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Author Data Andrew Becker	Dates of Test June 04 – October 29, 2012	Test Report No RTS-6012-1208-35	FCC ID: L6ARFF90LW	IC ID 2503A-RFF90LW

APPENDIX C1: SAR DISTRIBUTION PLOTS FOR BODY-WORN CONFIGURATION

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Date/Time: 6/18/2012 4:41:34 AM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Back_LTE_17_mid_chan_QPSK_RB_1_Offset_49_amb_
temp_23.0_liq_temp_21.4C**

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A211C01

Communication System: LTE; Frequency: 710 MHz

Medium parameters used: $f = 710 \text{ MHz}$; $\sigma = 0.918 \text{ mho/m}$; $\epsilon_r = 55.812$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.27, 6.27, 6.27); 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:

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

Maximum value of SAR (interpolated) = 0.573 mW/g

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

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

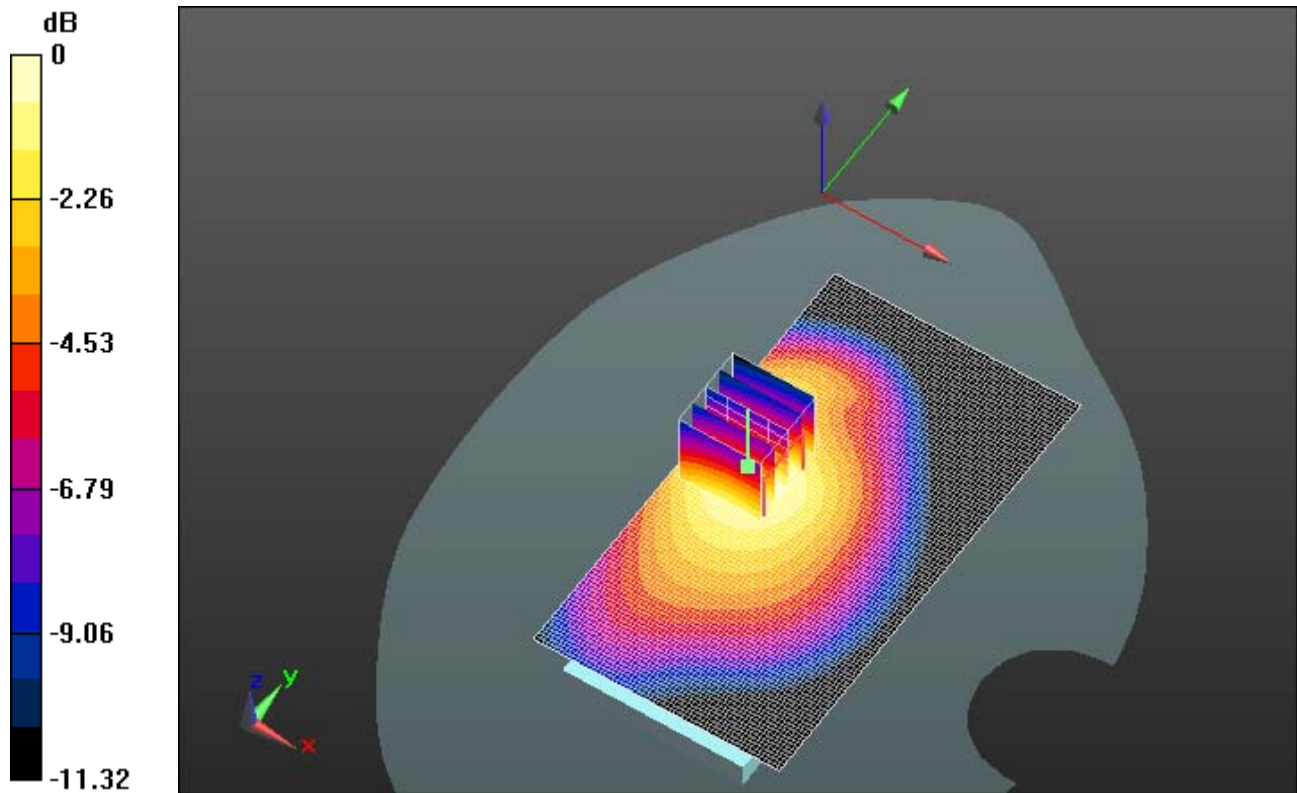
Reference Value = 18.445 V/m; Power Drift = -0.0012 dB

Peak SAR (extrapolated) = 0.7230

SAR(1 g) = 0.497 mW/g; SAR(10 g) = 0.343 mW/g

Maximum value of SAR (measured) = 0.568 mW/g

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0 dB = 0.570mW/g = -4.88 dB mW/g

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Date/Time: 6/18/2012 6:14:42 AM

Test Laboratory: RIM Testing Services

**Vertical_Holster_Back_LTE_17_mid_chan_QPSK_RB_1_Offset_49_amb
_temp_22.9_liq_temp_21.5C**

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A211C01

Communication System: LTE; Frequency: 710 MHz

Medium parameters used: $f = 710 \text{ MHz}$; $\sigma = 0.918 \text{ mho/m}$; $\epsilon_r = 55.812$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.27, 6.27, 6.27); 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:

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

Maximum value of SAR (interpolated) = 0.445 mW/g

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

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

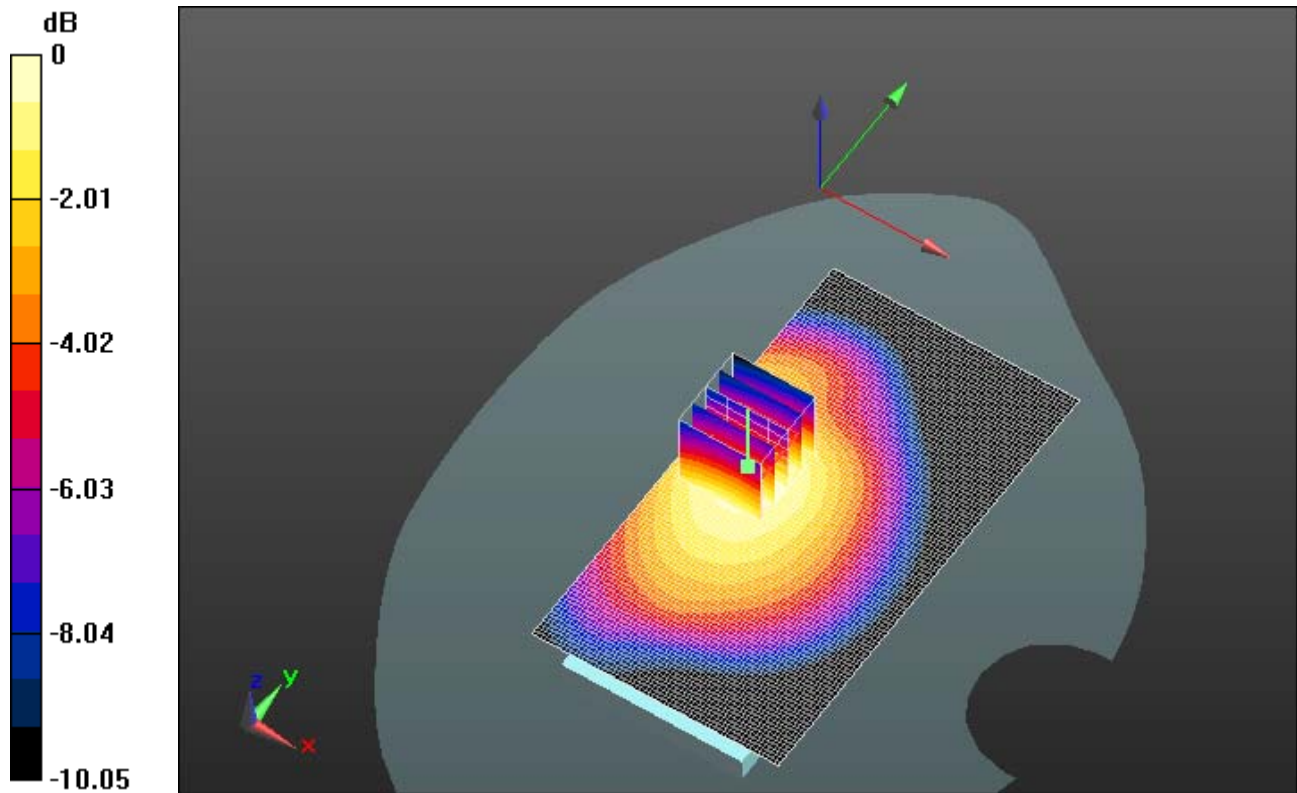
Reference Value = 17.697 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.5260

SAR(1 g) = 0.393 mW/g; SAR(10 g) = 0.284 mW/g

Maximum value of SAR (measured) = 0.440 mW/g

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0 dB = 0.440mW/g = -7.13 dB mW/g

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Date/Time: 6/18/2012 6:31:08 AM

Test Laboratory: RIM Testing Services

**Vertical_Holster_Front_LTE_17_mid_chan_QPSK_RB_1_Offset_49_am
b_temp_22.7_liq_temp_21.5C**

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A211C01

Communication System: LTE; Frequency: 710 MHz

Medium parameters used: $f = 710 \text{ MHz}$; $\sigma = 0.918 \text{ mho/m}$; $\epsilon_r = 55.812$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.27, 6.27, 6.27); 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:

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

Maximum value of SAR (interpolated) = 0.403 mW/g

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

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

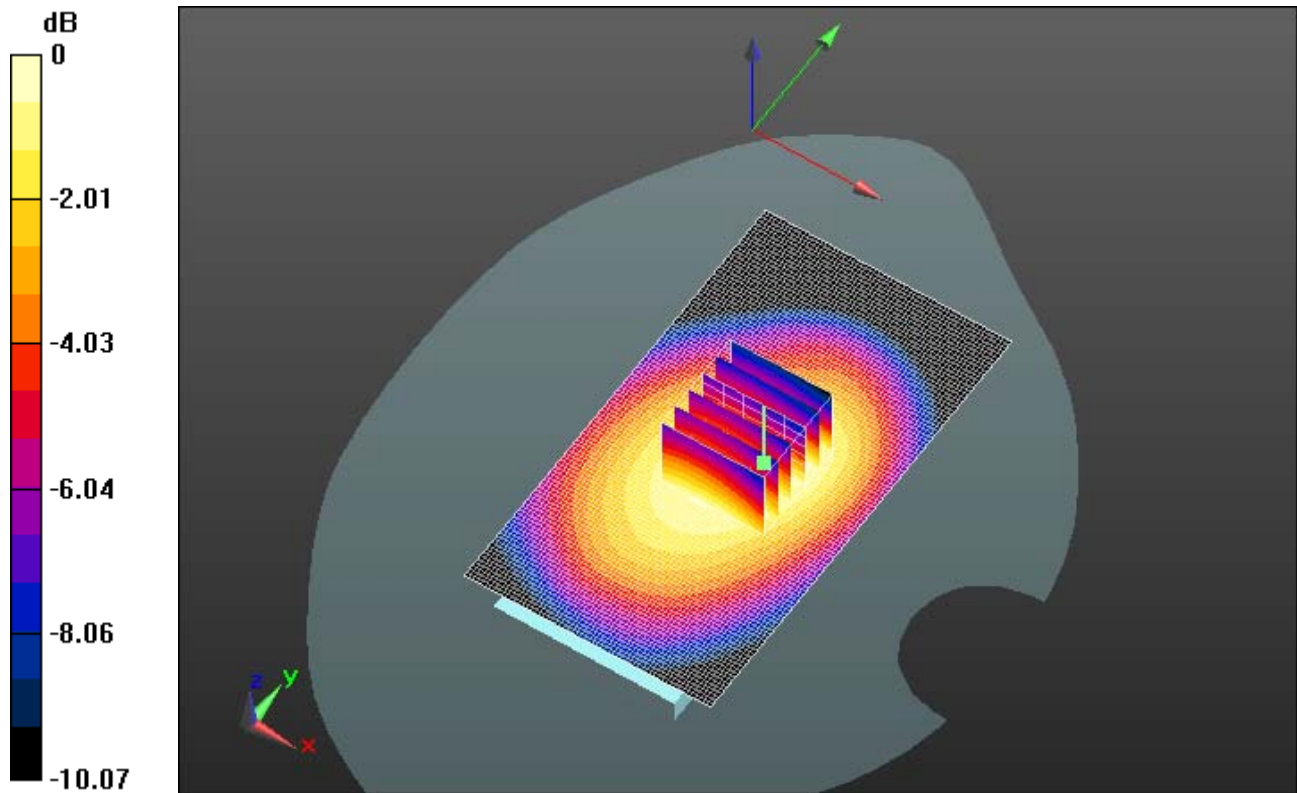
Reference Value = 20.246 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.4740

SAR(1 g) = 0.359 mW/g; SAR(10 g) = 0.265 mW/g

Maximum value of SAR (measured) = 0.394 mW/g

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0 dB = 0.390mW/g = -8.18 dB mW/g

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Date/Time: 6/7/2012 11:05:40 PM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Front_LTE_5_mid_chan_QPSK_RB_1_Offset_49_amb_t
emp_22.9_liq_temp_21.3C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A20270D

Communication System: LTE; Frequency: 836.5 MHz

Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.979$ mho/m; $\epsilon_r = 52.752$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); 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) = 0.676 mW/g

