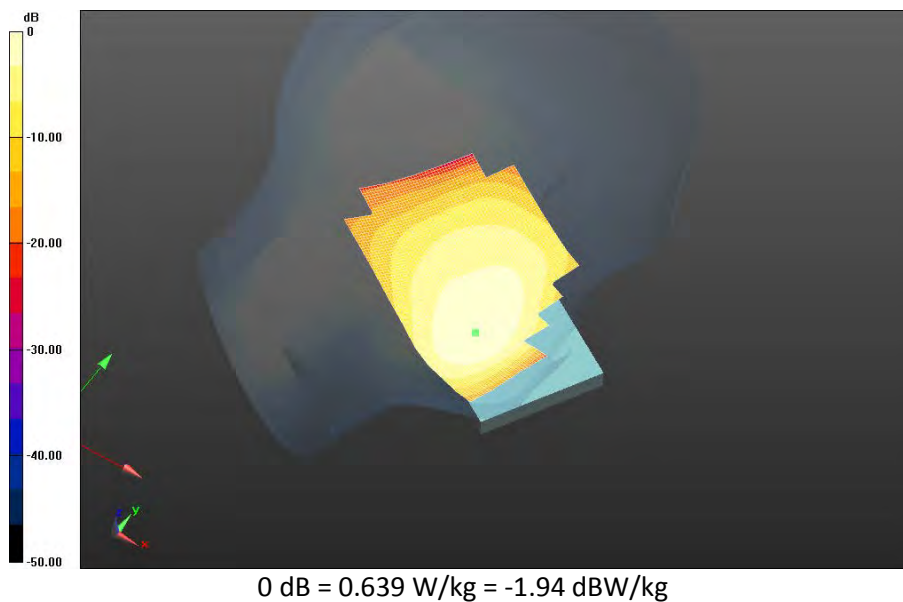
**V\_chan4182\_amb\_temp\_23.7C\_liq\_temp\_21.9C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 10.258 V/m; **Power Drift = 0.00905 dB**

**Fast SAR: SAR(1g) = 0.574 W/kg; SAR(10g) = 0.383 W/kg**

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



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>39(121)</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> |

**Left-Hand-Side HSL - UMTS band V/Touch Position -UMTS band**

**V\_chan4233\_amb\_temp\_23.9C\_liq\_temp\_22.0C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 10.881 V/m; **Power Drift = 0.062 dB**

**Fast SAR: SAR(1g) = 0.643 W/kg; SAR(10g) = 0.428 W/kg**

Maximum value of SAR (interpolated) = 0.740 W/kg

**Left-Hand-Side HSL - UMTS band V/Touch Position -UMTS band**

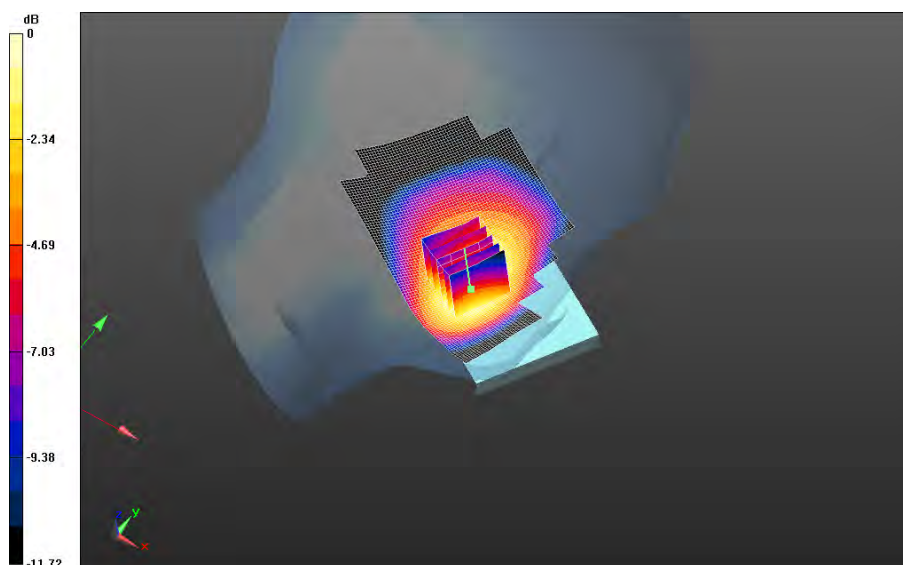
**V\_chan4233\_amb\_temp\_23.9C\_liq\_temp\_22.0C/Zoom Scan (21x21x36)/Cube 0:** Interpolated

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

Reference Value = 10.881 V/m; **Power Drift = 0.062 dB**

**Averaged SAR: SAR(1g) = 0.661 W/kg; SAR(10g) = 0.469 W/kg**

Maximum value of SAR (interpolated) = 0.882 W/kg



0 dB = 0.661 W/kg = -1.80 dBW/kg

|                                                                                   |  |                                                                                        |                                           |                               |                                 |
|-----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|---------------------------------|
|  |  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                                           |                               | Page<br><b>40(121)</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> |

**Left-Hand-Side HSL - UMTS band V/Tilt Position -UMTS band**

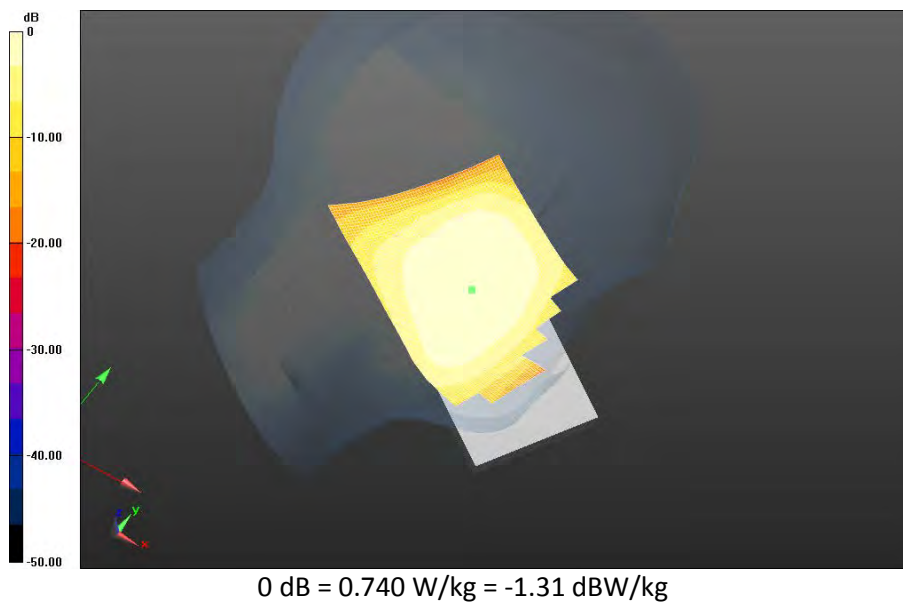
**V\_chan4182\_amb\_temp\_23.7C\_liq\_temp\_21.9C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 14.231 V/m; **Power Drift = -0.00223 dB**

**Fast SAR: SAR(1g) = 0.258 W/kg; SAR(10g) = 0.179 W/kg**

Maximum value of SAR (interpolated) = 0.294 W/kg





|                                                                                   |                                                  |                                                                                        |                               |                                 |                        |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>41(121)</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> |                        |

## LTE Band 4

Date: 6/24/2014

Test Lab: BlackBerry RTS

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

### Configuration: Right-Hand-Side HSL - LTE Band 4

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

Medium Parameters used:  $f=1720$  MHz;  $\sigma = 1.371$  S/m;  $\epsilon_r = 39.233$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

### DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (5.24,5.24,5.24); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### Right-Hand-Side HSL - LTE Band 4/Touch Position -LTE Band

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

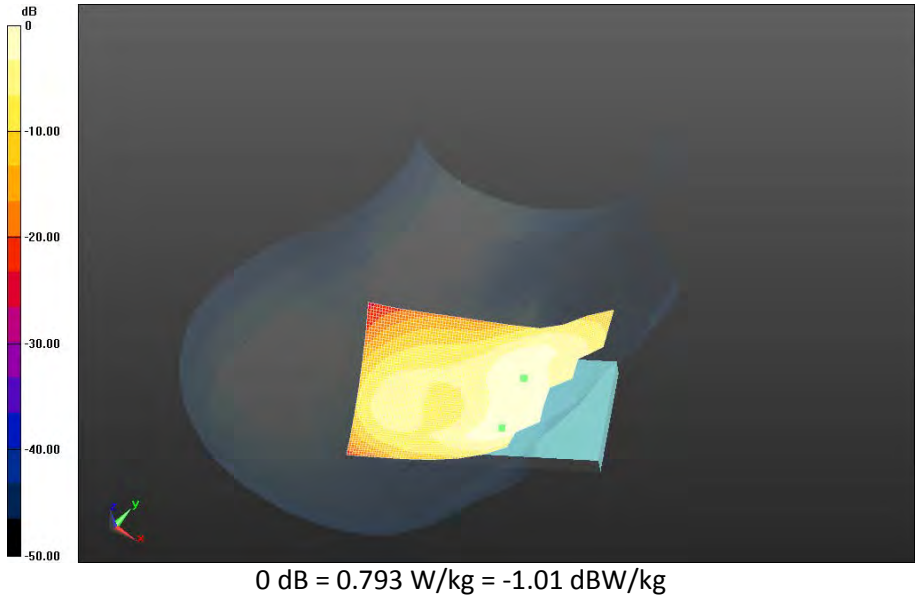
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 13.836 V/m; **Power Drift = -0.00439 dB**

**Fast SAR: SAR(1g) = 0.646 W/kg; SAR(10g) = 0.381 W/kg**

Maximum value of SAR (interpolated) = 0.793 W/kg

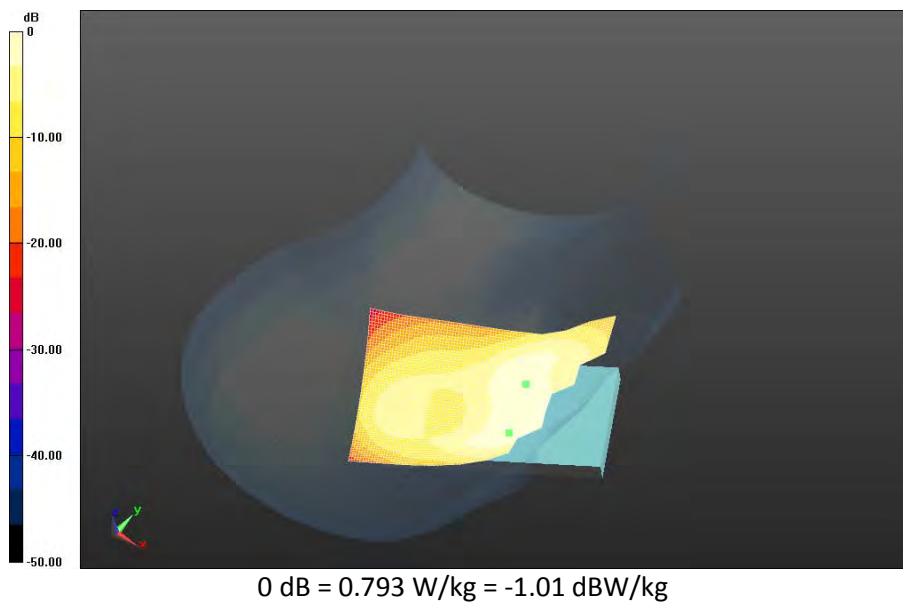
|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>42(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>43(121)</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> |

**Right-Hand-Side HSL - LTE Band 4/Touch Position -LTE Band 4\_chan20175\_20MHz\_BW\_RB50\_Offset\_High\_amb\_temp\_23.4C\_liq\_temp\_22.6C/Area Scan (121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 13.555 V/m; **Power Drift = -0.00833 dB**

**Fast SAR: SAR(1g) = 0.623 W/kg; SAR(10g) = 0.368 W/kg**  
Maximum value of SAR (interpolated) = 0.766 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>44(121)</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> |

**Right-Hand-Side HSL - LTE Band 4/Tilt Position -LTE band**

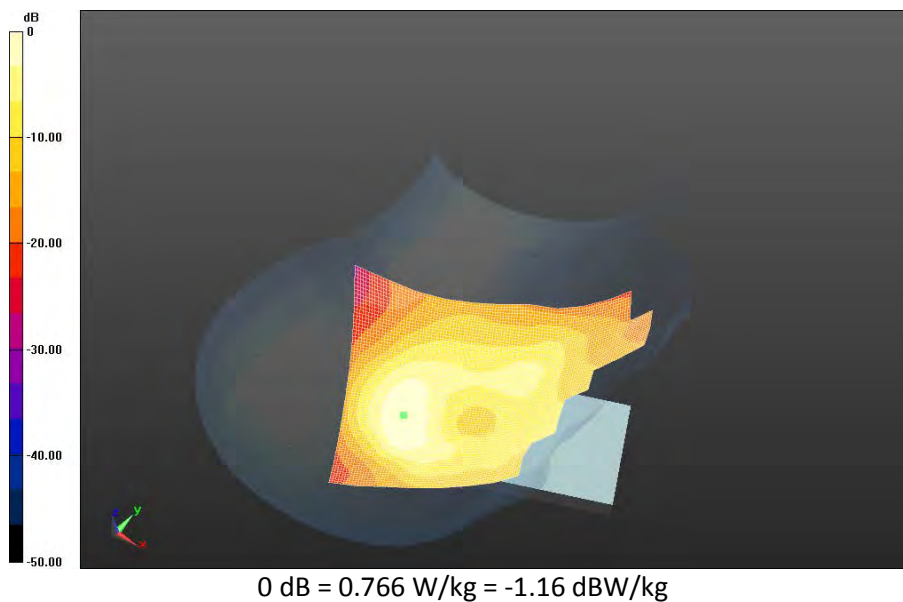
**4\_chan20050\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_23.3C\_liq\_temp\_22.7C/Area Scan**

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

Reference Value = 20.298 V/m; **Power Drift = 0.086 dB**

**Fast SAR: SAR(1g) = 0.532 W/kg; SAR(10g) = 0.289 W/kg**

Maximum value of SAR (interpolated) = 0.676 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |                        |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>45(121)</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> |                        |

Date: 6/24/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - LTE Band 4**

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

Medium Parameters used:  $f=1720$  MHz;  $\sigma = 1.371$  S/m;  $\epsilon_r = 39.233$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (5.24,5.24,5.24); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Left-Hand-Side HSL - LTE Band 4/Touch Position -LTE Band**

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

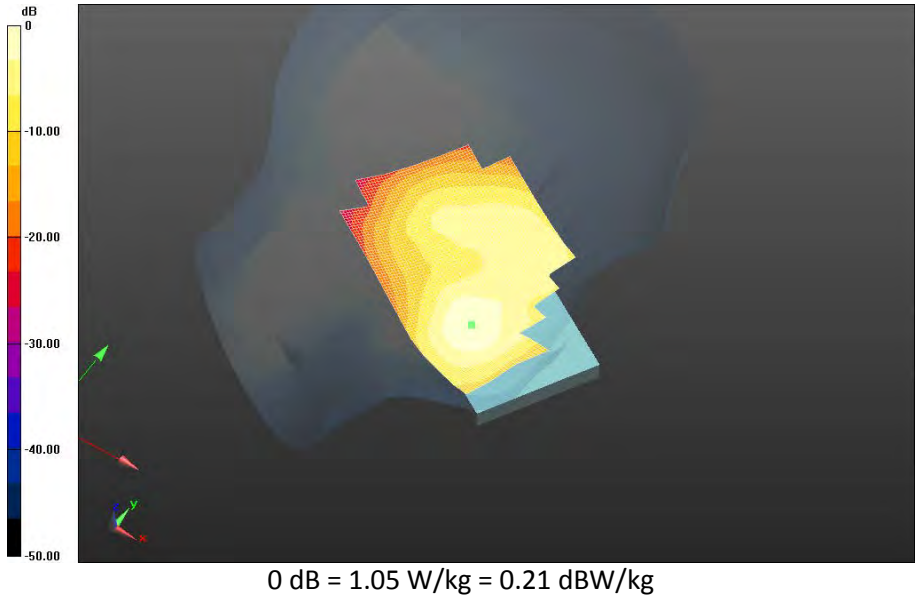
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 13.449 V/m; **Power Drift = 0.00977 dB**

**Fast SAR: SAR(1g) = 0.835 W/kg; SAR(10g) = 0.466 W/kg**

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

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>46(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>47(121)</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> |

**Left-Hand-Side HSL - LTE Band 4/Touch Position -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 = 13.500 V/m; **Power Drift = -0.018 dB**

**Fast SAR: SAR(1g) = 0.842 W/kg; SAR(10g) = 0.468 W/kg**

Maximum value of SAR (interpolated) = 1.06 W/kg

**Left-Hand-Side HSL - LTE Band 4/Touch Position -LTE Band**

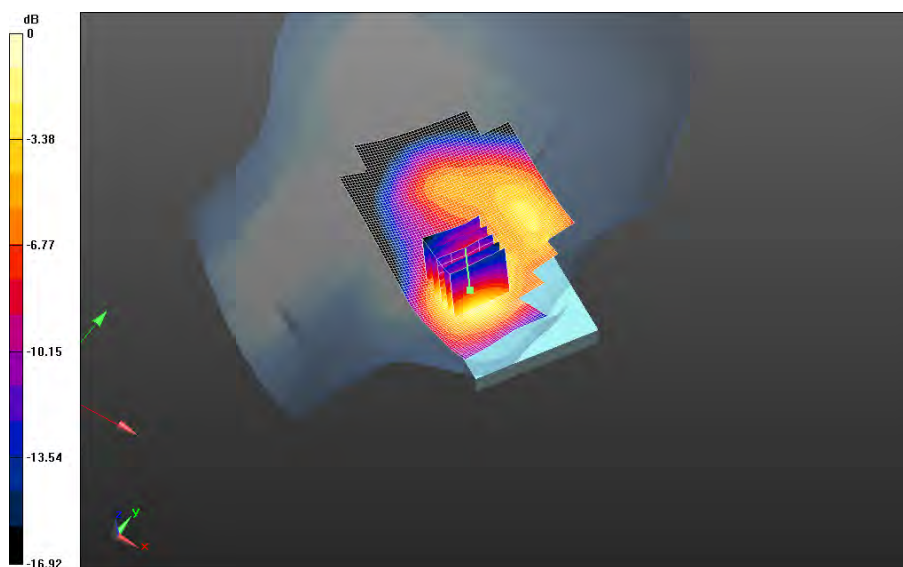
**4\_chan20175\_20MHz\_BW\_RB1\_Offset\_Mid\_amb\_temp\_22.6C\_liq\_temp\_22.5C/Zoom Scan**

