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Author Data Andrew Becker	Dates of Test Nov 26, 2012- Feb 28, 2013, Dec. 10-12, 2014	Test Report No RTS-6026-1302-18 Rev 3	FCC ID: L6ARFN80UW	IC 2503A-RFN80UW

APPENDIX C2: SAR DISTRIBUTION PLOTS FOR HOT SPOT CONFIGURATION

Revision History		
Rev. Number	Date	Changes
Initial	May 24, 2013	----- -----
Rev 2	Dec 16, 2014	Added SAR plots for 802.11a Hotspot mode 1. Page 75-81

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GPRS 850

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Author Data Andrew Becker	Dates of Test Nov 26, 2012- Feb 28, 2013, Dec. 10-12, 2014	Test Report No RTS-6026-1302-18 Rev 3	FCC ID: L6ARFN80UW	IC 2503A-RFN80UW

Date: 2/4/2013

Test Lab: RIM Testing Services

DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2AB01FAD

Configuration: MHS_10mm_Body_SAR_Configuration

Communication System: EDGE 850 (2slots); Communication System Band: EDGE 850;

Frequency: 836.8 MHz

Medium Parameters used: $f=836.8$ MHz; $\sigma = 0.984$ S/m; $\epsilon_r = 53.016$; $\rho = 1.000$ g/cm³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6 - SN1644; ConvF: (6.06,6.06,6.06); Calibrated: 11/13/2012;
- Sensor-Surface: 4 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.4(1052); SEMCAD X Version 14.6.8 (7028)

MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_EDGE 850_Mid_chan_Amb_Temp_23.2C_Liq_Temp_21.3C/Area Scan (61x101x1):

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

Reference Value = 19.897 V/m; **Power Drift = 0.078 dB**

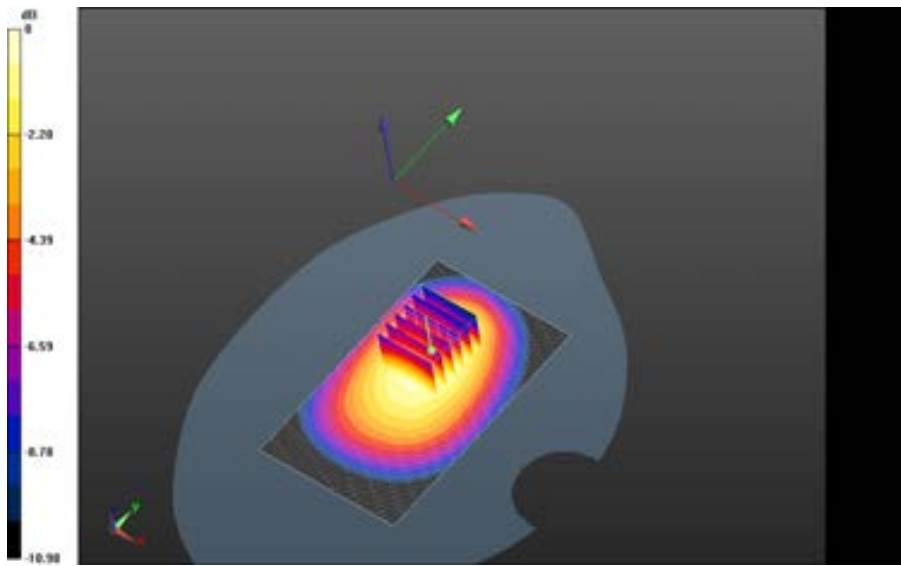
MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_E DGE850_Mid_chan_Amb_Temp_23.2C_Liq_Temp_21.3C/Zoom Scan (5x5x7) (26x26x36)/Cube 0: Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 19.897 V/m; **Power Drift = 0.078 dB**

Averaged SAR: SAR(1g) = 0.433 W/kg; SAR(10g) = 0.318 W/kg

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

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0 dB = 0.457 W/kg = -3.40 dBW/kg

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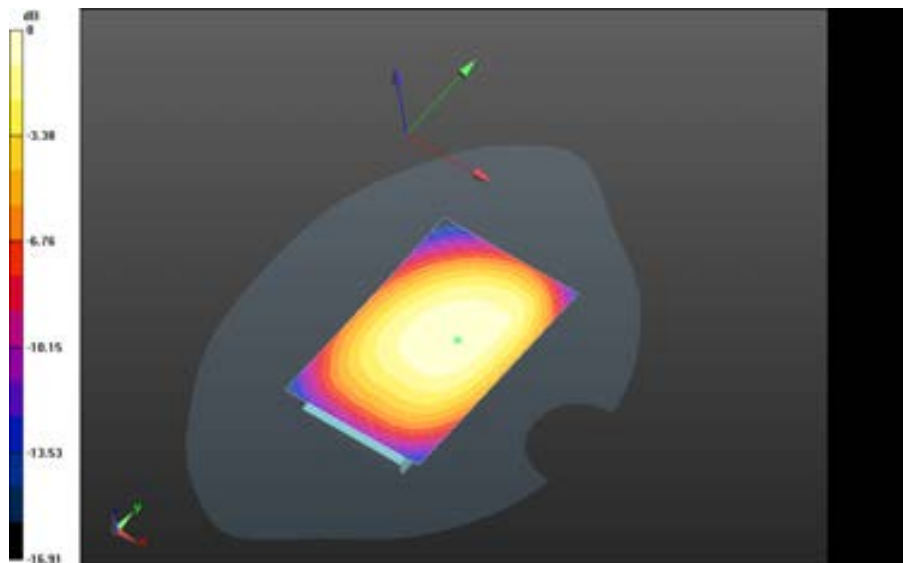
**MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Front_EDGE
850_Mid_chan_Amb_Temp_23.2C_Liq_Temp_21.4C/Area Scan (61x91x1):**

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

Reference Value = 18.803 V/m; **Power Drift = 0.194 dB**

Fast SAR: SAR(1g) = 0.322 W/kg; SAR(10g) = 0.226 W/kg

Maximum value of SAR (interpolated) = 0.341 W/kg



0 dB = 0.457 W/kg = -3.40 dBW/kg

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Author Data Andrew Becker	Dates of Test Nov 26, 2012- Feb 28, 2013, Dec. 10-12, 2014	Test Report No RTS-6026-1302-18 Rev 3	FCC ID: L6ARFN80UW	IC 2503A-RFN80UW

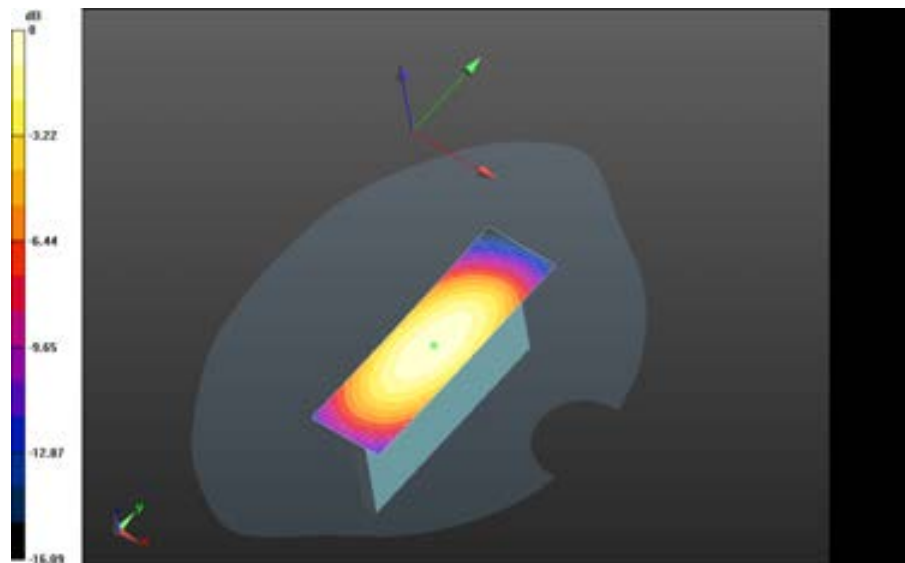
**MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Left_EDGE8
50_Mid_chan_Amb_Temp_23.2C_Liq_Temp_21.4C/Area Scan (31x101x1):**

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

Reference Value = 20.578 V/m; **Power Drift = 0.029 dB**

Fast SAR: SAR(1g) = 0.363 W/kg; SAR(10g) = 0.251 W/kg

Maximum value of SAR (interpolated) = 0.386 W/kg

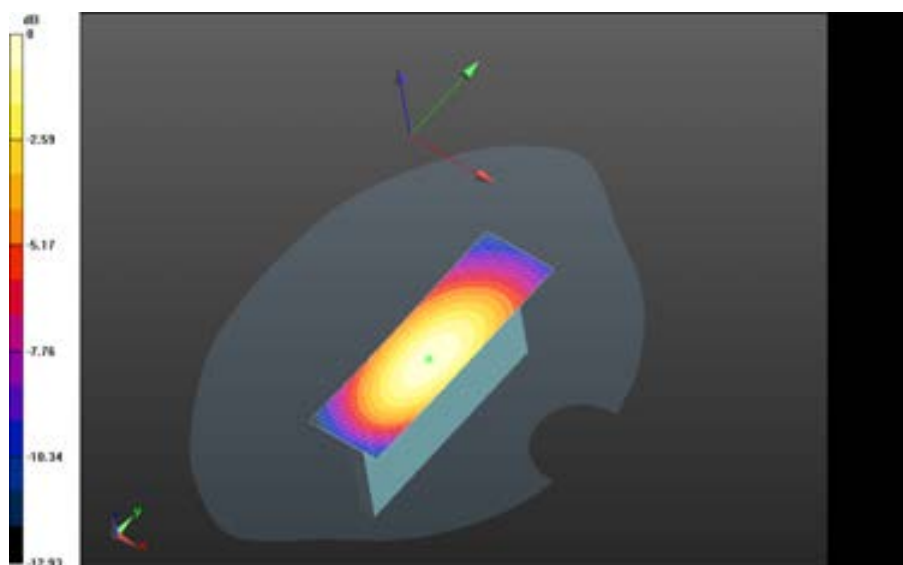


0 dB = 0.341 W/kg = -4.67 dBW/kg

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MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Right_EDGE
850_Mid_chan_Amb_Temp_23.2C_Liq_Temp_21.4C/Area Scan (31x101x1):
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 15.631 V/m; **Power Drift = -0.052 dB**

Fast SAR: SAR(1g) = 0.214 W/kg; SAR(10g) = 0.147 W/kg
Maximum value of SAR (interpolated) = 0.228 W/kg



0 dB = 0.386 W/kg = -4.13 dBW/kg

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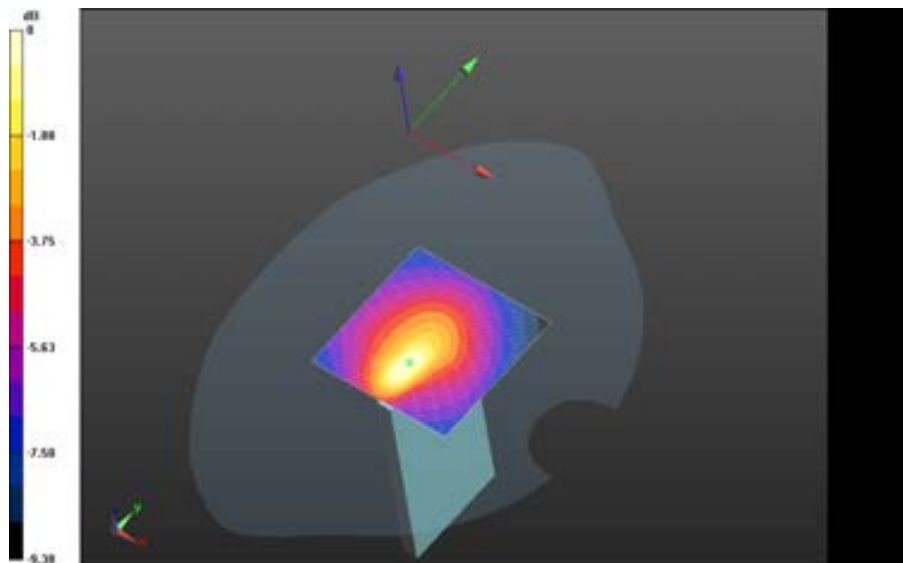
**MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Bottom_ED
GE850_Mid_chan_Amb_Temp_23.1C_Liq_Temp_21.4C/Area Scan (61x61x1):**

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

Reference Value = 7.935 V/m; **Power Drift = -0.074 dB**

Fast SAR: SAR(1g) = 0.0633 W/kg; SAR(10g) = 0.0390 W/kg

Maximum value of SAR (interpolated) = 0.0725 W/kg

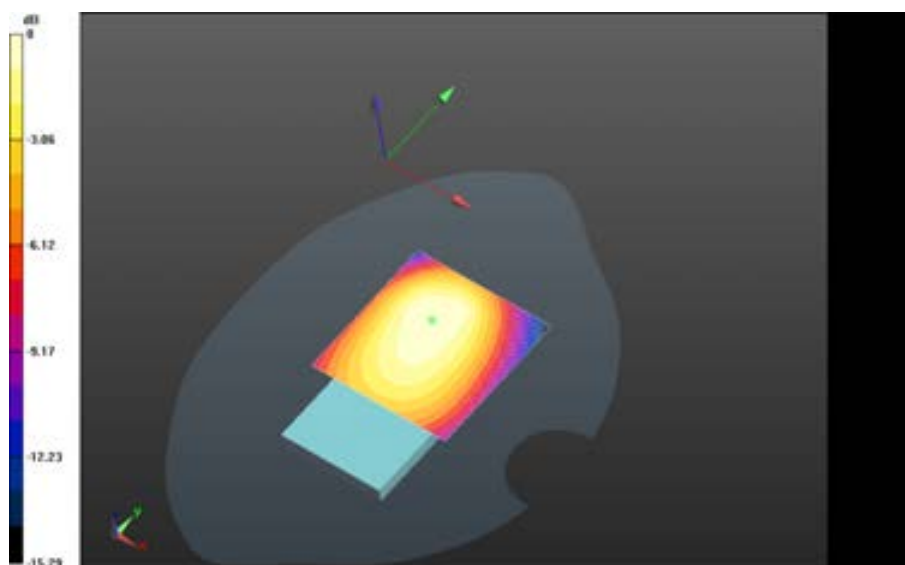


0 dB = 0.228 W/kg = -6.42 dBW/kg

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Author Data Andrew Becker	Dates of Test Nov 26, 2012- Feb 28, 2013, Dec. 10-12, 2014	Test Report No RTS-6026-1302-18 Rev 3	FCC ID: L6ARFN80UW	IC 2503A-RFN80UW

MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back+HS_E
DGE850_Mid_chan_Amb_Temp_23.2C_Liq_Temp_21.3C/Area Scan (61x61x1):
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 17.680 V/m; **Power Drift = -0.052 dB**

Fast SAR: SAR(1g) = 0.391 W/kg; SAR(10g) = 0.268 W/kg
Maximum value of SAR (interpolated) = 0.412 W/kg

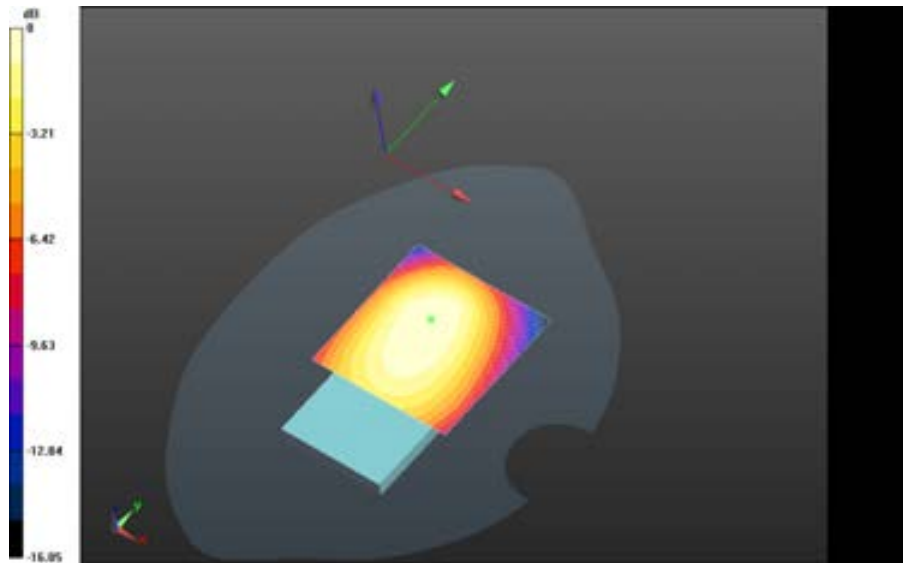


0 dB = 0.452 W/kg = -3.45 dBW/kg

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Author Data Andrew Becker	Dates of Test Nov 26, 2012- Feb 28, 2013, Dec. 10-12, 2014	Test Report No RTS-6026-1302-18 Rev 3	FCC ID: L6ARFN80UW	IC 2503A-RFN80UW

MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_2100m
A_EDGE850_Mid_chan_Amb_Temp_23.1C_Liq_Temp_21.3C/Area Scan
(61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 20.308 V/m; **Power Drift = -0.020 dB**

Fast SAR: SAR(1g) = 0.432 W/kg; SAR(10g) = 0.299 W/kg
Maximum value of SAR (interpolated) = 0.452 W/kg



0 dB = 0.0725 W/kg = -11.40 dBW/kg

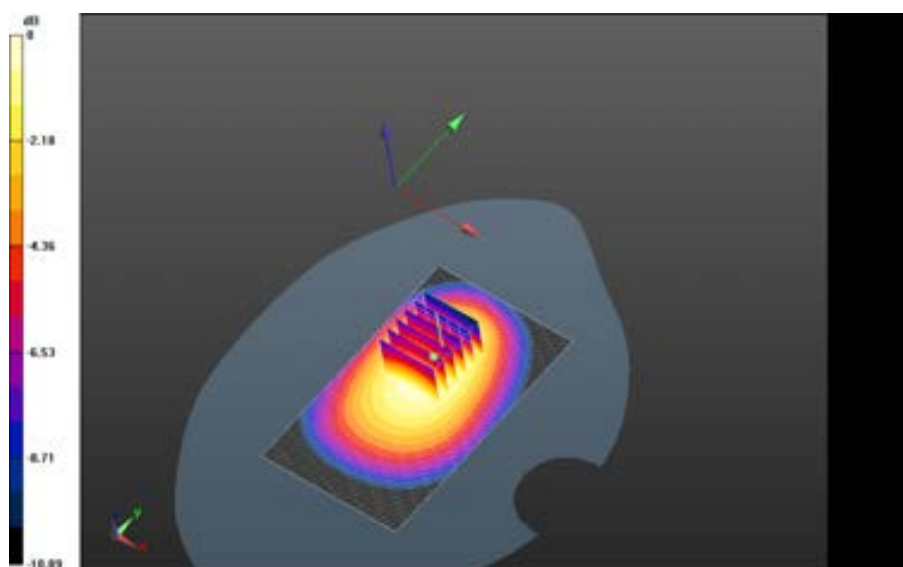
	Document Appendix C2 for the BlackBerry® Smartphone Model RFN81UW SAR Report Rev 2			Page 11(81)
Author Data Andrew Becker	Dates of Test Nov 26, 2012- Feb 28, 2013, Dec. 10-12, 2014	Test Report No RTS-6026-1302-18 Rev 3	FCC ID: L6ARFN80UW	IC 2503A-RFN80UW

MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_3-Slot_EDGE850_Mid_chan_Amb_Temp_23.2C_Liq_Temp_21.3C/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 19.923 V/m; **Power Drift = -0.185 dB**

MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_3-Slot_EDGE850_Mid_chan_Amb_Temp_23.2C_Liq_Temp_21.3C/Zoom Scan (5x5x7) (26x26x36)/Cube 0: Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 19.923 V/m; **Power Drift = -0.185 dB**

Averaged SAR: SAR(1g) = 0.411 W/kg; SAR(10g) = 0.302 W/kg
Maximum value of SAR (interpolated) = 0.570 W/kg

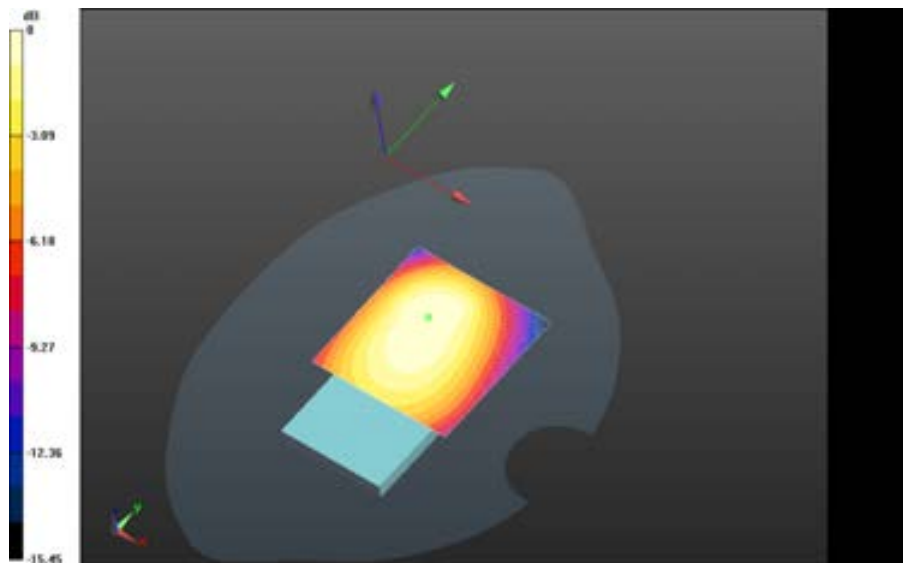


0 dB = 0.412 W/kg = -3.85 dBW/kg

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MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_4-Slot_EDGE850_Mid_chan_Amb_Temp_23.2C_Liq_Temp_21.3C/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 19.605 V/m; **Power Drift = 0.048 dB**

Fast SAR: SAR(1g) = 0.412 W/kg; SAR(10g) = 0.285 W/kg
Maximum value of SAR (interpolated) = 0.433 W/kg



0 dB = 0.436 W/kg = -3.61 dBW/kg

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UMTS Band

V

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Date: 2/5/2013

Test Lab: RIM Testing Services

DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2AB01FAD

Configuration: MHS_10mm_Body_SAR_Configuration_UMTS_Band_V

Communication System: WCDMA FDD V; Communication System Band: UMTS band V; Frequency: 836.4 MHz

Medium Parameters used: $f=836.4$ MHz; $\sigma = 0.983$ S/m; $\epsilon_r = 53.022$; $\rho = 1.000$ g/cm³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6 - SN1644; ConvF: (6.06,6.06,6.06); Calibrated: 11/13/2012;
- Sensor-Surface: 4 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.4(1052); SEMCAD X Version 14.6.8 (7028)

MHS_10mm_Body_SAR_Configuration_UMTS_Band_V/MHS_10mm_Spacer_Device_Back_UMTS_Band_V_Mid_chan_Amb_Temp_23.2C_Liq_Temp_21.3C/Area

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

Reference Value = 19.625 V/m; **Power Drift = -0.00193 dB**

MHS_10mm_Body_SAR_Configuration_UMTS_Band_V/MHS_10mm_Spacer_Device_Back_UMTS_Band_V_Mid_chan_Amb_Temp_23.2C_Liq_Temp_21.3C/Zoom Scan (5x5x7) (26x31x36)/Cube 0:

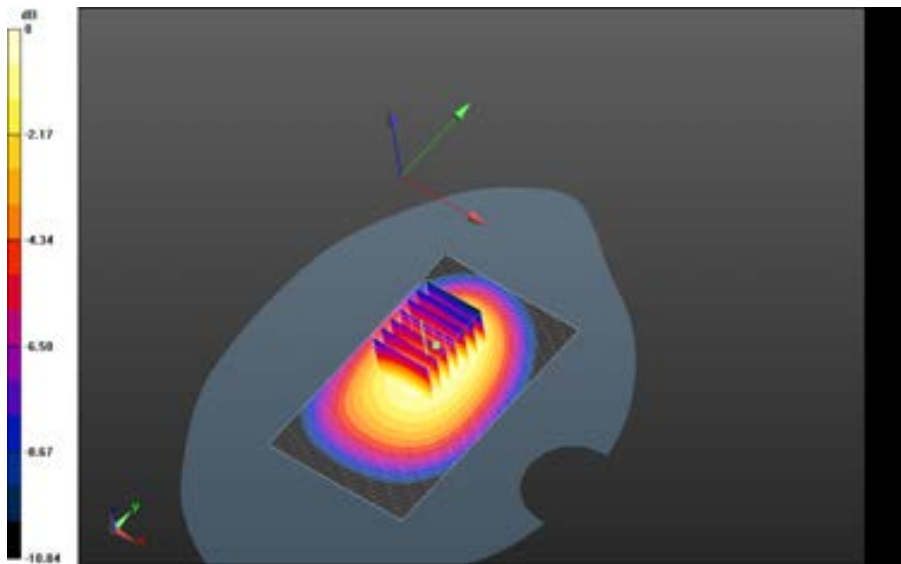
Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 19.625 V/m; **Power Drift = -0.00193 dB**

Averaged SAR: SAR(1g) = 0.380 W/kg; SAR(10g) = 0.283 W/kg

Maximum value of SAR (interpolated) = 0.538 W/kg

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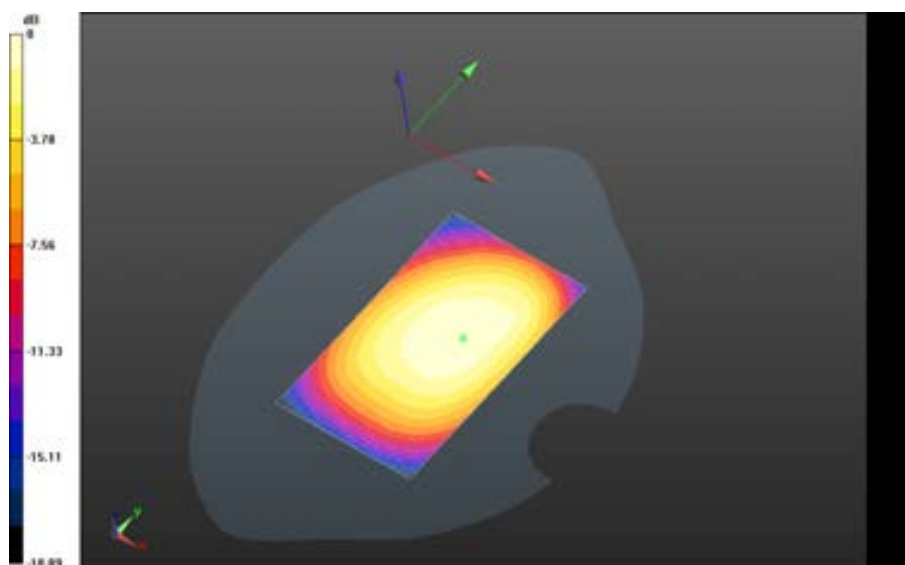


0 dB = 0.400 W/kg = -3.98 dBW/kg

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Author Data Andrew Becker	Dates of Test Nov 26, 2012- Feb 28, 2013, Dec. 10-12, 2014	Test Report No RTS-6026-1302-18 Rev 3	FCC ID: L6ARFN80UW	IC 2503A-RFN80UW

MHS_10mm_Body_SAR_Configuration_UMTS_Band_V/MHS_10mm_Spacer_Device_Front_UMTS_Band_V_Mid_chan_Amb_Temp_23.2C_Liq_Temp_21.4C/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 18.921 V/m; **Power Drift = -0.029 dB**

Fast SAR: SAR(1g) = 0.343 W/kg; SAR(10g) = 0.241 W/kg
Maximum value of SAR (interpolated) = 0.364 W/kg

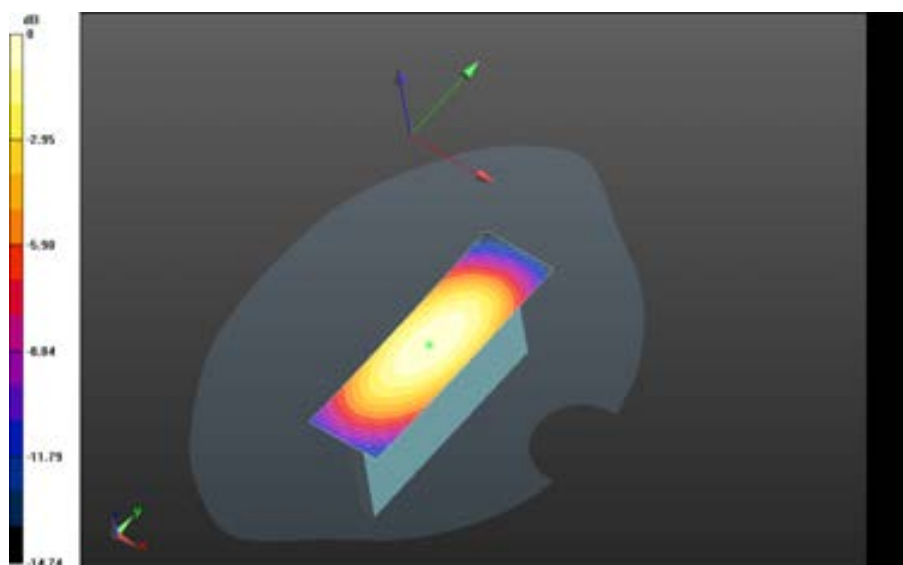


0 dB = 0.400 W/kg = -3.98 dBW/kg

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MHS_10mm_Body_SAR_Configuration_UMTS_Band_V/MHS_10mm_Spacer_Device_Left_UMTS_Band_V_Mid_chan_Amb_Temp_23.2C_Liq_Temp_21.4C/Area Scan (31x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 19.802 V/m; **Power Drift = 0.046 dB**

Fast SAR: SAR(1g) = 0.341 W/kg; SAR(10g) = 0.237 W/kg
Maximum value of SAR (interpolated) = 0.363 W/kg

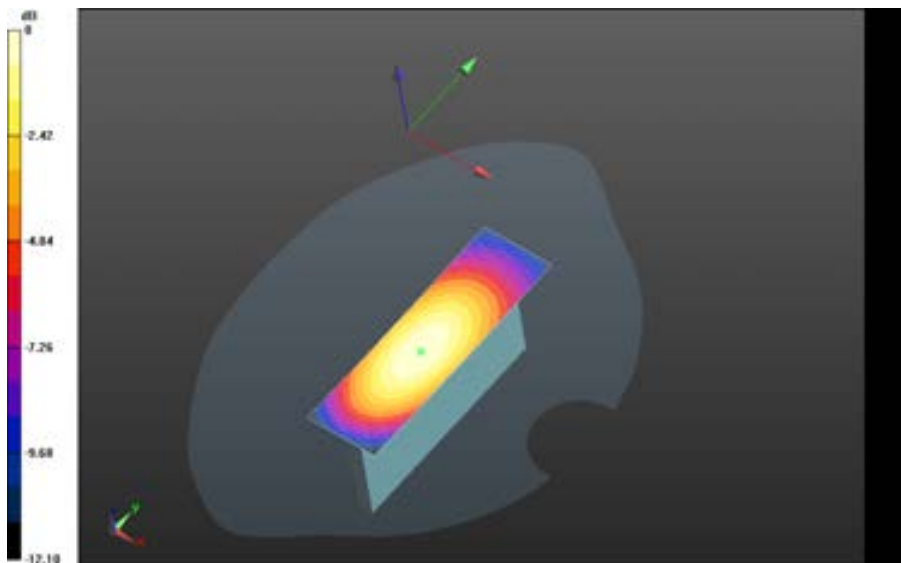


0 dB = 0.364 W/kg = -4.39 dBW/kg

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Author Data Andrew Becker	Dates of Test Nov 26, 2012- Feb 28, 2013, Dec. 10-12, 2014	Test Report No RTS-6026-1302-18 Rev 3	FCC ID: L6ARFN80UW	IC 2503A-RFN80UW

MHS_10mm_Body_SAR_Configuration_UMTS_Band_V/MHS_10mm_Spacer_Device_Right_UMTS_Band_V_Mid_chan_Amb_Temp_23.2C_Liq_Temp_21.4C/Area Scan (31x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 15.509 V/m; **Power Drift = 0.040 dB**

Fast SAR: SAR(1g) = 0.203 W/kg; SAR(10g) = 0.140 W/kg
Maximum value of SAR (interpolated) = 0.216 W/kg

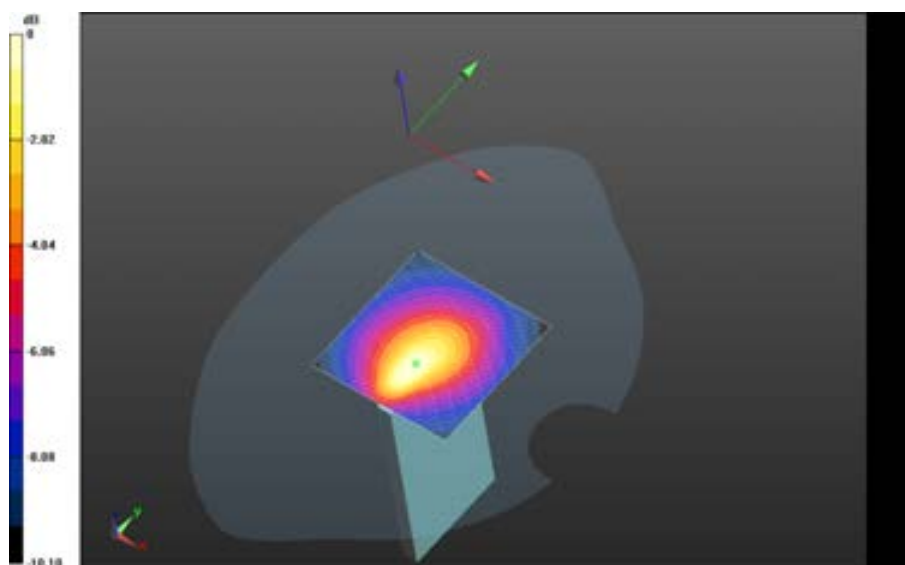


0 dB = 0.363 W/kg = -4.40 dBW/kg

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MHS_10mm_Body_SAR_Configuration_UMTS_Band_V/MHS_10mm_Spacer_Device_Bottom_UMTS_Band_V_Mid_chan_Amb_Temp_23.1C_Liq_Temp_21.4C/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 8.692 V/m; **Power Drift = -0.086 dB**

Fast SAR: SAR(1g) = 0.0736 W/kg; SAR(10g) = 0.0461 W/kg
Maximum value of SAR (interpolated) = 0.0821 W/kg

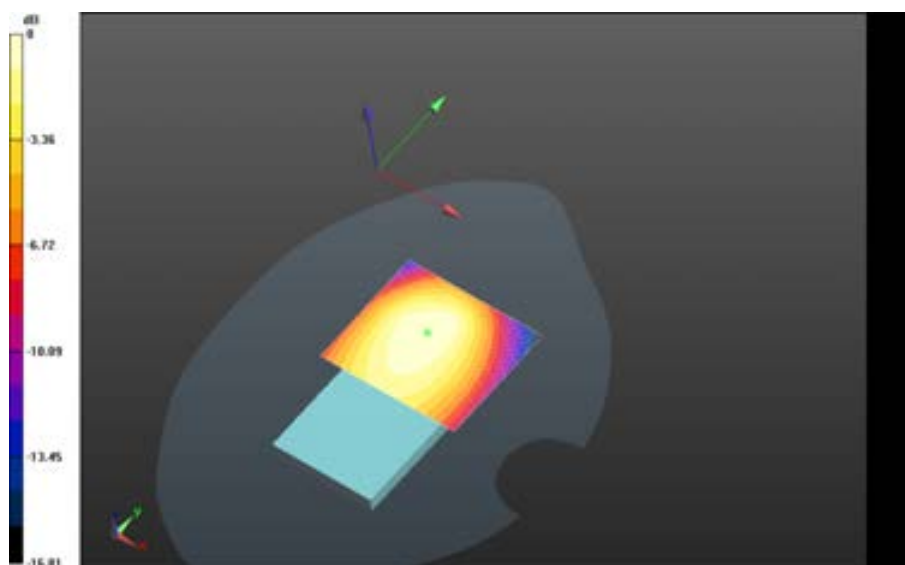


0 dB = 0.216 W/kg = -6.66 dBW/kg

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Author Data Andrew Becker		Dates of Test Nov 26, 2012- Feb 28, 2013, Dec. 10-12, 2014	Test Report No RTS-6026-1302-18 Rev 3	FCC ID: L6ARFN80UW	IC 2503A-RFN80UW

MHS_10mm_Body_SAR_Configuration_UMTS_Band_V/MHS_10mm_Spacer_Device_Back+HS_UMTS_Band_V_Mid_chan_Amb_Temp_23.3C_Liq_Temp_21.3C/Area Scan (61x51x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 16.915 V/m; **Power Drift = -0.055 dB**

Fast SAR: SAR(1g) = 0.361 W/kg; SAR(10g) = 0.245 W/kg
Maximum value of SAR (interpolated) = 0.382 W/kg

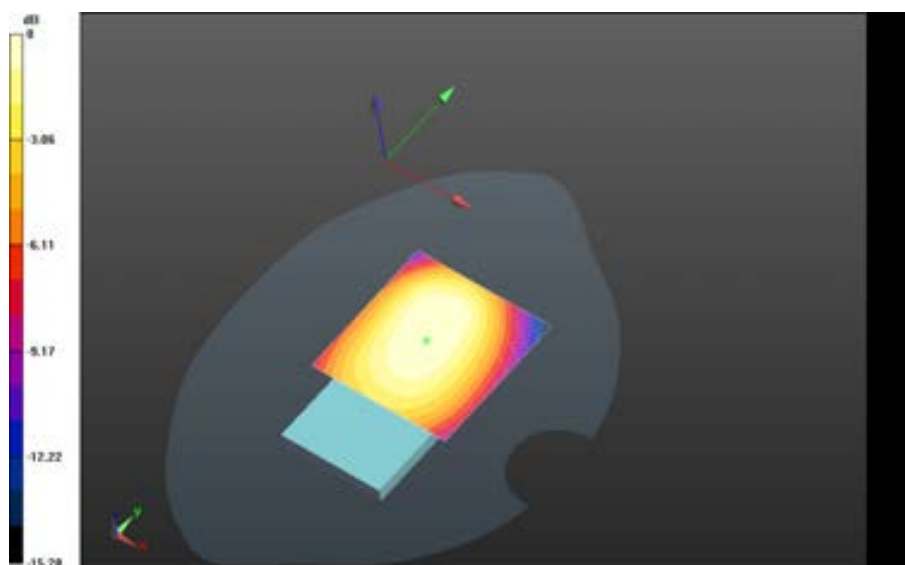


0 dB = 0.0821 W/kg = -10.86 dBW/kg

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MHS_10mm_Body_SAR_Configuration_UMTS_Band_V/MHS_10mm_Spacer_Device_Back_2100mA_UMTS_Band_V_Mid_chan_Amb_Temp_23.1C_Liq_Temp_21.3C/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 18.844 V/m; **Power Drift = 0.042 dB**