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

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

Reference Value = 24.882 V/m; Power Drift = -0.08 dB

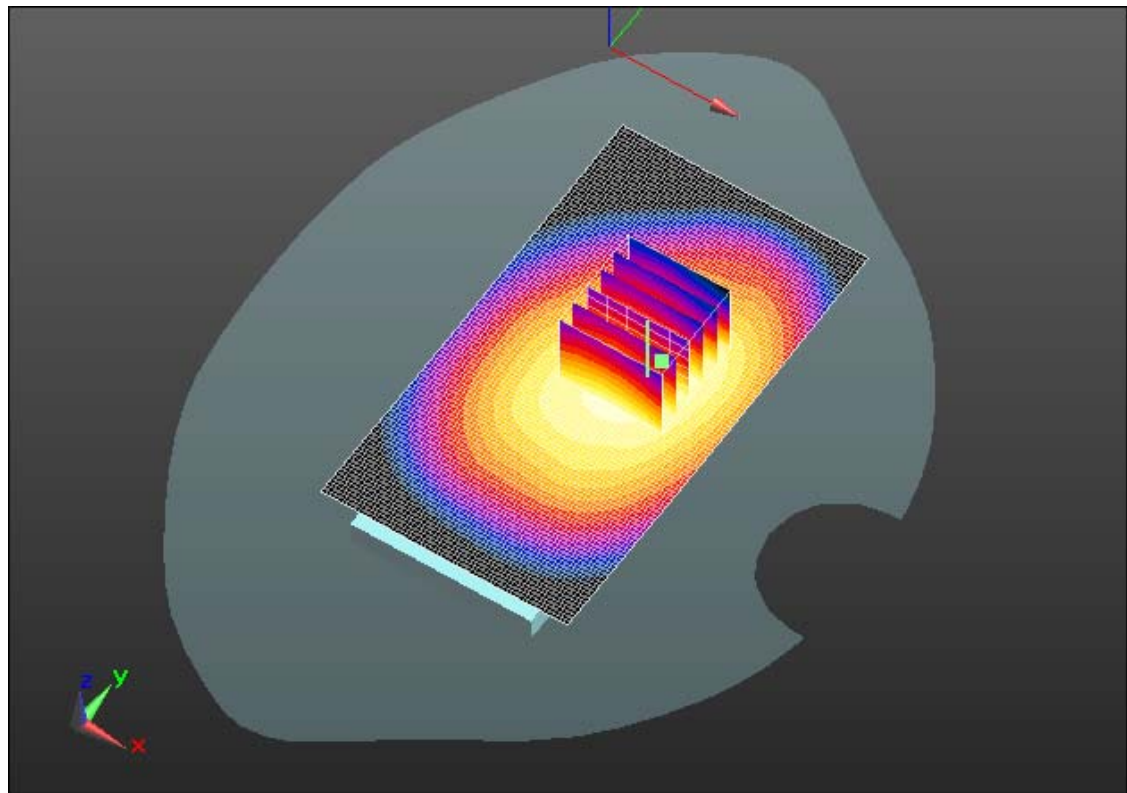
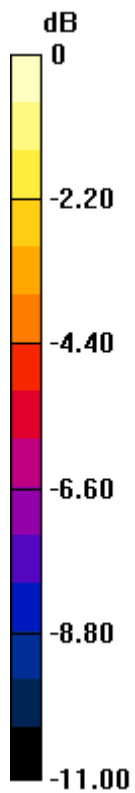
Peak SAR (extrapolated) = 0.8540

SAR(1 g) = 0.629 mW/g; SAR(10 g) = 0.465 mW/g

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

Maximum value of SAR (measured) = 0.725 mW/g

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0 dB = 0.730mW/g = -2.73 dB mW/g

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Date/Time: 6/8/2012 1:38:31 AM

Test Laboratory: RIM Testing Services

**Vertical_Holster_Back_LTE_5_mid_chan_QPSK_RB_1_Offset_49_amb_
temp_22.9_liq_temp_21.3C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A20270D

Communication System: LTE; Frequency: 836.5 MHz

Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.979$ mho/m; $\epsilon_r = 52.752$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); 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:
 $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.594 mW/g

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

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

Reference Value = 25.269 V/m; Power Drift = 0.08 dB

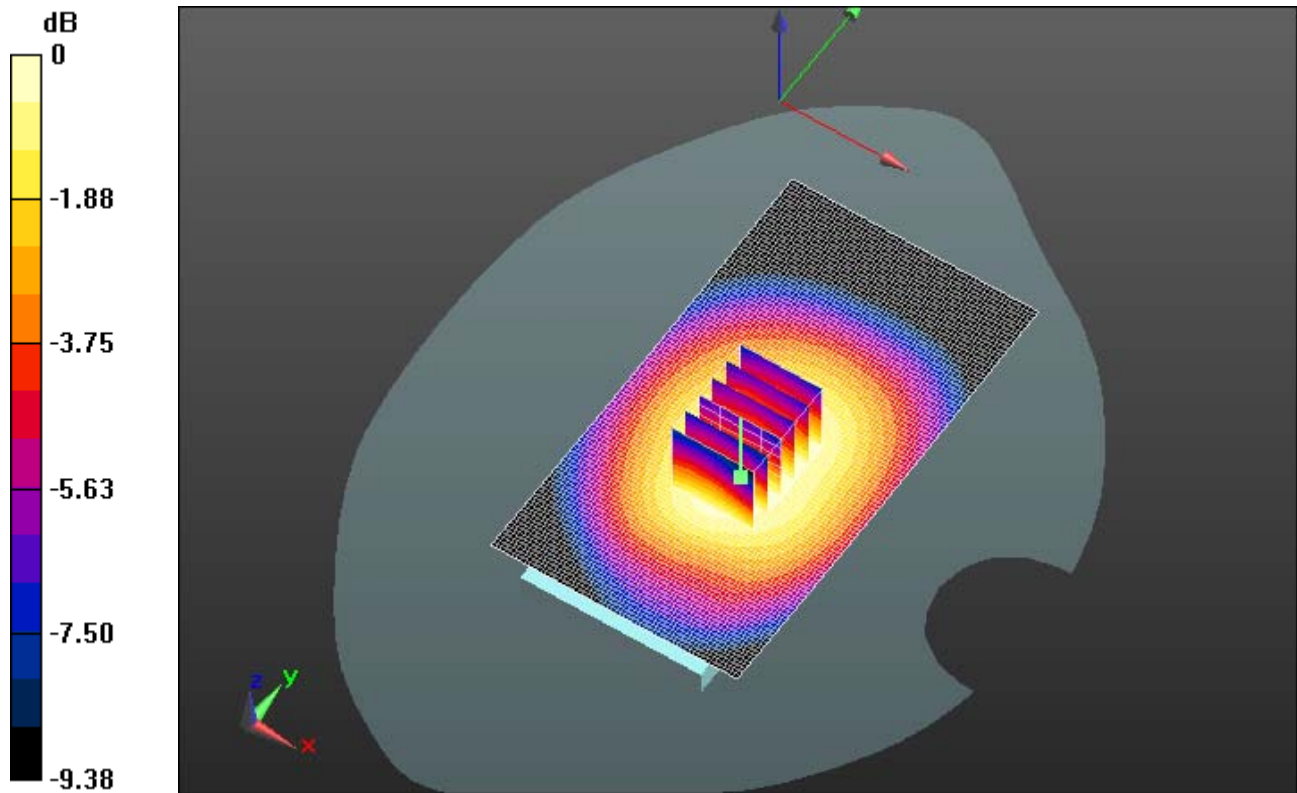
Peak SAR (extrapolated) = 0.6840

SAR(1 g) = 0.542 mW/g; SAR(10 g) = 0.411 mW/g

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

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

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0 dB = 0.600mW/g = -4.44 dB mW/g

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Date/Time: 6/8/2012 1:12:02 AM

Test Laboratory: RIM Testing Services

**Vertical_Holster_Front_LTE_5_mid_chan_QPSK_RB_1_Offset_49_amb_
temp_23.1_liq_temp_21.3C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A20270D

Communication System: LTE; Frequency: 836.5 MHz

Medium parameters used (interpolated): $f = 836.5 \text{ MHz}$; $\sigma = 0.979 \text{ mho/m}$; $\epsilon_r = 52.752$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); 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:
 $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.640 mW/g

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

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

Reference Value = 26.072 V/m ; Power Drift = 0.09 dB

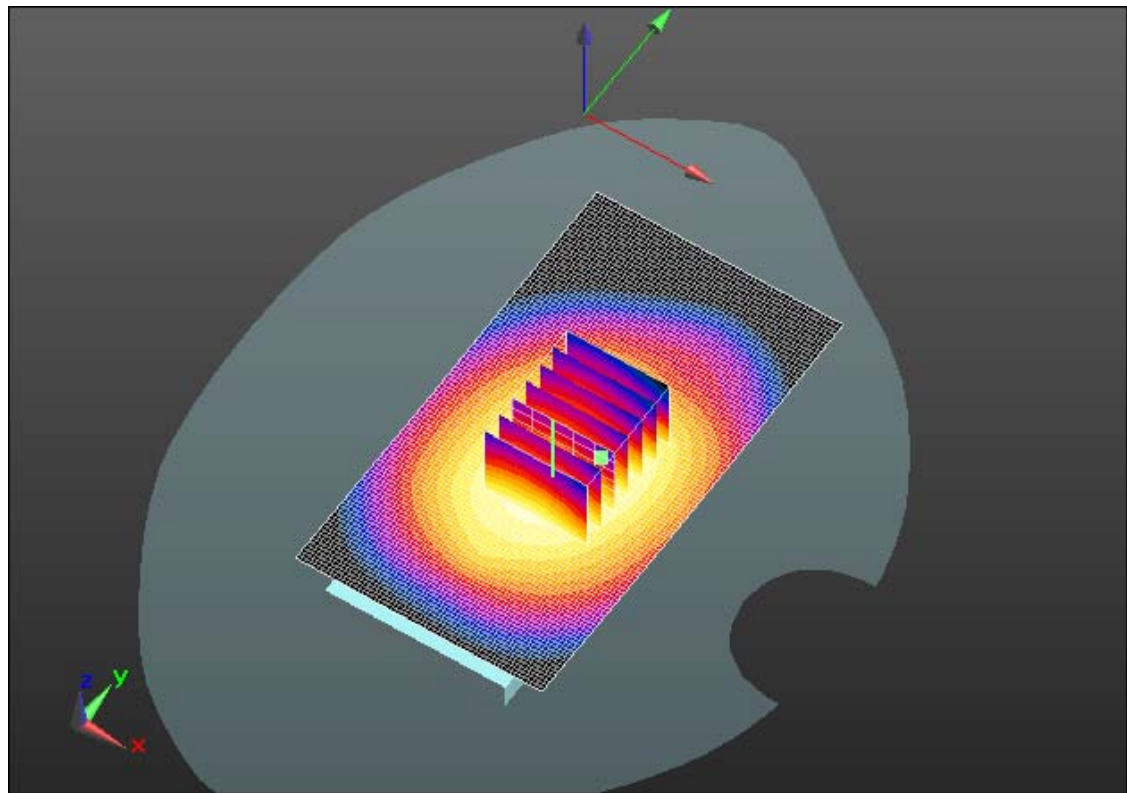
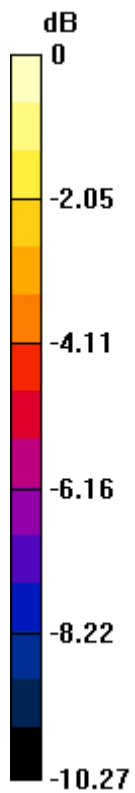
Peak SAR (extrapolated) = 0.7450

SAR(1 g) = 0.583 mW/g ; SAR(10 g) = 0.441 mW/g

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

Maximum value of SAR (measured) = 0.649 mW/g

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

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Date/Time: 6/7/2012 2:53:48 PM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Front_GPRS850_mid_chan_amb_temp_23.0_liq_temp_2
1.4C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A20270D

Communication System: GPRS 850; Frequency: 836.8 MHz

Medium parameters used (interpolated): $f = 836.8 \text{ MHz}$; $\sigma = 0.979 \text{ mho/m}$; $\epsilon_r = 52.747$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); 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:
 $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.661 mW/g

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

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

Reference Value = 25.576 V/m ; Power Drift = -0.30 dB

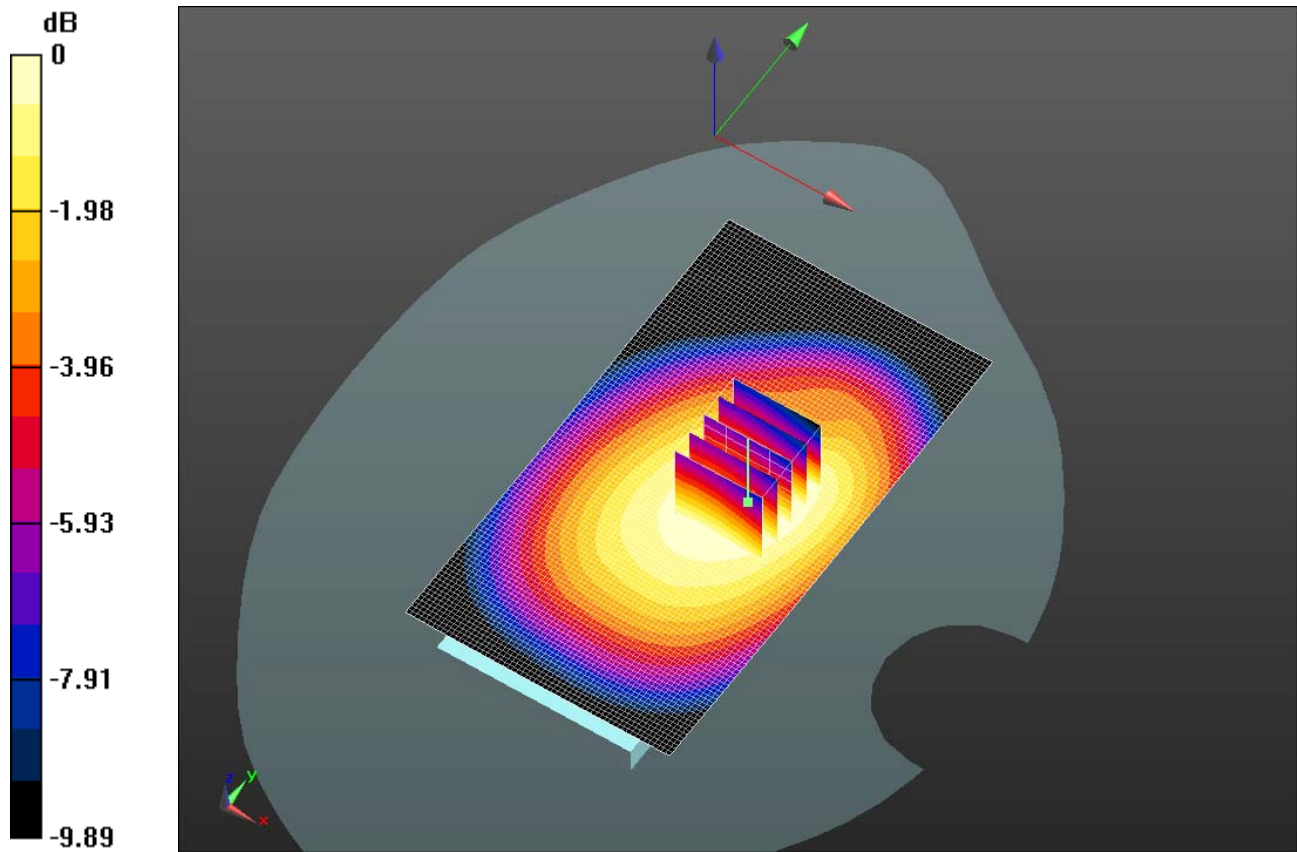
Peak SAR (extrapolated) = 0.7540

SAR(1 g) = 0.581 mW/g ; SAR(10 g) = 0.438 mW/g

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

Maximum value of SAR (measured) = 0.641 mW/g

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0 dB = 0.640mW/g = -3.88 dB mW/g