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

Reference Value = 13.500 V/m; **Power Drift = -0.018 dB**

**Averaged SAR: SAR(1g) = 0.823 W/kg; SAR(10g) = 0.480 W/kg**

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

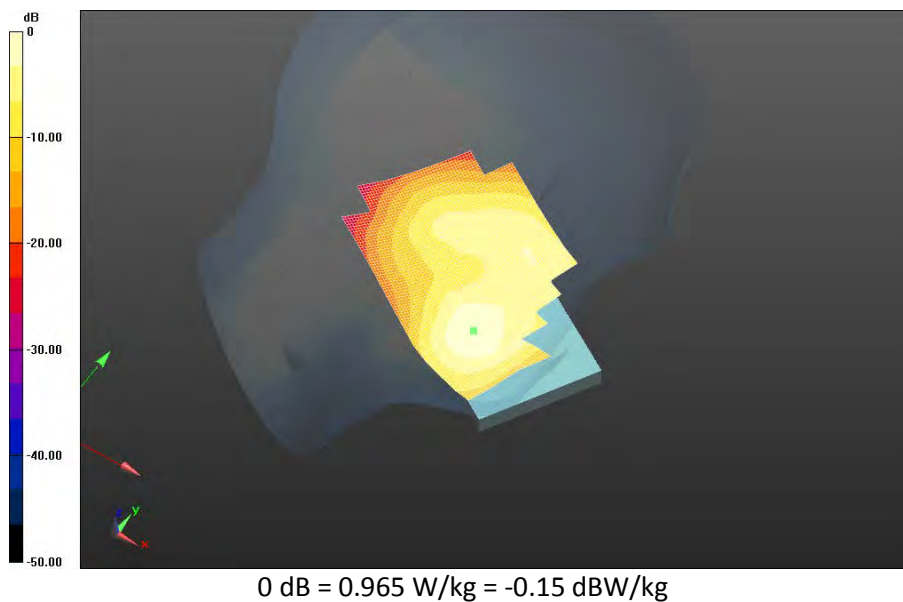


0 dB = 1.05 W/kg = 0.21 dBW/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>48(121)</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> |

**Left-Hand-Side HSL - LTE Band 4/Touch Position -LTE Band**  
**4\_chan20300\_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 = 13.068 V/m; **Power Drift = -0.00195 dB**

**Fast SAR: SAR(1g) = 0.794 W/kg; SAR(10g) = 0.442 W/kg**  
Maximum value of SAR (interpolated) = 1.00 W/kg

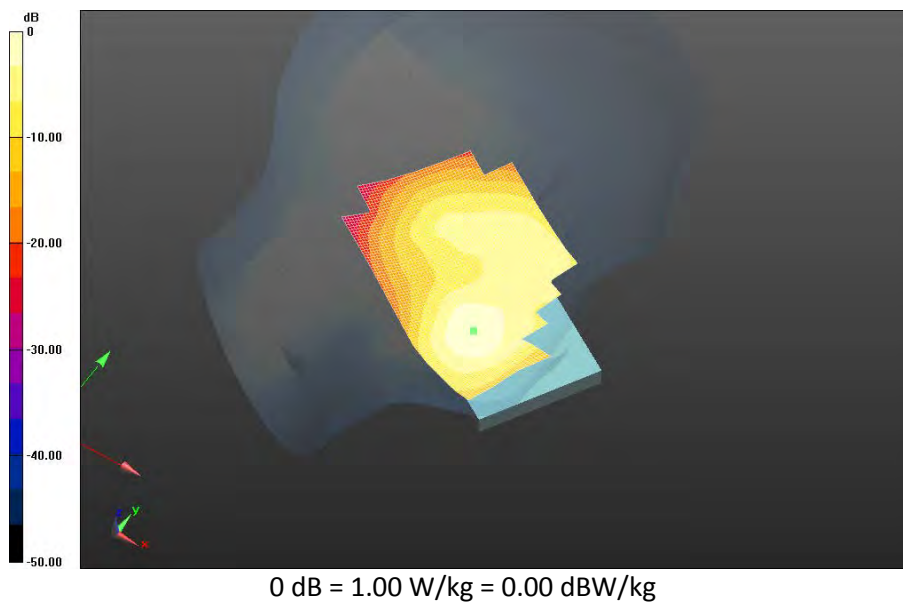




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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>49(121)</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> |

**Left-Hand-Side HSL - LTE Band 4/Touch Position -LTE Band**  
**4\_chan20175\_20MHz\_BW\_RB50\_Offset\_High\_amb\_temp\_22.7C\_liq\_temp\_22.5C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 11.640 V/m; **Power Drift = 0.080 dB**

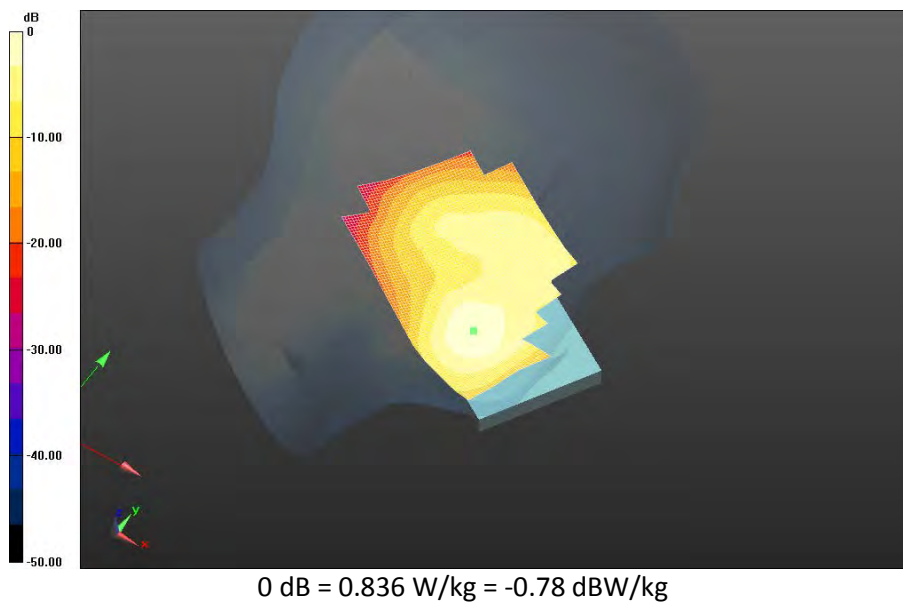
**Fast SAR: SAR(1g) = 0.662 W/kg; SAR(10g) = 0.368 W/kg**  
Maximum value of SAR (interpolated) = 0.836 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>50(121)</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> |

**Left-Hand-Side HSL - LTE Band 4/Touch Position -LTE Band**  
**4\_chan20175\_20MHz\_BW\_RB100\_Offset\_Low\_amb\_temp\_23.0C\_liq\_temp\_22.6C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 11.664 V/m; **Power Drift = 0.114 dB**

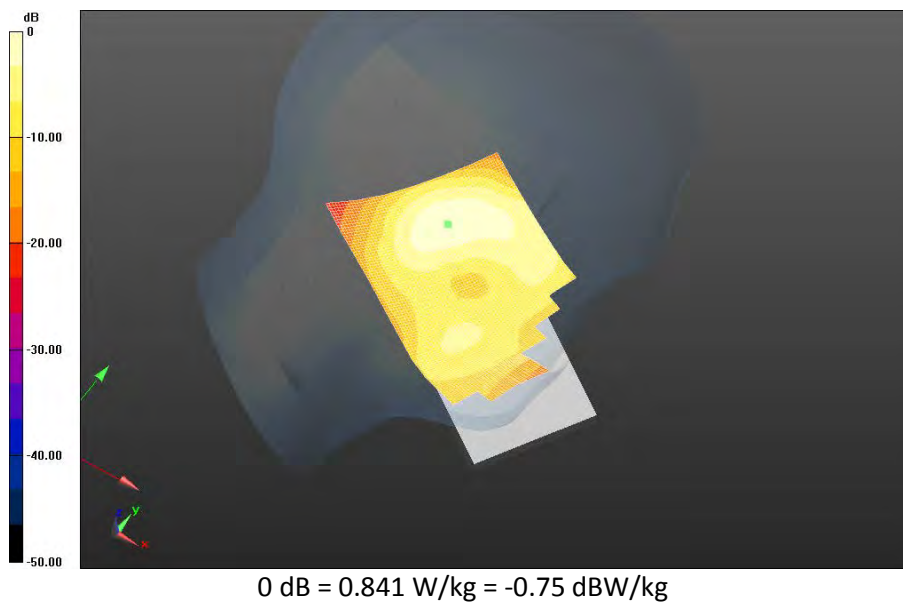
**Fast SAR: SAR(1g) = 0.669 W/kg; SAR(10g) = 0.374 W/kg**  
Maximum value of SAR (interpolated) = 0.841 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>51(121)</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> |

**Left-Hand-Side HSL - LTE Band 4/Tilt Position -LTE Band**  
**4\_chan20050\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_23.4C\_liq\_temp\_22.6C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 20.972 V/m; **Power Drift = -0.022 dB**

**Fast SAR: SAR(1g) = 0.481 W/kg; SAR(10g) = 0.270 W/kg**  
Maximum value of SAR (interpolated) = 0.612 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>52(121)</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> |

Date: 7/29/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - LTE Band 4 (2)**

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

Medium Parameters used:  $f=1720$  MHz;  $\sigma = 1.375$  S/m;  $\epsilon_r = 38.712$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

#### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (5.24,5.24,5.24); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Left-Hand-Side HSL - LTE Band 4 (2)/Touch Position 2nd Scan -LTE Band**

**4\_chan20050\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_22.6C\_liq\_temp\_22.5C/Area Scan**

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

Reference Value = 12.685 V/m; **Power Drift = 0.021 dB**

**Fast SAR: SAR(1g) = 0.817 W/kg; SAR(10g) = 0.470 W/kg**

Maximum value of SAR (interpolated) = 1.02 W/kg

#### **Left-Hand-Side HSL - LTE Band 4 (2)/Touch Position 2nd Scan -LTE Band**

**4\_chan20050\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_22.6C\_liq\_temp\_22.5C/Zoom Scan**

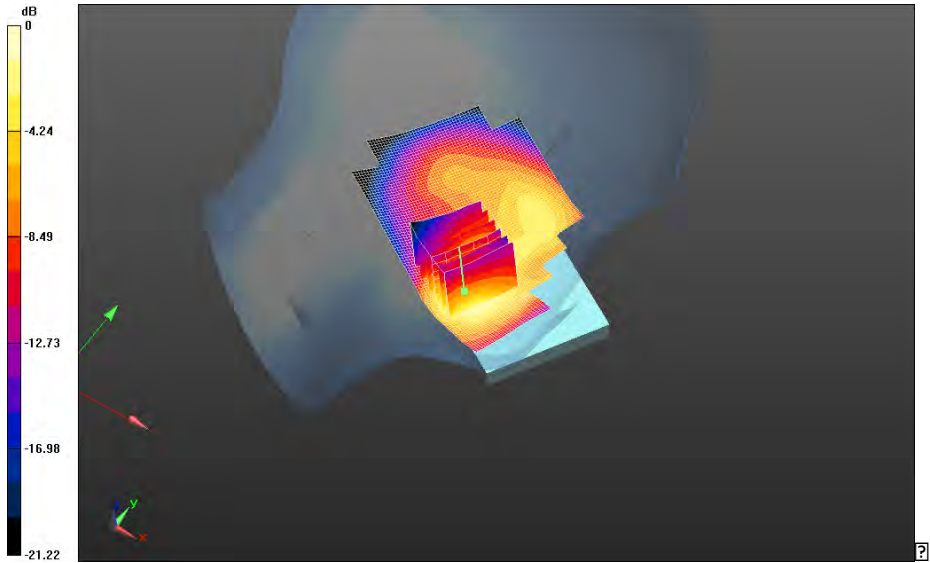
**(26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 12.685 V/m; **Power Drift = 0.021 dB**

**Averaged SAR: SAR(1g) = 0.859 W/kg; SAR(10g) = 0.514 W/kg**

Maximum value of SAR (interpolated) = 1.31 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>53(121)</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> |



0 dB = 1.02 W/kg = 0.09 dBW/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>54(121)</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> |

## LTE Band 2

Date: 7/8/2014

Test Lab: BlackBerry RTS

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

### Configuration: Right-Hand-Side HSL - LTE Band 2

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

Medium Parameters used:  $f=1860$  MHz;  $\sigma = 1.352$  S/m;  $\epsilon_r = 38.758$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

#### DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (5.24,5.24,5.24); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### Right-Hand-Side HSL - LTE Band 2/Touch Position -LTE Band

**2\_chan18700\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.4C\_liq\_temp\_23.0C/Area Scan**

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

Reference Value = 10.767 V/m; **Power Drift = 0.020 dB**

**Fast SAR: SAR(1g) = 0.640 W/kg; SAR(10g) = 0.340 W/kg**

Maximum value of SAR (interpolated) = 0.818 W/kg

#### Right-Hand-Side HSL - LTE Band 2/Touch Position -LTE Band

**2\_chan18700\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.4C\_liq\_temp\_23.0C/Zoom Scan**

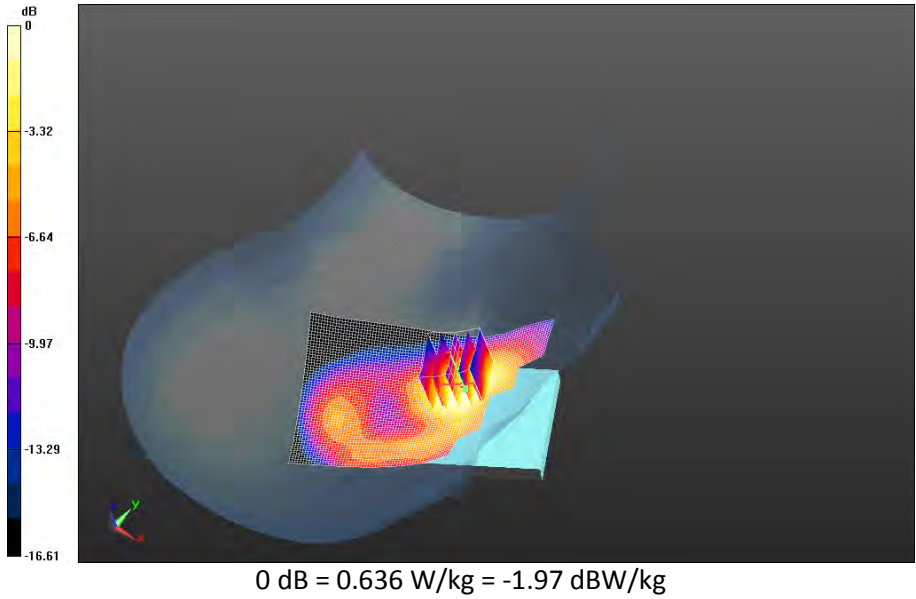
**(21x21x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 10.767 V/m; **Power Drift = 0.020 dB**

**Averaged SAR: SAR(1g) = 0.575 W/kg; SAR(10g) = 0.344 W/kg**

Maximum value of SAR (interpolated) = 0.856 W/kg

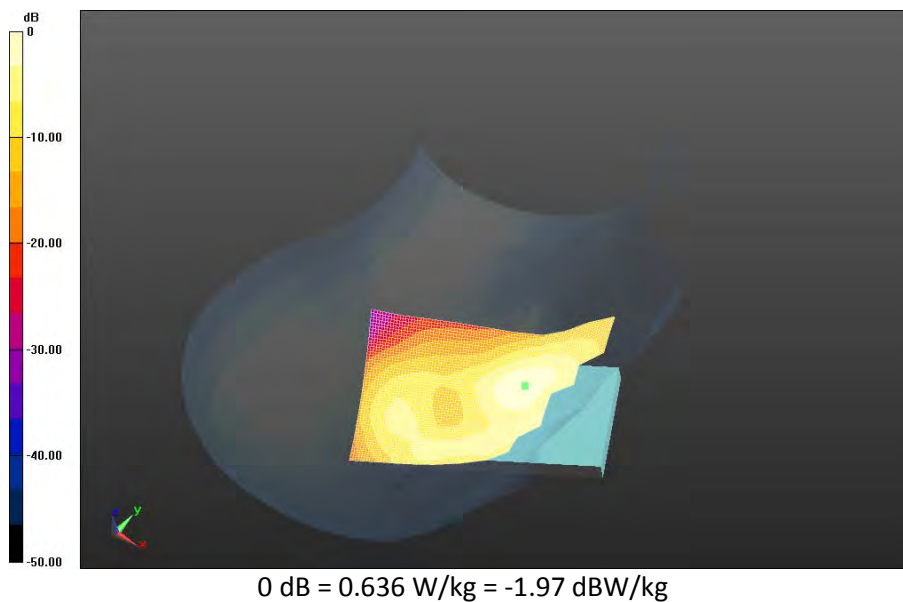
|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>55(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>56(121)</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> |

**Right-Hand-Side HSL - LTE Band 2/Touch Position -LTE Band**  
**2\_chan18900\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_23.4C\_liq\_temp\_23.0C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 10.715 V/m; **Power Drift = 0.022 dB**

**Fast SAR: SAR(1g) = 0.499 W/kg; SAR(10g) = 0.266 W/kg**  
Maximum value of SAR (interpolated) = 0.647 W/kg

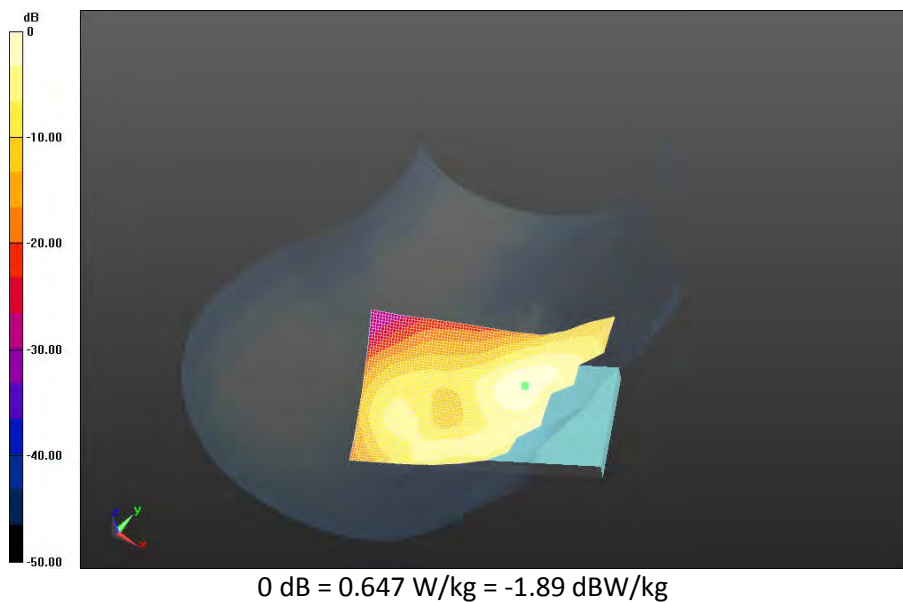




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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>57(121)</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> |

**Right-Hand-Side HSL - LTE Band 2/Touch Position -LTE Band**  
**2\_chan19100\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_23.4C\_liq\_temp\_22.7C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 10.843 V/m; **Power Drift = -0.065 dB**