Fast SAR: SAR(1g) = 0.384 W/kg; SAR(10g) = 0.269 W/kg
Maximum value of SAR (interpolated) = 0.401 W/kg



0 dB = 0.382 W/kg = -4.18 dBW/kg

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GPRS 1900

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Date/Time: 11/27/2012 2:03:58 PM

Test Laboratory: RIM Testing Services

**MHS_10mm_Spacer_Back_GPRS1900_low_chan_amb_temp_24.0_liq_
temp_22.5C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25CF0BA5

Communication System: GPRS 1900; Frequency: 1850.2 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.475$ mho/m; $\epsilon_r = 50.869$;
 $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.92, 4.92, 4.92); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position -/Area Scan (61x111x1): Measurement grid:
 $dx=15$ mm, $dy=15$ mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.150 mW/g

Configuration/Touch position -/Zoom Scan (5x5x7) (6x6x7)/Cube 0:

Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 10.941 V/m; Power Drift = -0.0075 dB

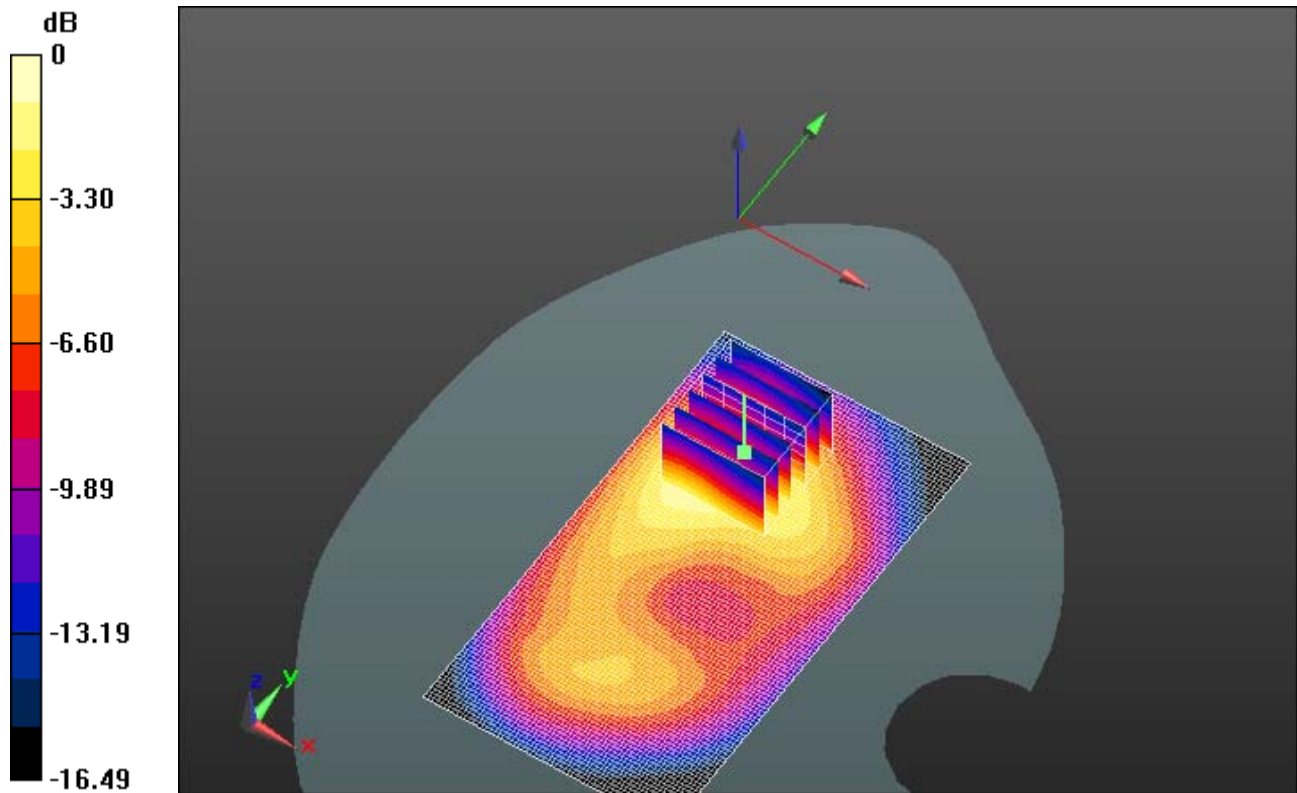
Peak SAR (extrapolated) = 1.5530

SAR(1 g) = 0.913 mW/g; SAR(10 g) = 0.526 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.078 mW/g

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0 dB = 1.080mW/g = 0.67 dB mW/g

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Date/Time: 11/27/2012 9:44:34 PM

Test Laboratory: RIM Testing Services

MHS_10mm_Spacer_Back_GPRS1900_low_2nd

Scan_chan_amb_temp_24.6_liq_temp_21.3C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25CF0BA5

Communication System: GPRS 1900; Frequency: 1850.2 MHz

Medium parameters used (interpolated): $f = 1850.2 \text{ MHz}$; $\sigma = 1.475 \text{ mho/m}$; $\epsilon_r = 50.869$;
 $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.92, 4.92, 4.92); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position -/Area Scan (61x111x1): Measurement grid:
 $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.144 mW/g

Configuration/Touch position -/Zoom Scan (5x5x7) (6x6x7)/Cube 0:

Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.937 V/m; Power Drift = -0.11 dB

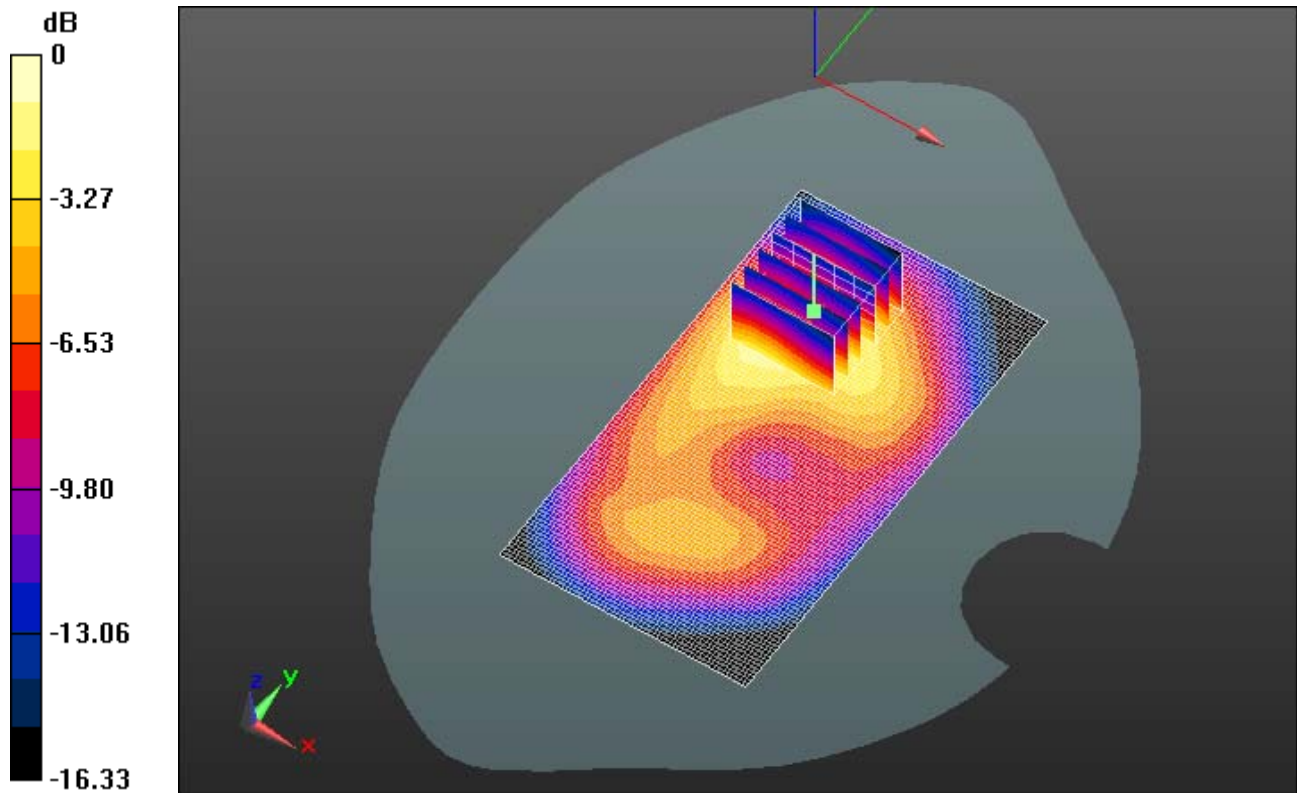
Peak SAR (extrapolated) = 1.5930

SAR(1 g) = 0.921 mW/g; SAR(10 g) = 0.529 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.125 mW/g

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0 dB = 1.120mW/g = 0.98 dB mW/g

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Date/Time: 11/27/2012 12:57:40 PM

Test Laboratory: RIM Testing Services

**MHS_10mm_Spacer_Back_GPRS1900_mid_chan_amb_temp_24.0_liq_
temp_22.4C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25CF0BA5

Communication System: GPRS 1900; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.499 \text{ mho/m}$; $\epsilon_r = 50.828$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.92, 4.92, 4.92); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position -/Area Scan (61x111x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.107 mW/g

Configuration/Touch position -/Zoom Scan (5x5x7) (6x6x7)/Cube 0:

Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

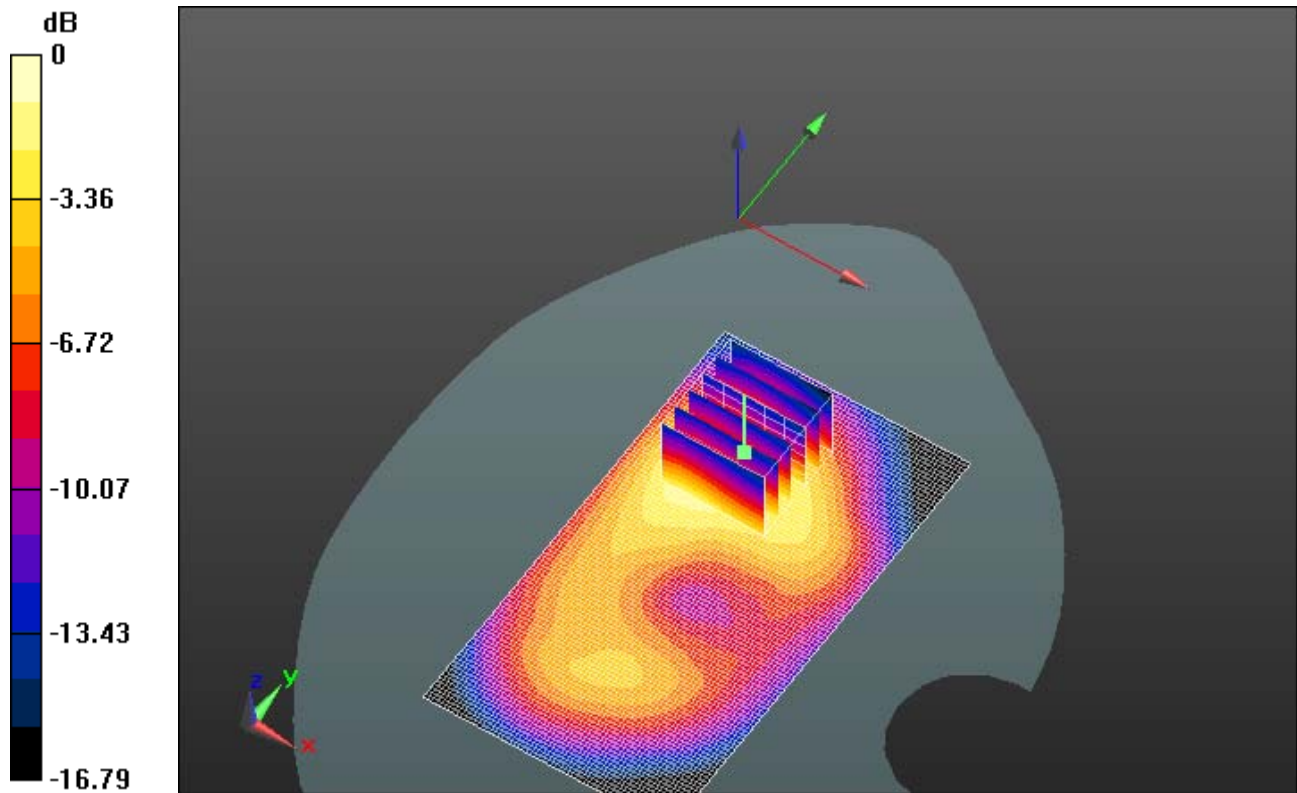
Reference Value = 9.369 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.4800

SAR(1 g) = 0.863 mW/g; SAR(10 g) = 0.494 mW/g

Maximum value of SAR (measured) = 1.021 mW/g

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0 dB = 1.020mW/g = 0.17 dB mW/g

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Date/Time: 11/27/2012 2:24:53 PM

Test Laboratory: RIM Testing Services

**MHS_10mm_Spacer_Back_GPRS1900_high_chan_amb_temp_24.0_liq
_temp_22.5C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25CF0BA5

Communication System: GPRS 1900; Frequency: 1909.8 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.527$ mho/m; $\epsilon_r = 50.643$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.92, 4.92, 4.92); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position -/Area Scan (61x111x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.057 mW/g

Configuration/Touch position -/Zoom Scan (5x5x7) (6x6x7)/Cube 0:

Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

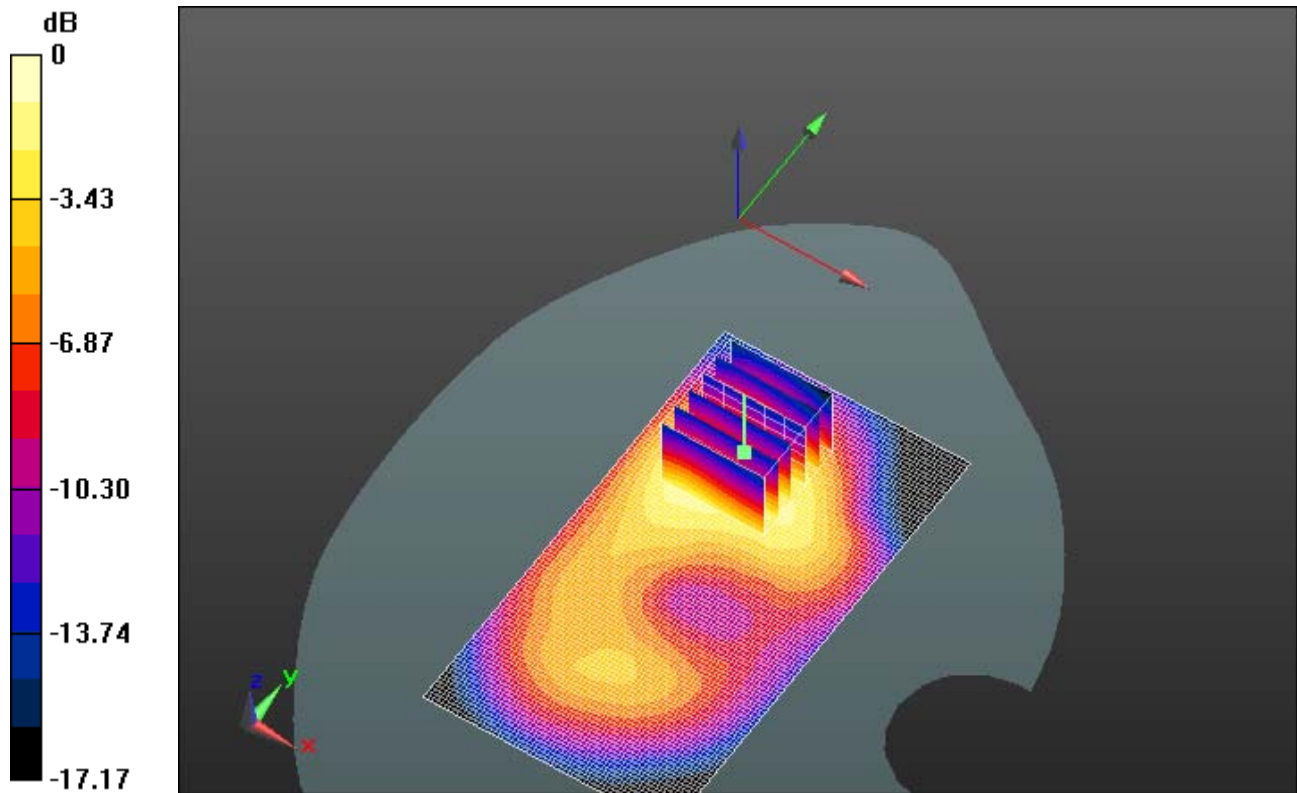
Reference Value = 8.910 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.4420

SAR(1 g) = 0.827 mW/g; SAR(10 g) = 0.468 mW/g

Maximum value of SAR (measured) = 0.984 mW/g

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0 dB = 0.980mW/g = -0.18 dB mW/g

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Date/Time: 11/27/2012 5:38:36 PM

Test Laboratory: RIM Testing Services

MHS_10mm_Spacer_Front_GPRS1900_mid_chan_amb_temp_23.8_liq_ temp_21.5C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25CF0BA5

Communication System: GPRS 1900; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.499 \text{ mho/m}$; $\epsilon_r = 50.828$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.92, 4.92, 4.92); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position -/Area Scan (61x111x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.625 mW/g

Configuration/Touch position -/Zoom Scan (5x5x7) (7x7x7)/Cube 0:

Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.692 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.8330

SAR(1 g) = 0.498 mW/g; SAR(10 g) = 0.300 mW/g

Maximum value of SAR (measured) = 0.599 mW/g

Configuration/Touch position -/Zoom Scan 2 (5x5x7) (6x7x7)/Cube 0:

Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

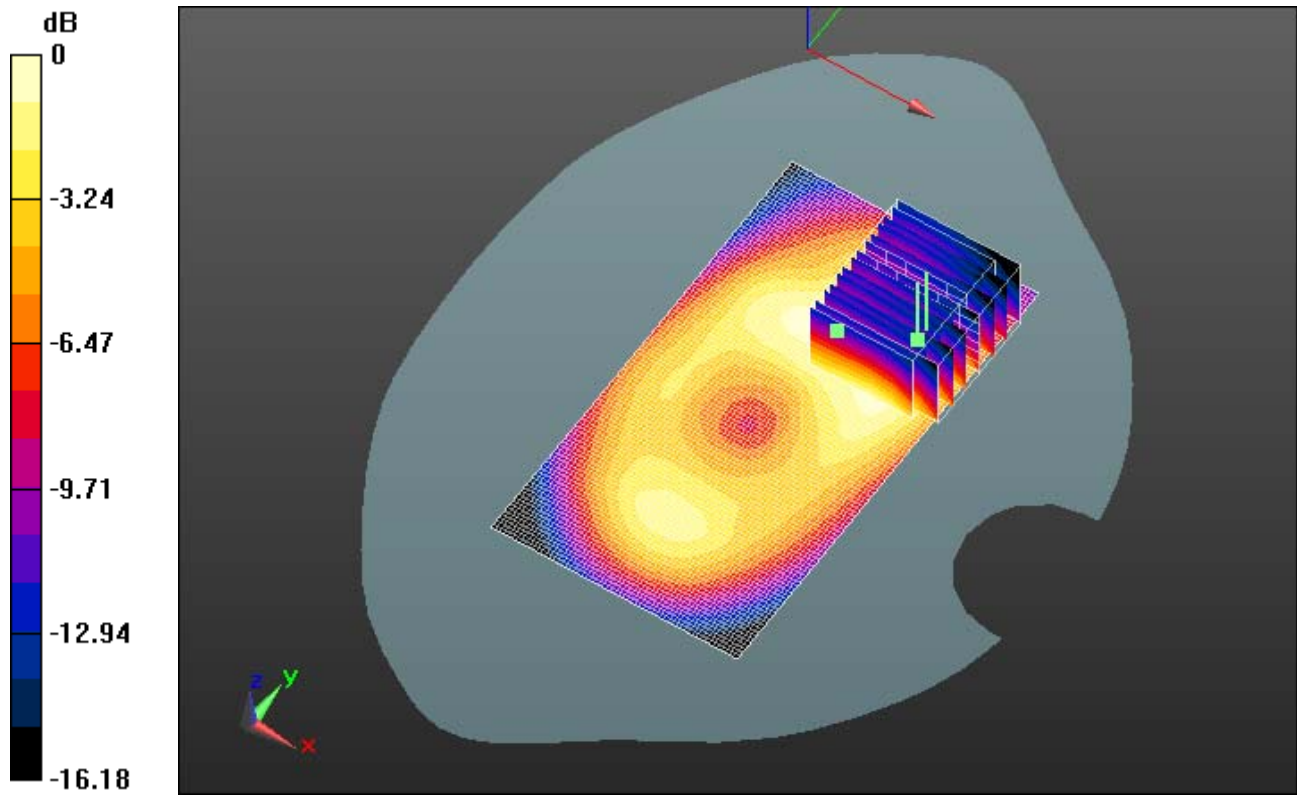
Reference Value = 8.692 V/m; Power Drift = -0.26 dB

Peak SAR (extrapolated) = 0.8220

SAR(1 g) = 0.489 mW/g; SAR(10 g) = 0.295 mW/g

Maximum value of SAR (measured) = 0.586 mW/g

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0 dB = 0.590mW/g = -4.58 dB mW/g

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Date/Time: 11/27/2012 6:38:01 PM

Test Laboratory: RIM Testing Services

**MHS_10mm_Spacer_Left_GPRS1900_mid_chan_amb_temp_23.9_liq_t
emp_21.5C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25CF0BA5

Communication System: GPRS 1900; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.499 \text{ mho/m}$; $\epsilon_r = 50.828$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.92, 4.92, 4.92); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position -/Area Scan (41x111x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.374 mW/g

Configuration/Touch position -/Zoom Scan (5x5x7) (6x6x7)/Cube 0:

Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

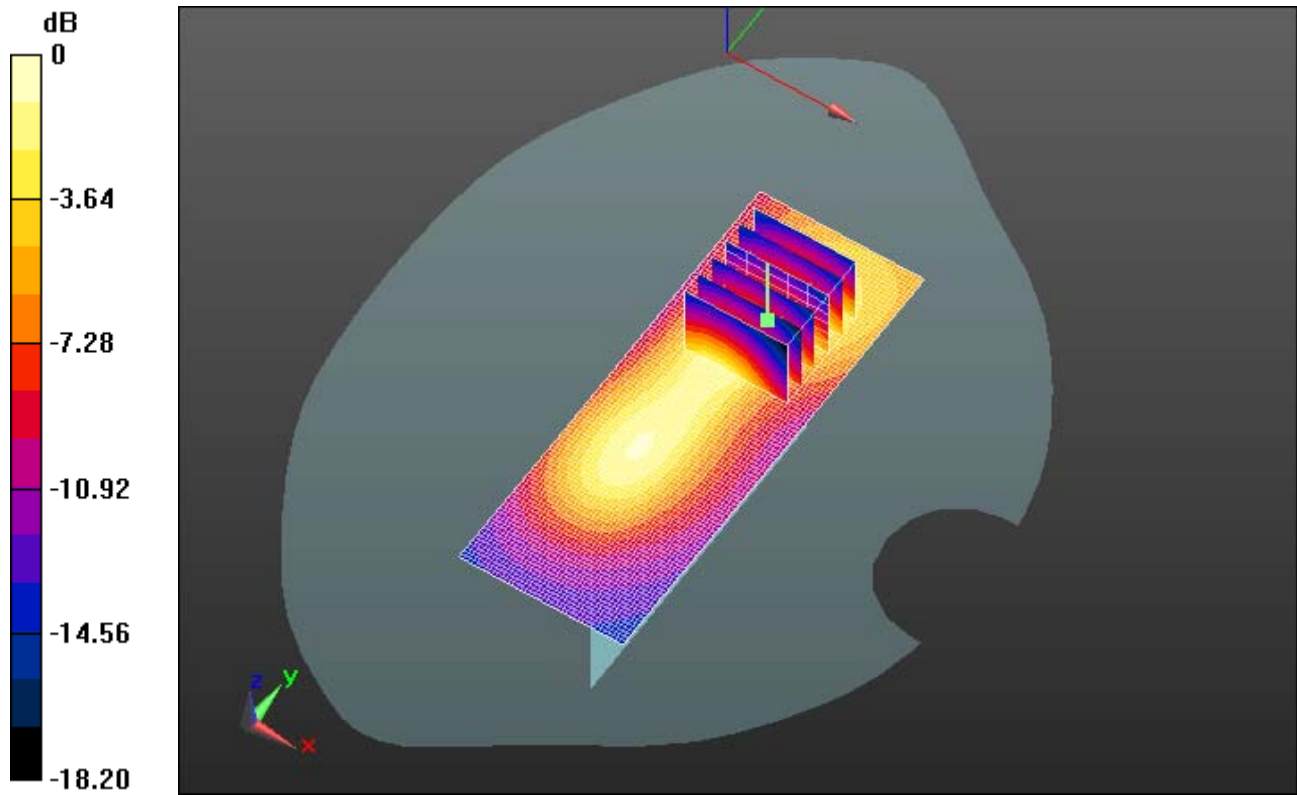
Reference Value = 13.541 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.5250

SAR(1 g) = 0.305 mW/g; SAR(10 g) = 0.173 mW/g

Maximum value of SAR (measured) = 0.376 mW/g

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0 dB = 0.380mW/g = -8.40 dB mW/g

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Date/Time: 11/27/2012 6:56:29 PM

Test Laboratory: RIM Testing Services

MHS_10mm_Spacer_Right_GPRS1900_mid_chan

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25CF0BA5

Communication System: GPRS 1900; Communication System Band: GPRS 1900;
Frequency: 1880 MHz; Communication System PAR: 6.232 dB; PMF: 2.04927
Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.499 \text{ S/m}$; $\epsilon_r = 50.828$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

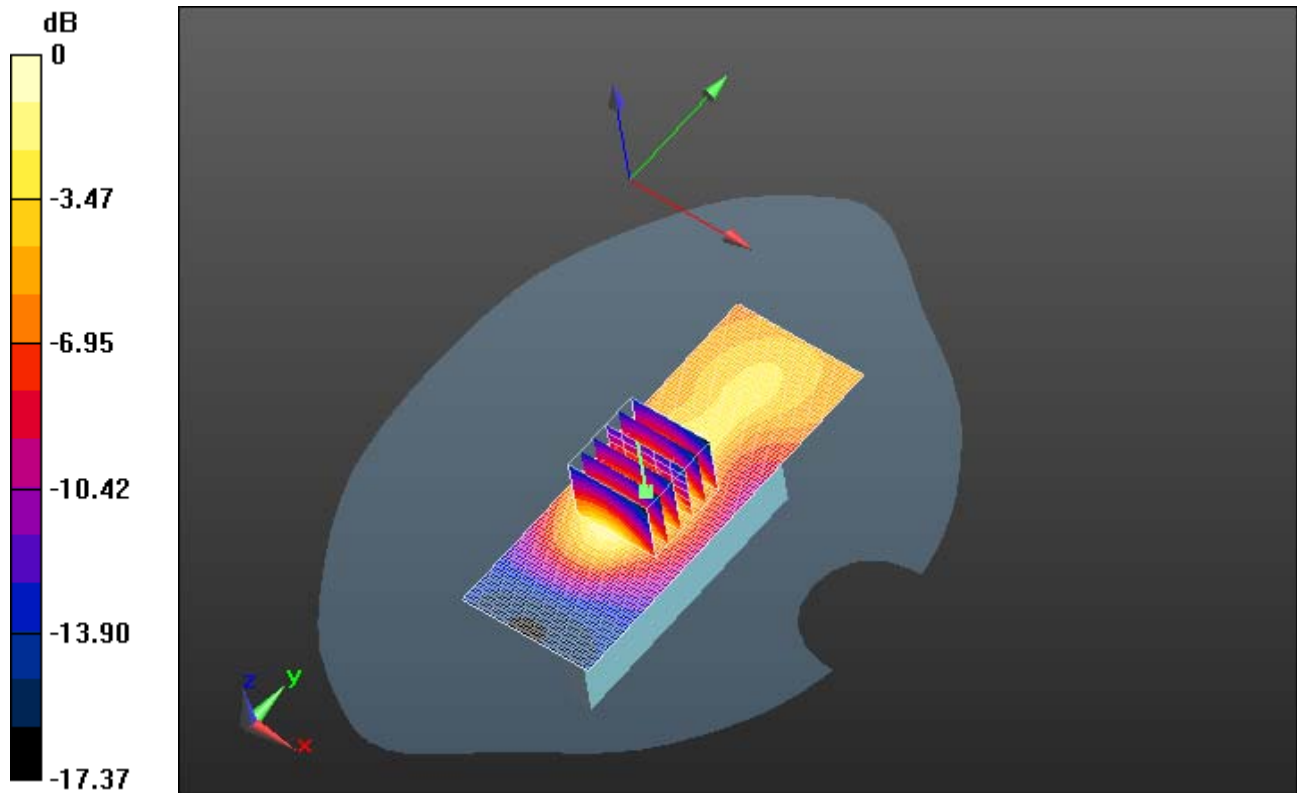
DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.92, 4.92, 4.92); Calibrated: 1/11/2012;
 - Modulation Compensation: **Not calibrated**
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.0(692); SEMCAD X 14.6.8(7028)

Configuration/Touch position -/Area Scan (41x111x1): Interpolated grid:
 $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Maximum value of SAR (interpolated) = 0.230 W/kg

Configuration/Touch position -/Zoom Scan (5x5x7) (6x6x7)/Cube 0:
Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$
Reference Value = 12.490 V/m ; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.298 W/kg
SAR(1 g) = 0.184 W/kg ; SAR(10 g) = 0.110 W/kg
Maximum value of SAR (measured) = 0.221 W/kg

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0 dB = 0.221 W/kg = -6.56 dBW/kg

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Date/Time: 11/27/2012 7:30:57 PM

Test Laboratory: RIM Testing Services

**MHS_10mm_Spacer_Bottom_GPRS1900_mid_chan_amb_temp_24.2_li
q_temp_21.6C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25CF0BA5

Communication System: GPRS 1900; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.499 \text{ mho/m}$; $\epsilon_r = 50.828$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.92, 4.92, 4.92); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position -/Area Scan (41x81x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.650 mW/g

Configuration/Touch position -/Zoom Scan (5x5x7) (6x6x7)/Cube 0:

Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

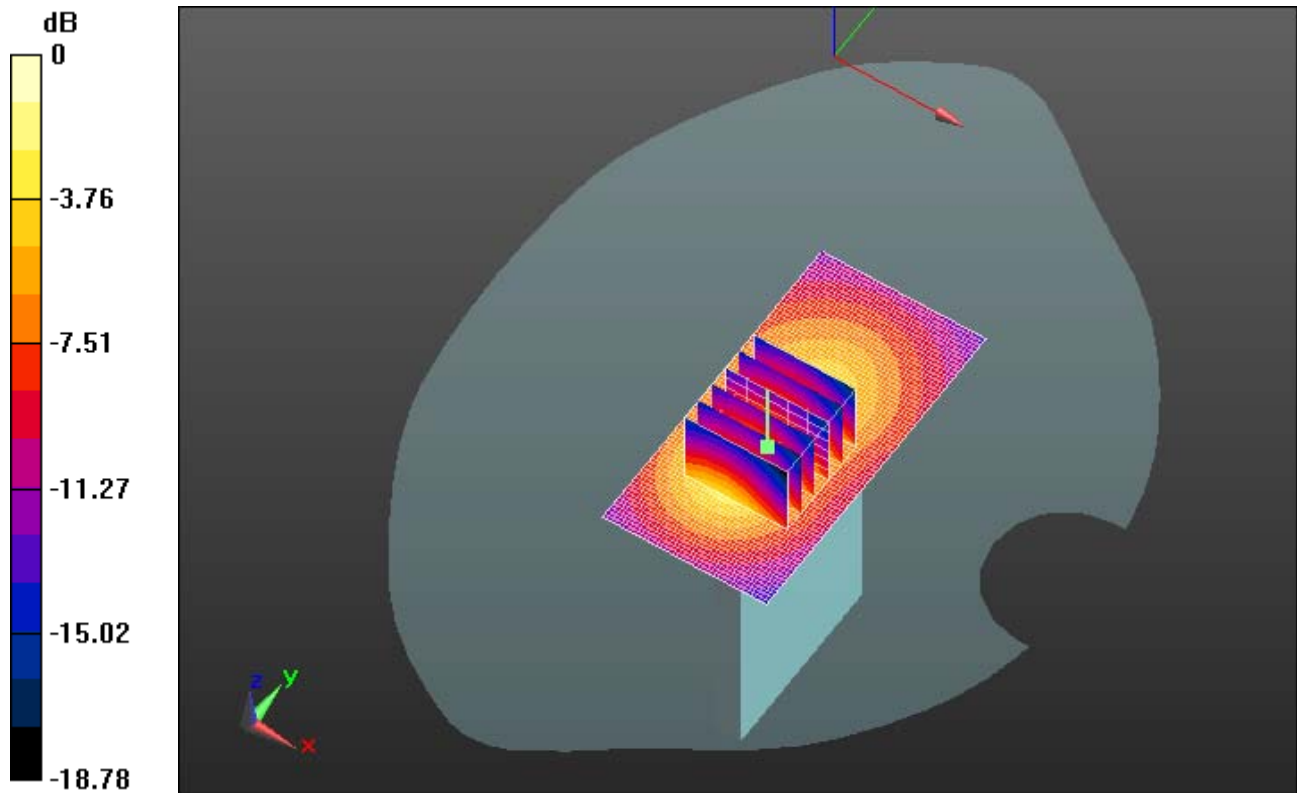
Reference Value = 20.173 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.8780

SAR(1 g) = 0.521 mW/g; SAR(10 g) = 0.292 mW/g

Maximum value of SAR (measured) = 0.646 mW/g

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0 dB = 0.650mW/g = -3.74 dB mW/g

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Date/Time: 11/27/2012 8:38:20 PM

Test Laboratory: RIM Testing Services

**MHS_10mm_Spacer_Back_Headset_GPRS1900_low_chan_amb_temp
_24.8_liq_temp_21.3C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25CF0BA5

Communication System: GPRS 1900; Frequency: 1850.2 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.475$ mho/m; $\epsilon_r = 50.869$;
 $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.92, 4.92, 4.92); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position -/Area Scan (61x111x1): Measurement grid:
dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.094 mW/g

Configuration/Touch position -/Zoom Scan (5x5x7) (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.016 V/m; Power Drift = -0.06 dB

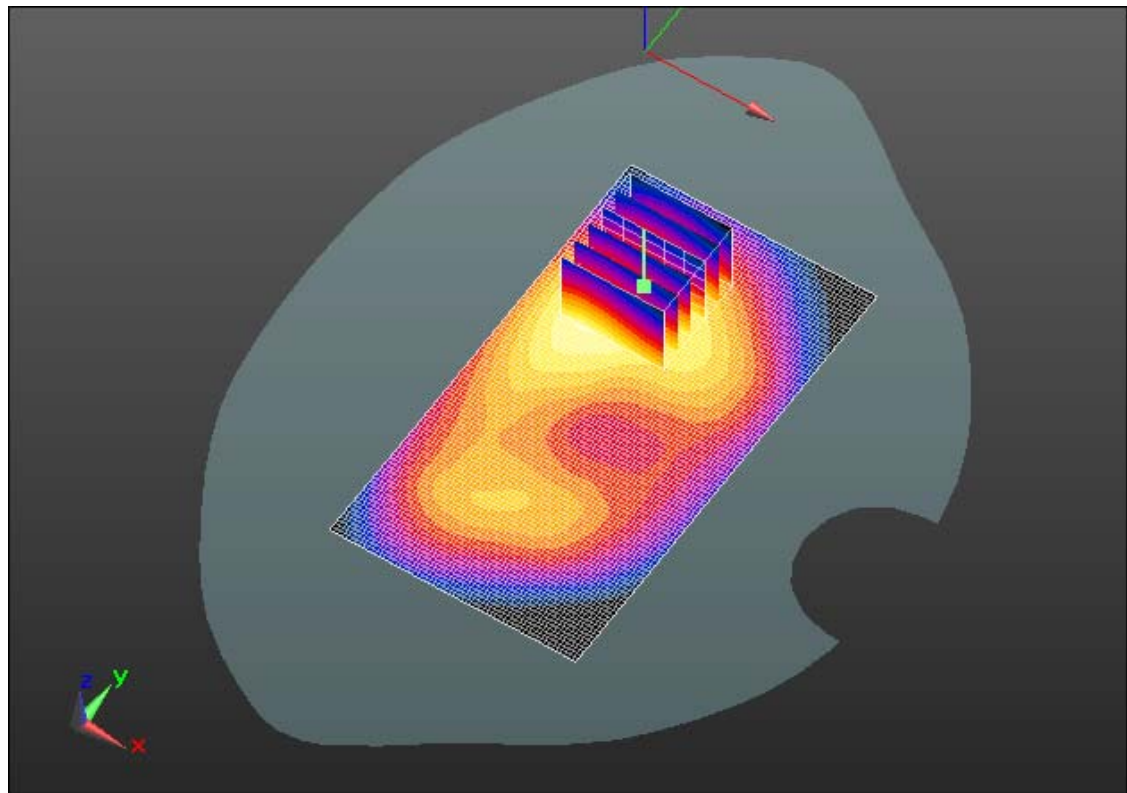
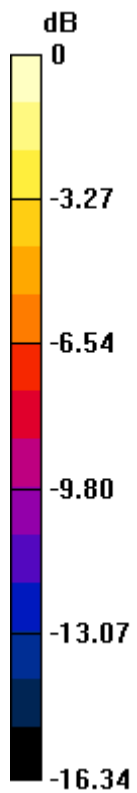
Peak SAR (extrapolated) = 1.4920