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Date/Time: 6/7/2012 3:31:59 PM

Test Laboratory: RIM Testing Services

Vertical_Holster_Back_GPRS850_mid_chan_amb_temp_23.1_liq_temp_21.7C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A20270D

Communication System: GPRS 850; Frequency: 836.8 MHz

Medium parameters used (interpolated): $f = 836.8 \text{ MHz}$; $\sigma = 0.979 \text{ mho/m}$; $\epsilon_r = 52.747$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); 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:
 $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.607 mW/g

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

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

Reference Value = 25.611 V/m ; Power Drift = -0.13 dB

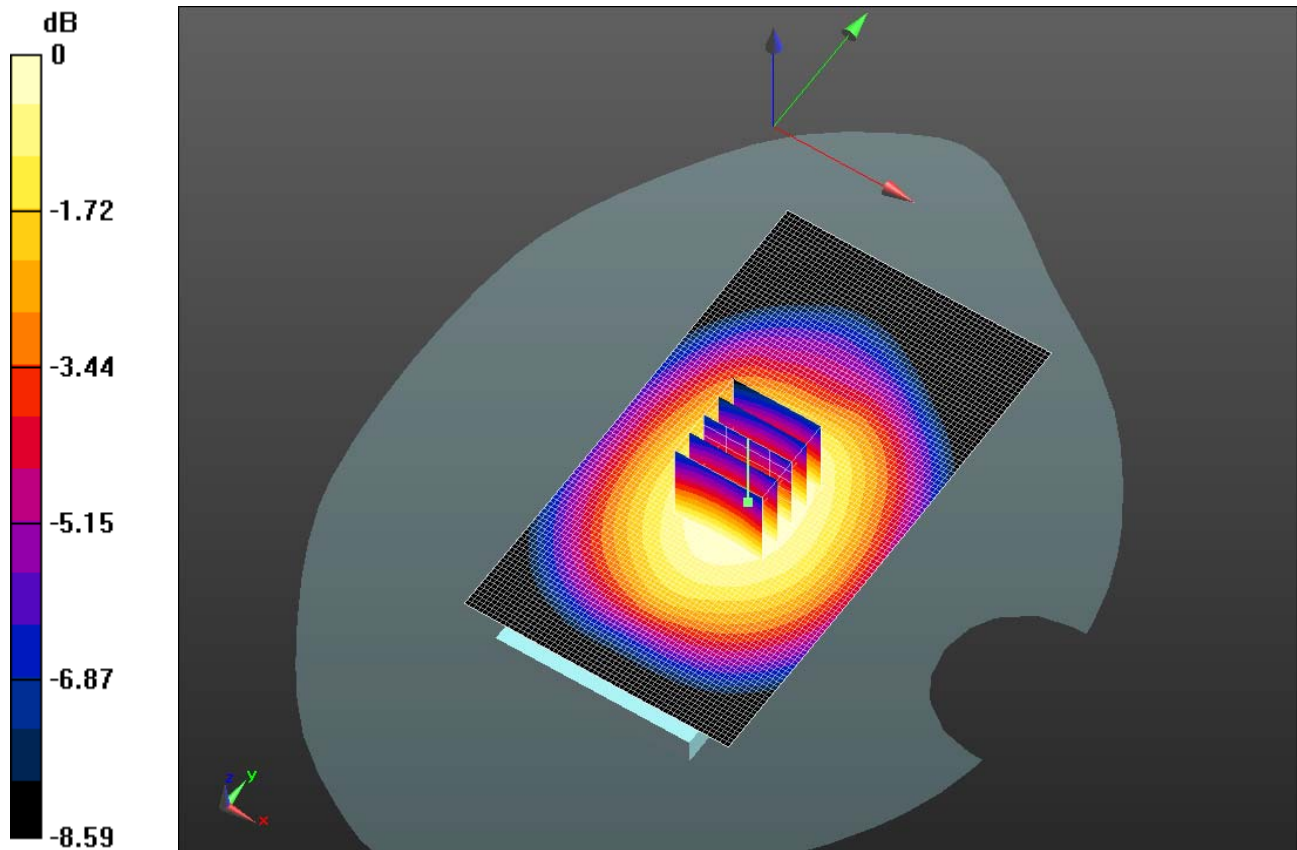
Peak SAR (extrapolated) = 0.6900

SAR(1 g) = 0.550 mW/g ; SAR(10 g) = 0.420 mW/g

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

Maximum value of SAR (measured) = 0.601 mW/g

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0 dB = 0.600mW/g = -4.44 dB mW/g

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Date/Time: 6/7/2012 3:13:53 PM

Test Laboratory: RIM Testing Services

Vertical_Holster_Front_GPRS850_mid_chan_amb_temp_23.3_liq_temp_21.6C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A20270D

Communication System: GPRS 850; Frequency: 836.8 MHz

Medium parameters used (interpolated): $f = 836.8 \text{ MHz}$; $\sigma = 0.979 \text{ mho/m}$; $\epsilon_r = 52.747$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); 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:
 $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.644 mW/g

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

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

Reference Value = 26.487 V/m ; Power Drift = -0.29 dB

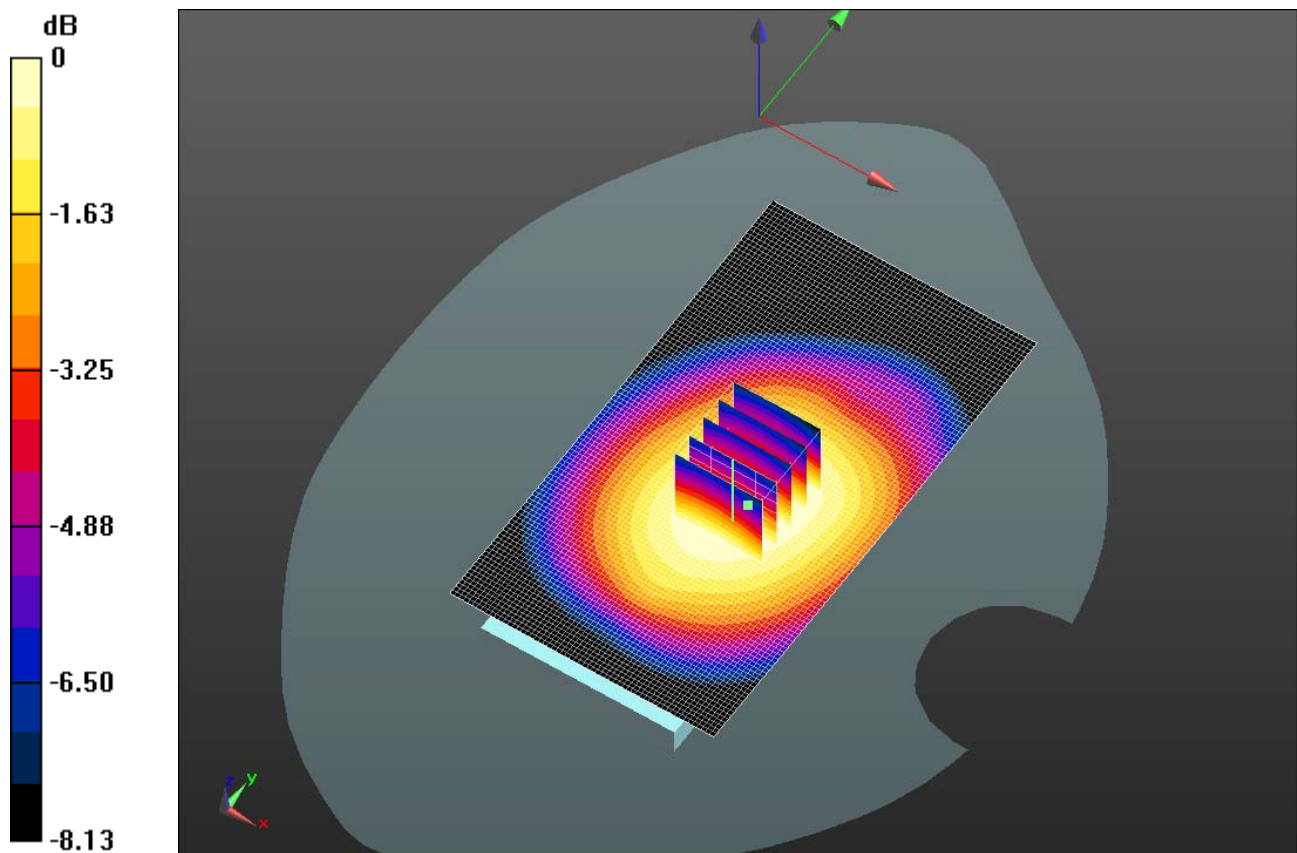
Peak SAR (extrapolated) = 0.7080

SAR(1 g) = 0.573 mW/g ; SAR(10 g) = 0.438 mW/g

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

Maximum value of SAR (measured) = 0.631 mW/g

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0 dB = 0.630mW/g = -4.01 dB mW/g

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Author Data Andrew Becker	Dates of Test June 04 – October 29, 2012	Test Report No RTS-6012-1208-35	FCC ID: L6ARFF90LW	IC ID 2503A-RFF90LW

Date/Time: 6/5/2012 11:46:10 PM

Test Laboratory: RIM Testing Services

15mm_Spacer_Back_UMTS_Band_V_mid_chan_amb_temp_23.4_liq_temp_21.3C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A20270D

Communication System: WCDMA FDD V; Frequency: 836.4 MHz
Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.966$ mho/m; $\epsilon_r = 53.137$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); 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:
 $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.761 mW/g

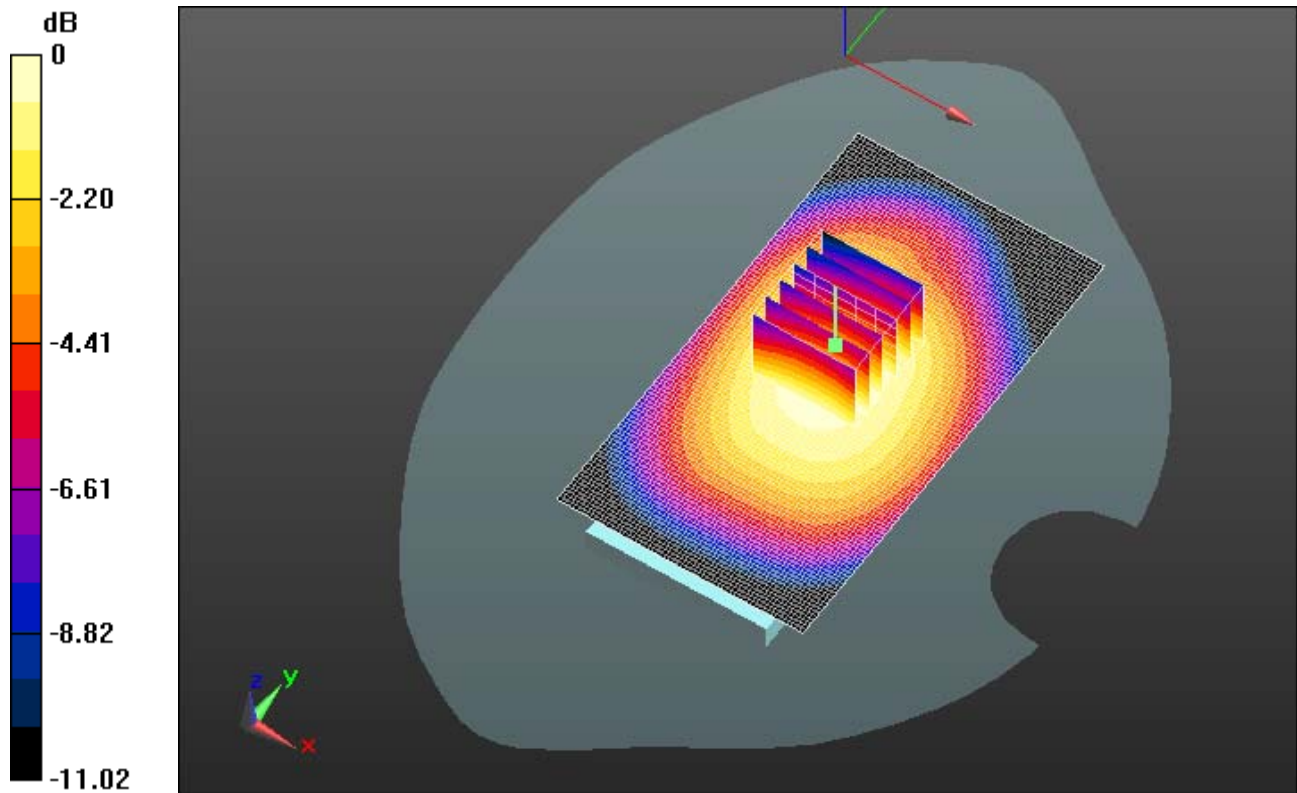
Configuration/Touch position -/Zoom Scan (5x5x7) (6x6x7)/Cube 0:

Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$
Reference Value = 26.275 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.8860
SAR(1 g) = 0.687 mW/g; SAR(10 g) = 0.519 mW/g

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

Maximum value of SAR (measured) = 0.759 mW/g

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0 dB = 0.760mW/g = -2.38 dB mW/g