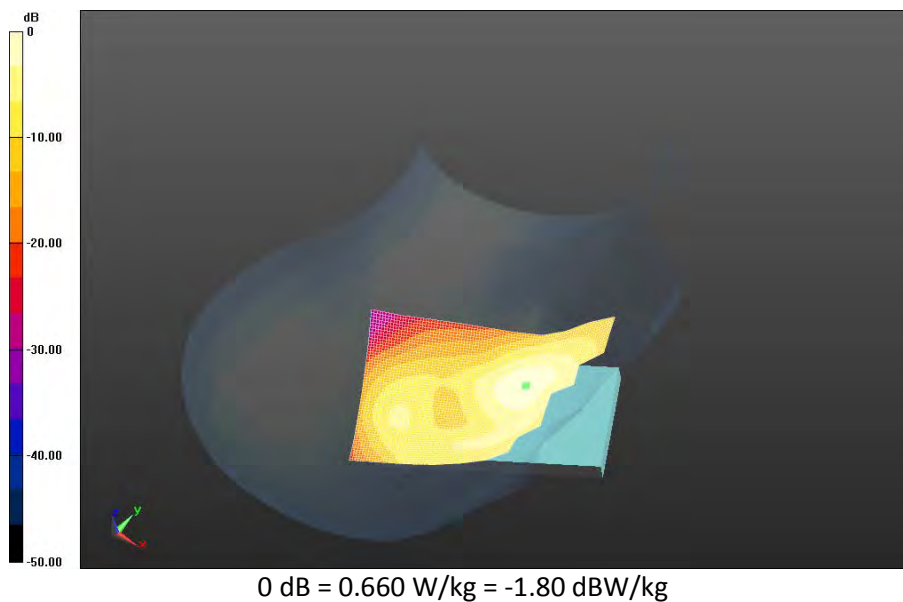
**Fast SAR: SAR(1g) = 0.508 W/kg; SAR(10g) = 0.269 W/kg**  
Maximum value of SAR (interpolated) = 0.660 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>58(121)</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> |

**Right-Hand-Side HSL - LTE Band 2/Touch Position -LTE Band**  
**2\_chan18700\_20MHz\_BW\_RB50\_Offset\_Low\_amb\_temp\_23.4C\_liq\_temp\_22.6C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 9.694 V/m; **Power Drift = 0.047 dB**

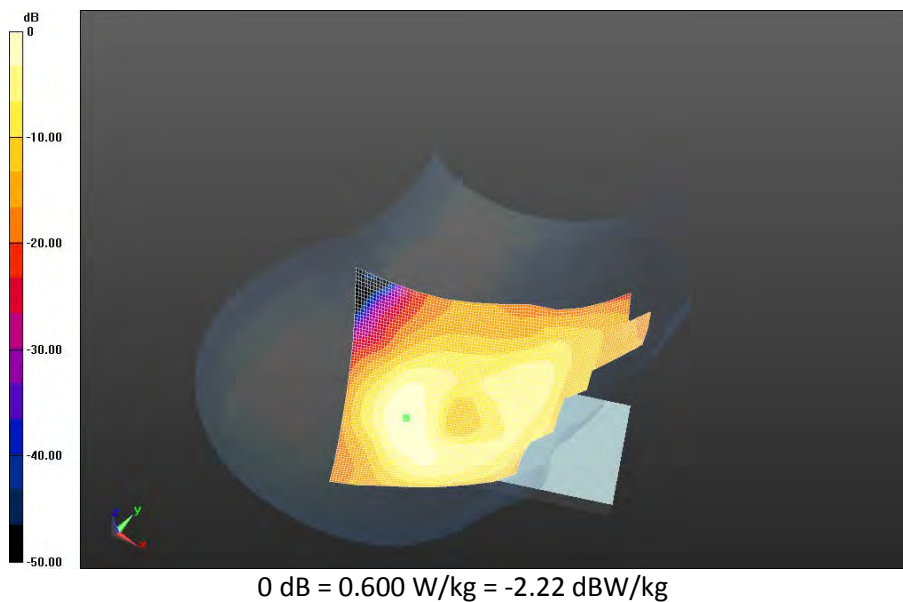
**Fast SAR: SAR(1g) = 0.469 W/kg; SAR(10g) = 0.249 W/kg**  
Maximum value of SAR (interpolated) = 0.600 W/kg



|                                                                                   |  |                                                                                        |                                           |                               |                                 |
|-----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|---------------------------------|
|  |  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                                           |                               | Page<br><b>59(121)</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> |

**Right-Hand-Side HSL - LTE Band 2/Tilt Position -LTE Band**  
**2\_chan18700\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.3C\_liq\_temp\_22.7C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 13.927 V/m; **Power Drift = 0.038 dB**

**Fast SAR: SAR(1g) = 0.241 W/kg; SAR(10g) = 0.126 W/kg**  
Maximum value of SAR (interpolated) = 0.309 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |                        |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>60(121)</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> |                        |

Date: 7/8/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - LTE Band 2**

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

Medium Parameters used:  $f=1860$  MHz;  $\sigma = 1.352$  S/m;  $\epsilon_r = 38.758$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

#### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (5.24,5.24,5.24); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Left-Hand-Side HSL - LTE Band 2/Touch Position -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 = 11.927 V/m; **Power Drift = 0.00199 dB**

**Fast SAR: SAR(1g) = 0.383 W/kg; SAR(10g) = 0.219 W/kg**

Maximum value of SAR (interpolated) = 0.475 W/kg

#### **Left-Hand-Side HSL - LTE Band 2/Touch Position -LTE Band**

**2\_chan18700\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_22.7C\_liq\_temp\_22.6C/Zoom Scan**

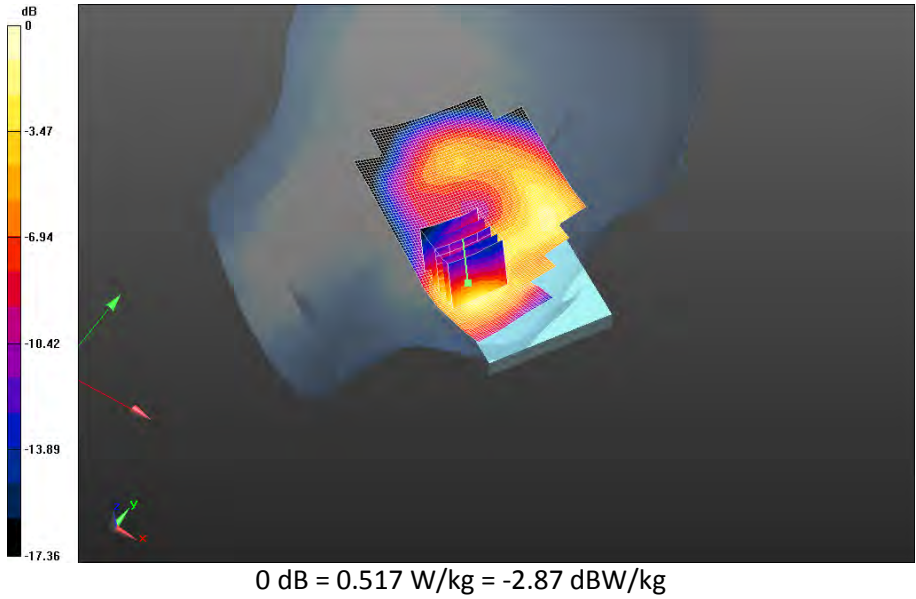
**(21x21x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 11.927 V/m; **Power Drift = 0.00199 dB**

**Averaged SAR: SAR(1g) = 0.426 W/kg; SAR(10g) = 0.242 W/kg**

Maximum value of SAR (interpolated) = 0.709 W/kg

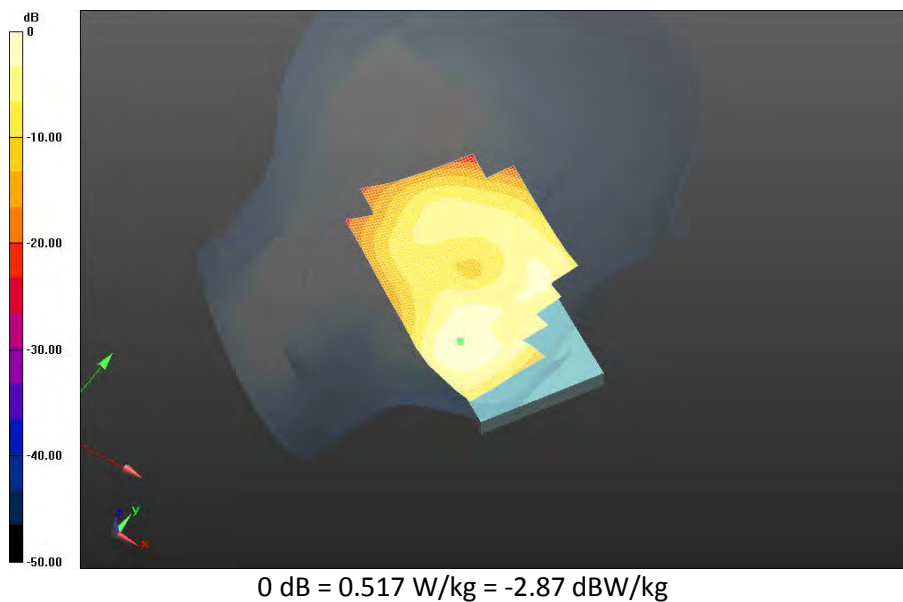
|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>61(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>62(121)</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> |

**Left-Hand-Side HSL - LTE Band 2/Touch Position -LTE Band**  
**2\_chan18900\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_22.6C\_liq\_temp\_22.5C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 11.629 V/m; **Power Drift = 0.025 dB**

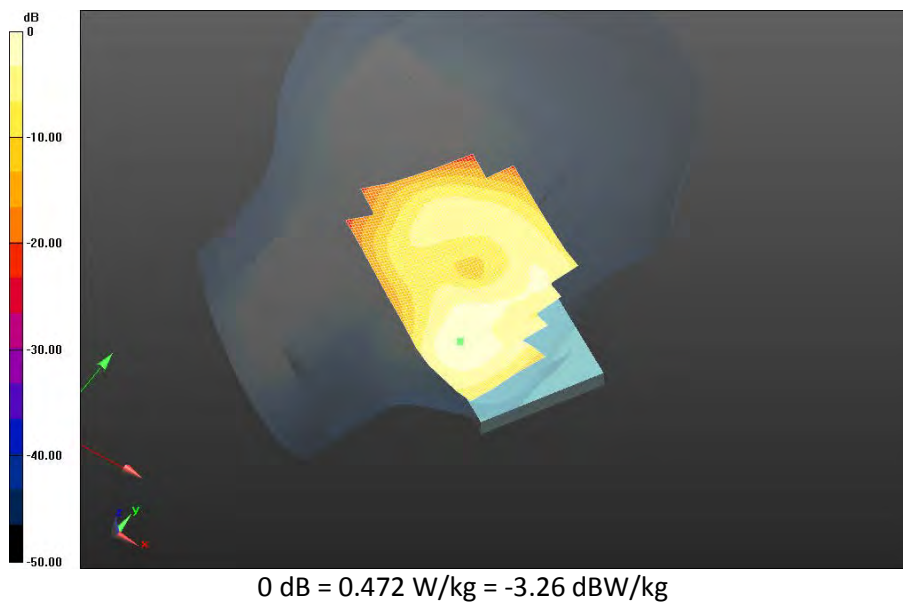
**Fast SAR: SAR(1g) = 0.377 W/kg; SAR(10g) = 0.214 W/kg**  
Maximum value of SAR (interpolated) = 0.472 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>63(121)</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> |

**Left-Hand-Side HSL - LTE Band 2/Touch Position -LTE Band**  
**4\_chan19100\_20MHz\_BW\_RB1\_Offset\_High\_amb\_temp\_22.6C\_liq\_temp\_22.5C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 12.294 V/m; **Power Drift = 0.00506 dB**

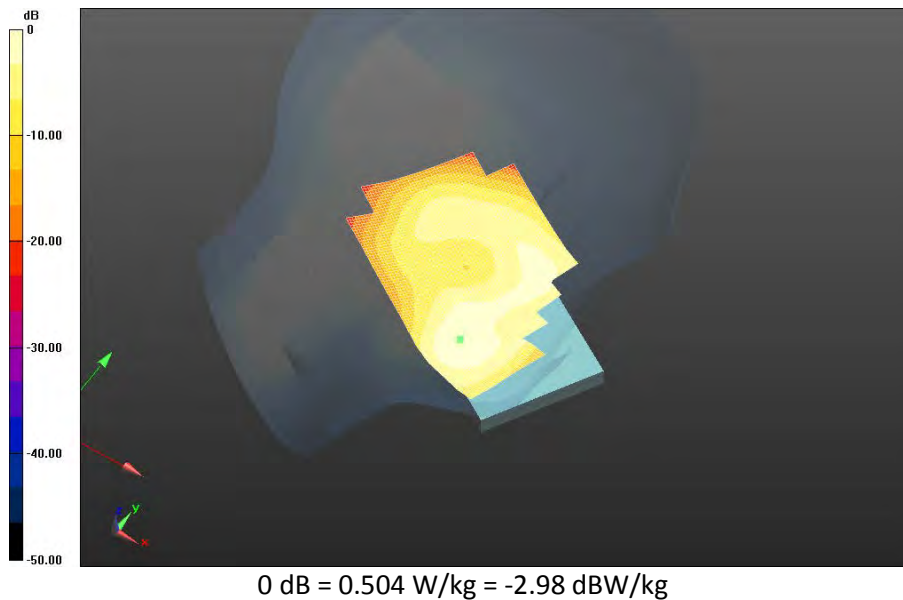
**Fast SAR: SAR(1g) = 0.369 W/kg; SAR(10g) = 0.219 W/kg**  
Maximum value of SAR (interpolated) = 0.504 W/kg



|                                                                                   |  |                                                                                        |                                           |                               |                                 |
|-----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|---------------------------------|
|  |  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                                           |                               | Page<br><b>64(121)</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> |

**Left-Hand-Side HSL - LTE Band 2/Touch Position -LTE Band**  
**2\_chan18700\_20MHz\_BW\_RB50\_Offset\_Low\_amb\_temp\_22.7C\_liq\_temp\_22.5C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 10.364 V/m; **Power Drift = -0.056 dB**

**Fast SAR: SAR(1g) = 0.288 W/kg; SAR(10g) = 0.164 W/kg**  
Maximum value of SAR (interpolated) = 0.358 W/kg

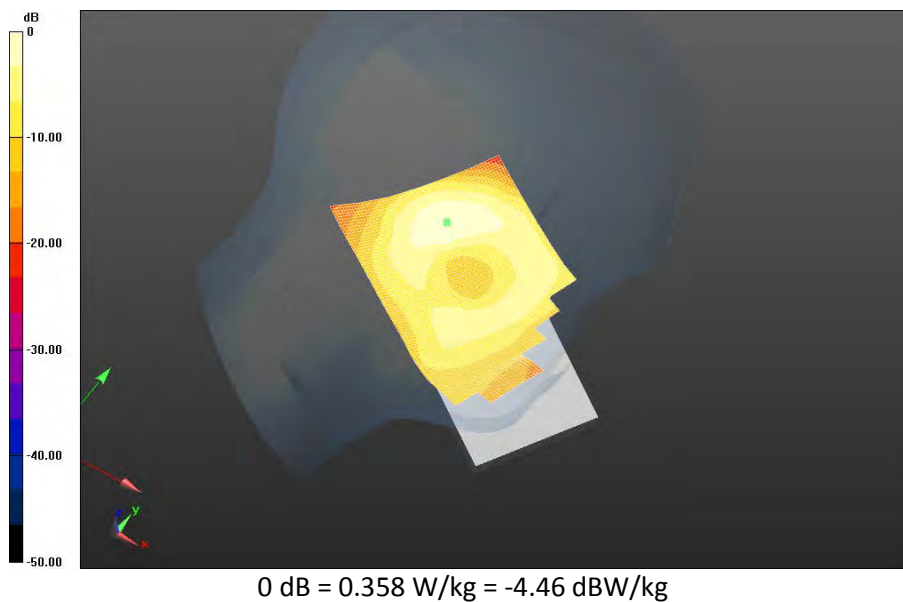




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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>65(121)</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> |                        |

**Left-Hand-Side HSL - LTE Band 2/Tilt Position -LTE Band**  
**2\_chan18700\_20MHz\_BW\_RB1\_Offset\_Low\_amb\_temp\_23.4C\_liq\_temp\_22.6C/Area Scan**  
**(121x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 14.382 V/m; **Power Drift = 0.099 dB**

**Fast SAR: SAR(1g) = 0.251 W/kg; SAR(10g) = 0.132 W/kg**  
Maximum value of SAR (interpolated) = 0.326 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>66(121)</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> |

## DTM 1900

Date: 7/10/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Right-Hand-Side HSL - DTM 1900**

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

Medium Parameters used:  $f=1880$  MHz;  $\sigma = 1.369$  S/m;  $\epsilon_r = 38.685$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (5.24,5.24,5.24); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Right-Hand-Side HSL - DTM 1900/Touch Position - GSM1900\_1-**

**slot\_chan661\_amb\_temp\_24.0C\_liq\_temp\_22.0C/Area Scan (121x171x1):** Interpolated grid:

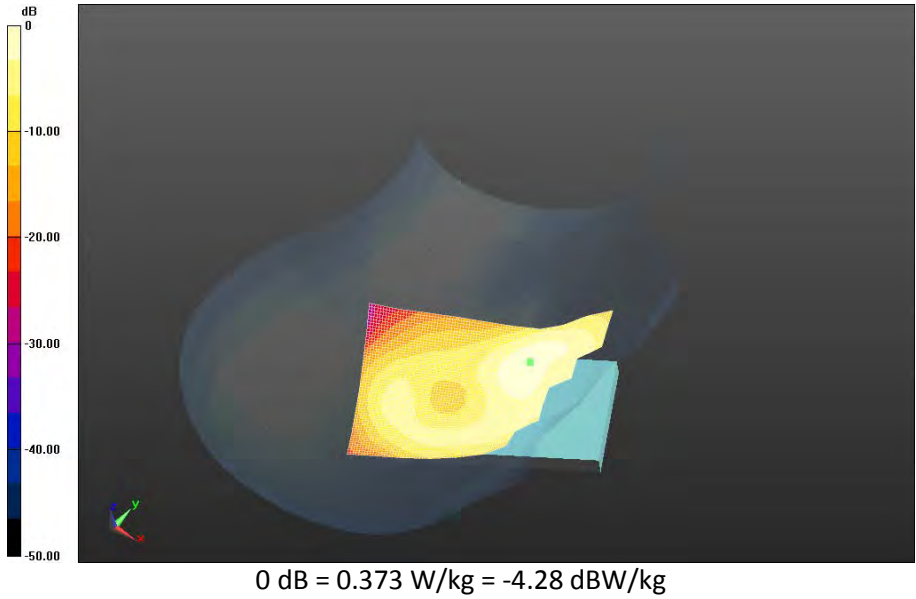
$dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 9.167 V/m; **Power Drift = 0.074 dB**

**Fast SAR: SAR(1g) = 0.300 W/kg; SAR(10g) = 0.164 W/kg**

Maximum value of SAR (interpolated) = 0.373 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>67(121)</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> |



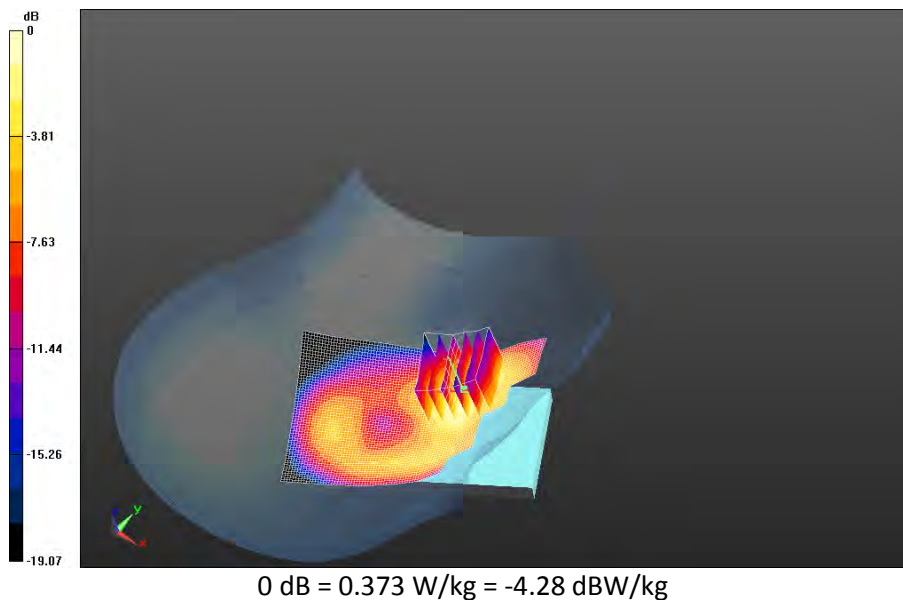
|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>68(121)</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> |