SAR(1 g) = 0.886 mW/g; SAR(10 g) = 0.517 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.034 mW/g

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0 dB = 1.030mW/g = 0.26 dB mW/g

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Date/Time: 11/27/2012 9:02:10 PM

Test Laboratory: RIM Testing Services

**MHS_10mm_Spacer_Back_GPRS1900_3-
slots_low_chan_amb_temp_24.8_liq_temp_21.3C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25CF0BA5

Communication System: GPRS 1900 (3-slots); Frequency: 1850.2 MHz
Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.475$ mho/m; $\epsilon_r = 50.869$;
 $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.92, 4.92, 4.92); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position -/Area Scan (61x111x1): Measurement grid:
 $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.923 mW/g

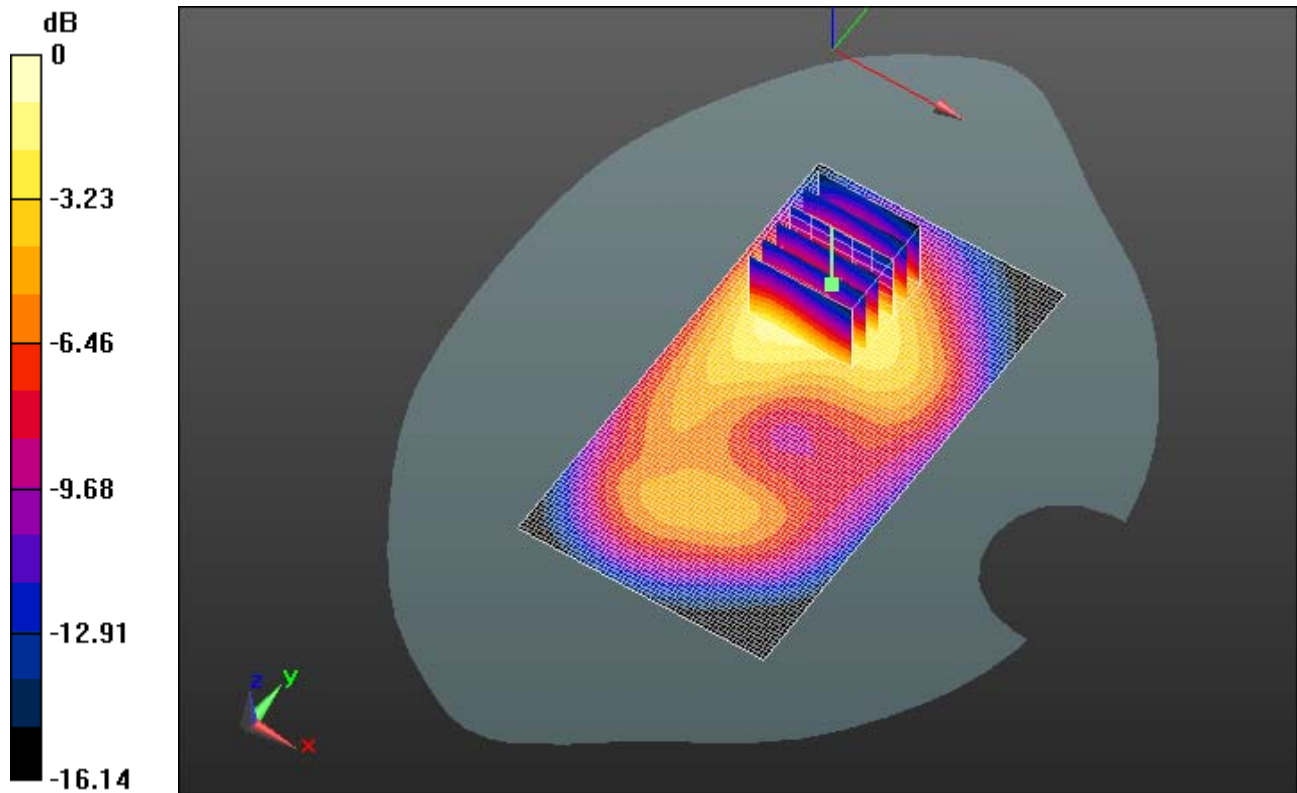
Configuration/Touch position -/Zoom Scan (5x5x7) (6x6x7)/Cube 0:

Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$
Reference Value = 9.881 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 1.2470
SAR(1 g) = 0.739 mW/g; SAR(10 g) = 0.427 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.893 mW/g

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0 dB = 0.890mW/g = -1.01 dB mW/g

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Date/Time: 11/27/2012 9:22:03 PM

Test Laboratory: RIM Testing Services

**MHS_10mm_Spacer_Back_GPRS1900_4-
slots_low_chan_amb_temp_24.6_liq_temp_21.3C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25CF0BA5

Communication System: GPRS 1900 (4-slots); Frequency: 1850.2 MHz
Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.475$ mho/m; $\epsilon_r = 50.869$;
 $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.92, 4.92, 4.92); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position -/Area Scan (61x111x1): Measurement grid:
dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.074 mW/g

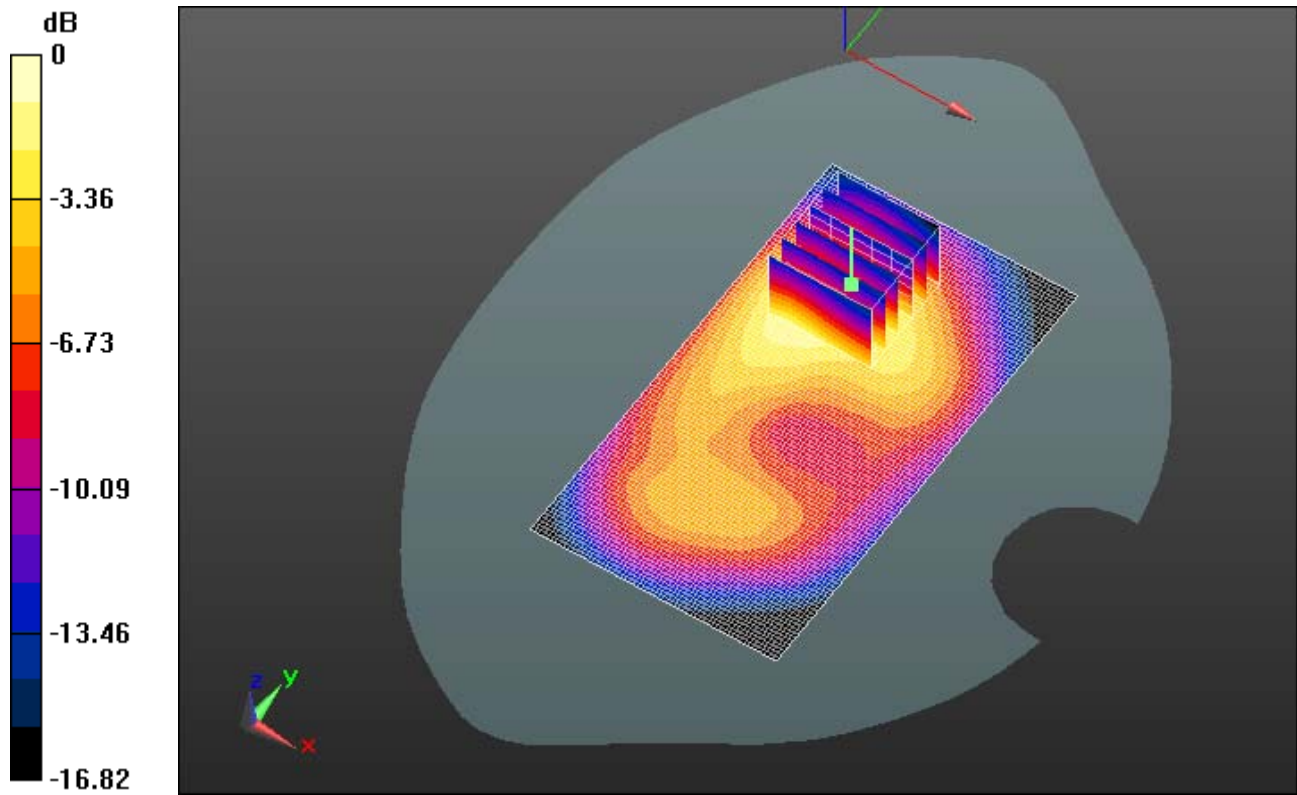
Configuration/Touch position -/Zoom Scan (5x5x7) (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 10.480 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.4280
SAR(1 g) = 0.847 mW/g; SAR(10 g) = 0.489 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.009 mW/g

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0 dB = 1.010mW/g = 0.09 dB mW/g

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Date/Time: 12/2/2012 7:03:15 PM

Test Laboratory: RIM Testing Services

**MHS_10mm_Spacer_Back_GPRS1900_low_chan_amb_temp_24.3_liq_
temp_21.9C_2100**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25CF0BA5

Communication System: GPRS 1900; Frequency: 1850.2 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.45$ mho/m; $\epsilon_r = 52.375$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.92, 4.92, 4.92); Calibrated: 1/11/2012
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASYS 52.8.0(692); SEMCAD X 14.6.4(4989)

Configuration/Touch position -/Area Scan (61x111x1): Measurement grid:
dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.136 mW/g

Configuration/Touch position -/Zoom Scan (5x5x7) (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.037 V/m; Power Drift = -0.0025 dB

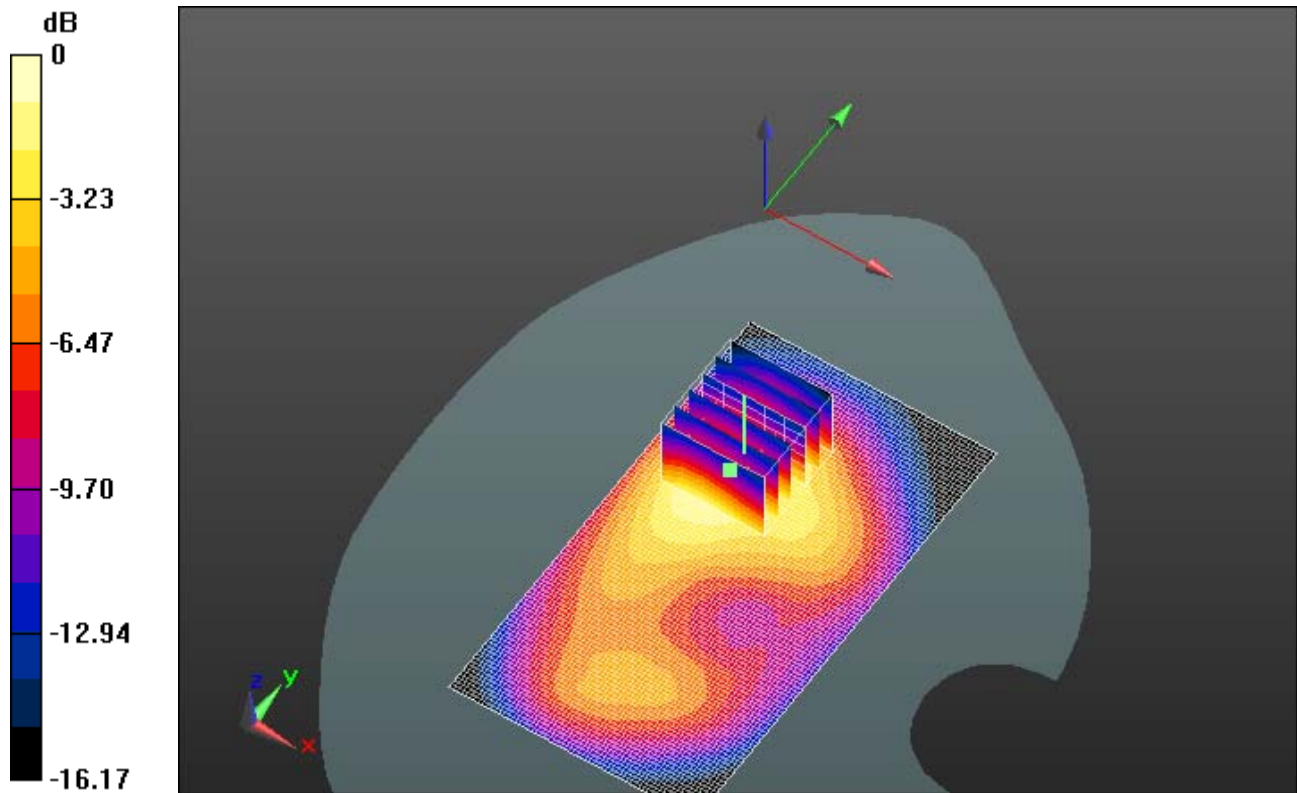
Peak SAR (extrapolated) = 1.5830

SAR(1 g) = 0.942 mW/g; SAR(10 g) = 0.549 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.138 mW/g

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0 dB = 1.140mW/g = 1.14 dB mW/g

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UMTS Band II

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Date: 1/30/2013

Test Lab: RIM Testing Services

DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2AB01FAD

Configuration: MHS_10mm_Body_SAR_Configuration

Communication System: WCDMA FDD II; Communication System Band: UMTS FDD

II; Frequency: 1907.6 MHz

Medium Parameters used: $f=1907.6$ MHz; $\sigma = 1.571$ S/m; $\epsilon_r = 50.831$; $\rho = 1.000$ g/cm³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6 - SN1644; ConvF: (4.75,4.75,4.75); Calibrated: 11/13/2012;
- Sensor-Surface: 4 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.4(1052); SEMCAD X Version 14.6.8 (7028)

MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_UMTS_II_High_chan_Amb_Temp_23.4C_Liq_Temp_22.5C/Area Scan (61x101x1):

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

Reference Value = 10.388 V/m; **Power Drift = 0.028 dB**

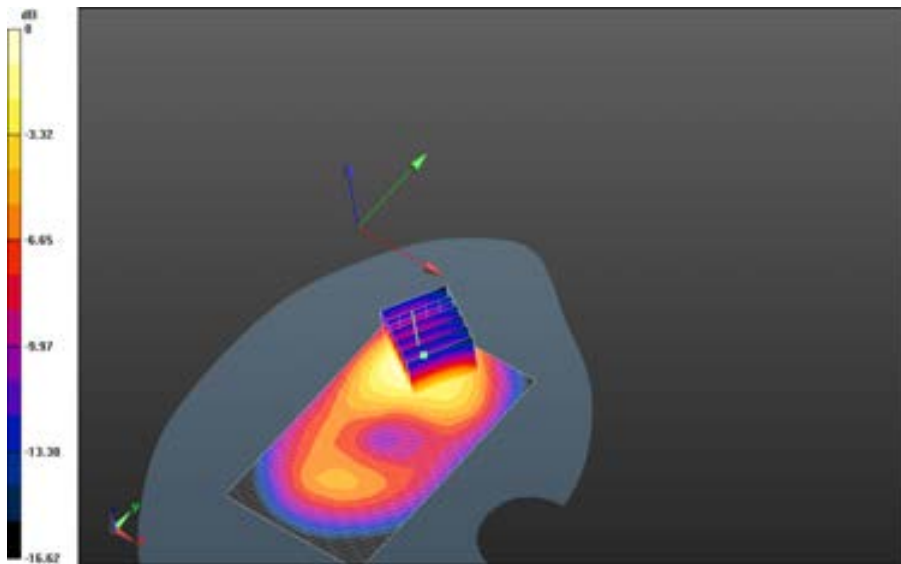
MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_UMTS_II_High_chan_Amb_Temp_23.4C_Liq_Temp_22.5C/Zoom Scan (5x5x7) (26x26x36)/Cube 0: Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 10.388 V/m; **Power Drift = 0.028 dB**

Averaged SAR: SAR(1g) = 1.20 W/kg; SAR(10g) = 0.688 W/kg

Maximum value of SAR (interpolated) = 1.89 W/kg

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0 dB = 1.28 W/kg = 1.07 dBW/kg

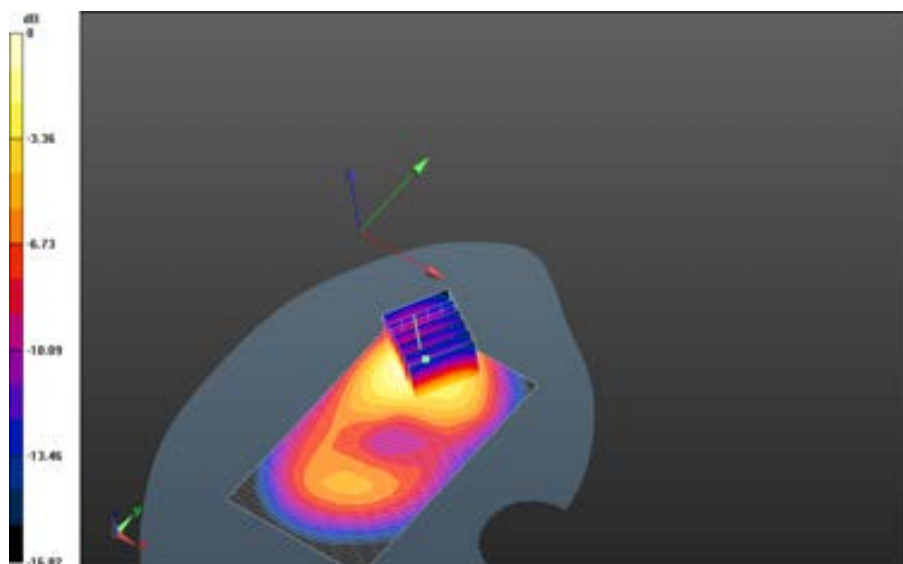
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MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_UMTS_II_Mid_chan_Amb_Temp_23.4C_Liq_Temp_22.5C/Area Scan (61x101x1):
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 10.819 V/m; **Power Drift = 0.103 dB**

MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_UMTS_II_Mid_chan_Amb_Temp_23.4C_Liq_Temp_22.5C/Zoom Scan (5x5x7) (26x26x36)/Cube 0: Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 10.819 V/m; **Power Drift = 0.103 dB**

Averaged SAR: SAR(1g) = 1.10 W/kg; SAR(10g) = 0.629 W/kg
Maximum value of SAR (interpolated) = 1.73 W/kg



0 dB = 1.28 W/kg = 1.07 dBW/kg

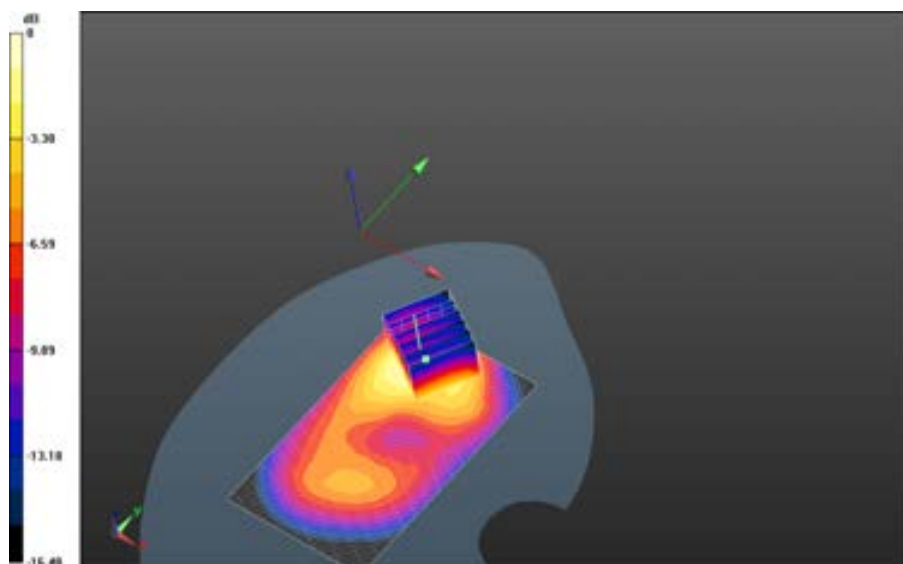
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MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_UMTS_II_Low_chan_Amb_Temp_23.4C_Liq_Temp_22.5C/Area Scan (61x101x1):
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 12.027 V/m; **Power Drift = 0.171 dB**

MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_UMTS_II_Low_chan_Amb_Temp_23.4C_Liq_Temp_22.5C/Zoom Scan (5x5x7) (26x26x36)/Cube 0: Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 12.027 V/m; **Power Drift = 0.171 dB**

Averaged SAR: SAR(1g) = 1.10 W/kg; SAR(10g) = 0.622 W/kg
Maximum value of SAR (interpolated) = 1.74 W/kg

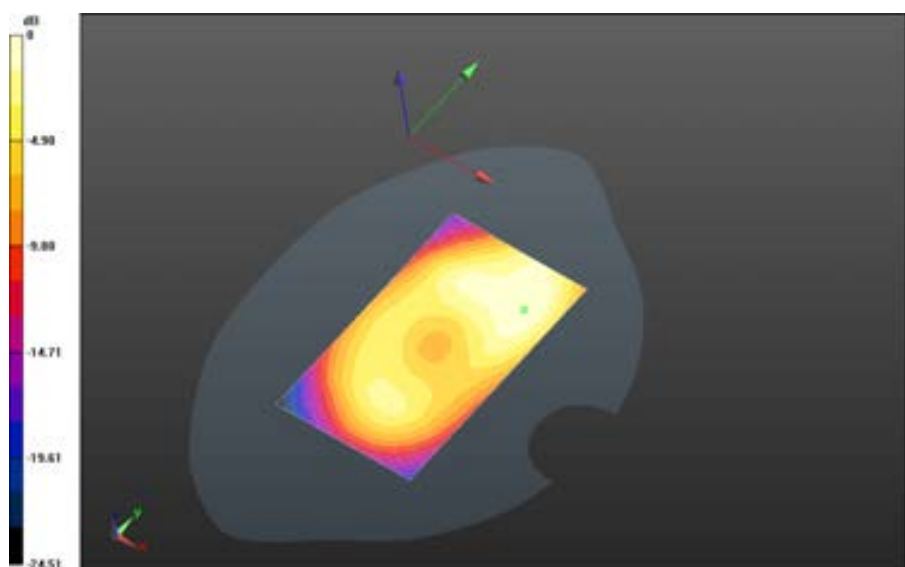


0 dB = 1.18 W/kg = 0.72 dBW/kg

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MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Front_UMT S_II_Mid_chan_Amb_Temp_23.4C_Liq_Temp_22.5C 2/Area Scan (61x101x1):
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 9.639 V/m; **Power Drift = -0.113 dB**

Fast SAR: SAR(1g) = 0.525 W/kg; SAR(10g) = 0.314 W/kg; Secondary SAR(1g) = 0.442 W/kg
Maximum value of SAR (interpolated) = 0.585 W/kg



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

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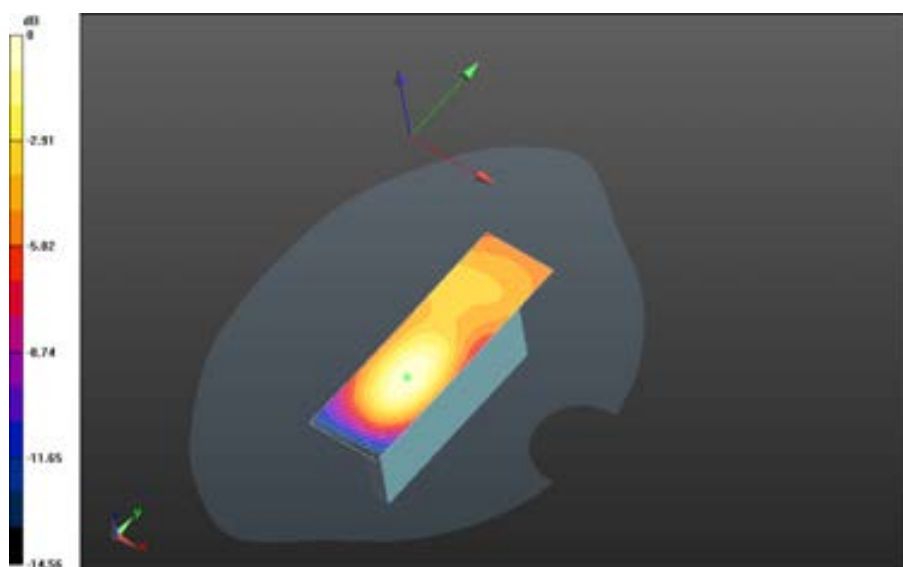
**MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Right_UMTS
_II_Mid_chan_Amb_Temp_23.4C_Liq_Temp_22.3C/Area Scan (31x101x1):**

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

Reference Value = 10.188 V/m; **Power Drift = 0.040 dB**

Fast SAR: SAR(1g) = 0.155 W/kg; SAR(10g) = 0.0902 W/kg; Secondary SAR(1g) = 0.0742 W/kg

Maximum value of SAR (interpolated) = 0.171 W/kg



0 dB = 0.585 W/kg = -2.33 dBW/kg

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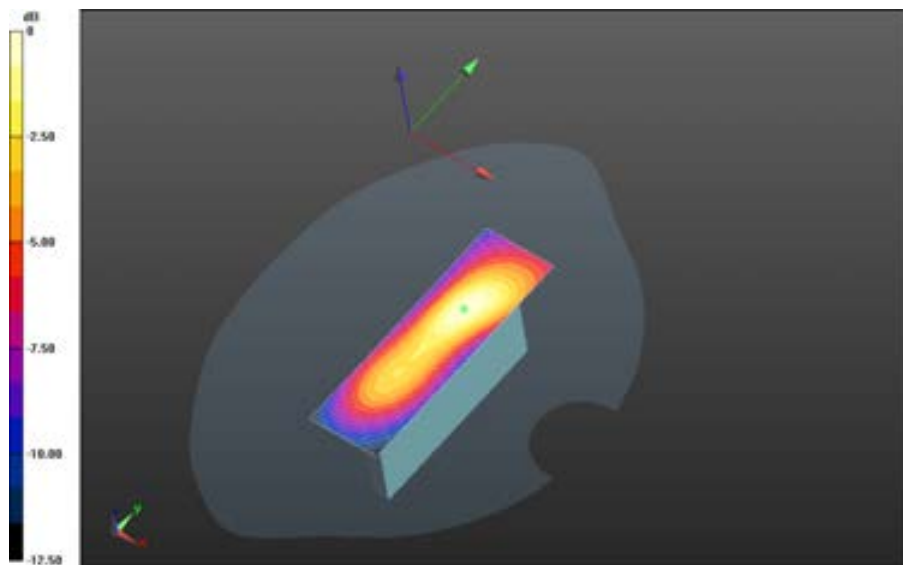
MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Left_UMTS_II_Mid_chan_Amb_Temp_23.4C_Liq_Temp_22.3C/Area Scan (31x101x1):

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

Reference Value = 13.038 V/m; **Power Drift = 0.109 dB**

Fast SAR: SAR(1g) = 0.356 W/kg; SAR(10g) = 0.198 W/kg; Secondary SAR(1g) = 0.212 W/kg

Maximum value of SAR (interpolated) = 0.407 W/kg

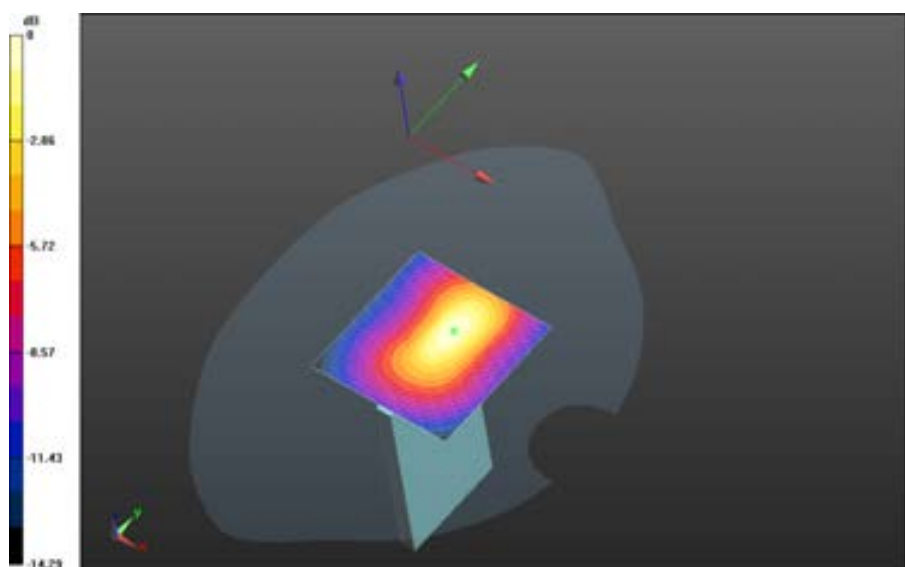


0 dB = 0.171 W/kg = -7.67 dBW/kg

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MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Bottom_UM
TS_II_Mid_chan_Amb_Temp_23.4C_Liq_Temp_22.3C/Area Scan (61x61x1):
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 17.292 V/m; **Power Drift = 0.058 dB**

Fast SAR: SAR(1g) = 0.556 W/kg; SAR(10g) = 0.304 W/kg; Secondary SAR(1g) = 0.212 W/kg
Maximum value of SAR (interpolated) = 0.640 W/kg



0 dB = 0.407 W/kg = -3.90 dBW/kg

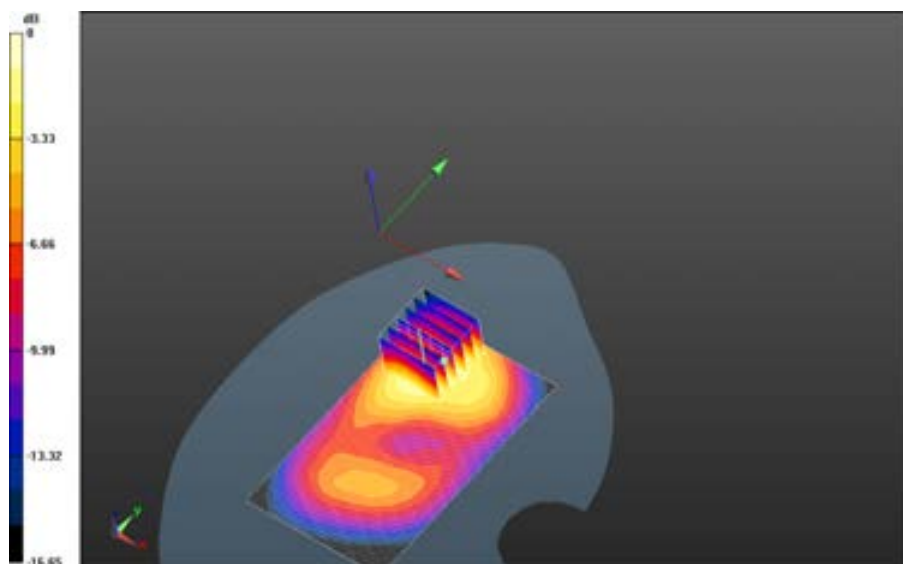
	Document Appendix C2 for the BlackBerry® Smartphone Model RFN81UW SAR Report Rev 2			Page 56(81)
Author Data Andrew Becker	Dates of Test Nov 26, 2012- Feb 28, 2013, Dec. 10-12, 2014	Test Report No RTS-6026-1302-18 Rev 3	FCC ID: L6ARFN80UW	IC 2503A-RFN80UW

MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back+HS_U
MTS_II_Mid_chan_Amb_Temp_23.4C_Liq_Temp_22.5C 2/Area Scan (61x101x1):
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 10.535 V/m; **Power Drift = -0.059 dB**

MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back+H
S_UMTS_II_Mid_chan_Amb_Temp_23.4C_Liq_Temp_22.5C 2/Zoom Scan
(5x5x7) (26x26x36)/Cube 0: Interpolated grid: dx=1.500 mm, dy=1.500 mm,
dz=1.000 mm

Reference Value = 10.535 V/m; **Power Drift = -0.059 dB**

Averaged SAR: SAR(1g) = 1.03 W/kg; SAR(10g) = 0.606 W/kg
Maximum value of SAR (interpolated) = 1.61 W/kg



0 dB = 0.640 W/kg = -1.94 dBW/kg

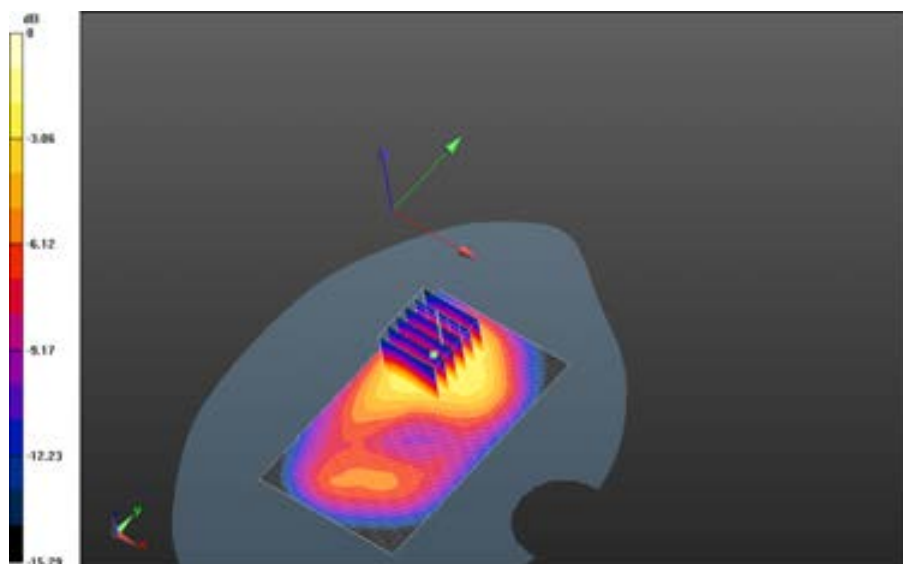
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MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_2100m A_UMTS_II_High_chan_Amb_Temp_23.4C_Liq_Temp_22.5C/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 11.081 V/m; **Power Drift = 0.102 dB**

MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_2100mA_UMTS_II_High_chan_Amb_Temp_23.4C_Liq_Temp_22.5C/Zoom Scan (5x5x7) (26x26x36)/Cube 0: Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 11.081 V/m; **Power Drift = 0.102 dB**

Averaged SAR: SAR(1g) = 1.13 W/kg; SAR(10g) = 0.668 W/kg
Maximum value of SAR (interpolated) = 1.78 W/kg



0 dB = 1.09 W/kg = 0.37 dBW/kg

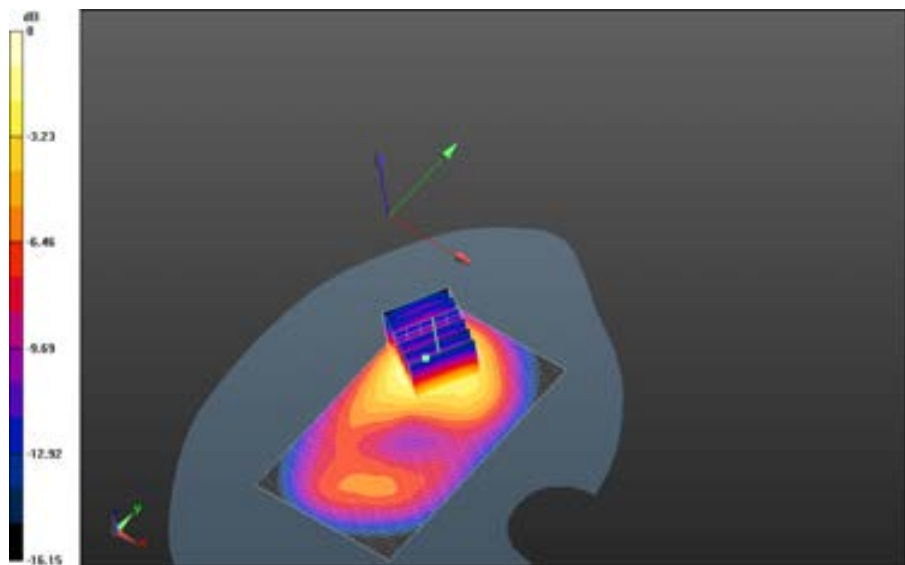
	Document Appendix C2 for the BlackBerry® Smartphone Model RFN81UW SAR Report Rev 2			Page 58(81)
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MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_2nd_scan_UMTS_II_High_chan_Amb_Temp_23.4C_Liq_Temp_22.5C/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 10.466 V/m; **Power Drift = 0.087 dB**

MHS_10mm_Body_SAR_Configuration/MHS_10mm_Spacer_Device_Back_2nd_scan_UMTS_II_High_chan_Amb_Temp_23.4C_Liq_Temp_22.5C/Zoom Scan (5x5x7) (26x26x36)/Cube 0: Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 10.466 V/m; **Power Drift = 0.087 dB**

Averaged SAR: SAR(1g) = 1.30 W/kg; SAR(10g) = 0.728 W/kg
Maximum value of SAR (interpolated) = 2.09 W/kg



0 dB = 1.24 W/kg = 0.93 dBW/kg

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802.11b

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Date: 1/21/2013

Test Lab: RIM Testing Services

DUT Name: BlackBerry Smartphone_Left_Right Side, Type: Sample , Serial: 25CF0AD9

Configuration: Flat-Section MSL_MHS_Body_SAR_Left_Right_802.11b

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

Medium Parameters used: $f=2437$ MHz; $\sigma = 1.889$ S/m; $\epsilon_r = 51.148$; $\rho = 1.000$ g/cm³

Phantom section: Flat Section

DASY Configuration:

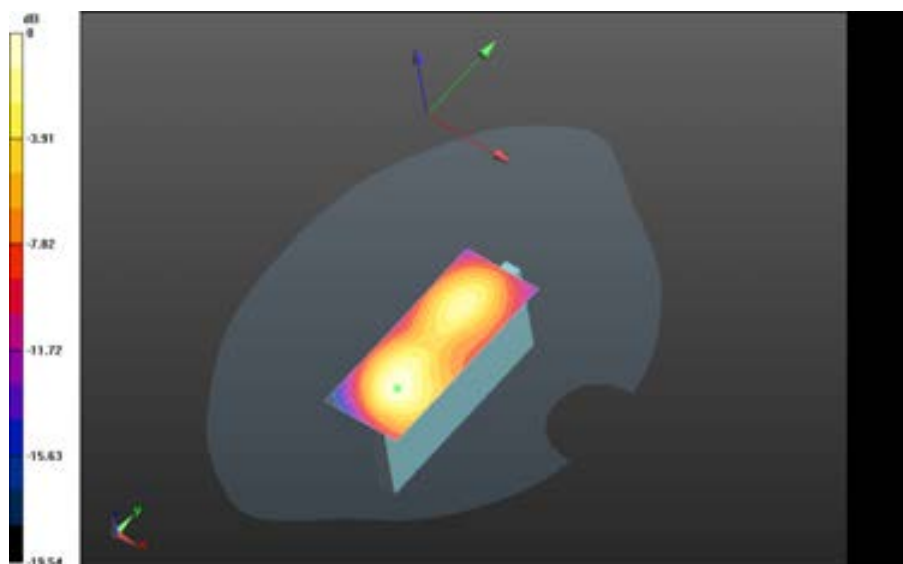
- Probe: ET3DV6 - SN1644; ConvF: (4.11,4.11,4.11); Calibrated: 11/13/2012;
- Sensor-Surface: 4 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.4(1052); SEMCAD X Version 14.6.8 (7028)

Flat-Section MSL_MHS_Body_SAR_Left_Right/Device

Left_10mm_Amb_Temp_23.8C_Liquid_Temp_22.0C/Area Scan (41x101x1): Interpolated grid:

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

Maximum value of SAR (interpolated) = 0.317 W/kg



0 dB = 0.317 W/kg = -4.99 dBW/kg

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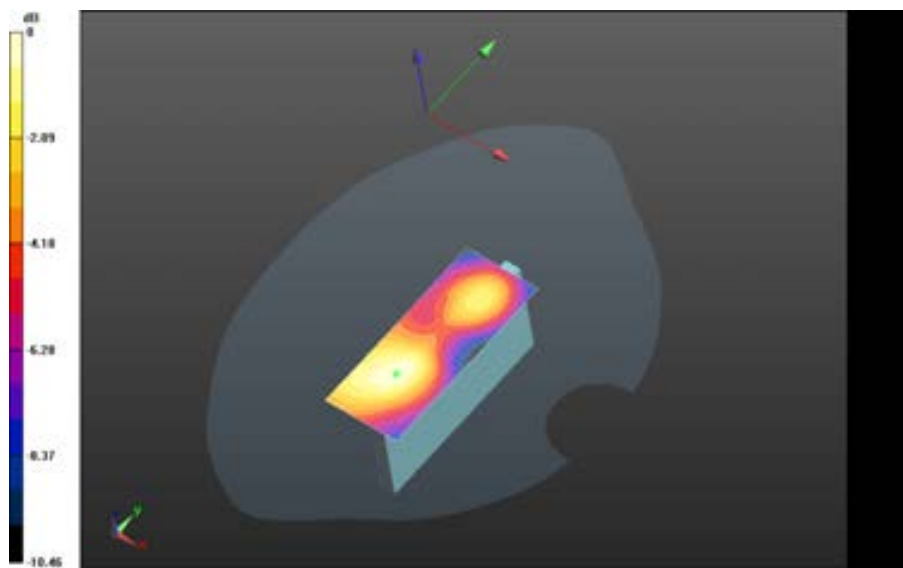
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Flat-Section MSL_MHS_Body_SAR_Left_Right/Device

Right_10mm_Amb_Temp_23.3C_Liquid_Temp_21.4C/Area Scan (41x101x1): Interpolated grid:

dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.0918 W/kg



0 dB = 0.317 W/kg = -4.99 dBW/kg

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Date: 1/21/2013

Test Lab: RIM Testing Services

DUT Name: BlackBerry Smartphone, Type: Sample , Serial: 25CF0AD9

Configuration: Flat-Section MSL_MHS_Body_SAR_802.11b

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

Medium Parameters used: $f=2437$ MHz; $\sigma = 1.889$ S/m; $\epsilon_r = 51.148$; $\rho = 1.000$ g/cm³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6 - SN1644; ConvF: (4.11,4.11,4.11); Calibrated: 11/13/2012;
- Sensor-Surface: 4 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.4(1052); SEMCAD X Version 14.6.8 (7028)

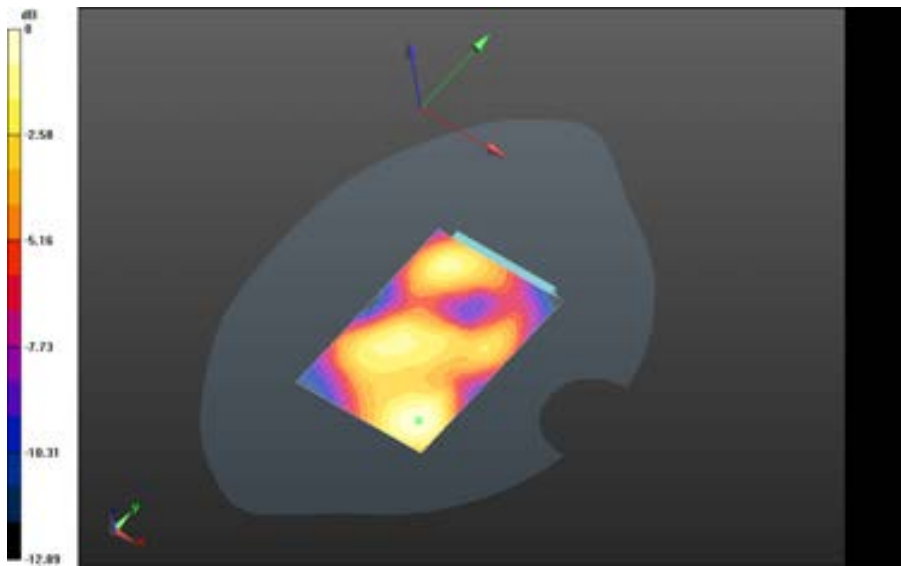
Flat-Section MSL_MHS_Body_SAR/Device

Front_10mm_Amb_Temp_23.7C_Liquid_Temp_22.1C/Area Scan (71x101x1): Interpolated grid:

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

Maximum value of SAR (interpolated) = 0.114 W/kg

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0 dB = 0.833 W/kg = -0.79 dBW/kg

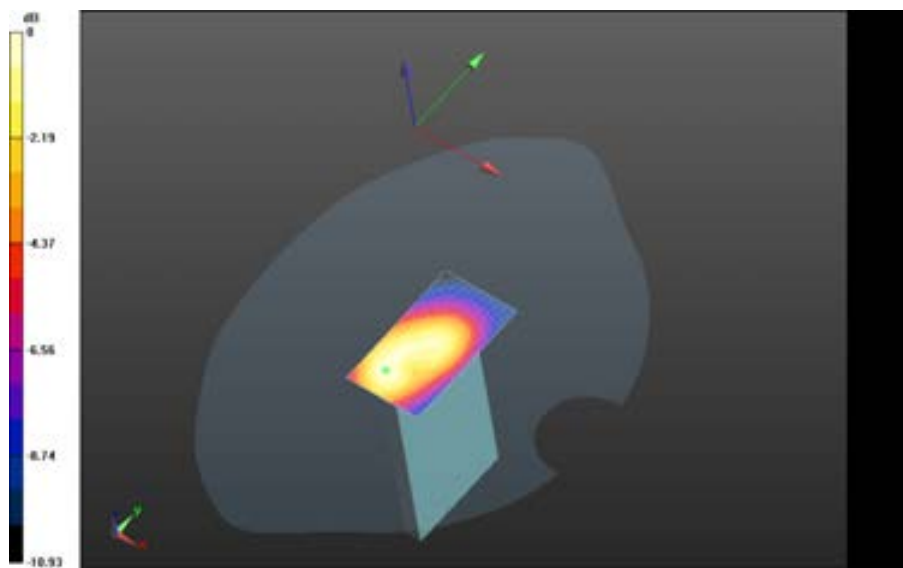
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Flat-Section MSL_MHS_Body_SAR/Device

Top_10mm_Amb_Temp_23.4C_Liquid_Temp_21.4C/Area Scan (41x71x1): Interpolated grid:

dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.258 W/kg



0 dB = 0.114 W/kg = -9.43 dBW/kg

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Date: 2/28/2013

Test Lab: RIM Testing Services

DUT Name: BlackBerry Smartphone_Top_Bottom, Type: Sample , Serial: 2AB01FAD

Configuration: Flat-Section MSL_MHS_Body_SAR 802.11b Rev3-02

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

Medium Parameters used: $f=2437$ MHz; $\sigma = 1.919$ S/m; $\epsilon_r = 50.246$; $\rho = 1.000$ g/cm³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (4.35,4.35,4.35); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.4(1052); SEMCAD X Version 14.6.8 (7028)

Flat-Section MSL_MHS_Body_SAR 802.11b Rev3-02/Device

Back_10mm_802.11b_Chan_6_Amb_Temp_24.2C_Liquid_Temp_20.5C/Area Scan (71x101x1):

Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 0.491 W/kg

Flat-Section MSL_MHS_Body_SAR 802.11b Rev3-02/Device

Back_10mm_802.11b_Chan_6_Amb_Temp_24.2C_Liquid_Temp_20.5C/Zoom Scan

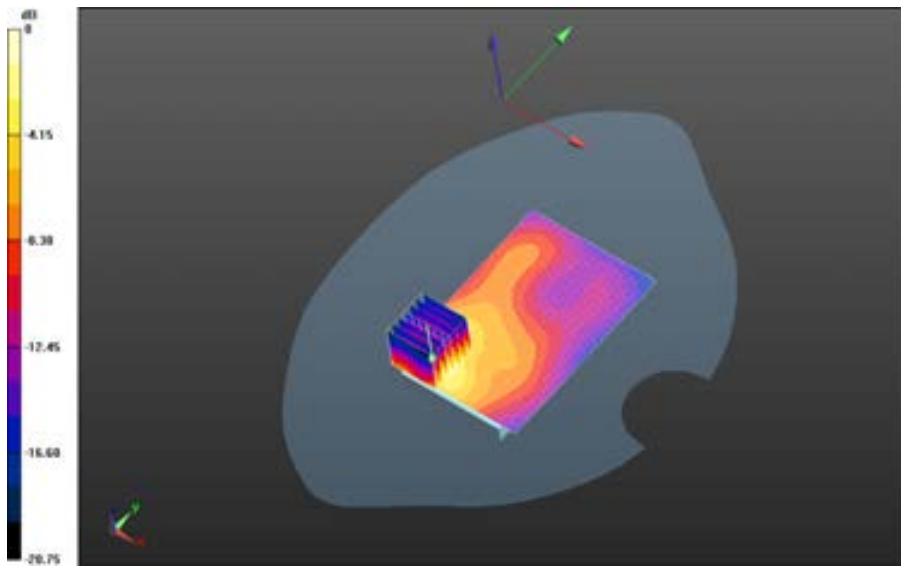
(31x31x36)/Cube 0: Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm, $dz=1.000$ mm

Reference Value = 6.386 V/m; **Power Drift = -0.039 dB**

Averaged SAR: SAR(1g) = 0.374 W/kg; SAR(10g) = 0.178 W/kg

Maximum value of SAR (interpolated) = 0.785 W/kg

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0 dB = 0.481 W/kg = -3.18 dBW/kg

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Flat-Section MSL_MHS_Body_SAR 802.11b Rev3-02/Device

Back_10mm_Headset_802.11b_Chan_6_Amb_Temp_23.6C_Liquid_Temp_20.6C/Area Scan

(71x51x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.325 W/kg

Flat-Section MSL_MHS_Body_SAR 802.11b Rev3-02/Device

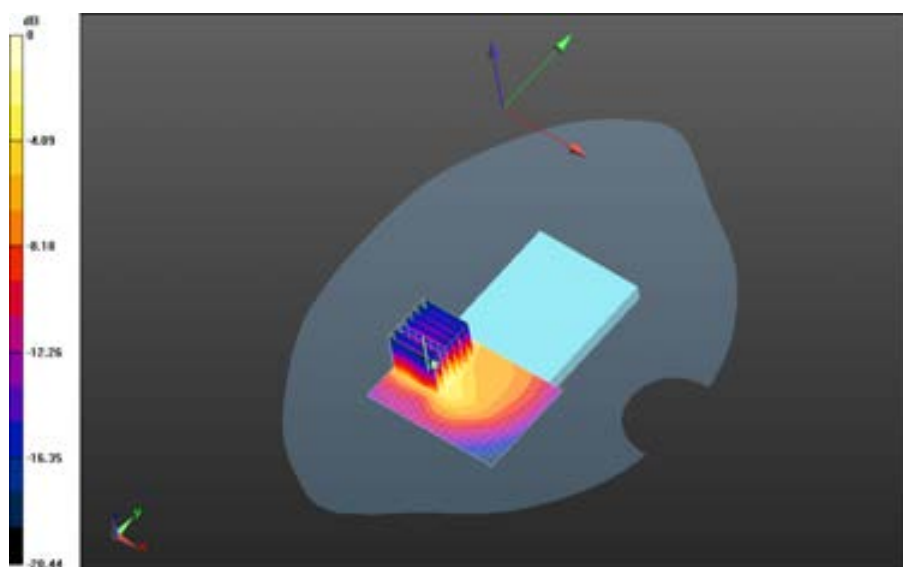
Back_10mm_Headset_802.11b_Chan_6_Amb_Temp_23.6C_Liquid_Temp_20.6C/Zoom Scan

(31x31x36)/Cube 0: Interpolated grid: dx=1.000 mm, dy=1.000 mm, dz=1.000 mm

Reference Value = 5.456 V/m; **Power Drift = 0.016 dB**

Averaged SAR: SAR(1g) = 0.272 W/kg; SAR(10g) = 0.129 W/kg

Maximum value of SAR (interpolated) = 0.582 W/kg



0 dB = 0.481 W/kg = -3.18 dBW/kg

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Flat-Section MSL_MHS_Body_SAR 802.11b Rev3-02/Device

Back_10mm_802.11b_Chan_6_2100mA_Batt_Amb_Temp_23.3C_Liquid_Temp_20.6C/Area

Scan (71x51x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.478 W/kg

Flat-Section MSL_MHS_Body_SAR 802.11b Rev3-02/Device

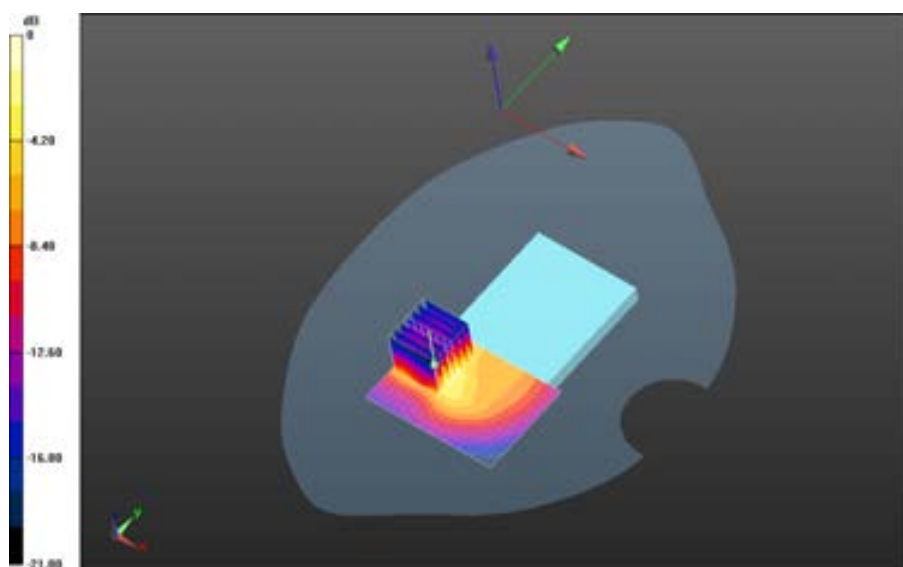
Back_10mm_802.11b_Chan_6_2100mA_Batt_Amb_Temp_23.3C_Liquid_Temp_20.6C/Zoom

Scan (31x31x36)/Cube 0: Interpolated grid: dx=1.000 mm, dy=1.000 mm, dz=1.000 mm

Reference Value = 6.780 V/m; **Power Drift = 0.071 dB**

Averaged SAR: SAR(1g) = 0.371 W/kg; SAR(10g) = 0.175 W/kg

Maximum value of SAR (interpolated) = 0.784 W/kg



0 dB = 0.355 W/kg = -4.50 dBW/kg

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Bluetooth

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Date: 1/22/2013

Test Lab: RIM Testing Services

DUT Name: BlackBerry Smartphone, Type: Sample , Serial: 25CF0BA5

Configuration: Flat-Section MSL_MHS_Body_SAR

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

Medium Parameters used: $f=2441$ MHz; $\sigma = 1.894$ S/m; $\epsilon_r = 51.135$; $\rho = 1.000$ g/cm³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6 - SN1644; ConvF: (4.11,4.11,4.11); Calibrated: 11/13/2012;
- Sensor-Surface: 4 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/7/2012
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.4(1052); SEMCAD X Version 14.6.8 (7028)

Flat-Section MSL_MHS_Body_SAR/Device

Back_10mm_Amb_Temp_24.0C_Liquid_Temp_22C/Area Scan (71x101x1):

Interpolated grid: dx=1.200 mm, dy=1.200 mm

Reference Value = 0.224 V/m; **Power Drift = -0.011 dB**

Flat-Section MSL_MHS_Body_SAR/Device

Back_10mm_Amb_Temp_24.0C_Liquid_Temp_22C/Zoom Scan

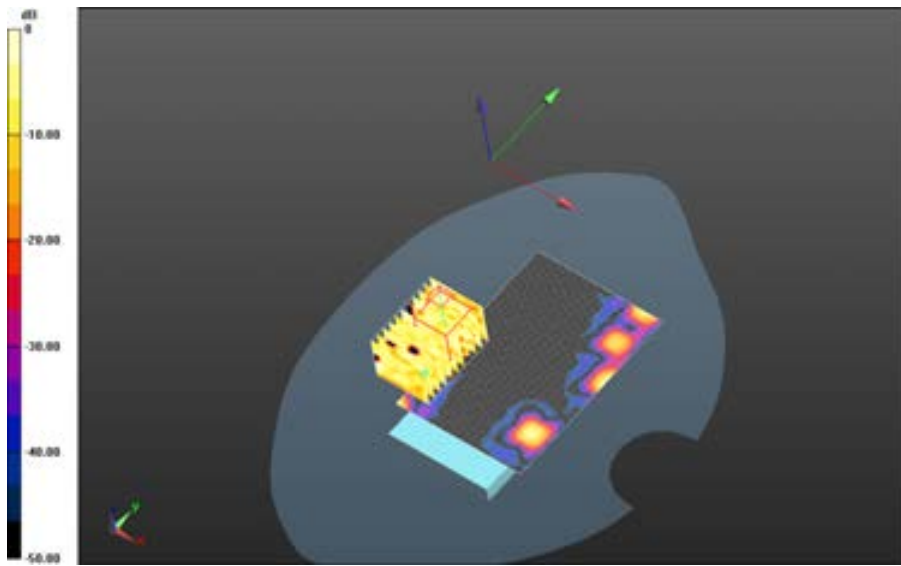
(36x51x36)/Cube 0: Interpolated grid: dx=1.000 mm, dy=1.000 mm, dz=1.000 mm

Reference Value = 0.224 V/m; **Power Drift = -0.011 dB**

Averaged SAR: SAR(1g) = 0.000246 W/kg; SAR(10g) = 0.0000593 W/kg

Maximum value of SAR (interpolated) = 0.00692 W/kg

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0 dB = 0.00692 W/kg = -21.60 dBW/kg