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Author Data Andrew Becker	Dates of Test June 04 – October 29, 2012	Test Report No RTS-6012-1208-35	FCC ID: L6ARFF90LW	IC ID 2503A-RFF90LW

Date/Time: 6/6/2012 12:09:10 AM

Test Laboratory: RIM Testing Services

15mm_Spacer_Front_UMTS_Band_V_mid_chan_amb_temp_23.0_liq_temper_21.3C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A20270D

Communication System: WCDMA FDD V; Frequency: 836.4 MHz
Medium parameters used (interpolated): $f = 836.4 \text{ MHz}$; $\sigma = 0.966 \text{ mho/m}$; $\epsilon_r = 53.137$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); 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) = 0.767 mW/g

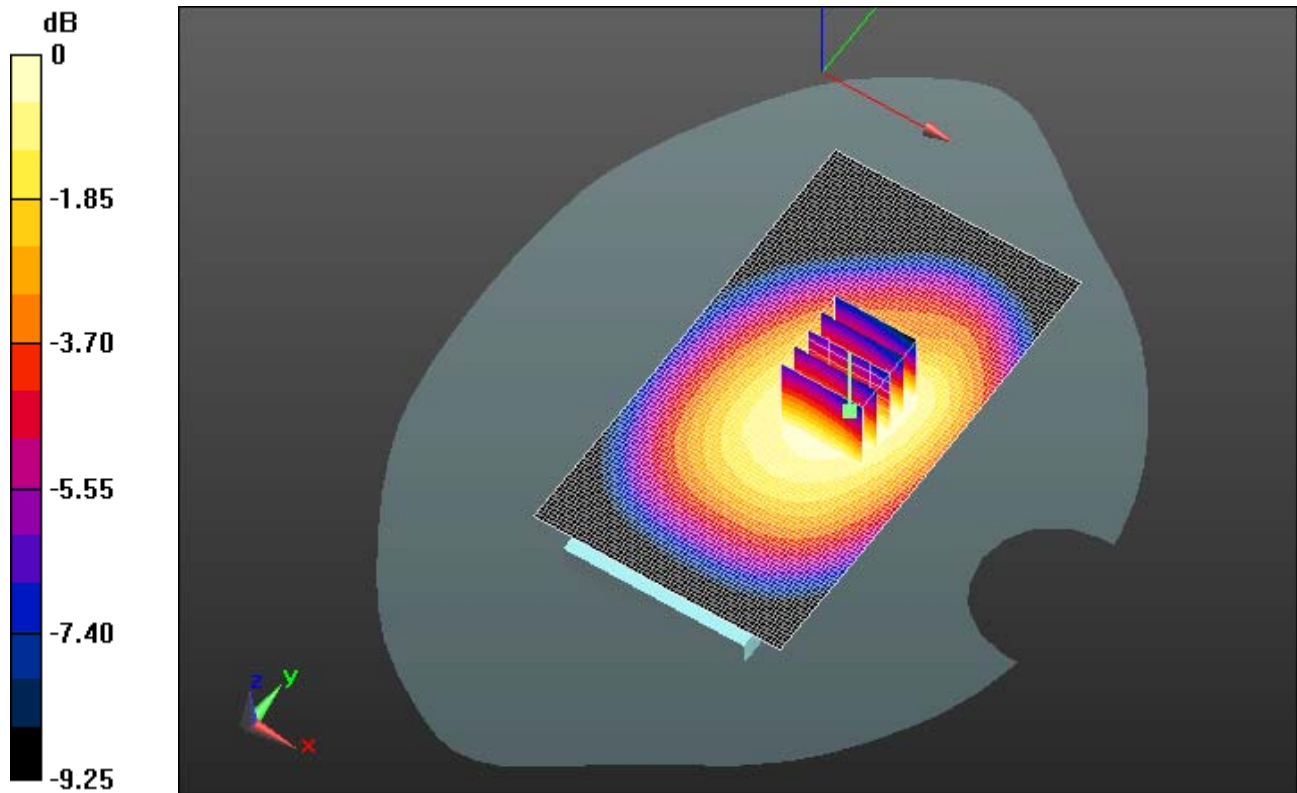
Configuration/Touch position -/Zoom Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$
Reference Value = 26.931 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.8900
SAR(1 g) = 0.703 mW/g; SAR(10 g) = 0.530 mW/g

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

Maximum value of SAR (measured) = 0.775 mW/g

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0 dB = 0.770mW/g = -2.27 dB mW/g

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Author Data Andrew Becker	Dates of Test June 04 – October 29, 2012	Test Report No RTS-6012-1208-35	FCC ID: L6ARFF90LW	IC ID 2503A-RFF90LW	

Date/Time: 6/6/2012 1:44:12 AM

Test Laboratory: RIM Testing Services

Vertical_Holster_Front_UMTS_Band_V_mid_chan_amb_temp_23.3_liq_t emp_21.3C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A20270D

Communication System: WCDMA FDD V; Frequency: 836.4 MHz
Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.966$ mho/m; $\epsilon_r = 53.137$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.07, 6.07, 6.07); 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:
 $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.746 mW/g

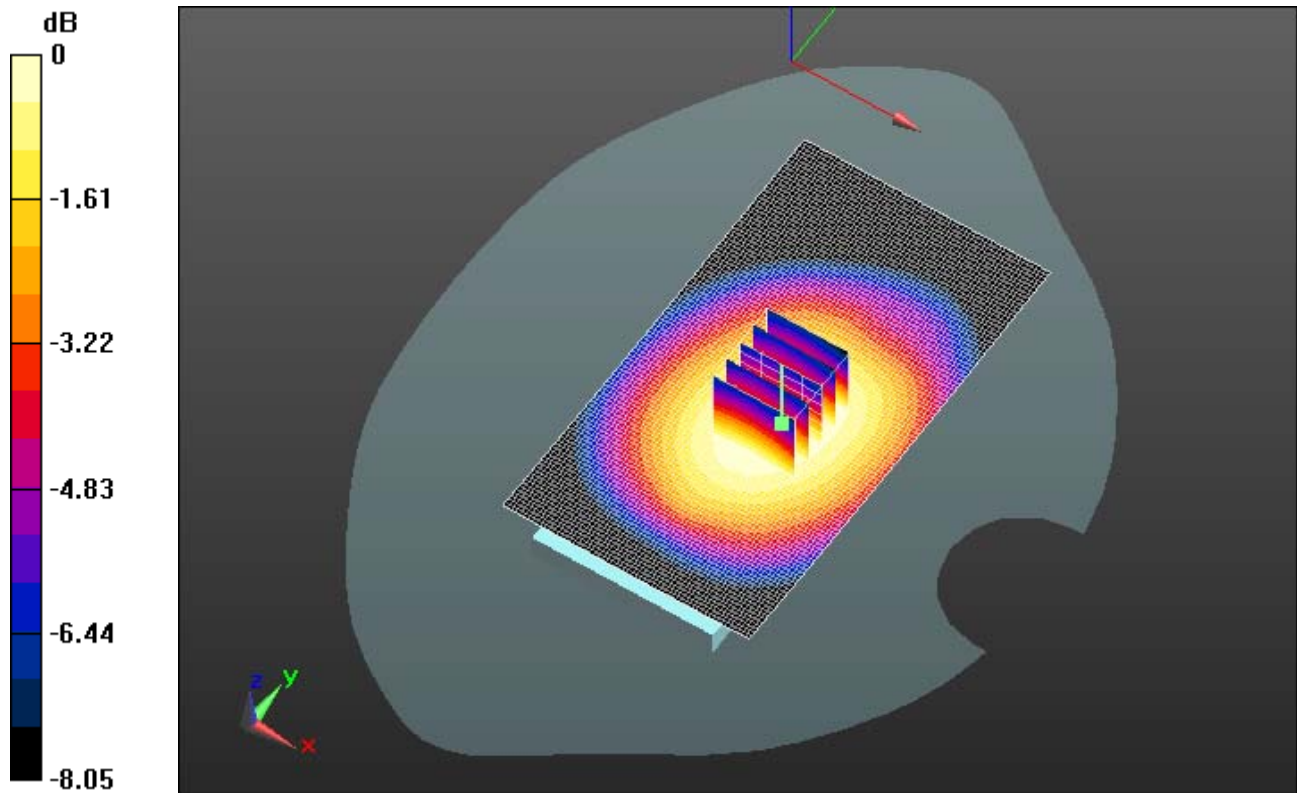
Configuration/Touch position -/Zoom Scan (5x5x7) (5x5x7)/Cube 0:

Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$
Reference Value = 28.294 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.8270
SAR(1 g) = 0.673 mW/g; SAR(10 g) = 0.514 mW/g

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

Maximum value of SAR (measured) = 0.735 mW/g

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0 dB = 0.730mW/g = -2.73 dB mW/g

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Author Data Andrew Becker	Dates of Test June 04 – October 29, 2012	Test Report No RTS-6012-1208-35	FCC ID: L6ARFF90LW	IC ID 2503A-RFF90LW

Date/Time: 6/14/2012 6:45:36 AM

Test Laboratory: RIM Testing Services

15mm_Spacer_Back_LTE_4_low_chan_QPSK_RB_1_Offset_0_amb_temperatures_23.1_liq_temp_21.4C

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A211C01

Communication System: LTE; Frequency: 1720 MHz

Medium parameters used: $f = 1720 \text{ MHz}$; $\sigma = 1.495 \text{ mho/m}$; $\epsilon_r = 51.37$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (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:

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

Maximum value of SAR (interpolated) = 1.091 mW/g

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

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

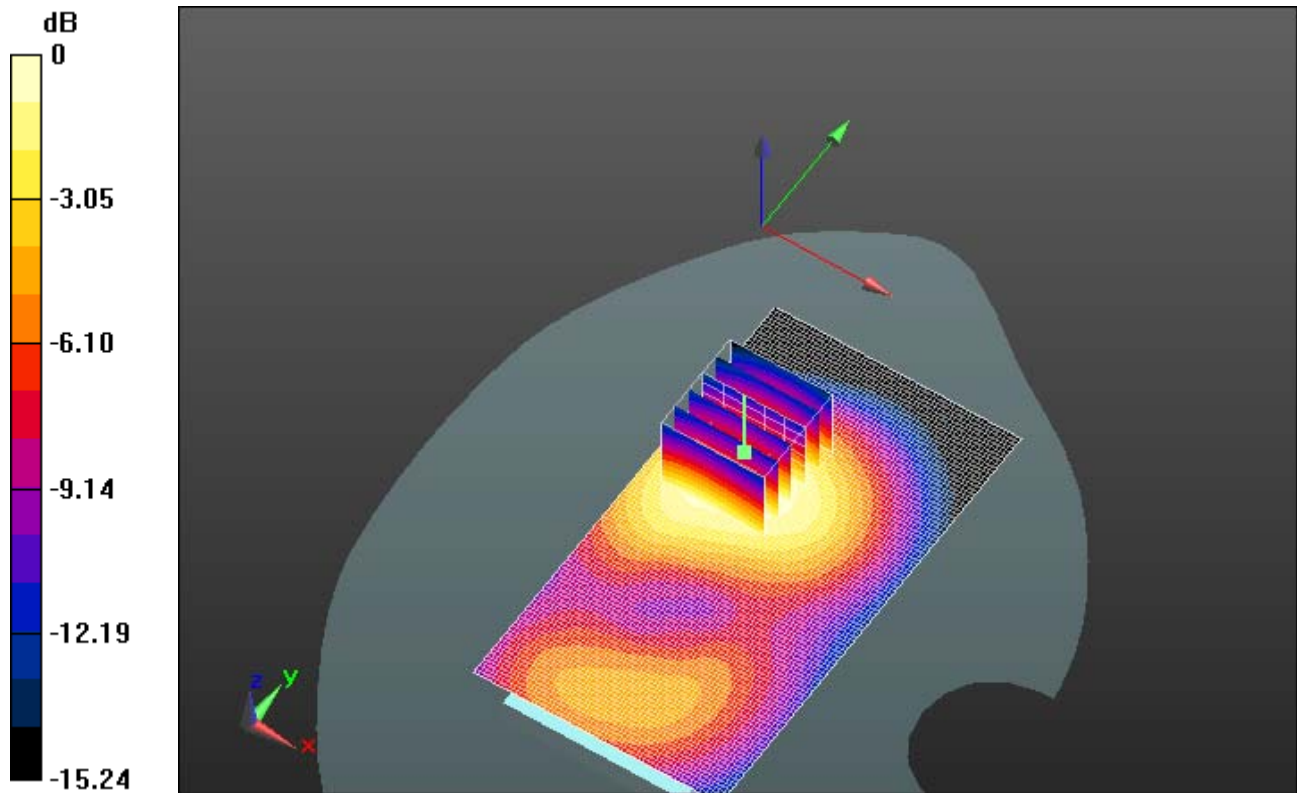
Reference Value = 10.136 V/m; Power Drift = -0.002 dB

Peak SAR (extrapolated) = 1.3190

SAR(1 g) = 0.837 mW/g; SAR(10 g) = 0.534 mW/g

Maximum value of SAR (measured) = 0.987 mW/g

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0 dB = 0.990mW/g = -0.09 dB mW/g

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Date/Time: 6/14/2012 6:26:47 AM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Back_LTE_4_mid_chan_QPSK_RB_1_Offset_0_amb_tem
p_23.3_liq_temp_21.4C**

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A211C01

Communication System: LTE; Frequency: 1732.5 MHz

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 51.287$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (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) = 1.151 mW/g