**Right-Hand-Side HSL - DTM 1900/Touch Position - DTM1900\_2-slot\_chan512\_amb\_temp\_24.0C\_liq\_temp\_22.0C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 12.663 V/m; **Power Drift = 0.033 dB**

**Fast SAR: SAR(1g) = 0.508 W/kg; SAR(10g) = 0.280 W/kg**  
Maximum value of SAR (interpolated) = 0.621 W/kg

**Right-Hand-Side HSL - DTM 1900/Touch Position - DTM1900\_2-slot\_chan512\_amb\_temp\_24.0C\_liq\_temp\_22.0C/Zoom Scan (26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm  
Reference Value = 12.663 V/m; **Power Drift = 0.033 dB**

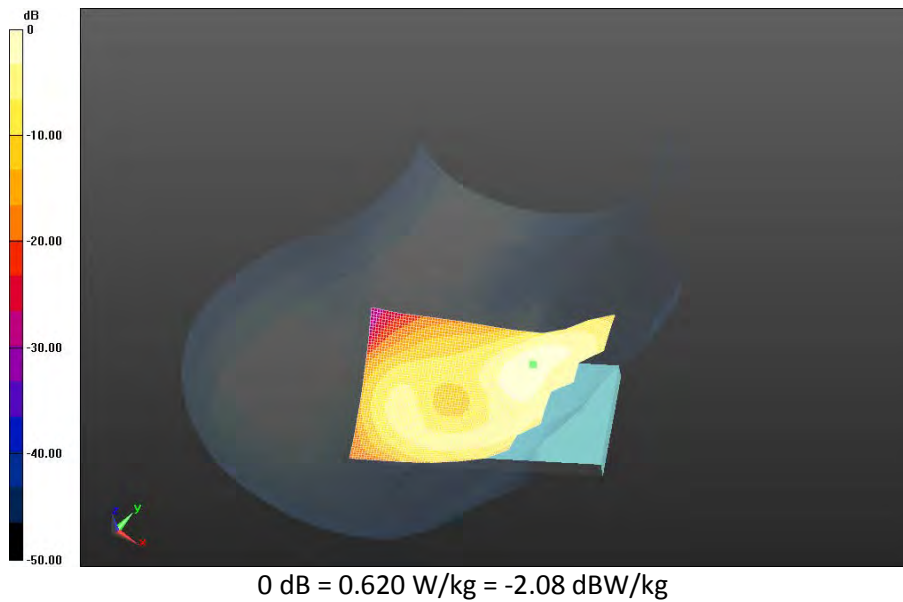
**Averaged SAR: SAR(1g) = 0.551 W/kg; SAR(10g) = 0.325 W/kg**  
Maximum value of SAR (interpolated) = 0.850 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>69(121)</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> |

**Right-Hand-Side HSL - DTM 1900/Touch Position - DTM1900\_2-  
slot\_chan661\_amb\_temp\_24.0C\_liq\_temp\_22.0C/Area Scan (121x171x1): Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 11.443 V/m; **Power Drift = 0.215 dB****

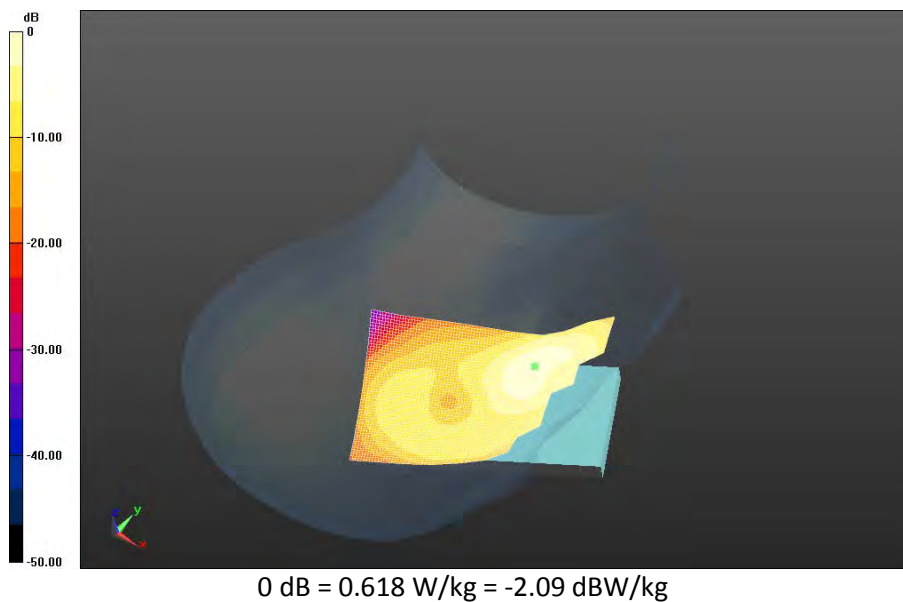
**Fast SAR: SAR(1g) = 0.495 W/kg; SAR(10g) = 0.272 W/kg  
Maximum value of SAR (interpolated) = 0.618 W/kg**



|                                                                                   |                                                  |                                                                                        |                               |                                 |                        |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>70(121)</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> |                        |

**Right-Hand-Side HSL - DTM 1900/Touch Position - DTM1900\_2-  
slot\_chan810\_amb\_temp\_24.0C\_liq\_temp\_22.0C/Area Scan (121x171x1): Interpolated grid:**  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 9.729 V/m; **Power Drift = 0.016 dB**

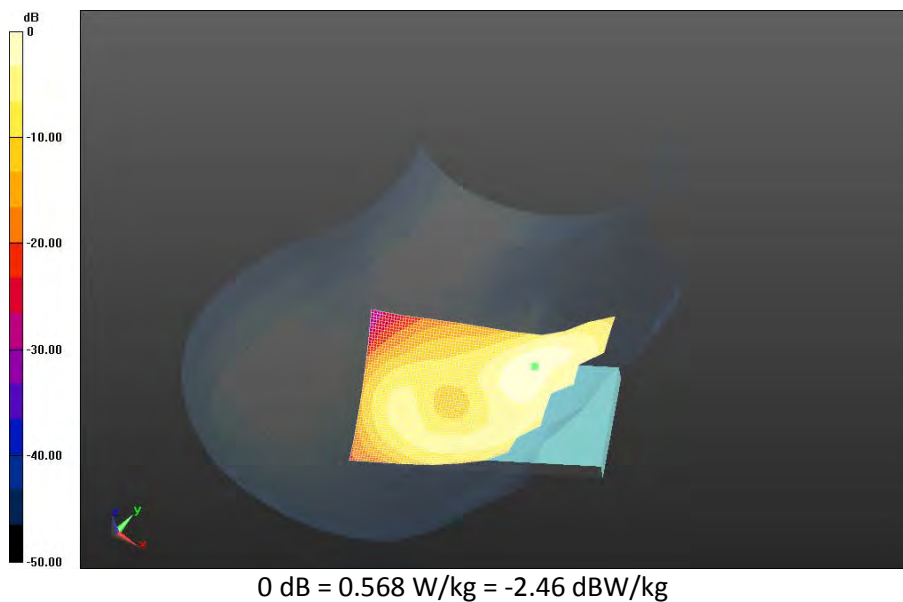
**Fast SAR: SAR(1g) = 0.448 W/kg; SAR(10g) = 0.242 W/kg**  
Maximum value of SAR (interpolated) = 0.568 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>71(121)</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> |

**Right-Hand-Side HSL - DTM 1900/Touch Position - DTM1900\_3-  
slot\_chan661\_amb\_temp\_24.1C\_liq\_temp\_22.0C/Area Scan (121x171x1): Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 10.686 V/m; **Power Drift = -0.00525 dB****

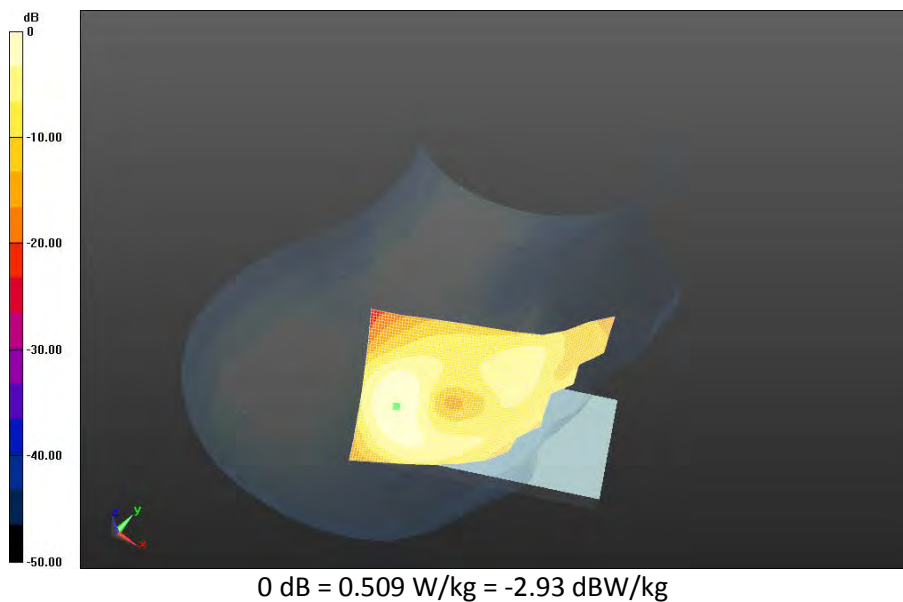
**Fast SAR: SAR(1g) = 0.408 W/kg; SAR(10g) = 0.223 W/kg  
Maximum value of SAR (interpolated) = 0.509 W/kg**



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>72(121)</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> |

**Right-Hand-Side HSL - DTM 1900/Tilt Position - DTM1900\_2-  
slot\_chan661\_amb\_temp\_24.0C\_liq\_temp\_22.1C/Area Scan (121x171x1):** Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 15.411 V/m; **Power Drift = -0.152 dB**

**Fast SAR: SAR(1g) = 0.251 W/kg; SAR(10g) = 0.133 W/kg**  
Maximum value of SAR (interpolated) = 0.315 W/kg





|                                                                                   |                                                  |                                                                                        |                               |                                 |                        |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>73(121)</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> |                        |

Date: 7/10/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - DTM 1900**

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

Medium Parameters used:  $f=1880$  MHz;  $\sigma = 1.369$  S/m;  $\epsilon_r = 38.685$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (5.24,5.24,5.24); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Left-Hand-Side HSL - DTM 1900/Touch Position - GSM1900\_1-**

**slot\_chan661\_amb\_temp\_24.4C\_liq\_temp\_21.8C/Area Scan (121x171x1):** Interpolated grid:

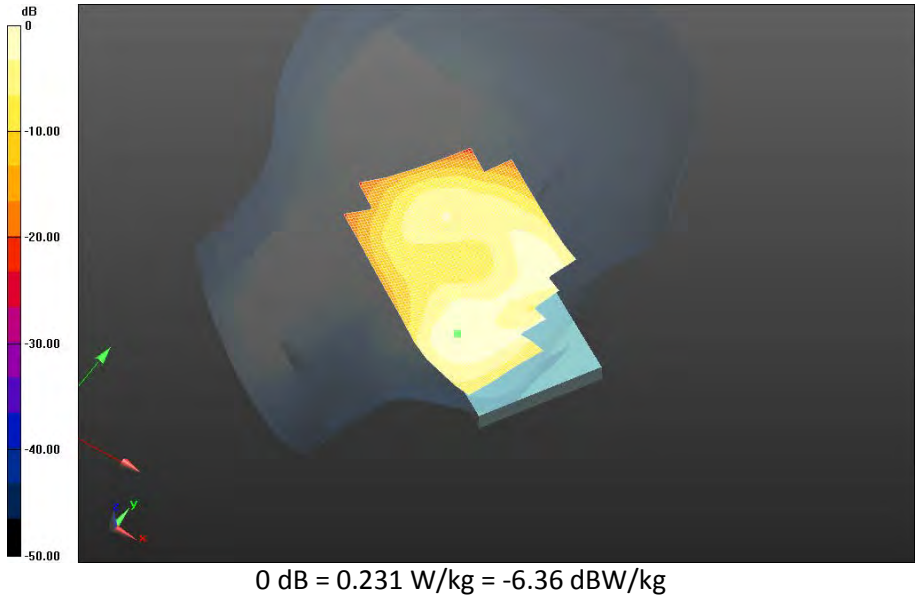
dx=1.500 mm, dy=1.500 mm

Reference Value = 9.382 V/m; **Power Drift = -0.076 dB**

**Fast SAR: SAR(1g) = 0.171 W/kg; SAR(10g) = 0.102 W/kg**

Maximum value of SAR (interpolated) = 0.231 W/kg

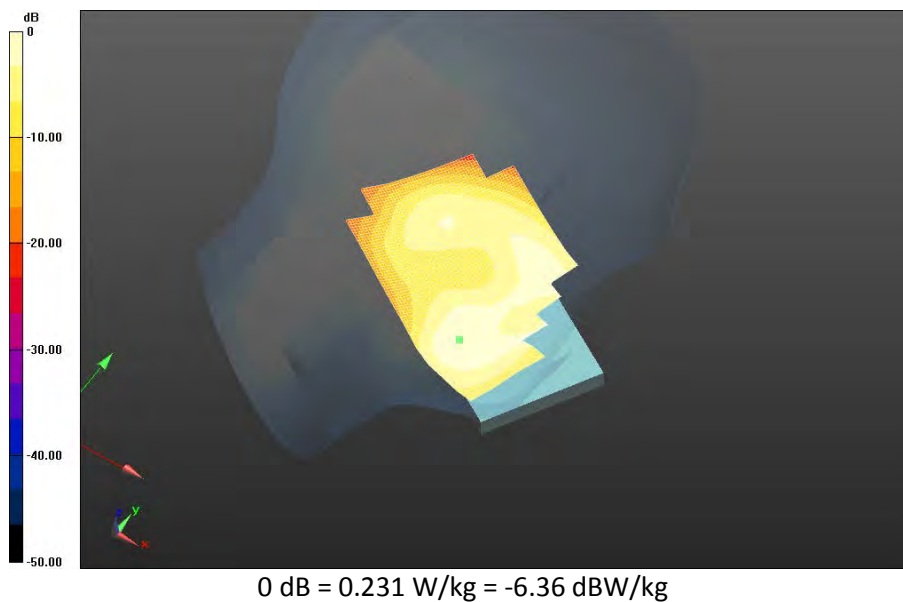
|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>74(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>75(121)</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> |

**Left-Hand-Side HSL - DTM 1900/Touch Position - DTM1900\_2-  
slot\_chan661\_amb\_temp\_24.3C\_liq\_temp\_21.9C/Area Scan (121x171x1): Interpolated grid:**  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 12.427 V/m; **Power Drift = -0.115 dB**

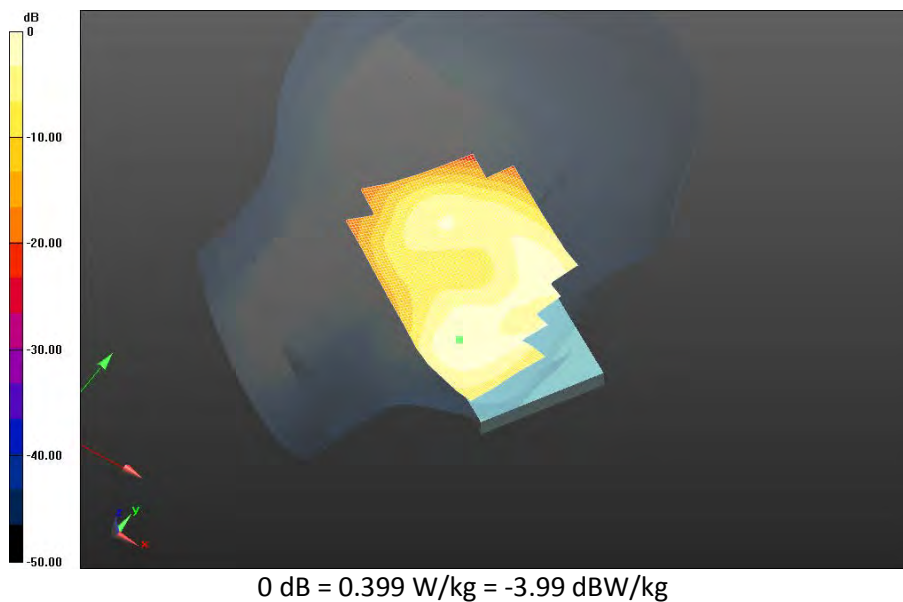
**Fast SAR: SAR(1g) = 0.296 W/kg; SAR(10g) = 0.176 W/kg**  
Maximum value of SAR (interpolated) = 0.399 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>76(121)</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> |

**Left-Hand-Side HSL - DTM 1900/Touch Position - DTM1900\_3-  
slot\_chan661\_amb\_temp\_24.2C\_liq\_temp\_21.8C/Area Scan (121x171x1): Interpolated grid:**  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 10.854 V/m; **Power Drift = 0.105 dB**

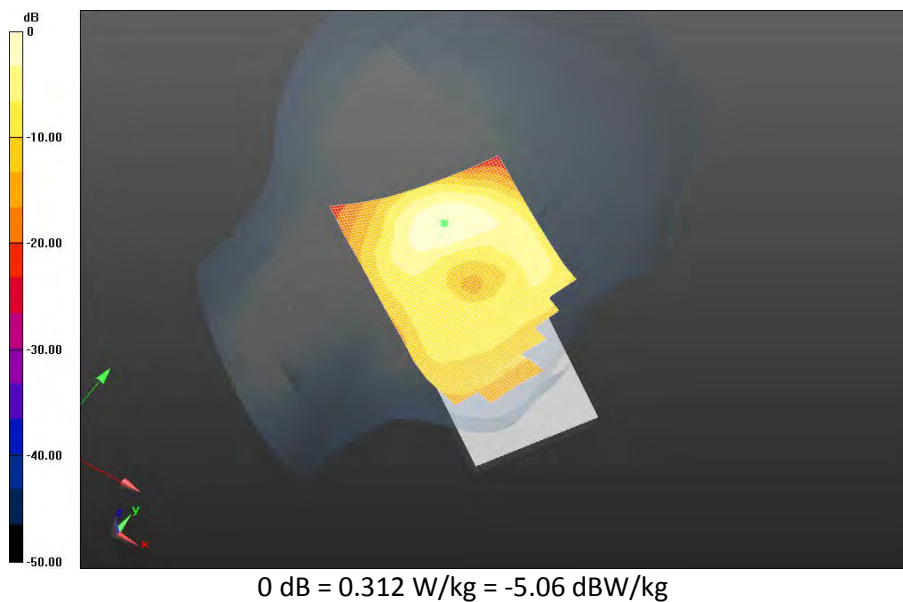
**Fast SAR: SAR(1g) = 0.232 W/kg; SAR(10g) = 0.138 W/kg**  
Maximum value of SAR (interpolated) = 0.312 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>77(121)</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> |