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Flat-Section MSL_MHS_Body_SAR/Device

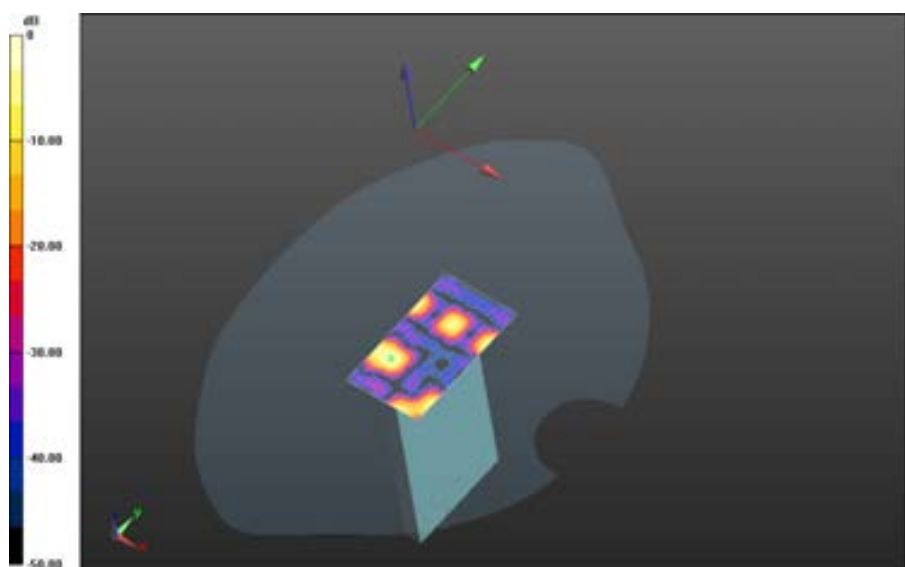
Top_10mm_Amb_Temp_23.4C_Liquid_Temp_21.4C/Area Scan (41x71x1):

Interpolated grid: dx=1.200 mm, dy=1.200 mm

Reference Value = 0.470 V/m; **Power Drift = 0.140 dB**

Fast SAR: SAR(1g) = 0.00120 W/kg; SAR(10g) = 0.000254 W/kg; Secondary SAR(1g) = 0.000389 W/kg

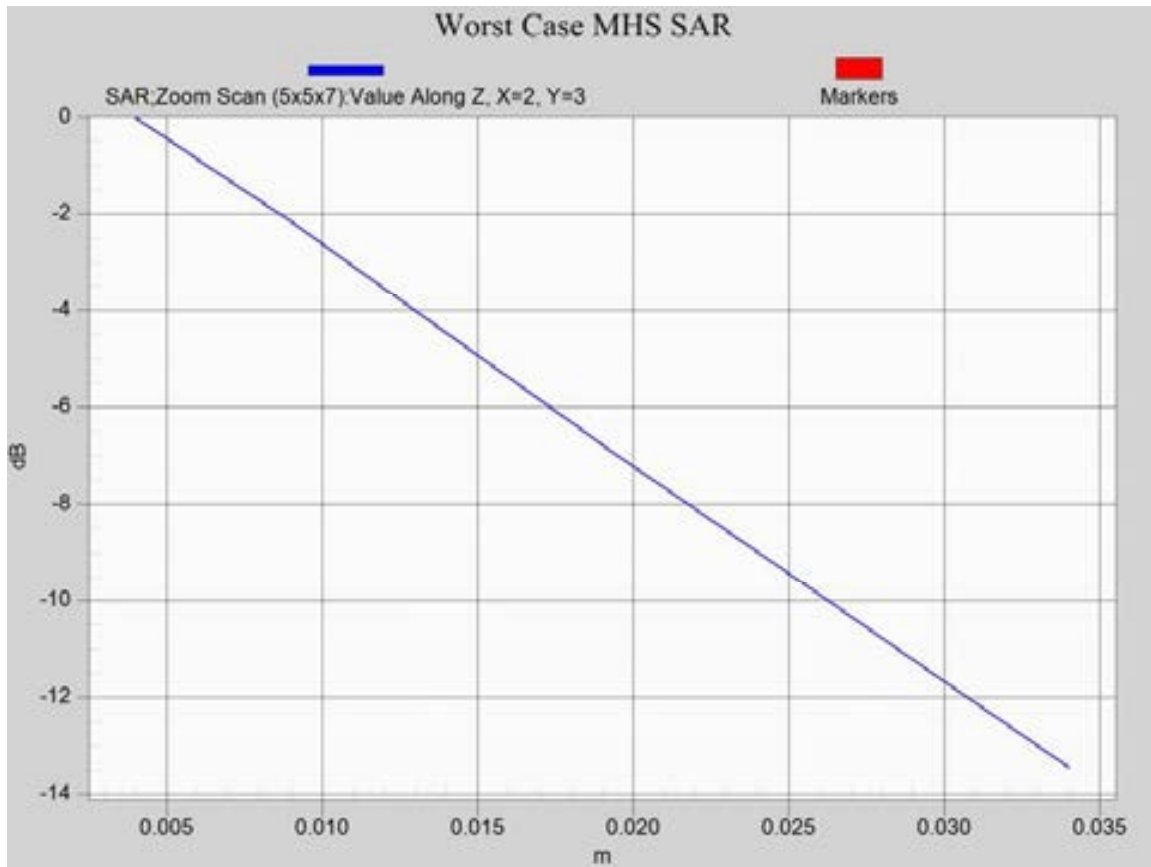
Maximum value of SAR (interpolated) = 0.00411 W/kg



0 dB = 0.00692 W/kg = -21.60 dBW/kg

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Z axis plot for the worst case hot spot configuration



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Date: 12/12/2014

Test Lab: BlackBerry RTS

DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2668C71D

Configuration: Mobile Hotspot MSL - 802.11a 5200 MHz

Communication System: 802.11a (0); Communication System Band: Low band; Frequency: 5180 MHz, Duty Cycle: 1:1

Medium Parameters used: $f=5180$ MHz; $\sigma = 5.561$ S/m; $\epsilon_r = 45.712$; $\rho = 1.000$ g/cm³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF: (4.06,4.06,4.06); Calibrated: 11/10/2014;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Mobile Hotspot MSL - 802.11a 5200 MHz/10mm Device Back -

802.11a_chan36_low_band_Amb_Temp_23.3C_Liquid_Temp_22.0C/Area Scan (181x241x1):

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

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

Mobile Hotspot MSL - 802.11a 5200 MHz/10mm Device Back -

802.11a_chan36_low_band_Amb_Temp_23.3C_Liquid_Temp_22.0C/Zoom Scan

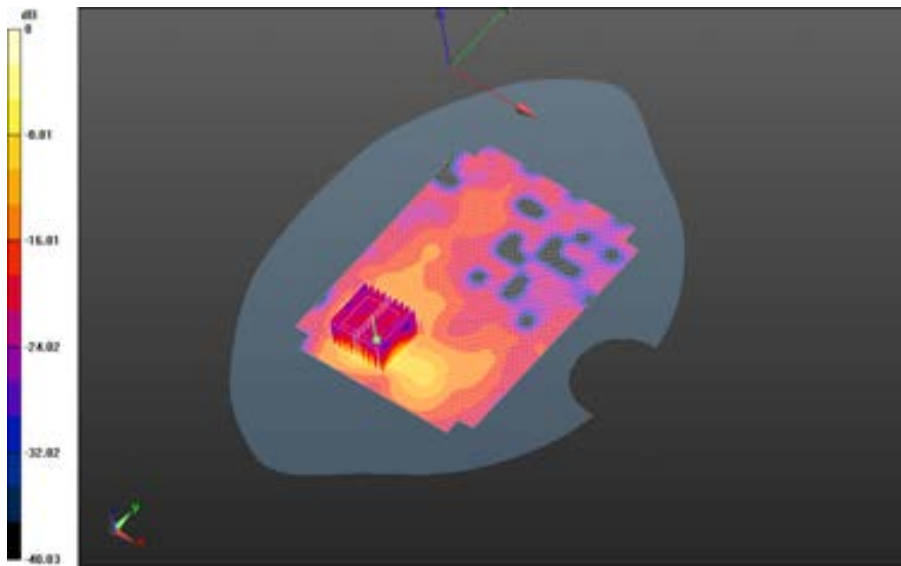
(41x41x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm

Reference Value = 2.142 V/m; Power Drift = 0.285 dB

Averaged SAR: SAR(1g) = 0.526 W/kg; SAR(10g) = 0.153 W/kg

Maximum value of SAR (interpolated) = 2.11 W/kg

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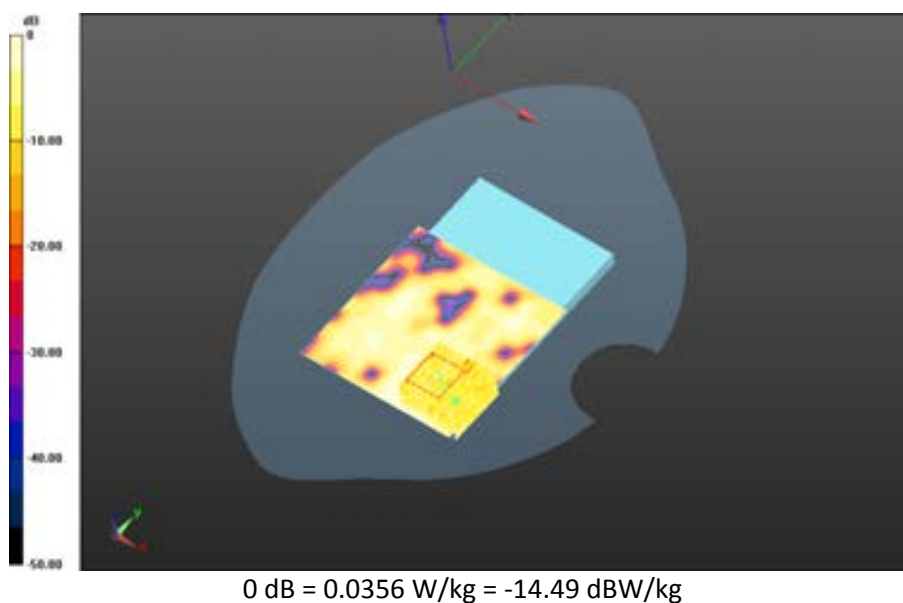
0 dB = 1.08 W/kg = 0.33 dBW/kg

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Mobile Hotspot MSL - 802.11a 5200 MHz/10mm Device Front -
802.11a_chan36_low_band_Amb_Temp_24.0C_Liquid_Temp_22.1C/Area Scan (101x101x1):
Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.0371 W/kg

Mobile Hotspot MSL - 802.11a 5200 MHz/10mm Device Front -
802.11a_chan36_low_band_Amb_Temp_24.0C_Liquid_Temp_22.1C/Zoom Scan
(46x46x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm
Reference Value = 2.085 V/m; Power Drift = 0.394 dB

Averaged SAR: SAR(1g) = 0.0209 W/kg; SAR(10g) = 0.0110 W/kg
Maximum value of SAR (interpolated) = 0.0809 W/kg

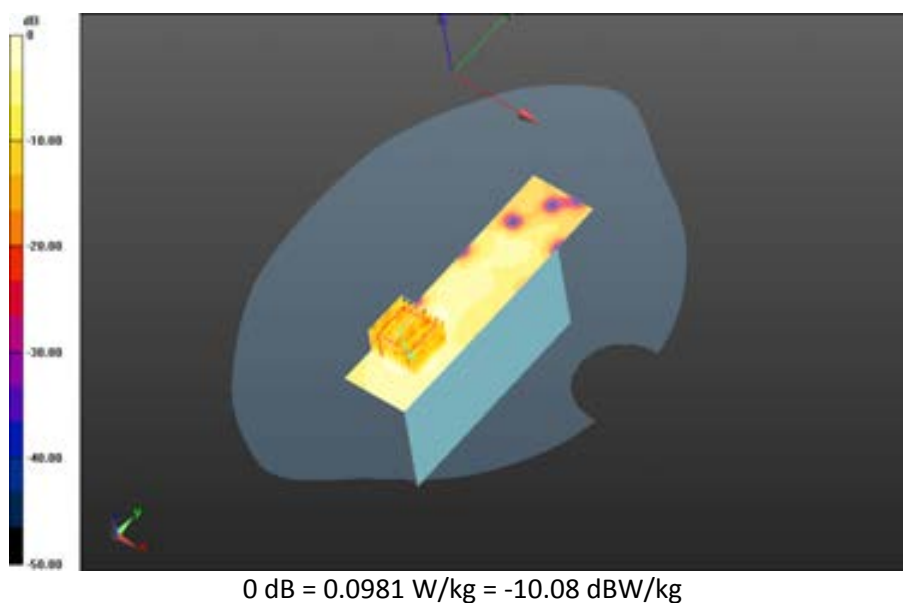


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Mobile Hotspot MSL - 802.11a 5200 MHz/10mm Device Left -
802.11a_chan36_low_band_Amb_Temp_24.0C_Liquid_Temp_22.0C/Area Scan (181x241x1):
Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.100 W/kg

Mobile Hotspot MSL - 802.11a 5200 MHz/10mm Device Left -
802.11a_chan36_low_band_Amb_Temp_24.0C_Liquid_Temp_22.0C/Zoom Scan
(36x36x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm
Reference Value = 2.991 V/m; Power Drift = 0.056 dB

Averaged SAR: SAR(1g) = 0.0541 W/kg; SAR(10g) = 0.0214 W/kg
Maximum value of SAR (interpolated) = 0.288 W/kg

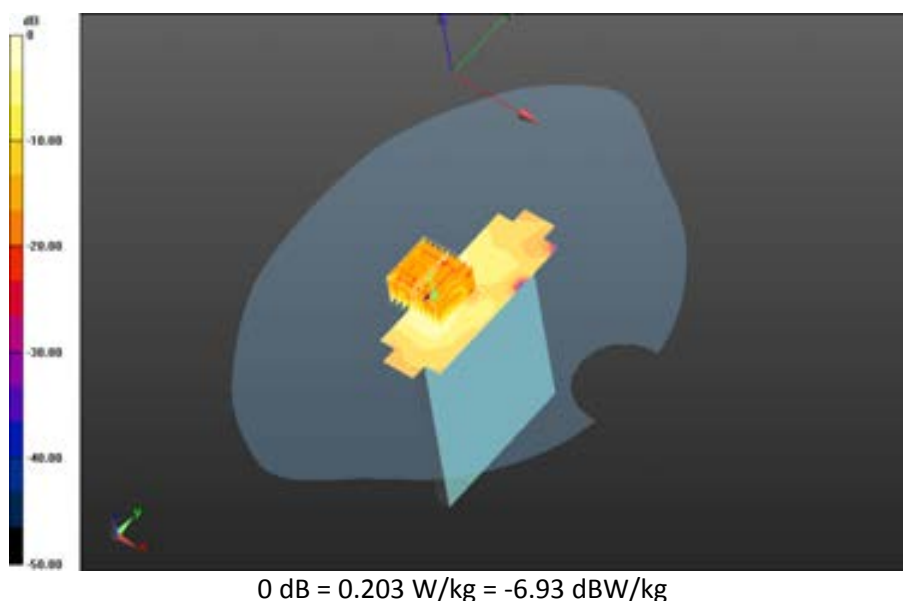


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Mobile Hotspot MSL - 802.11a 5200 MHz/10mm Device Top -
802.11a_chan36_low_band_Amb_Temp_23.4C_Liquid_Temp_21.8C/Area Scan (181x241x1):
Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.212 W/kg

Mobile Hotspot MSL - 802.11a 5200 MHz/10mm Device Top -
802.11a_chan36_low_band_Amb_Temp_23.4C_Liquid_Temp_21.8C/Zoom Scan
(41x41x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm
Reference Value = 1.534 V/m; Power Drift = 0.052 dB

Averaged SAR: SAR(1g) = 0.111 W/kg; SAR(10g) = 0.0441 W/kg
Maximum value of SAR (interpolated) = 0.953 W/kg



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Date: 12/11/2014

Test Lab: BlackBerry RTS

DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2668C71D

Configuration: Mobile Hotspot MSL - 802.11a 5800 MHz

Communication System: 802.11a (0); Communication System Band: upper band; Frequency: 5745 MHz, Communication System PAR: 0 dB; PMF: 1.12202e-005; Duty Cycle: 1:1
Medium Parameters used: $f=5745$ MHz; $\sigma = 6.402$ S/m; $\epsilon_r = 44.445$; $\rho = 1.000$ g/cm³
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF: (3.86,3.86,3.86); Calibrated: 11/10/2014;
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn472; Calibrated: 3/18/2014
- Phantom: SAM 2; Type: SAM 4.0; Serial: 1080
- DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Mobile Hotspot MSL - 802.11a 5800 MHz/10mm Device Back -

802.11a_chan149_upper_bandII_Amb_Temp_24.2C_Liquid_Temp_21.9C/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.846 W/kg

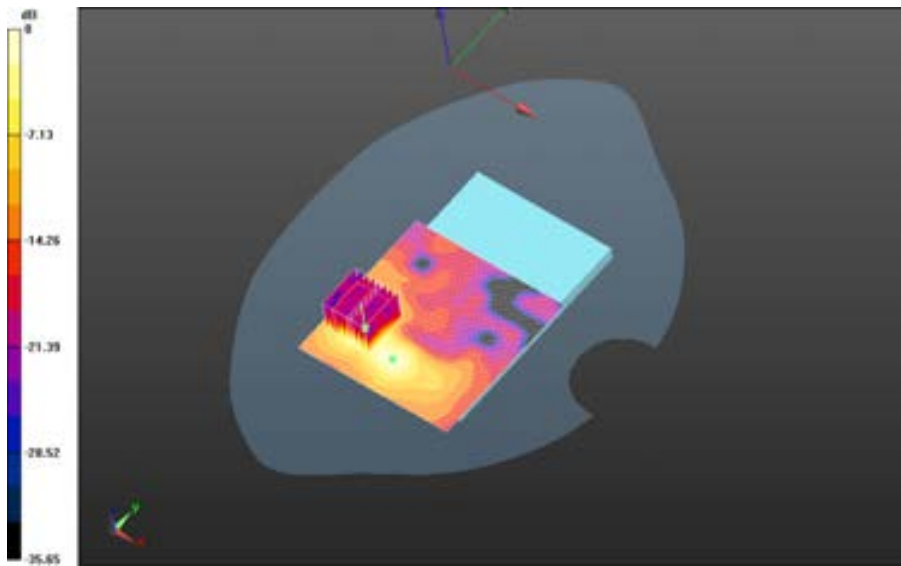
Mobile Hotspot MSL - 802.11a 5800 MHz/10mm Device Back -

802.11a_chan149_upper_bandII_Amb_Temp_24.2C_Liquid_Temp_21.9C/Zoom Scan (36x36x61)/Cube 0: Interpolated grid: dx=0.800 mm, dy=0.800 mm, dz=0.400 mm
Reference Value = 1.976 V/m; Power Drift = 0.243 dB

Averaged SAR: SAR(1g) = 0.431 W/kg; SAR(10g) = 0.139 W/kg

Maximum value of SAR (interpolated) = 1.93 W/kg

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0 dB = 0.826 W/kg = -0.83 dBW/kg