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

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

Reference Value = 10.196 V/m; Power Drift = -0.10 dB

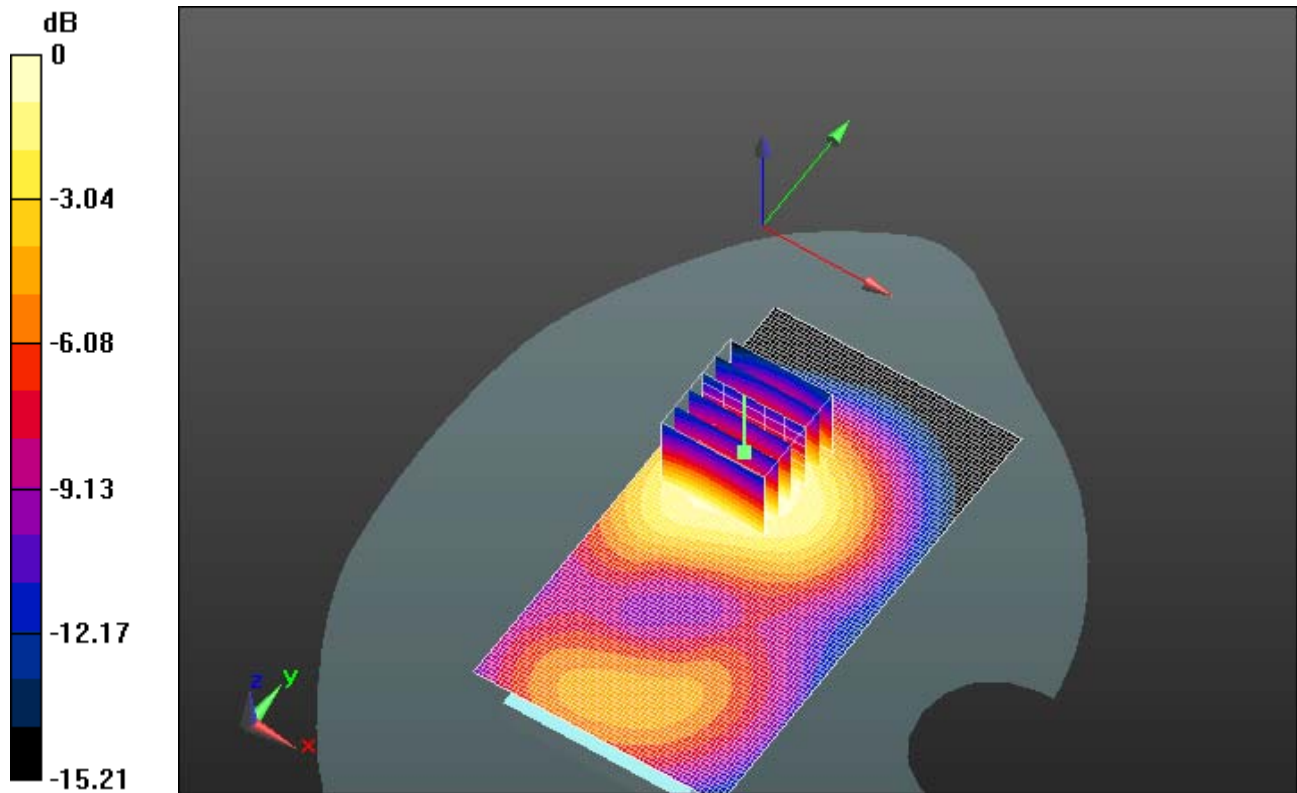
Peak SAR (extrapolated) = 1.3930

SAR(1 g) = 0.882 mW/g; SAR(10 g) = 0.565 mW/g

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

Maximum value of SAR (measured) = 1.039 mW/g

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0 dB = 1.040mW/g = 0.34 dB mW/g

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Date/Time: 6/14/2012 7:04:03 AM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Back_LTE_4_high_chan_QPSK_RB_1_Offset_0_amb_tem
p_23.2liq_temp_21.4C**

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A211C01

Communication System: LTE; Frequency: 1745 MHz

Medium parameters used: $f = 1745 \text{ MHz}$; $\sigma = 1.52 \text{ mho/m}$; $\epsilon_r = 51.238$; $\rho = 1000 \text{ kg/m}^3$

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
- DASY52 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) = 1.032 mW/g

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

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

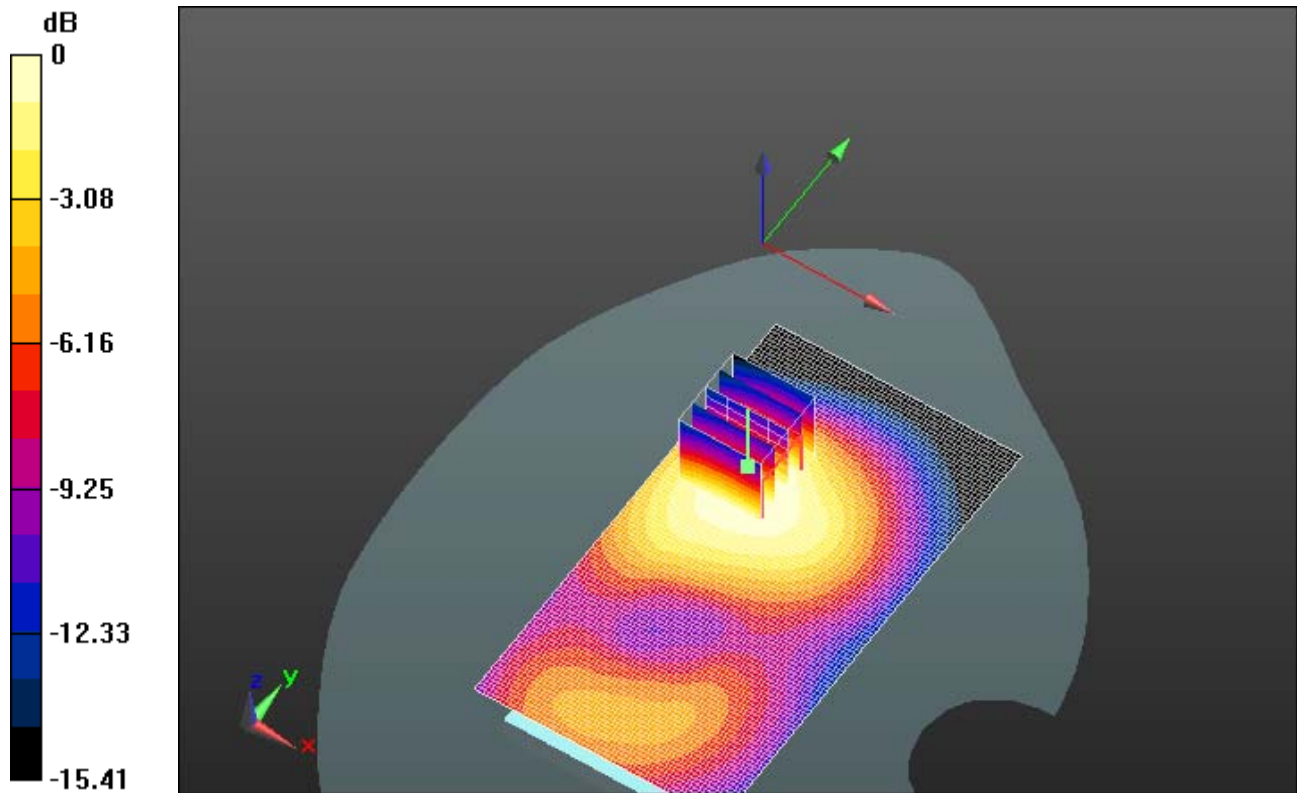
Reference Value = 9.858 V/m; Power Drift = 0.0058 dB

Peak SAR (extrapolated) = 1.2940

SAR(1 g) = 0.811 mW/g; SAR(10 g) = 0.507 mW/g

Maximum value of SAR (measured) = 0.963 mW/g

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0 dB = 0.960mW/g = -0.35 dB mW/g

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Date/Time: 6/14/2012 7:21:33 AM

Test Laboratory: RIM Testing Services

**Vertical_Holster_Back_LTE_4_mid_chan_QPSK_RB_1_Offset_0_amb_t
emp_23.3_liq_temp_21.4C**

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A211C01

Communication System: LTE; Frequency: 1732.5 MHz

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 51.287$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (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) = 0.668 mW/g

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

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

Reference Value = 8.637 V/m; Power Drift = 0.13 dB

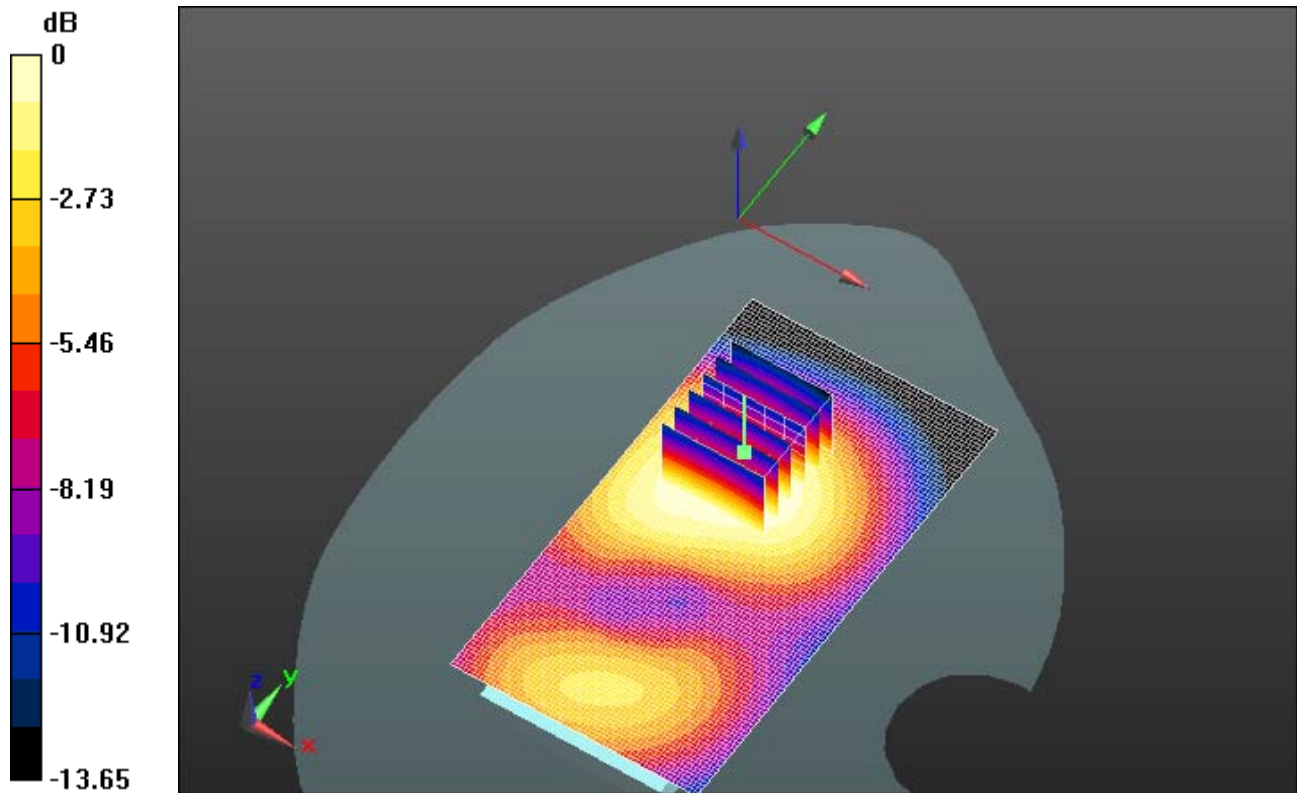
Peak SAR (extrapolated) = 0.8010

SAR(1 g) = 0.530 mW/g; SAR(10 g) = 0.354 mW/g

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

Maximum value of SAR (measured) = 0.613 mW/g

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0 dB = 0.610mW/g = -4.29 dB mW/g

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Date/Time: 6/14/2012 7:43:34 AM

Test Laboratory: RIM Testing Services

**Vertical_Holster_Front_LTE_4_mid_chan_QPSK_RB_1_Offset_0_amb_t
emp_23.5_liq_temp_21.4C**

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A211C01

Communication System: LTE; Frequency: 1732.5 MHz

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 51.287$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (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) = 0.506 mW/g

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

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

Reference Value = 9.044 V/m; Power Drift = -0.12 dB

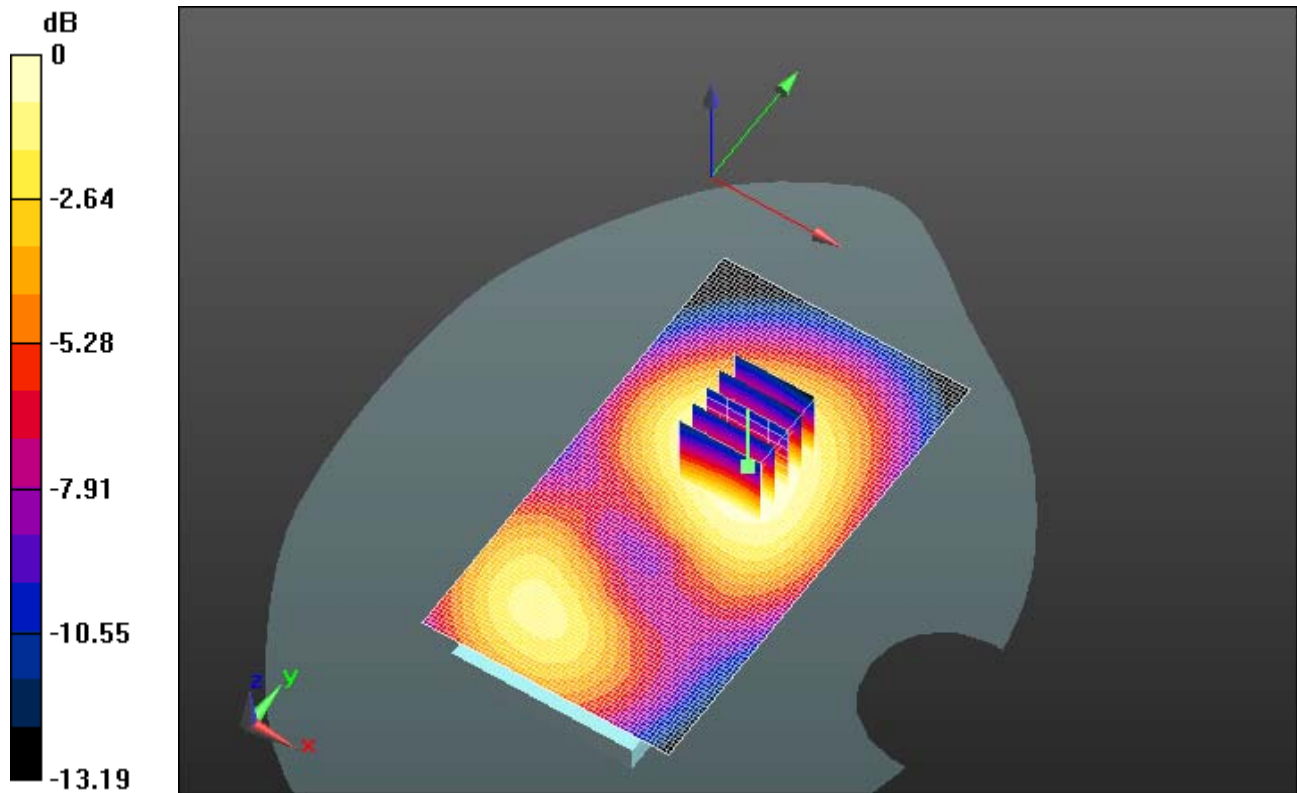
Peak SAR (extrapolated) = 0.6420

SAR(1 g) = 0.431 mW/g; SAR(10 g) = 0.284 mW/g

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

Maximum value of SAR (measured) = 0.503 mW/g

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0 dB = 0.500mW/g = -6.02 dB mW/g