**Left-Hand-Side HSL - DTM 1900/Tilt Position - DTM1900\_2-  
slot\_chan661\_amb\_temp\_24.0C\_liq\_temp\_21.9C/Area Scan (121x171x1): Interpolated grid:  
dx=1.500 mm, dy=1.500 mm  
Reference Value = 15.479 V/m; **Power Drift = 0.053 dB****

**Fast SAR: SAR(1g) = 0.273 W/kg; SAR(10g) = 0.145 W/kg  
Maximum value of SAR (interpolated) = 0.357 W/kg**



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>78(121)</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> |

## UMTS Band II

Date: 7/9/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Right-Hand-Side HSL - 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;  $\sigma = 1.347$  S/m;  $\epsilon_r = 38.796$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (5.24,5.24,5.24); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Right-Hand-Side HSL - UMTS Band II/Touch Position -UMTS Band**

**II\_chan9262\_amb\_temp\_23.2C\_liq\_temp\_21.2C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 13.480 V/m; **Power Drift = 0.088 dB**

**Fast SAR: SAR(1g) = 0.621 W/kg; SAR(10g) = 0.347 W/kg**

Maximum value of SAR (interpolated) = 0.745 W/kg

### **Right-Hand-Side HSL - UMTS Band II/Touch Position -UMTS Band**

**II\_chan9262\_amb\_temp\_23.2C\_liq\_temp\_21.2C/Zoom Scan (21x21x36)/Cube 0:** Interpolated

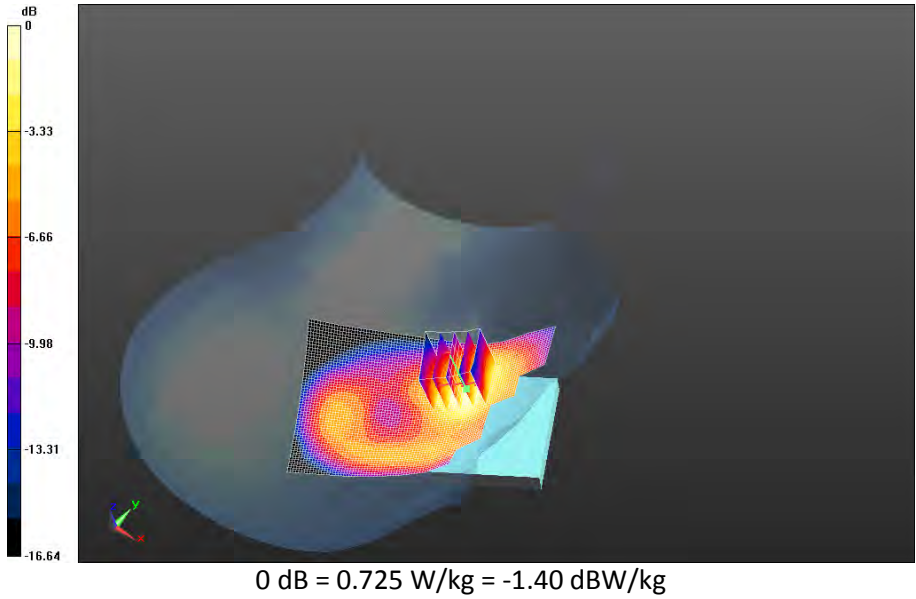
grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 13.480 V/m; **Power Drift = 0.088 dB**

**Averaged SAR: SAR(1g) = 0.666 W/kg; SAR(10g) = 0.401 W/kg**

Maximum value of SAR (interpolated) = 0.984 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>79(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>80(121)</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> |

**Right-Hand-Side HSL - UMTS Band II/Touch Position -UMTS Band**

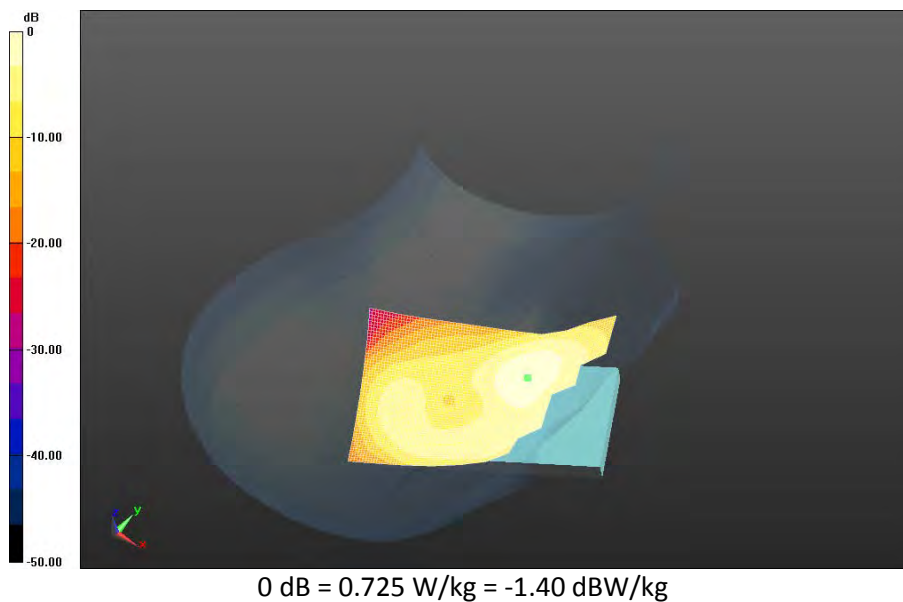
**II\_chan9400\_amb\_temp\_23.2C\_liq\_temp\_21.2C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 12.923 V/m; **Power Drift = -0.072 dB**

**Fast SAR: SAR(1g) = 0.482 W/kg; SAR(10g) = 0.270 W/kg**

Maximum value of SAR (interpolated) = 0.583 W/kg





|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>81(121)</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> |

**Right-Hand-Side HSL - UMTS Band II/Touch Position -UMTS Band**

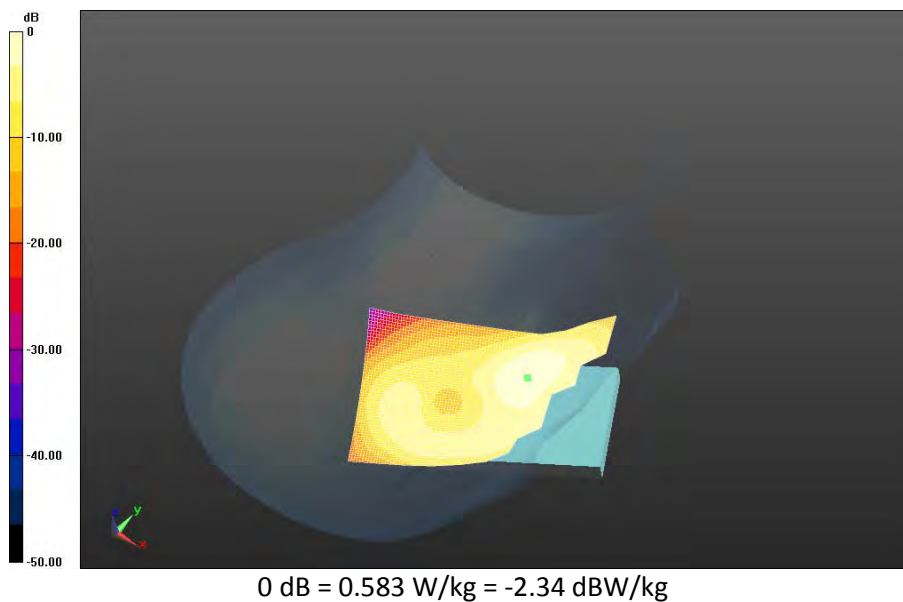
**II\_chan9538\_amb\_temp\_23.2C\_liq\_temp\_21.2C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 12.395 V/m; **Power Drift = 0.043 dB**

**Fast SAR: SAR(1g) = 0.501 W/kg; SAR(10g) = 0.280 W/kg**

Maximum value of SAR (interpolated) = 0.611 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>82(121)</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> |

**Right-Hand-Side HSL - UMTS Band II/Tilt Position -UMTS Band**

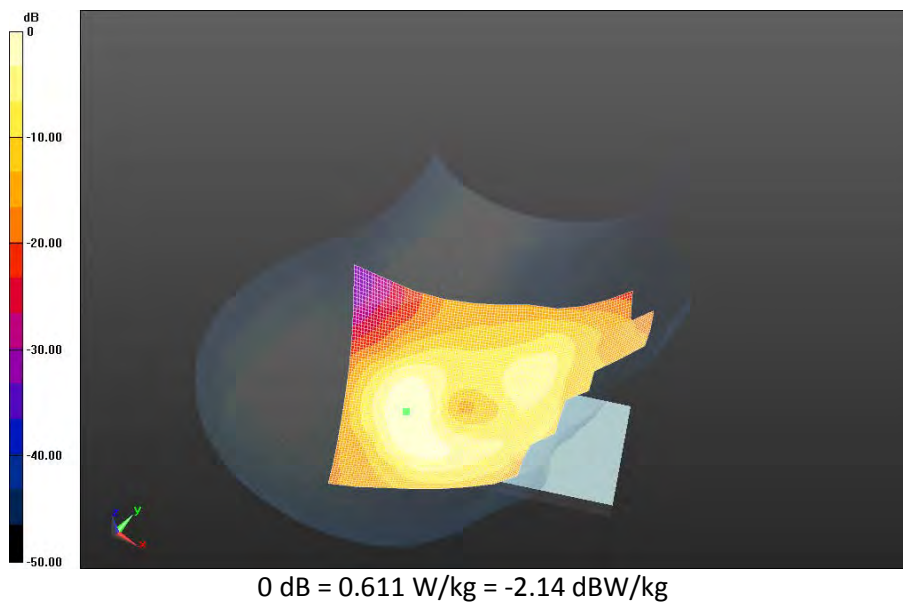
**II\_chan9400\_amb\_temp\_23.2C\_liq\_temp\_21.2C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 15.619 V/m; **Power Drift = -0.282 dB**

**Fast SAR: SAR(1g) = 0.259 W/kg; SAR(10g) = 0.138 W/kg**

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



|                                                                                   |                                                  |                                                                                        |                               |                                 |                        |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>83(121)</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> |                        |

Date: 7/9/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - UMTS Band II**

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

Frequency: 1880 MHz

Medium Parameters used:  $f=1880$  MHz;  $\sigma = 1.369$  S/m;  $\epsilon_r = 38.685$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (5.24,5.24,5.24); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Left-Hand-Side HSL - UMTS Band II/Touch Position -UMTS Band**

**II\_chan9400\_amb\_temp\_23.2C\_liq\_temp\_21.3C/Area Scan (121x171x1):** Interpolated grid:

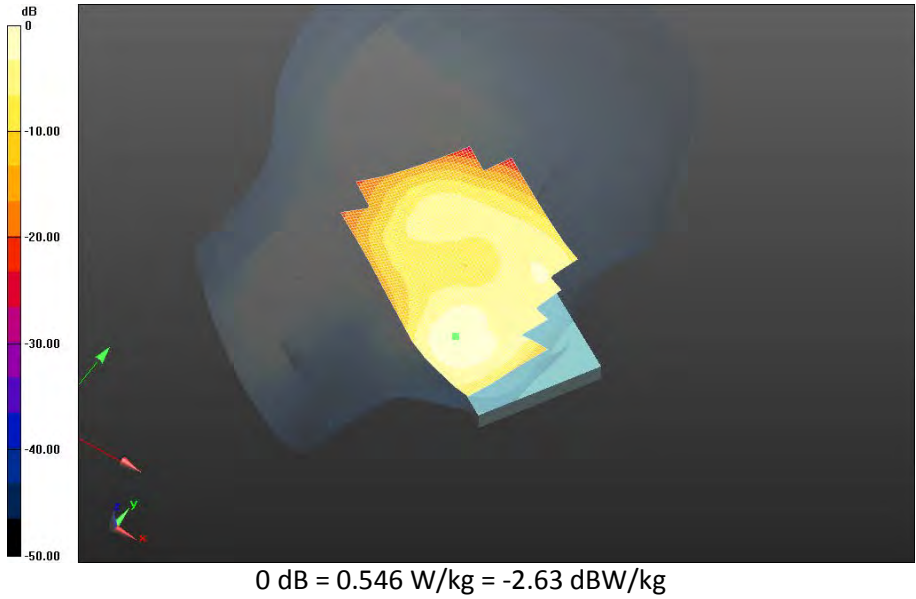
dx=1.500 mm, dy=1.500 mm

Reference Value = 13.091 V/m; **Power Drift = 0.050 dB**

**Fast SAR: SAR(1g) = 0.438 W/kg; SAR(10g) = 0.245 W/kg**

Maximum value of SAR (interpolated) = 0.546 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>84(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>85(121)</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> |

**Left-Hand-Side HSL - UMTS Band II/Tilt Position -UMTS Band**

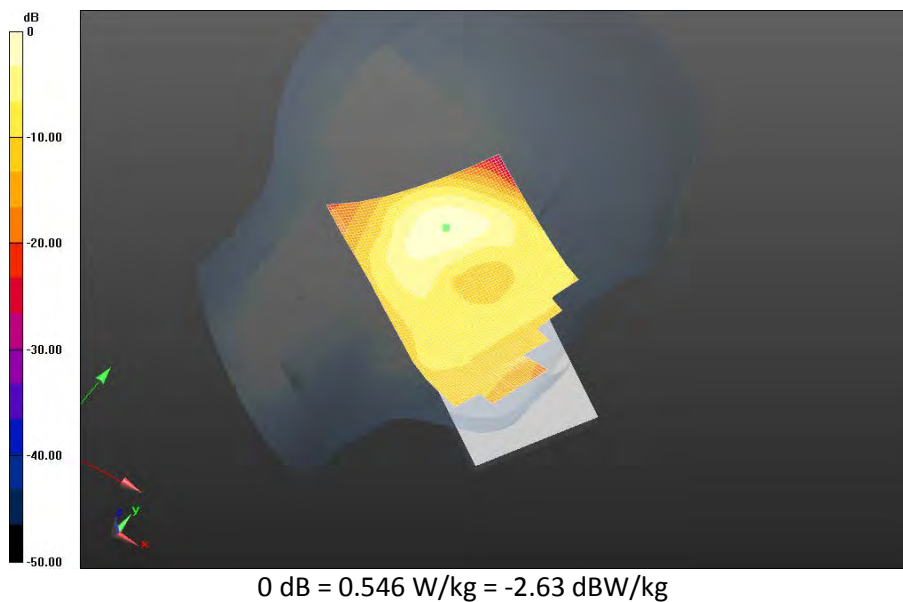
**II\_chan9400\_amb\_temp\_23.3C\_liq\_temp\_21.2C/Area Scan (121x171x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Reference Value = 16.798 V/m; **Power Drift = 0.071 dB**

**Fast SAR: SAR(1g) = 0.293 W/kg; SAR(10g) = 0.158 W/kg**

Maximum value of SAR (interpolated) = 0.378 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>86(121)</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> |

## 802.11b

Date: 7/17/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Right-Hand-Side HSL - 802.11b**

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

Frequency: 2412 MHz

Medium Parameters used:  $f=2412$  MHz;  $\sigma = 1.840$  S/m;  $\epsilon_r = 38.529$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (4.64,4.64,4.64); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Right-Hand-Side HSL - 802.11b/Touch Position -**

**802.11b\_chan1\_amb\_temp\_23.6C\_liq\_temp\_22.0C/Area Scan (151x181x1):** Interpolated grid:

$dx=1.200$  mm,  $dy=1.200$  mm

Maximum value of SAR (interpolated) = 0.412 W/kg

### **Right-Hand-Side HSL - 802.11b/Touch Position -**

**802.11b\_chan1\_amb\_temp\_23.6C\_liq\_temp\_22.0C/Zoom Scan (31x31x36)/Cube 0:**

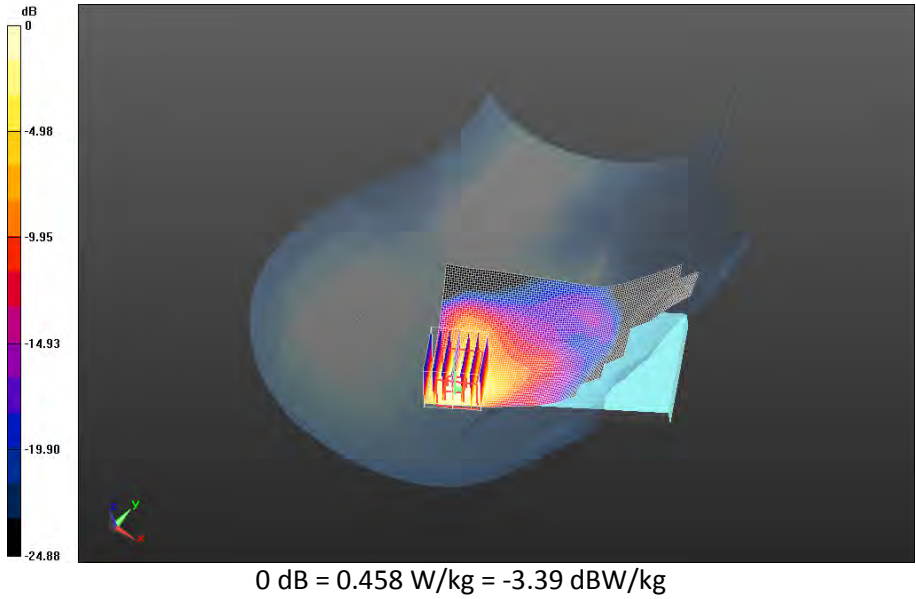
Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm,  $dz=1.000$  mm

Reference Value = 9.193 V/m; **Power Drift = 0.035 dB**

**Averaged SAR: SAR(1g) = 0.334 W/kg; SAR(10g) = 0.154 W/kg**

Maximum value of SAR (interpolated) = 0.804 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>87(121)</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> |



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>88(121)</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> |

**Right-Hand-Side HSL - 802.11b/Touch Position -**

**802.11b\_chan6\_amb\_temp\_23.5C\_liq\_temp\_22.1C/Area Scan (151x181x1):** Interpolated grid:  
dx=1.200 mm, dy=1.200 mm

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

**Right-Hand-Side HSL - 802.11b/Touch Position -**

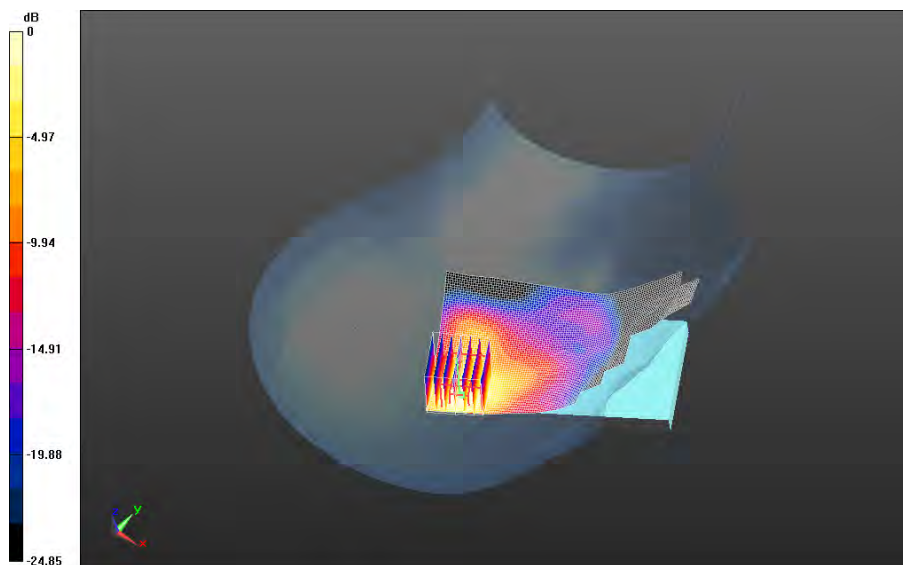
**802.11b\_chan6\_amb\_temp\_23.5C\_liq\_temp\_22.1C/Zoom Scan (31x31x36)/Cube 0:**

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

Reference Value = 9.703 V/m; **Power Drift = -0.00872 dB**

**Averaged SAR: SAR(1g) = 0.361 W/kg; SAR(10g) = 0.169 W/kg**

Maximum value of SAR (interpolated) = 0.836 W/kg



0 dB = 0.458 W/kg = -3.39 dBW/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>89(121)</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> |

**Right-Hand-Side HSL - 802.11b/Touch Position -**

**802.11b\_chan11\_amb\_temp\_23.6C\_liq\_temp\_22.1C/Area Scan (151x181x1):** Interpolated grid:  
dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.429 W/kg

**Right-Hand-Side HSL - 802.11b/Touch Position -**

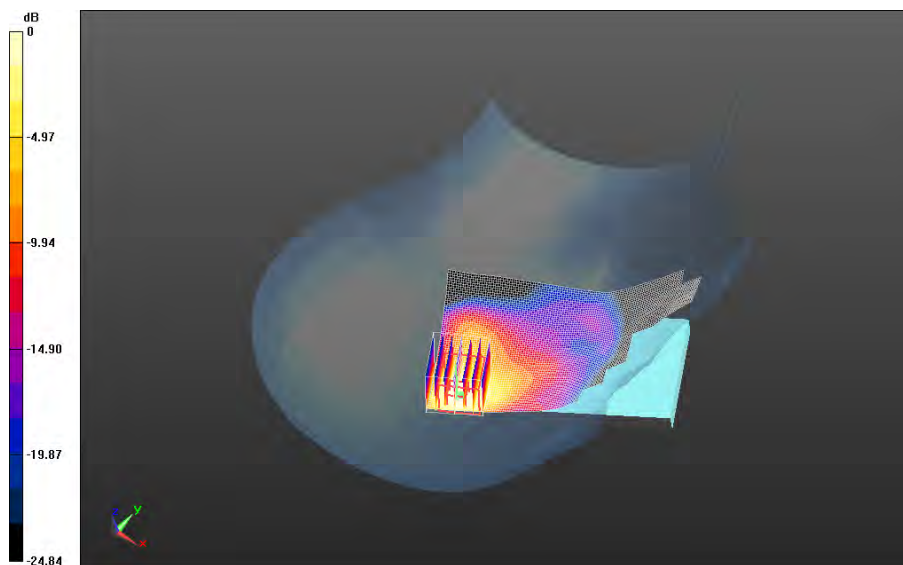
**802.11b\_chan11\_amb\_temp\_23.6C\_liq\_temp\_22.1C/Zoom Scan (31x31x36)/Cube 0:**

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

Reference Value = 9.241 V/m; **Power Drift = 0.035 dB**

**Averaged SAR: SAR(1g) = 0.343 W/kg; SAR(10g) = 0.160 W/kg**

Maximum value of SAR (interpolated) = 0.827 W/kg



0 dB = 0.471 W/kg = -3.27 dBW/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>90(121)</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> |

**Right-Hand-Side HSL - 802.11b/Tilt Position -**

**802.11b\_chan6\_amb\_temp\_23.5C\_liq\_temp\_22.1C/Area Scan (151x181x1):** Interpolated grid:

dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.428 W/kg

**Right-Hand-Side HSL - 802.11b/Tilt Position -**

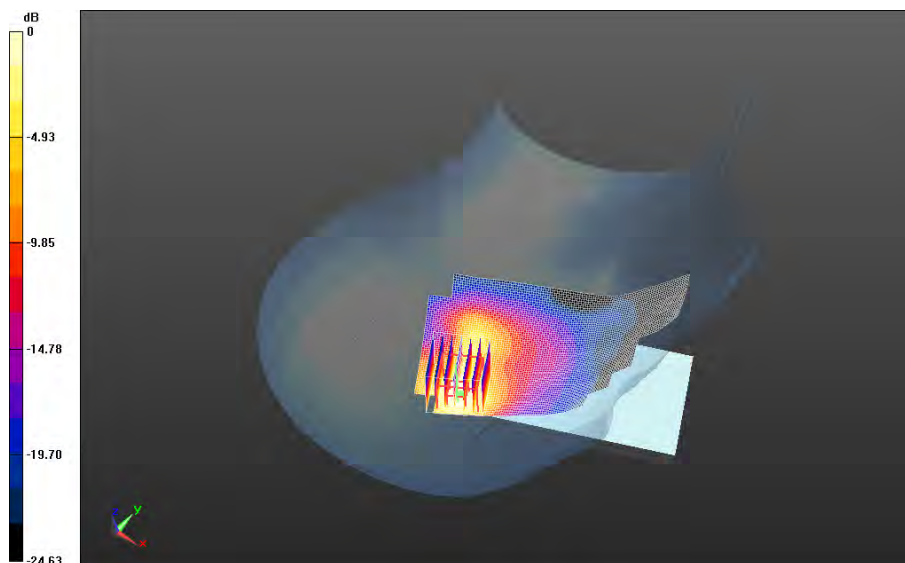
**802.11b\_chan6\_amb\_temp\_23.5C\_liq\_temp\_22.1C/Zoom Scan (31x31x36)/Cube 0:**

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

Reference Value = 10.878 V/m; **Power Drift = 0.038 dB**

**Averaged SAR: SAR(1g) = 0.318 W/kg; SAR(10g) = 0.144 W/kg**

Maximum value of SAR (interpolated) = 0.756 W/kg



0 dB = 0.468 W/kg = -3.30 dBW/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |                        |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>91(121)</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> |                        |

Date: 7/17/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - 802.11b**

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

Medium Parameters used:  $f=2437$  MHz;  $\sigma = 1.868$  S/m;  $\epsilon_r = 38.433$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

#### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (4.64,4.64,4.64); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Left-Hand-Side HSL - 802.11b/Touch Position -**

**802.11b\_chan6\_amb\_temp\_23.1C\_liq\_temp\_22.2C/Area Scan (151x181x1):** Interpolated grid:

$dx=1.200$  mm,  $dy=1.200$  mm

Maximum value of SAR (interpolated) = 0.255 W/kg

#### **Left-Hand-Side HSL - 802.11b/Touch Position -**

**802.11b\_chan6\_amb\_temp\_23.1C\_liq\_temp\_22.2C/Zoom Scan (41x41x36)/Cube 0:**

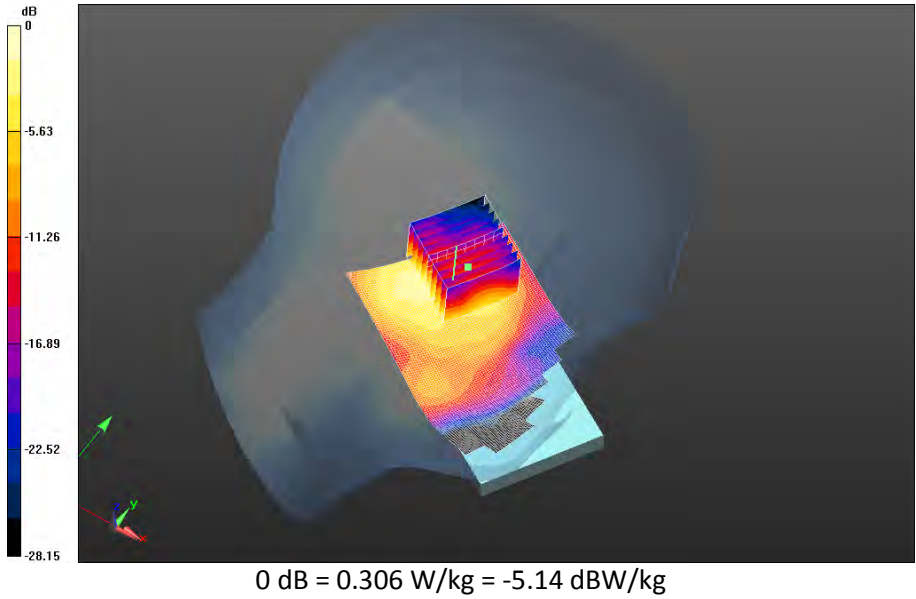
Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm,  $dz=1.000$  mm

Reference Value = 11.339 V/m; **Power Drift = 0.00664 dB**

**Averaged SAR: SAR(1g) = 0.232 W/kg; SAR(10g) = 0.109 W/kg**

Maximum value of SAR (interpolated) = 0.497 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>92(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>93(121)</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> |

**Left-Hand-Side HSL - 802.11b/Tilt Position -**

**802.11b\_chan6\_amb\_temp\_23.1C\_liq\_temp\_22.2C/Area Scan (151x181x1):** Interpolated grid:  
dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.355 W/kg

**Left-Hand-Side HSL - 802.11b/Tilt Position -**

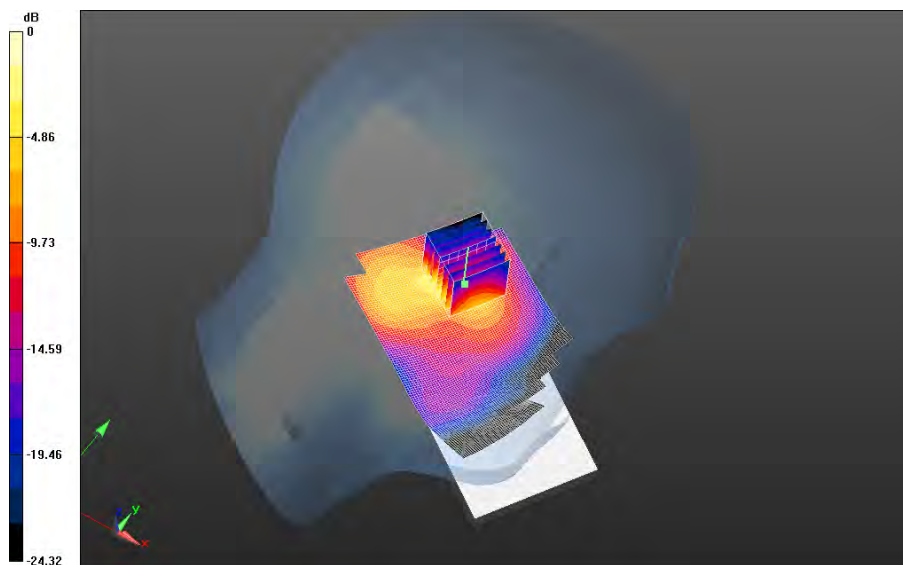
**802.11b\_chan6\_amb\_temp\_23.1C\_liq\_temp\_22.2C/Zoom Scan (31x31x36)/Cube 0:**

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

Reference Value = 11.223 V/m; **Power Drift = 0.024 dB**

**Averaged SAR: SAR(1g) = 0.287 W/kg; SAR(10g) = 0.123 W/kg**

Maximum value of SAR (interpolated) = 0.627 W/kg



0 dB = 0.306 W/kg = -5.14 dBW/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |                        |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>94(121)</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> |                        |

## Bluetooth

Date: 7/18/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Right-Hand-Side HSL - 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;  $\sigma = 1.872$  S/m;  $\epsilon_r = 38.414$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (4.63,4.63,4.63); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Right-Hand-Side HSL - BT/Touch Position -**

**Bluetooth\_chan39\_amb\_temp\_23.4C\_liq\_temp\_22.0C/Area Scan (151x181x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0383 W/kg

### **Right-Hand-Side HSL - BT/Touch Position -**

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

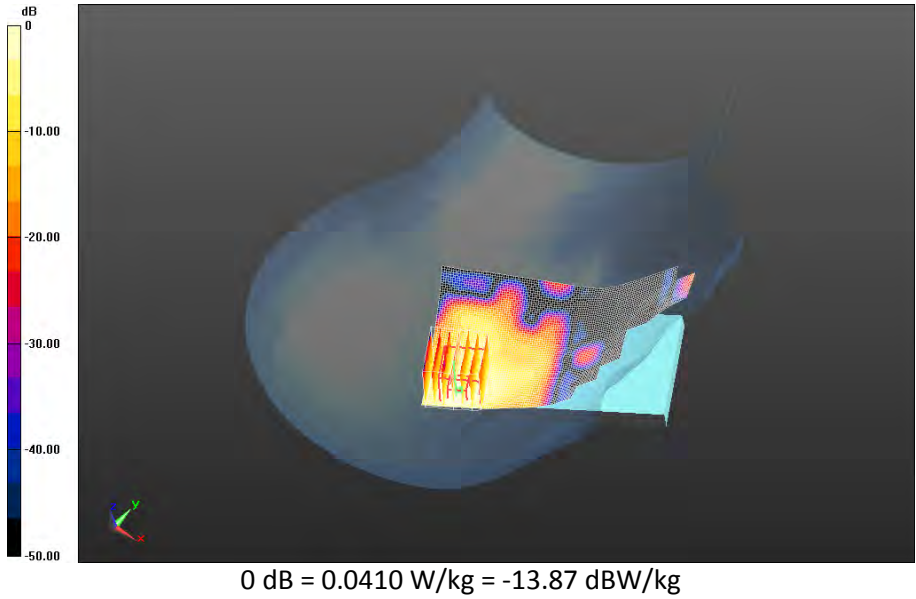
Interpolated grid: dx=1.000 mm, dy=1.000 mm, dz=1.000 mm

Reference Value = 2.719 V/m; **Power Drift = 0.165 dB**

**Averaged SAR: SAR(1g) = 0.0305 W/kg; SAR(10g) = 0.0140 W/kg**

Maximum value of SAR (interpolated) = 0.0737 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>95(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>96(121)</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> |

**Right-Hand-Side HSL - BT/Tilt Position -**

**Bluetooth\_chan39\_amb\_temp\_23.3C\_liq\_temp\_22.0C/Area Scan (151x181x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0335 W/kg

**Right-Hand-Side HSL - BT/Tilt Position -**

**Bluetooth\_chan39\_amb\_temp\_23.3C\_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 = 2.869 V/m; **Power Drift = 0.064 dB**

**Averaged SAR: SAR(1g) = 0.0251 W/kg; SAR(10g) = 0.0114 W/kg**

Maximum value of SAR (interpolated) = 0.0572 W/kg

**Right-Hand-Side HSL - BT/Tilt Position -**

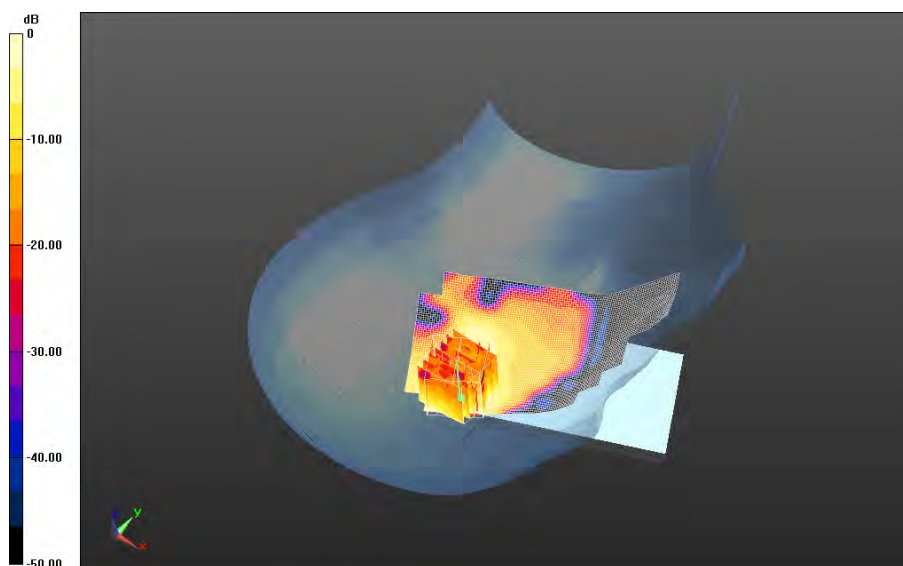
**Bluetooth\_chan39\_amb\_temp\_23.3C\_liq\_temp\_22.0C/Zoom Scan 2 (31x31x36)/Cube 0:**

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

Reference Value = 2.869 V/m; **Power Drift = 0.177 dB**

**Averaged SAR: SAR(1g) = 0.0254 W/kg; SAR(10g) = 0.0114 W/kg**

Maximum value of SAR (interpolated) = 0.0603 W/kg



0 dB = 0.0410 W/kg = -13.87 dBW/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>97(121)</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> |

Date: 7/18/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - 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;  $\sigma = 1.872$  S/m;  $\epsilon_r = 38.414$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

### **DASY Configuration:**

- Probe: ES3DV3 - SN3225; ConvF: (4.63,4.63,4.63); Calibrated: 1/22/2014;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

### **Left-Hand-Side HSL - BT/Touch Position -**

**Bluetooth\_chan39\_amb\_temp\_23.2C\_liq\_temp\_22.1C/Area Scan (151x181x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0189 W/kg

### **Left-Hand-Side HSL - BT/Touch Position -**

**Bluetooth\_chan39\_amb\_temp\_23.2C\_liq\_temp\_22.1C/Zoom Scan (36x36x36)/Cube 0:**

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

Reference Value = 2.993 V/m; **Power Drift = 1.069 dB**

**Averaged SAR: SAR(1g) = 0.0156 W/kg; SAR(10g) = 0.00729 W/kg**

Maximum value of SAR (interpolated) = 0.0333 W/kg

### **Left-Hand-Side HSL - BT/Touch Position -**

**Bluetooth\_chan39\_amb\_temp\_23.2C\_liq\_temp\_22.1C/Zoom Scan 2 (31x31x36)/Cube 0:**

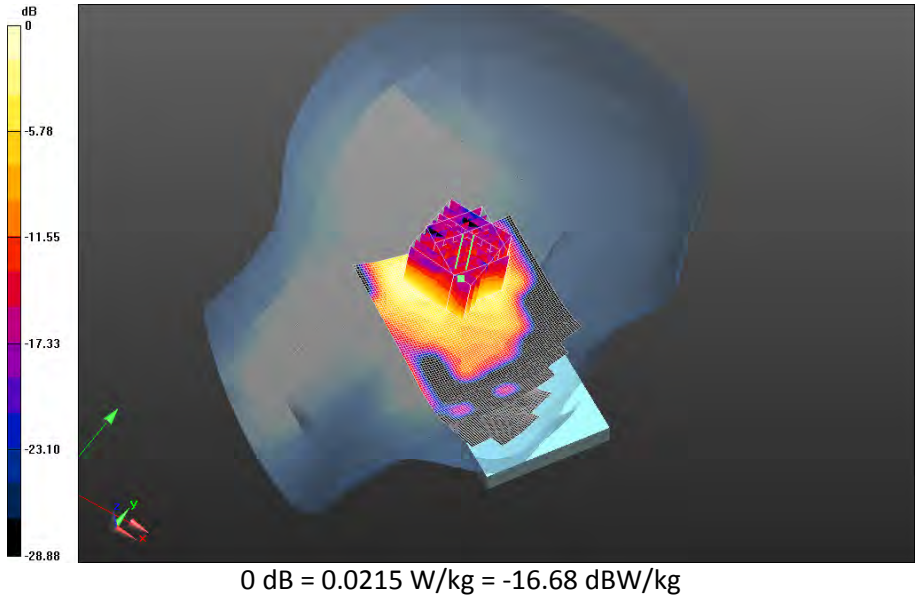
Interpolated grid: dx=1.000 mm, dy=1.000 mm, dz=1.000 mm