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Author Data Andrew Becker	Dates of Test June 04 – October 29, 2012	Test Report No RTS-6012-1208-35	FCC ID: L6ARFF90LW	IC ID 2503A-RFF90LW

Date/Time: 10/26/2012 9:49:30 AM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Back_LTE_4_mid_chan_QPSK_RB_1_Offset_0_amb_tem
p_22.9_liq_temp_21.8C**

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A8C7018

Communication System: LTE; Frequency: 1732.5 MHz

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.503$ mho/m; $\epsilon_r = 51.292$;
 $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (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) = 1.183 mW/g

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

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

Reference Value = 10.089 V/m; Power Drift = -0.10 dB

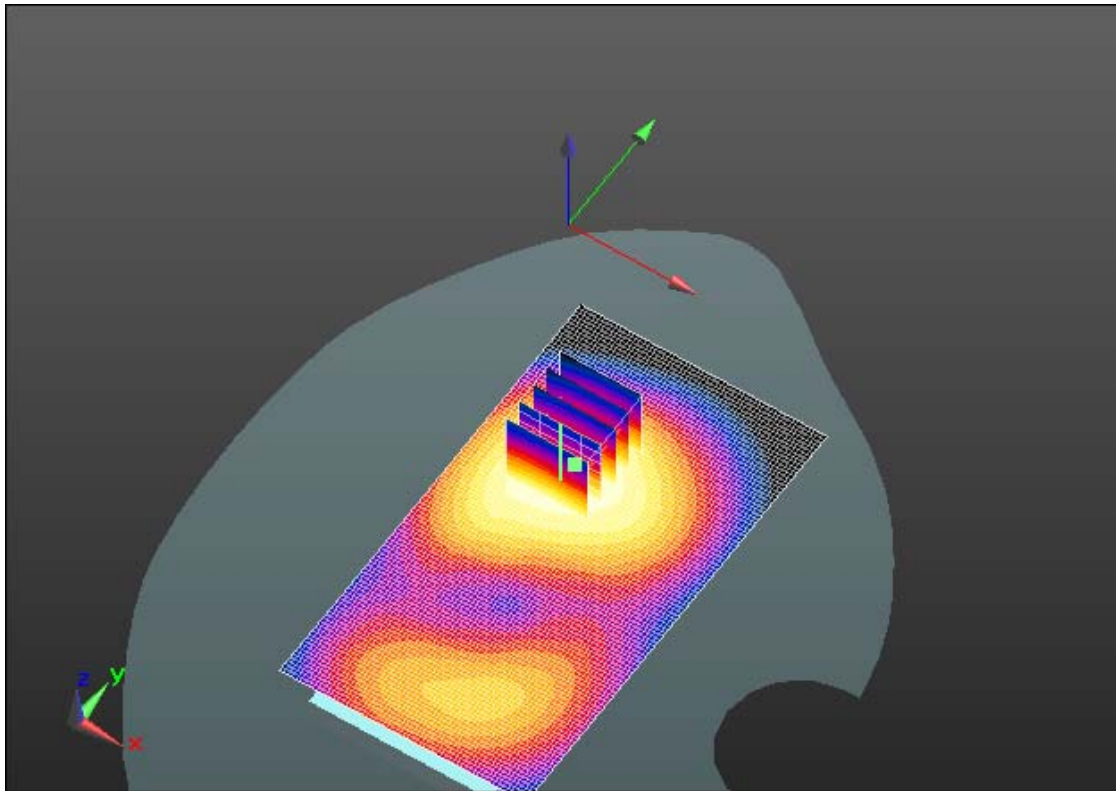
Peak SAR (extrapolated) = 1.5100

SAR(1 g) = 0.950 mW/g; SAR(10 g) = 0.613 mW/g

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

Maximum value of SAR (measured) = 1.116 mW/g

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

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Date/Time: 6/11/2012 9:57:59 PM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Back_LTE_2_mid_chan_QPSK_RB_1_Offset_0_amb_tem
p_22.9_liq_temp_21.4C**

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A211C01

Communication System: LTE; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.523 \text{ mho/m}$; $\epsilon_r = 50.843$; $\rho = 1000 \text{ kg/m}^3$

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
- DASYS2 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) = 0.713 mW/g

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

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

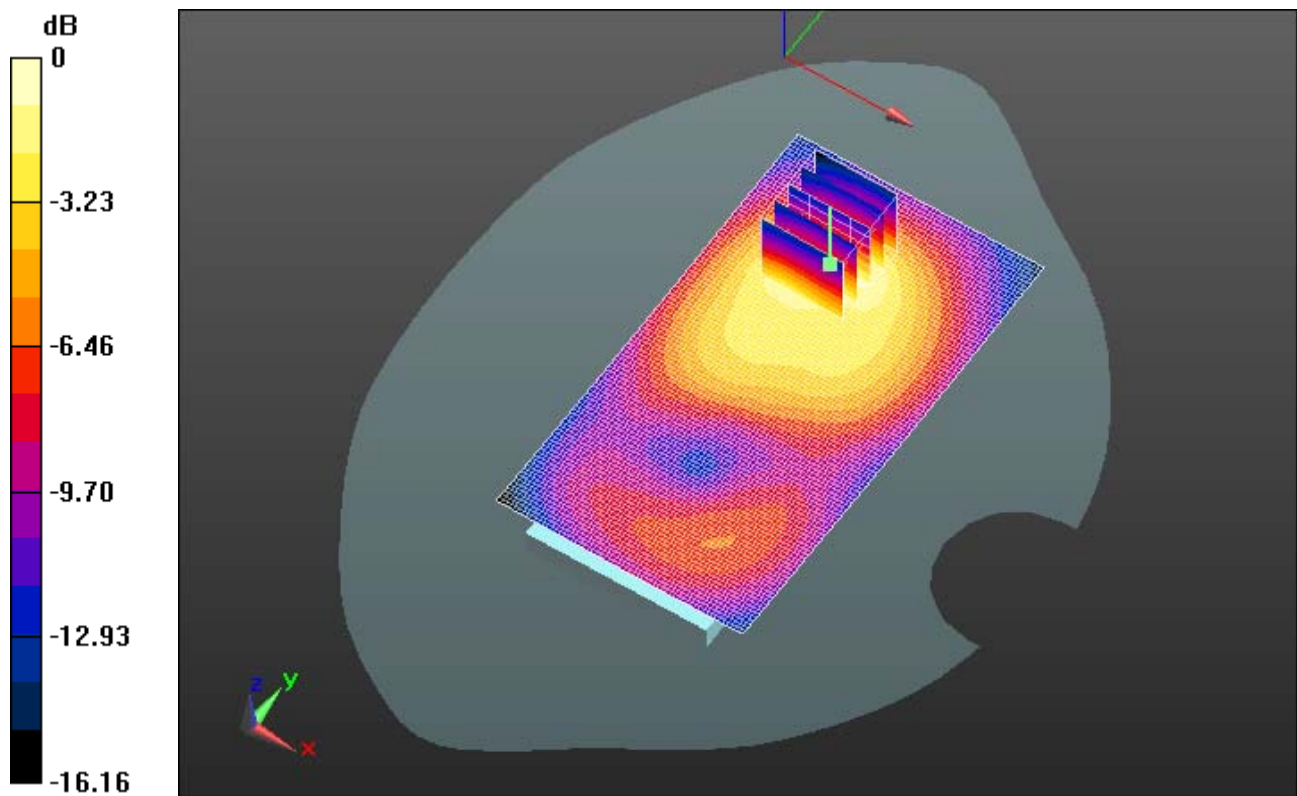
Reference Value = 8.416 V/m ; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.9120

SAR(1 g) = 0.565 mW/g ; SAR(10 g) = 0.328 mW/g

Maximum value of SAR (measured) = 0.680 mW/g

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0 dB = 0.680mW/g = -3.35 dB mW/g

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Date/Time: 6/11/2012 10:48:13 PM

Test Laboratory: RIM Testing Services

**Vertical_Holster_Back_LTE_2_mid_chan_QPSK_RB_1_Offset_0_amb_t
emp_22.9_liq_temp_21.4C**

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A211C01

Communication System: LTE; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.523 \text{ mho/m}$; $\epsilon_r = 50.843$; $\rho = 1000 \text{ kg/m}^3$

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
- DASY52 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) = 0.499 mW/g

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

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

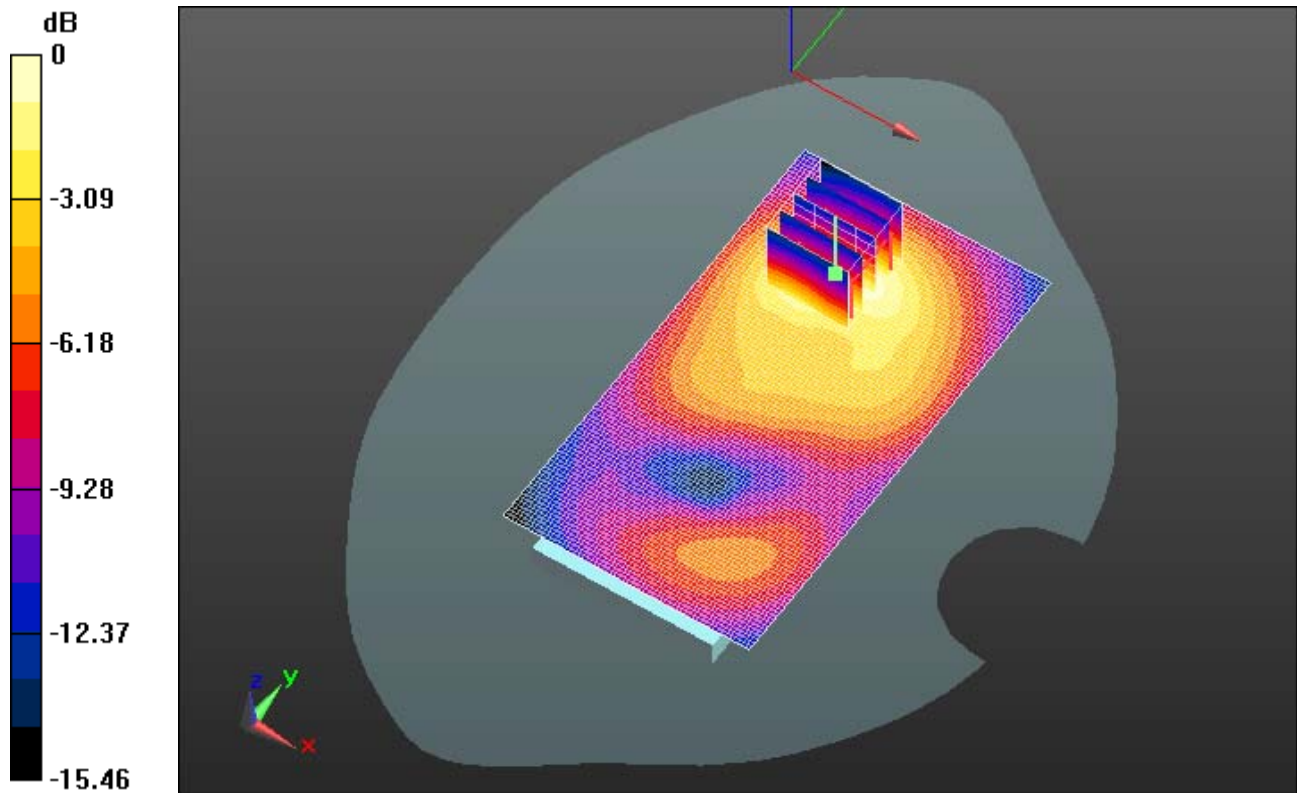
Reference Value = 7.449 V/m ; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.6350

SAR(1 g) = 0.394 mW/g ; SAR(10 g) = 0.235 mW/g

Maximum value of SAR (measured) = 0.473 mW/g

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0 dB = 0.470mW/g = -6.56 dB mW/g

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Author Data Andrew Becker	Dates of Test June 04 – October 29, 2012	Test Report No RTS-6012-1208-35	FCC ID: L6ARFF90LW	IC ID 2503A-RFF90LW	

Date/Time: 6/11/2012 11:16:50 PM

Test Laboratory: RIM Testing Services

**Vertical_Holster_Front_LTE_2_mid_chan_QPSK_RB_1_Offset_0_amb_t
emp_22.9_liq_temp_21.4C**

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A211C01

Communication System: LTE; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.523 \text{ mho/m}$; $\epsilon_r = 50.843$; $\rho = 1000 \text{ kg/m}^3$

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
- DASYS2 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) = 0.284 mW/g