Reference Value = 2.993 V/m; **Power Drift = 0.720 dB**

**Averaged SAR: SAR(1g) = 0.0171 W/kg; SAR(10g) = 0.00797 W/kg**

Maximum value of SAR (interpolated) = 0.0377 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>98(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>99(121)</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> |                        |

## 802.11a

Date: 8/1/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Right-Hand-Side HSL - 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;  $\sigma = 4.747$  S/m;  $\epsilon_r = 35.107$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

#### **DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (5.37,5.37,5.37); Calibrated: 1/17/2014;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Right-Hand-Side HSL - 802.11a 5200 MHz/Touch Position -**

**802.11a\_chan36\_low\_band\_amb\_temp\_22.9C\_liq\_temp\_21.8C/Area Scan (181x221x1):**

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

Maximum value of SAR (interpolated) = 0.930 W/kg

#### **Right-Hand-Side HSL - 802.11a 5200 MHz/Touch Position -**

**802.11a\_chan36\_low\_band\_amb\_temp\_22.9C\_liq\_temp\_21.8C/Zoom Scan (41x41x61)/Cube**

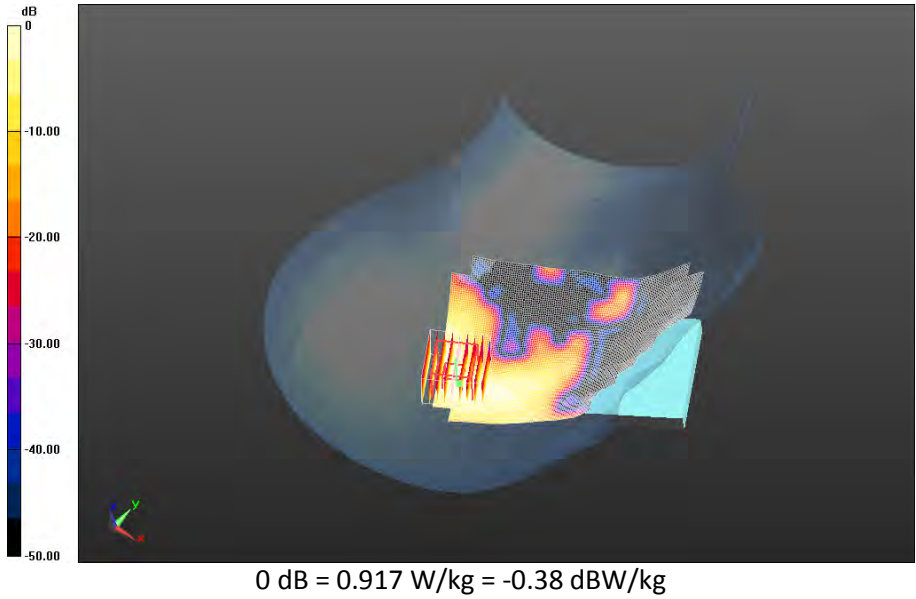
**0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm

Reference Value = 2.703 V/m; **Power Drift = 0.054 dB**

**Averaged SAR: SAR(1g) = 0.480 W/kg; SAR(10g) = 0.174 W/kg**

Maximum value of SAR (interpolated) = 1.73 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>100(121)</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> |

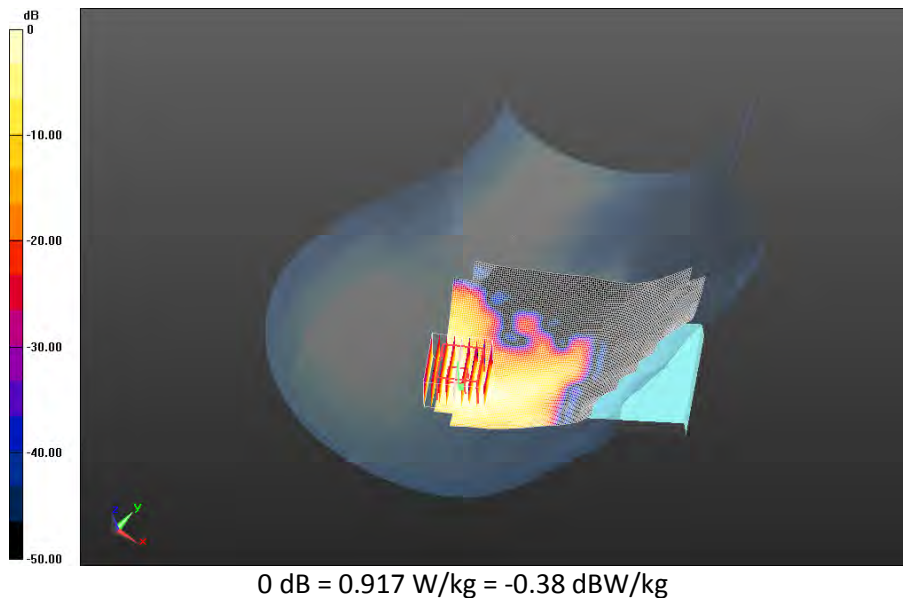


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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>101(121)</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> |

**Right-Hand-Side HSL - 802.11a 5200 MHz/Touch Position -**  
**802.11a\_chan52\_low\_band\_amb\_temp\_22.9C\_liq\_temp\_21.8C/Area Scan (181x221x1):**  
Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 1.13 W/kg

**Right-Hand-Side HSL - 802.11a 5200 MHz/Touch Position -**  
**802.11a\_chan52\_low\_band\_amb\_temp\_22.9C\_liq\_temp\_21.8C/Zoom Scan (41x41x61)/Cube**  
**0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 1.928 V/m; **Power Drift = 0.286 dB**

**Averaged SAR: SAR(1g) = 0.579 W/kg; SAR(10g) = 0.207 W/kg**  
Maximum value of SAR (interpolated) = 2.10 W/kg

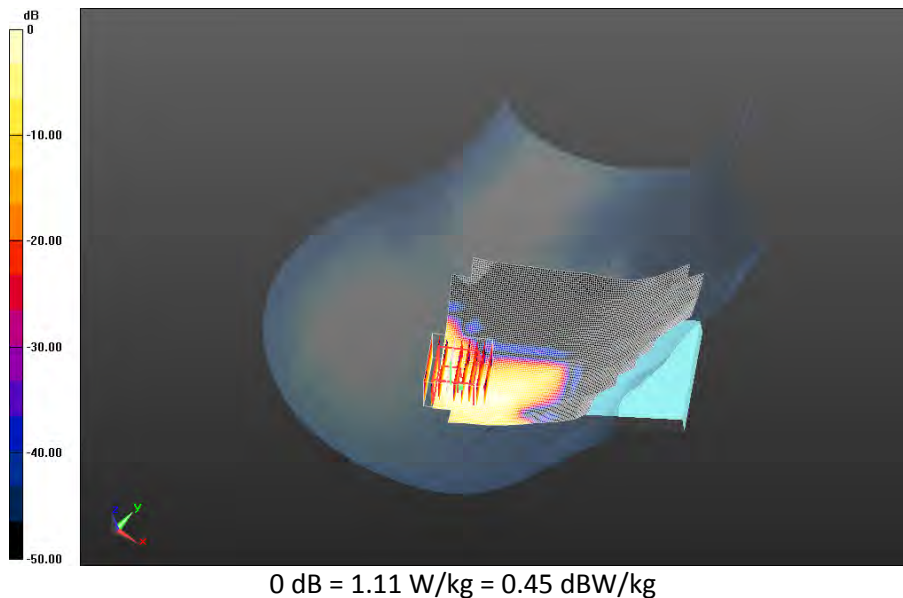


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|-----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|---------------------------------|
|  |  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                                           |                               | Page<br><b>102(121)</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> |

**Right-Hand-Side HSL - 802.11a 5200 MHz/Touch Position -**  
**802.11a\_chan56\_low\_band\_amb\_temp\_23.9C\_liq\_temp\_22.4C/Area Scan (181x221x1):**  
Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.392 W/kg

**Right-Hand-Side HSL - 802.11a 5200 MHz/Touch Position -**  
**802.11a\_chan56\_low\_band\_amb\_temp\_23.9C\_liq\_temp\_22.4C/Zoom Scan (41x41x61)/Cube**  
**0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 1.873 V/m; **Power Drift = 0.039 dB**

**Averaged SAR: SAR(1g) = 0.191 W/kg; SAR(10g) = 0.0682 W/kg**  
Maximum value of SAR (interpolated) = 0.910 W/kg

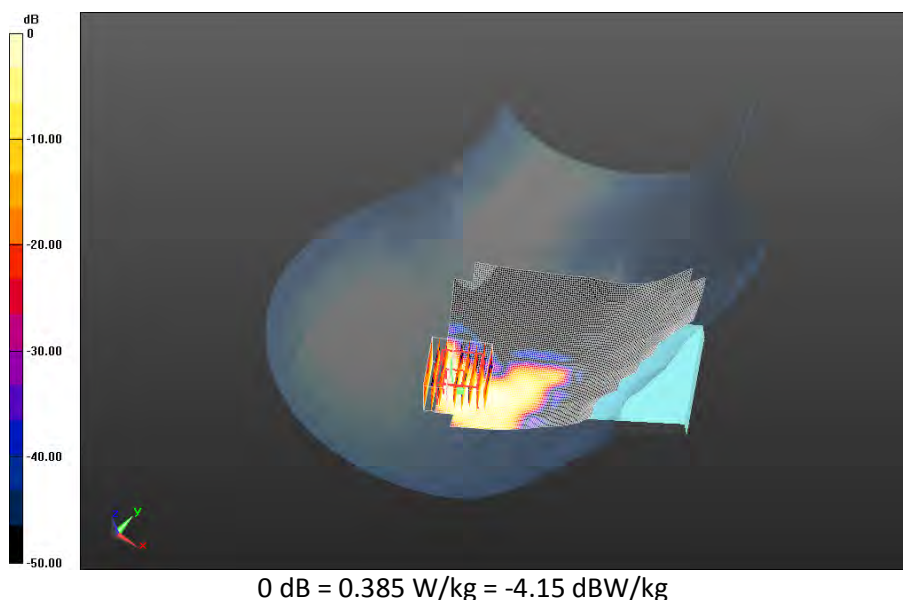


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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>103(121)</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> |

**Right-Hand-Side HSL - 802.11a 5200 MHz/Touch Position -**  
**802.11a\_chan64\_low\_band\_amb\_temp\_23.4C\_liq\_temp\_22.3C/Area Scan (181x221x1):**  
Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.249 W/kg

**Right-Hand-Side HSL - 802.11a 5200 MHz/Touch Position -**  
**802.11a\_chan64\_low\_band\_amb\_temp\_23.4C\_liq\_temp\_22.3C/Zoom Scan (41x41x61)/Cube**  
**0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 1.643 V/m; **Power Drift = -0.185 dB**

**Averaged SAR: SAR(1g) = 0.107 W/kg; SAR(10g) = 0.0353 W/kg**  
Maximum value of SAR (interpolated) = 0.902 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |                         |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>104(121)</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> |                         |

Date: 8/1/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Right-Hand-Side HSL - 802.11a 5500 MHz**

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

Frequency: 5520 MHz

Medium Parameters used:  $f=5520$  MHz;  $\sigma = 5.133$  S/m;  $\epsilon_r = 34.488$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

#### **DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (4.94,4.94,4.94); Calibrated: 1/17/2014;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Right-Hand-Side HSL - 802.11a 5500 MHz/Touch Position -**

**802.11a\_chan104\_Upper\_band1\_amb\_temp\_23.4C\_liq\_temp\_22.6C/Area Scan (101x151x1):**

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

Maximum value of SAR (interpolated) = 0.827 W/kg

#### **Right-Hand-Side HSL - 802.11a 5500 MHz/Touch Position -**

**802.11a\_chan104\_Upper\_band1\_amb\_temp\_23.4C\_liq\_temp\_22.6C/Zoom Scan**

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

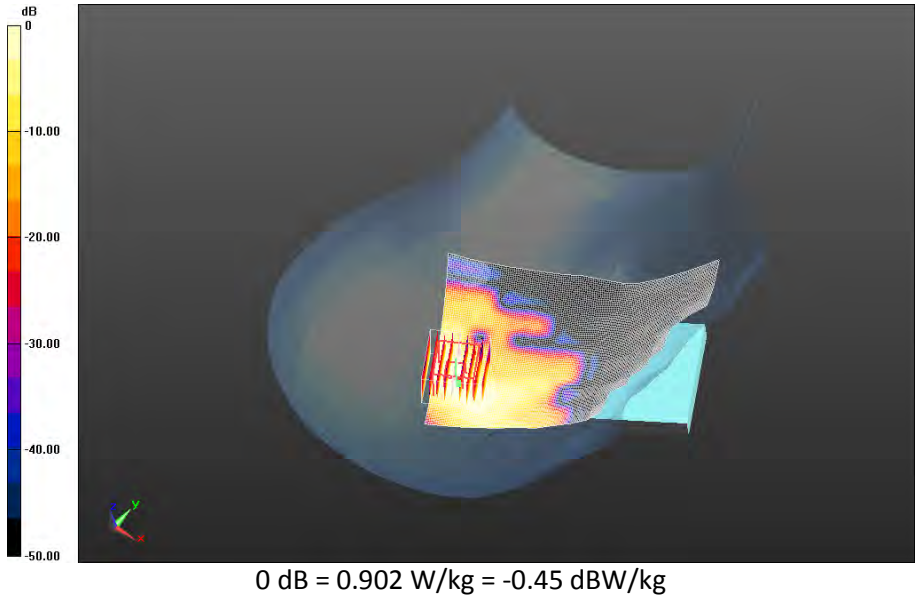
Reference Value = 4.157 V/m; **Power Drift = -0.120 dB**

**Averaged SAR: SAR(1g) = 0.455 W/kg; SAR(10g) = 0.158 W/kg**

Maximum value of SAR (interpolated) = 1.88 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>105(121)</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> |



|                                                                                   |                                                  |                                                                                        |                               |                                 |                         |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>106(121)</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> |                         |

Date: 7/30/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Right-Hand-Side HSL - 802.11a 5800 MHz**

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

Frequency: 5765 MHz

Medium Parameters used:  $f=5765$  MHz;  $\sigma = 5.425$  S/m;  $\epsilon_r = 34.047$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

#### **DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (4.76,4.76,4.76); Calibrated: 1/17/2014;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Right-Hand-Side HSL - 802.11a 5800 MHz/Touch Position -**

##### **802.11a\_chan153\_Upper\_bandII\_amb\_temp\_23.4C\_liq\_temp\_22.6C/Area Scan (101x151x1):**

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

Maximum value of SAR (interpolated) = 0.629 W/kg

#### **Right-Hand-Side HSL - 802.11a 5800 MHz/Touch Position -**

##### **802.11a\_chan153\_Upper\_bandII\_amb\_temp\_23.4C\_liq\_temp\_22.6C/Zoom Scan**

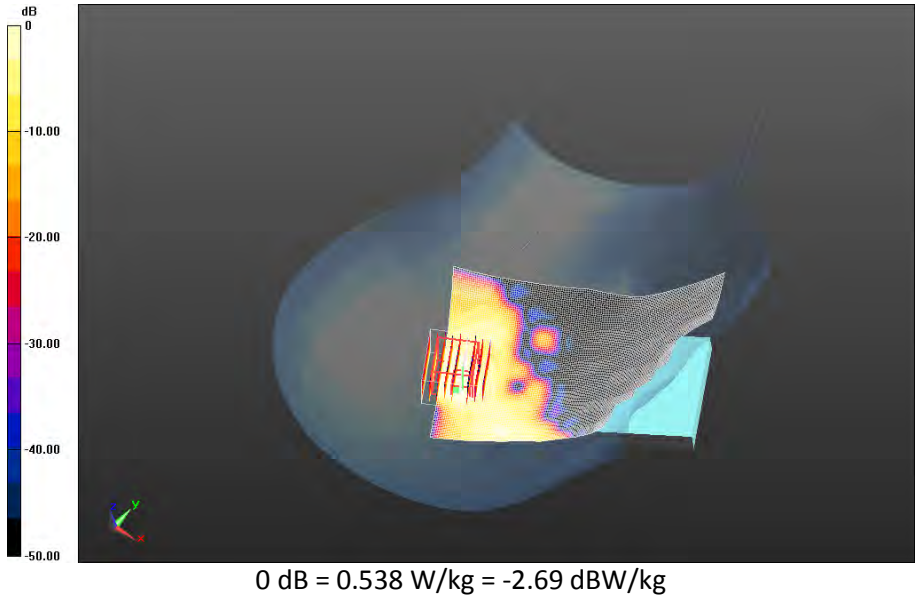
**(41x41x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm

Reference Value = 5.674 V/m; **Power Drift = 0.075 dB**

**Averaged SAR: SAR(1g) = 0.276 W/kg; SAR(10g) = 0.103 W/kg**

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

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>107(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>108(121)</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> |                         |

Date: 8/1/2014

Test Lab: BlackBerry RTS

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

**Configuration: Right-Hand-Side HSL - 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;  $\sigma = 4.747$  S/m;  $\epsilon_r = 35.107$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

**DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (5.37,5.37,5.37); Calibrated: 1/17/2014;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

**Right-Hand-Side HSL - 802.11a 5200 MHz/Tilt Position -**

**802.11a\_chan52\_low\_band\_amb\_temp\_23.9C\_liq\_temp\_21.4C/Area Scan (181x221x1):**

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

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

**Right-Hand-Side HSL - 802.11a 5200 MHz/Tilt Position -**

**802.11a\_chan52\_low\_band\_amb\_temp\_23.9C\_liq\_temp\_21.4C/Zoom Scan (41x41x61)/Cube 0:**

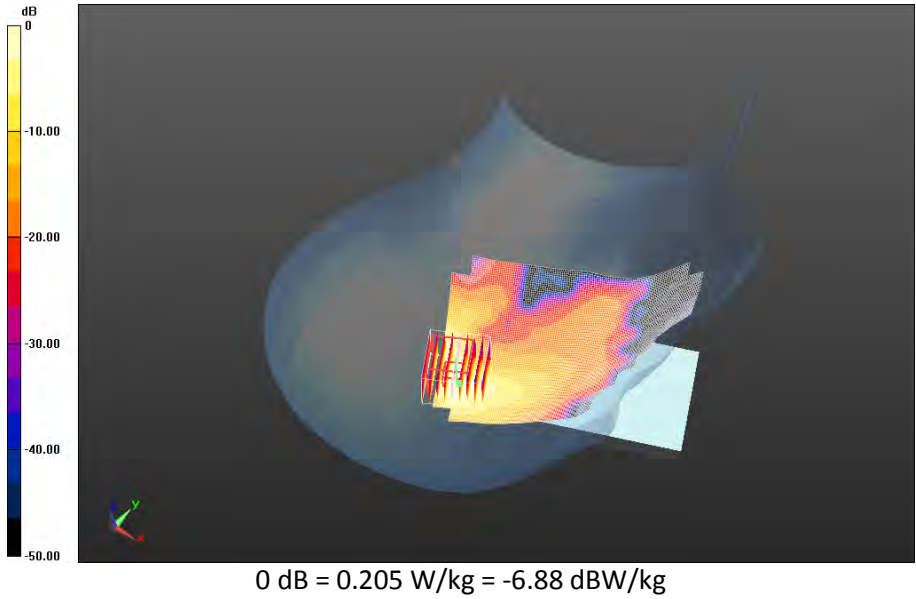
Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm