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

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

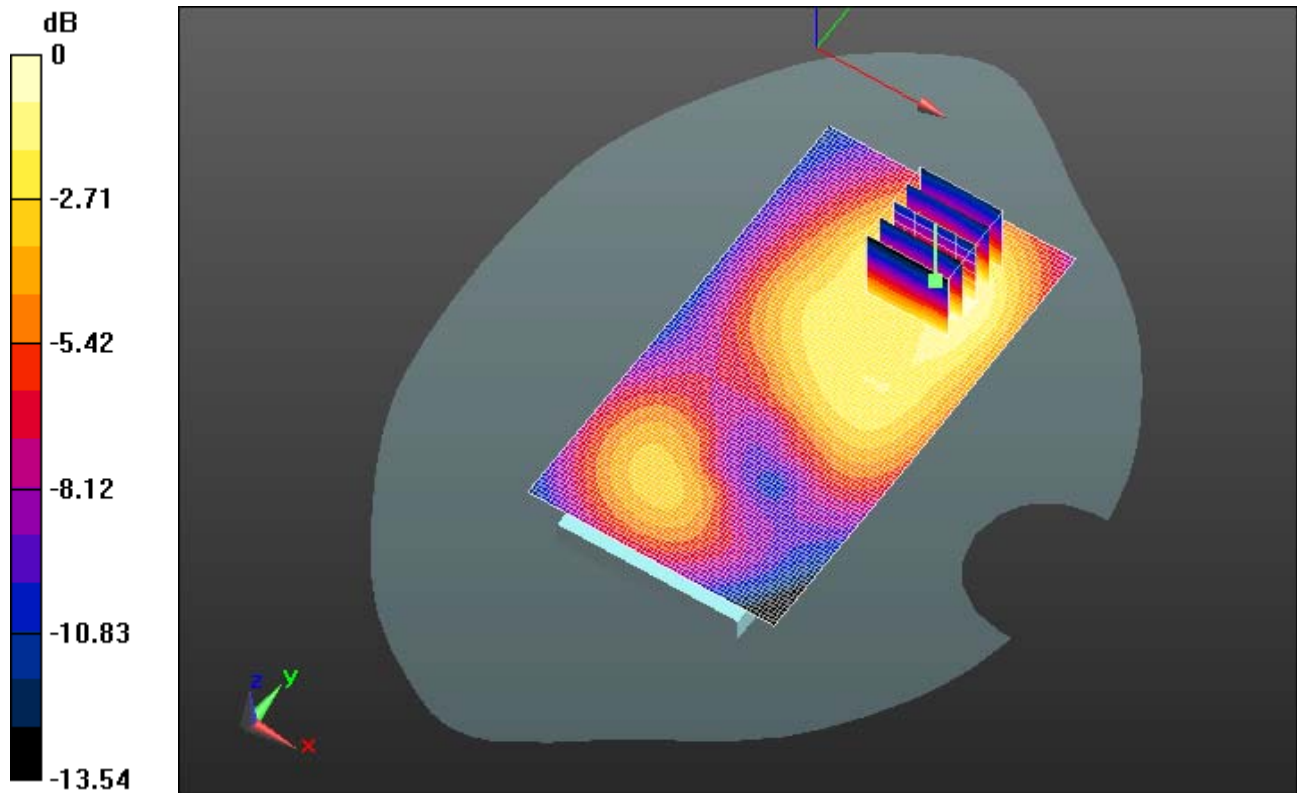
Reference Value = 6.348 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.3630

SAR(1 g) = 0.240 mW/g; SAR(10 g) = 0.149 mW/g

Maximum value of SAR (measured) = 0.284 mW/g

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0 dB = 0.280mW/g = -11.06 dB mW/g

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Author Data Andrew Becker	Dates of Test June 04 – October 29, 2012	Test Report No RTS-6012-1208-35	FCC ID: L6ARFF90LW	IC ID 2503A-RFF90LW

Date/Time: 9/27/2012 4:17:47 PM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Back_LTE_2_mid_chan_QPSK_RB_1_Offset_0_amb_tem
p_23.6_liq_temp_22.6C**

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A8C7018

Communication System: LTE ; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.568 \text{ mho/m}$; $\epsilon_r = 51.052$; $\rho = 1000 \text{ kg/m}^3$

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
- DASY52 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) = 0.877 mW/g

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

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

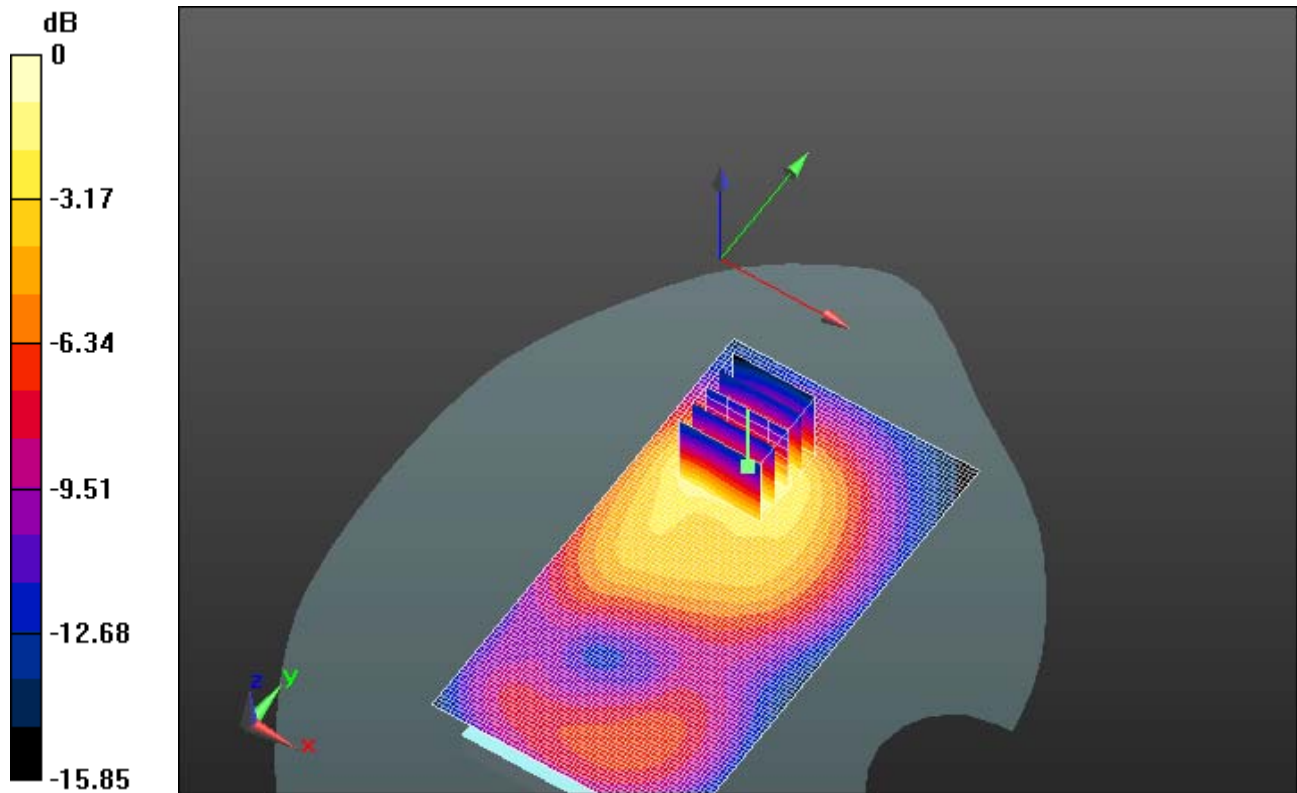
Reference Value = 10.059 V/m ; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.2620

SAR(1 g) = 0.766 mW/g ; SAR(10 g) = 0.440 mW/g

Maximum value of SAR (measured) = 0.926 mW/g

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0 dB = 0.930mW/g = -0.63 dB mW/g

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Date/Time: 6/13/2012 3:47:47 AM

Test Laboratory: RIM Testing Services

15mm_Spacer_Back_GPRS1900_mid_chan_amb_temp_22.6_liq_temp_21.5C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A211C01

Communication System: GPRS 1900; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 50.837$; $\rho = 1000 \text{ kg/m}^3$

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
- DASY52 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) = 0.627 mW/g

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

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

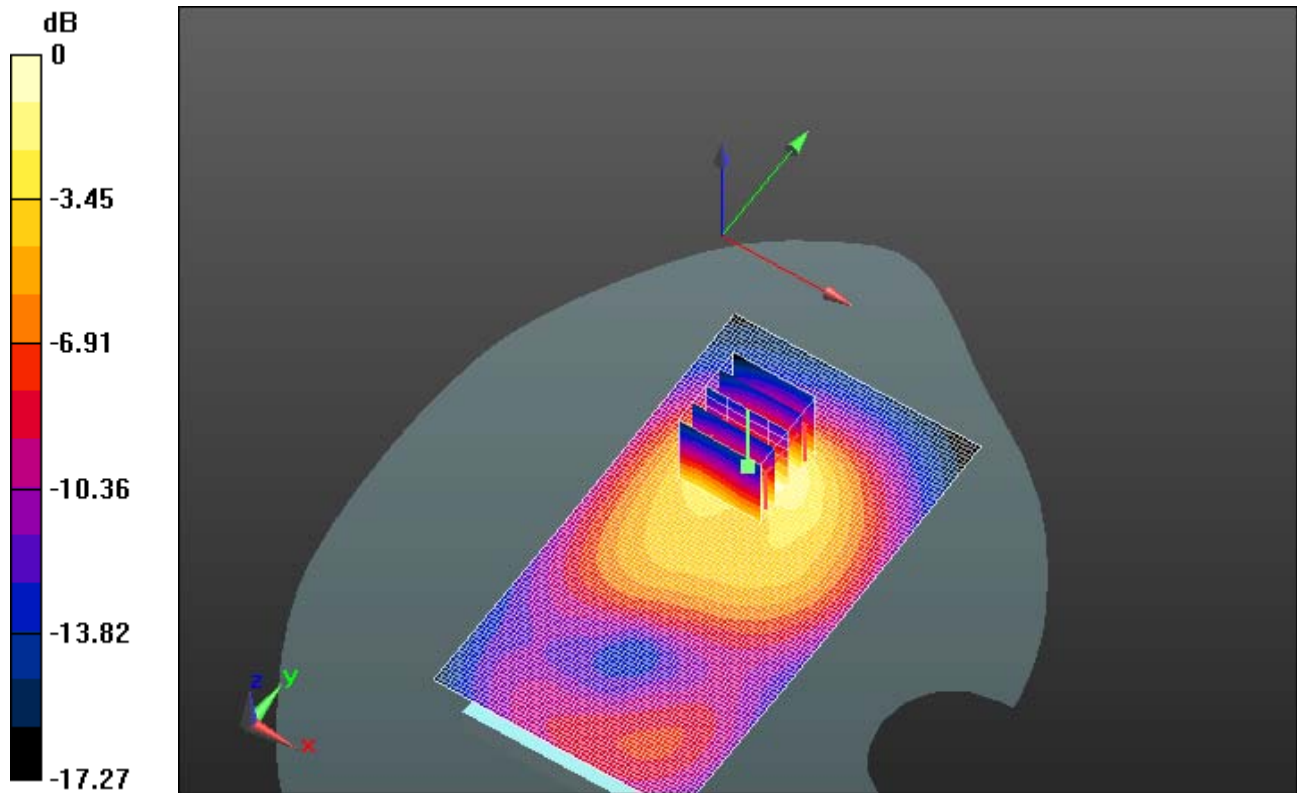
Reference Value = 9.597 V/m ; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.8490

SAR(1 g) = 0.491 mW/g ; SAR(10 g) = 0.270 mW/g

Maximum value of SAR (measured) = 0.615 mW/g

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0 dB = 0.610mW/g = -4.29 dB mW/g

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Author Data Andrew Becker	Dates of Test June 04 – October 29, 2012	Test Report No RTS-6012-1208-35	FCC ID: L6ARFF90LW	IC ID 2503A-RFF90LW

Date/Time: 6/13/2012 5:04:34 AM

Test Laboratory: RIM Testing Services

Vertical_Holster_Back_GPRS1900_mid_chan_amb_temp_22.5_liq_temp_21.5C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A211C01

Communication System: GPRS 1900; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 50.837$; $\rho = 1000 \text{ kg/m}^3$

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
- DASY52 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) = 0.343 mW/g

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

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

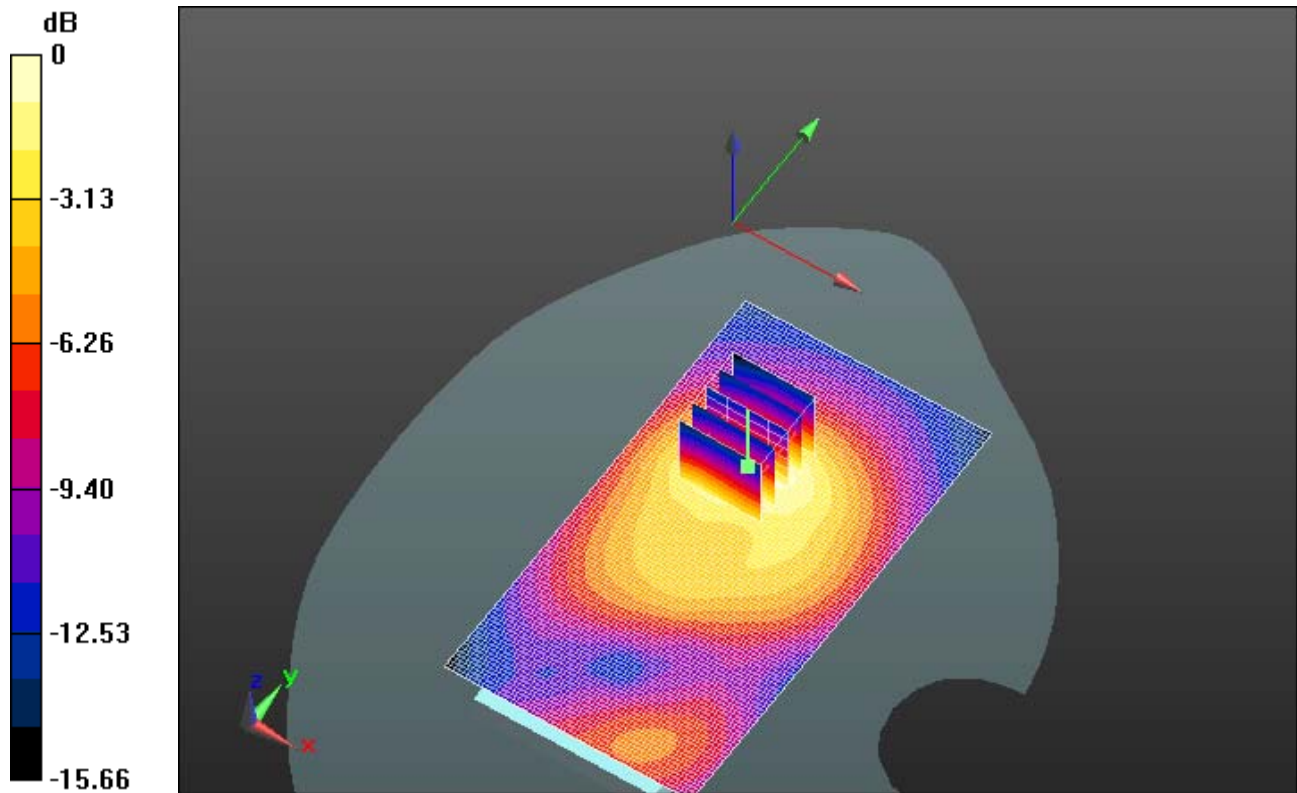
Reference Value = 9.864 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.4500