Reference Value = 3.141 V/m; **Power Drift = 0.029 dB**

**Averaged SAR: SAR(1g) = 0.800 W/kg; SAR(10g) = 0.266 W/kg**

Maximum value of SAR (interpolated) = 3.16 W/kg

|                                                                                   |  |                                                                                        |                                           |                               |                                 |
|-----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|---------------------------------|
|  |  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                                           |                               | Page<br><b>109(121)</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> |

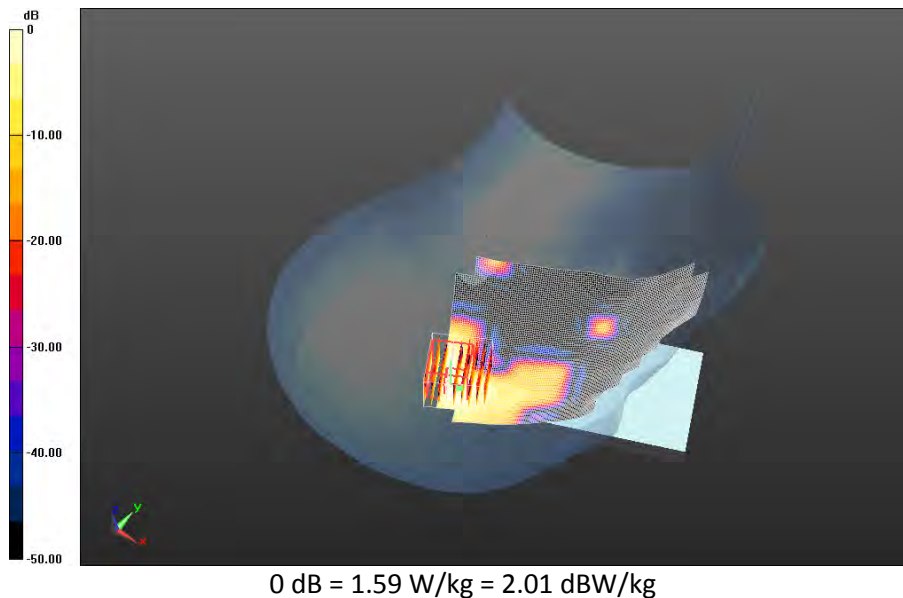


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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>110(121)</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> |                         |

**Right-Hand-Side HSL - 802.11a 5200 MHz/Tilt Position -**  
**802.11a\_chan64\_low\_band\_amb\_temp\_23.4C\_liq\_temp\_22.3C/Area Scan (181x221x1):**  
Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.266 W/kg

**Right-Hand-Side HSL - 802.11a 5200 MHz/Tilt Position -**  
**802.11a\_chan64\_low\_band\_amb\_temp\_23.4C\_liq\_temp\_22.3C/Zoom Scan (41x41x61)/Cube**  
**0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm  
Reference Value = 1.768 V/m; **Power Drift = 0.018 dB**

**Averaged SAR: SAR(1g) = 0.130 W/kg; SAR(10g) = 0.0409 W/kg**  
Maximum value of SAR (interpolated) = 0.491 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |                         |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>111(121)</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> |                         |

Date: 8/1/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Right-Hand-Side HSL - 802.11a 5500 MHz**

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

Frequency: 5520 MHz

Medium Parameters used:  $f=5520$  MHz;  $\sigma = 5.133$  S/m;  $\epsilon_r = 34.488$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Right Section

#### **DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (4.94,4.94,4.94); Calibrated: 1/17/2014;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Right-Hand-Side HSL - 802.11a 5500 MHz/Tilt Position -**

**802.11a\_chan104\_Upper\_band1\_amb\_temp\_23.2C\_liq\_temp\_22.3C/Area Scan (101x151x1):**

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

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

#### **Right-Hand-Side HSL - 802.11a 5500 MHz/Tilt Position -**

**802.11a\_chan104\_Upper\_band1\_amb\_temp\_23.2C\_liq\_temp\_22.3C/Zoom Scan**

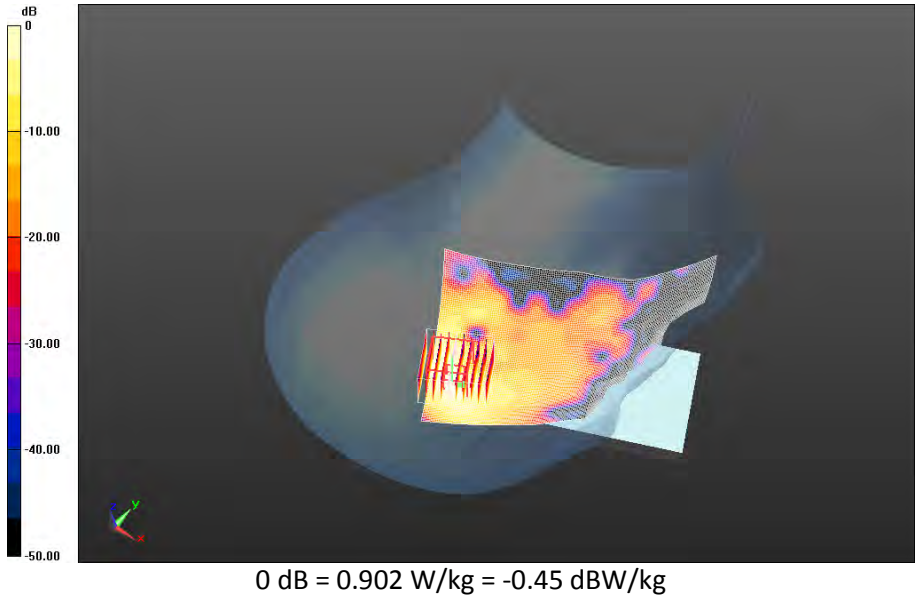
**(41x46x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm

Reference Value = 3.624 V/m; **Power Drift = -0.048 dB**

**Averaged SAR: SAR(1g) = 0.558 W/kg; SAR(10g) = 0.187 W/kg**

Maximum value of SAR (interpolated) = 2.23 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>112(121)</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> |





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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>113(121)</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> |                         |

Date: 7/30/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - 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;  $\sigma = 4.747$  S/m;  $\epsilon_r = 35.107$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

#### **DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (5.37,5.37,5.37); Calibrated: 1/17/2014;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Left-Hand-Side HSL - 802.11a 5200 MHz/Touch Position -**

**802.11a\_chan36\_low\_band\_amb\_temp\_23.0C\_liq\_temp\_22.0C/Area Scan (181x261x1):**

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

Maximum value of SAR (interpolated) = 0.957 W/kg

#### **Left-Hand-Side HSL - 802.11a 5200 MHz/Touch Position -**

**802.11a\_chan36\_low\_band\_amb\_temp\_23.0C\_liq\_temp\_22.0C/Zoom Scan (41x36x61)/Cube**

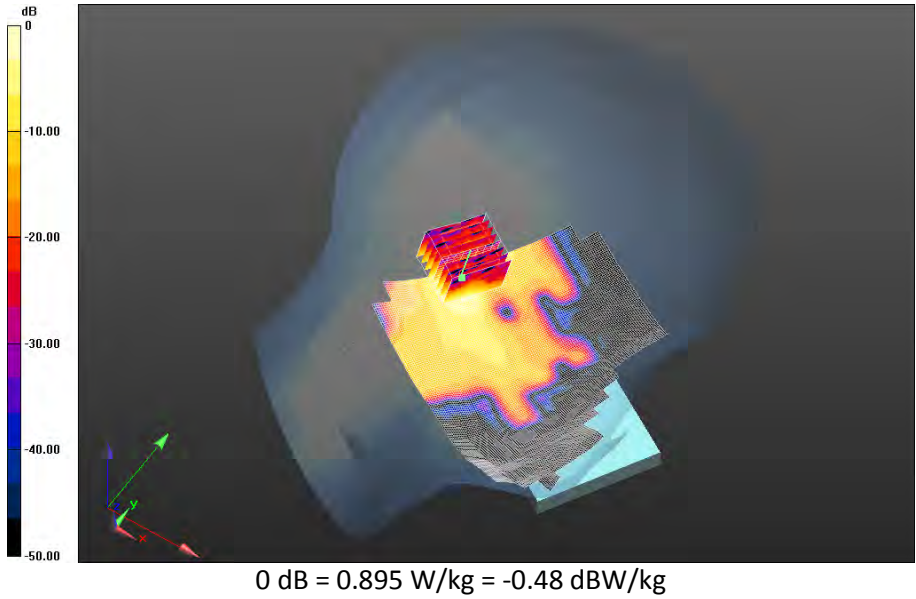
**0:** Interpolated grid:  $dx=0.800$  mm,  $dy=0.800$  mm,  $dz=0.400$  mm

Reference Value = 1.977 V/m; **Power Drift = -0.326 dB**

**Averaged SAR: SAR(1g) = 0.485 W/kg; SAR(10g) = 0.175 W/kg**

Maximum value of SAR (interpolated) = 1.69 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>114(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>115(121)</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> |

**Left-Hand-Side HSL - 802.11a 5200 MHz/Touch Position -**

**802.11a\_chan52\_low\_band\_amb\_temp\_23.0C\_liq\_temp\_22.0C/Area Scan (101x171x1):**

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

Maximum value of SAR (interpolated) = 1.10 W/kg

**Left-Hand-Side HSL - 802.11a 5200 MHz/Touch Position -**

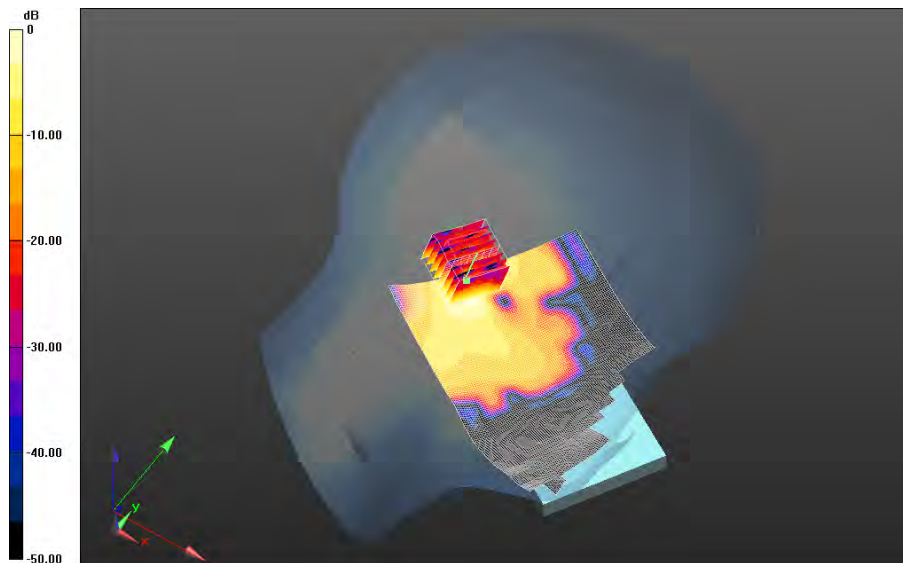
**802.11a\_chan52\_low\_band\_amb\_temp\_23.0C\_liq\_temp\_22.0C/Zoom Scan (36x36x61)/Cube**

**0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm

Reference Value = 1.815 V/m; **Power Drift = 0.364 dB**

**Averaged SAR: SAR(1g) = 0.500 W/kg; SAR(10g) = 0.179 W/kg**

Maximum value of SAR (interpolated) = 1.74 W/kg



0 dB = 0.895 W/kg = -0.48 dBW/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |                         |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>116(121)</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> |                         |

Date: 7/29/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - 802.11a 5500 MHz**

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

Medium Parameters used:  $f=5520$  MHz;  $\sigma = 5.133$  S/m;  $\epsilon_r = 34.488$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

#### **DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (4.94,4.94,4.94); Calibrated: 1/17/2014;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Left-Hand-Side HSL - 802.11a 5500 MHz/Touch Position -**

**802.11a\_chan104\_Upper\_band1\_amb\_temp\_23.4C\_liq\_temp\_21.3C/Area Scan (101x161x1):**

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

Maximum value of SAR (interpolated) = 0.881 W/kg

#### **Left-Hand-Side HSL - 802.11a 5500 MHz/Touch Position -**

**802.11a\_chan104\_Upper\_band1\_amb\_temp\_23.4C\_liq\_temp\_21.3C/Zoom Scan**

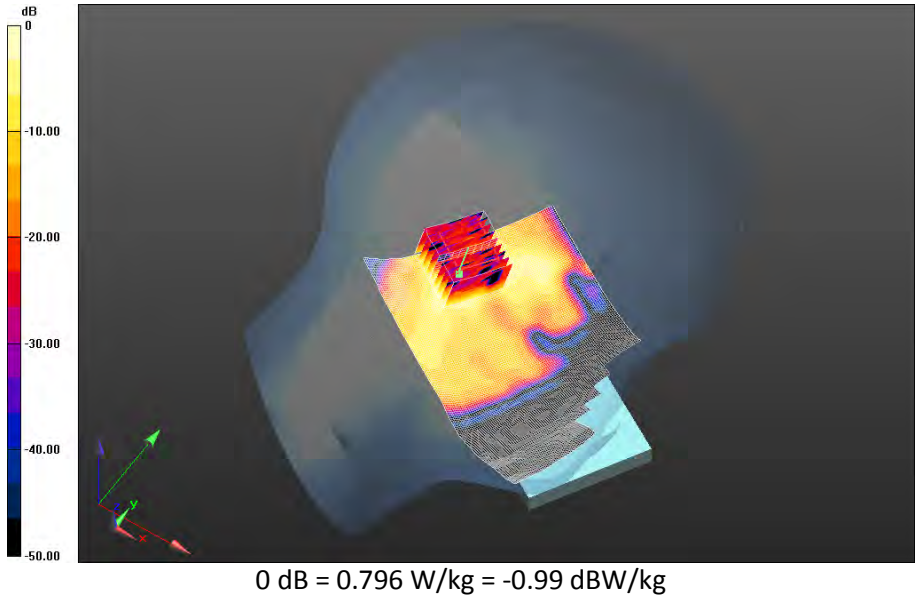
**(41x41x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm

Reference Value = 3.986 V/m; **Power Drift = 0.275 dB**

**Averaged SAR: SAR(1g) = 0.440 W/kg; SAR(10g) = 0.161 W/kg**

Maximum value of SAR (interpolated) = 1.56 W/kg

|                                                                                   |                                                  |                                                                                        |                               |                                 |
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|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>117(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>118(121)</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> |                         |

Date: 7/29/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - 802.11a 5800 MHz**

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

Frequency: 5765 MHz

Medium Parameters used:  $f=5765$  MHz;  $\sigma = 5.425$  S/m;  $\epsilon_r = 34.047$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

#### **DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (4.76,4.76,4.76); Calibrated: 1/17/2014;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Left-Hand-Side HSL - 802.11a 5800 MHz/Touch Position -**

##### **802.11a\_chan153\_Upper\_bandII\_amb\_temp\_23.4C\_liq\_temp\_21.3C/Area Scan (101x161x1):**

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

Maximum value of SAR (interpolated) = 0.910 W/kg

#### **Left-Hand-Side HSL - 802.11a 5800 MHz/Touch Position -**

##### **802.11a\_chan153\_Upper\_bandII\_amb\_temp\_23.4C\_liq\_temp\_21.3C/Zoom Scan**

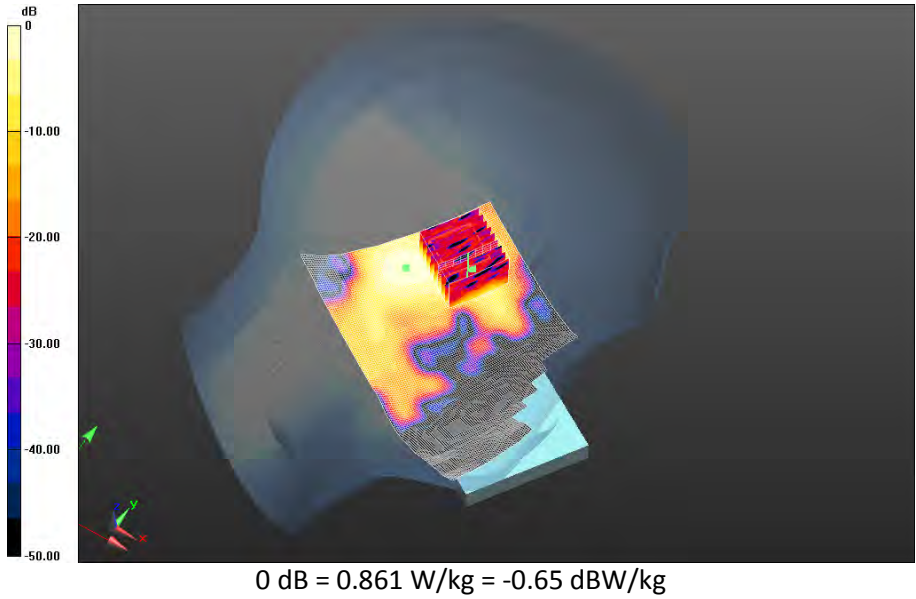
**(41x41x61)/Cube 0:** Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm

Reference Value = 7.354 V/m; **Power Drift = 0.114 dB**

**Averaged SAR: SAR(1g) = 0.403 W/kg; SAR(10g) = 0.134 W/kg**

Maximum value of SAR (interpolated) = 1.92 W/kg

|                                                                                   |  |                                                                                        |                                           |                               |                                 |
|-----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------|---------------------------------|
|  |  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                                           |                               | Page<br><b>119(121)</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> |



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|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               |                                 | Page<br><b>120(121)</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> |                         |

Date: 7/30/2014

Test Lab: BlackBerry RTS

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

### **Configuration: Left-Hand-Side HSL - 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;  $\sigma = 4.747$  S/m;  $\epsilon_r = 35.107$ ;  $\rho = 1.000$  g/cm<sup>3</sup>

Phantom section: Left Section

#### **DASY Configuration:**

- Probe: EX3DV4 - SN3548; ConvF: (5.37,5.37,5.37); Calibrated: 1/17/2014;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.7(1137); SEMCAD X Version 14.6.10 (7164)

#### **Left-Hand-Side HSL - 802.11a 5200 MHz/Tilt Position -**

##### **802.11a\_chan52\_low\_band\_amb\_temp\_23.4C\_liq\_temp\_21.3C/Area Scan (181x221x1):**

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

Maximum value of SAR (interpolated) = 0.903 W/kg

#### **Left-Hand-Side HSL - 802.11a 5200 MHz/Tilt Position -**

##### **802.11a\_chan52\_low\_band\_amb\_temp\_23.4C\_liq\_temp\_21.3C/Zoom Scan (41x36x61)/Cube 0:**

Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm

Reference Value = 2.132 V/m; **Power Drift = 0.244 dB**

**Averaged SAR: SAR(1g) = 0.470 W/kg; SAR(10g) = 0.167 W/kg**

Maximum value of SAR (interpolated) = 1.64 W/kg



|                                                                                   |                                                  |                                                                                        |                               |                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
|  |                                                  | Document<br><b>Appendix B for the BlackBerry® Smartphone Model RHA111LW SAR Report</b> |                               | Page<br><b>121(121)</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> |