SAR(1 g) = 0.279 mW/g; SAR(10 g) = 0.164 mW/g

Maximum value of SAR (measured) = 0.339 mW/g

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0 dB = 0.340mW/g = -9.37 dB mW/g

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Date/Time: 6/13/2012 5:22:29 AM

Test Laboratory: RIM Testing Services

**Vertical_Holster_Front_GPRS1900_mid_chan_amb_temp_22.5_liq_tem
p_21.4C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A211C01

Communication System: GPRS 1900; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 50.837$; $\rho = 1000 \text{ kg/m}^3$

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
- DASY52 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) = 0.166 mW/g

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

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

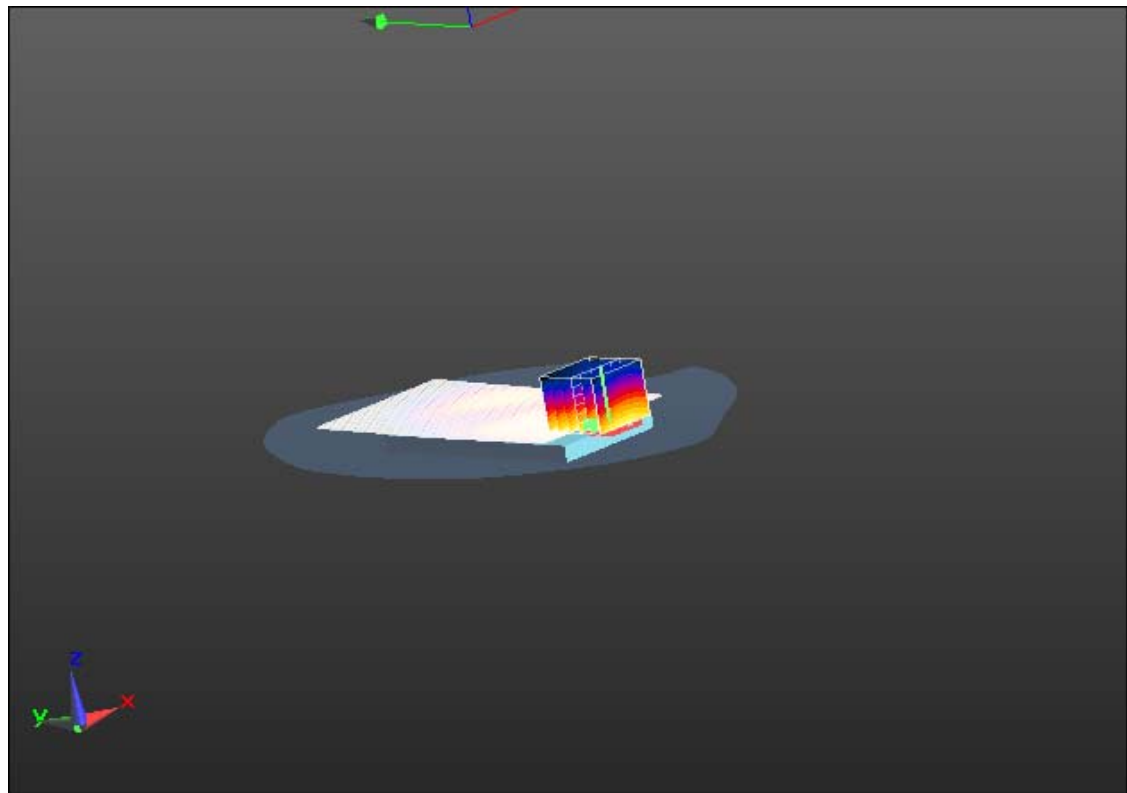
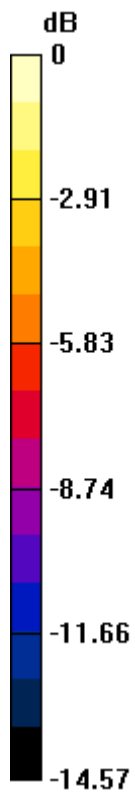
Reference Value = 5.976 V/m ; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.2510

SAR(1 g) = 0.162 mW/g ; SAR(10 g) = 0.102 mW/g

Maximum value of SAR (measured) = 0.189 mW/g

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0 dB = 0.190mW/g = -14.42 dB mW/g

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Author Data Andrew Becker	Dates of Test June 04 – October 29, 2012	Test Report No RTS-6012-1208-35	FCC ID: L6ARFF90LW	IC ID 2503A-RFF90LW

Date/Time: 9/28/2012 12:49:48 AM

Test Laboratory: RIM Testing Services

15mm_Spacer_Back_GPRS1900_mid_chan_amb_temp_23.6_liq_temp_21.4C

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A8C7018

Communication System: GPRS 1900; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.568 \text{ mho/m}$; $\epsilon_r = 51.052$; $\rho = 1000 \text{ kg/m}^3$

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
- DASYS2 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) = 0.675 mW/g

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

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

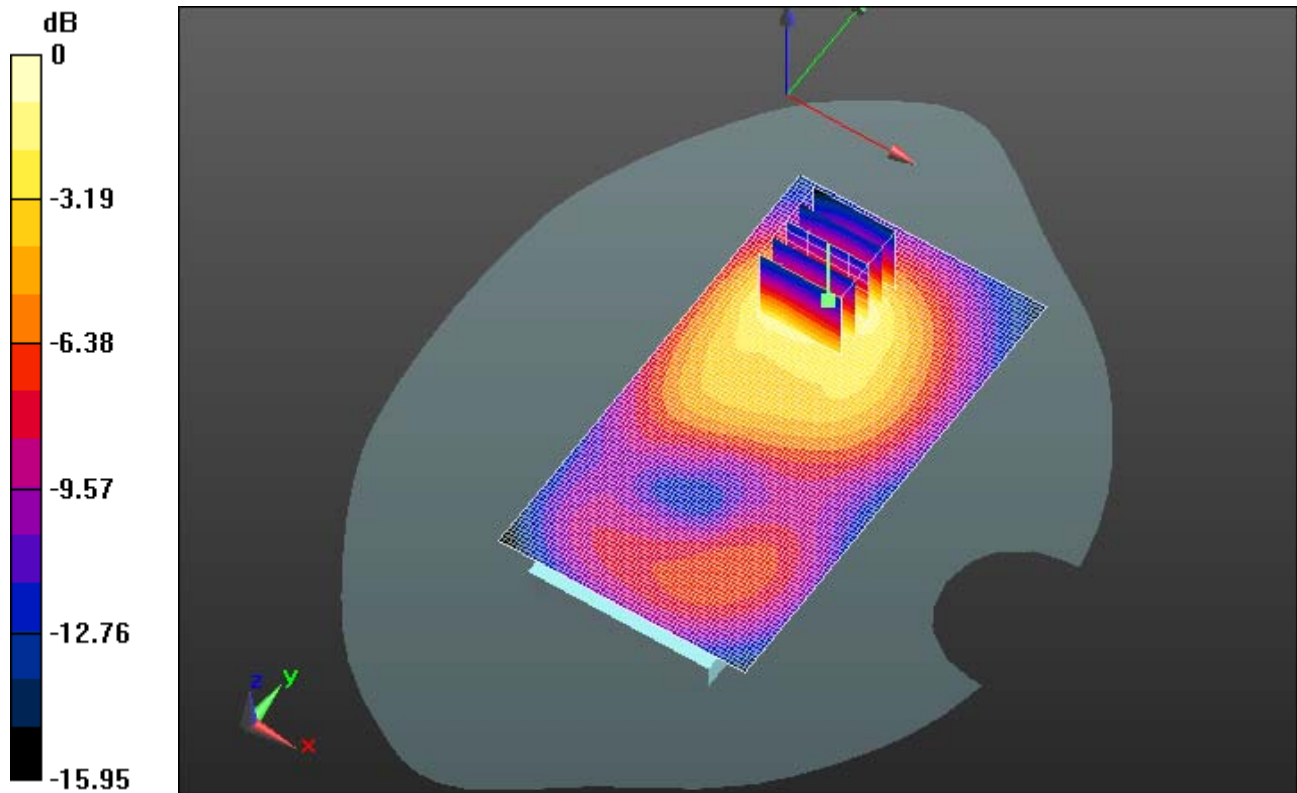
Reference Value = 7.461 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.8930

SAR(1 g) = 0.542 mW/g; SAR(10 g) = 0.310 mW/g

Maximum value of SAR (measured) = 0.660 mW/g

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0 dB = 0.660mW/g = -3.61 dB mW/g

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Author Data Andrew Becker	Dates of Test June 04 – October 29, 2012	Test Report No RTS-6012-1208-35	FCC ID: L6ARFF90LW	IC ID 2503A-RFF90LW	

Date/Time: 6/12/2012 4:56:07 AM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Back_UMTS_Band_II_mid_chan_amb_temp_22.6_liq_tem
p_21.5C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A20270D

Communication System: WCDMA FDD II; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.523 \text{ mho/m}$; $\epsilon_r = 50.843$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (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:

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

Maximum value of SAR (interpolated) = 0.784 mW/g

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

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

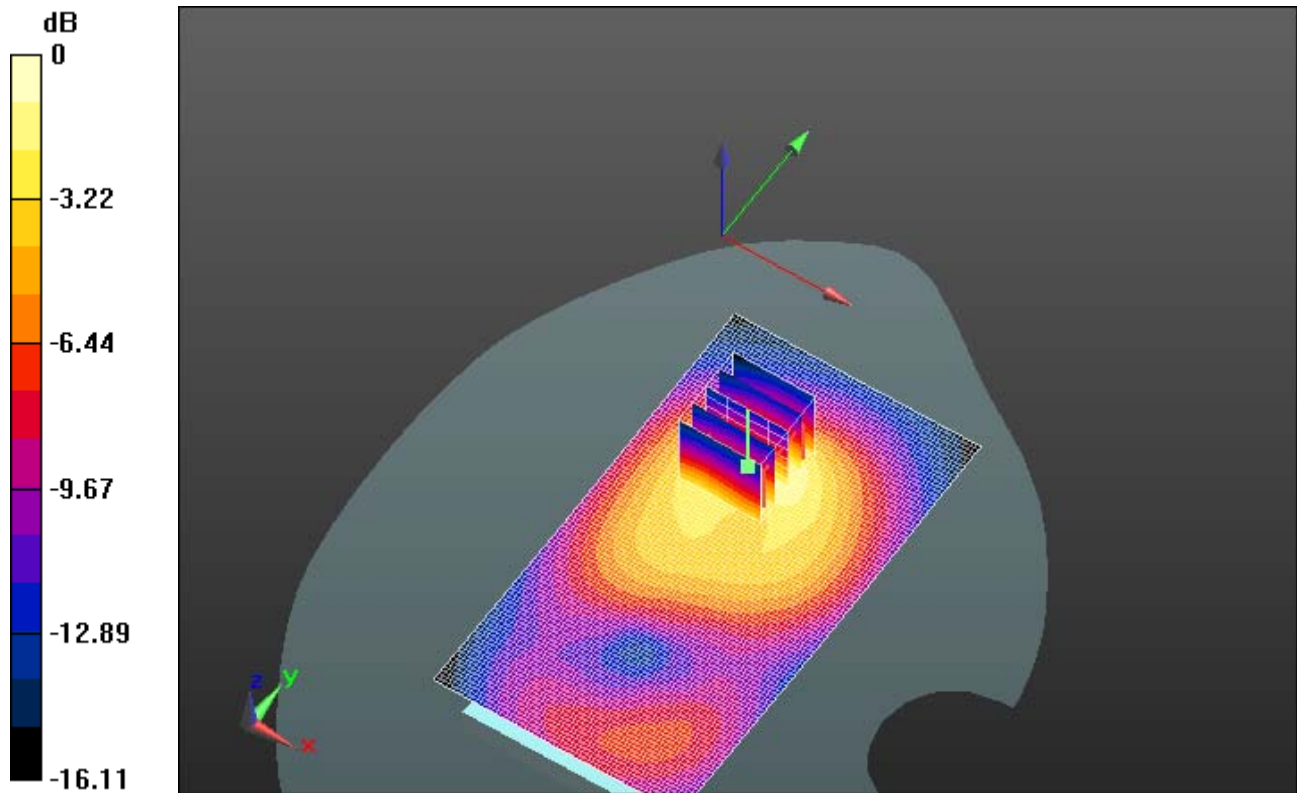
Reference Value = 10.898 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.0280

SAR(1 g) = 0.617 mW/g; SAR(10 g) = 0.350 mW/g

Maximum value of SAR (measured) = 0.760 mW/g

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0 dB = 0.760mW/g = -2.38 dB mW/g

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Author Data Andrew Becker	Dates of Test June 04 – October 29, 2012	Test Report No RTS-6012-1208-35	FCC ID: L6ARFF90LW	IC ID 2503A-RFF90LW

Date/Time: 6/12/2012 5:34:07 AM

Test Laboratory: RIM Testing Services

Vertical_Holster_Back_UMTS_II_mid_chan_amb_temp_22.6_liq_temp_2 1.5C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A20270D

Communication System: WCDMA FDD II; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.523 \text{ mho/m}$; $\epsilon_r = 50.843$; $\rho = 1000 \text{ kg/m}^3$

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
- DASYS2 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) = 0.537 mW/g

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

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

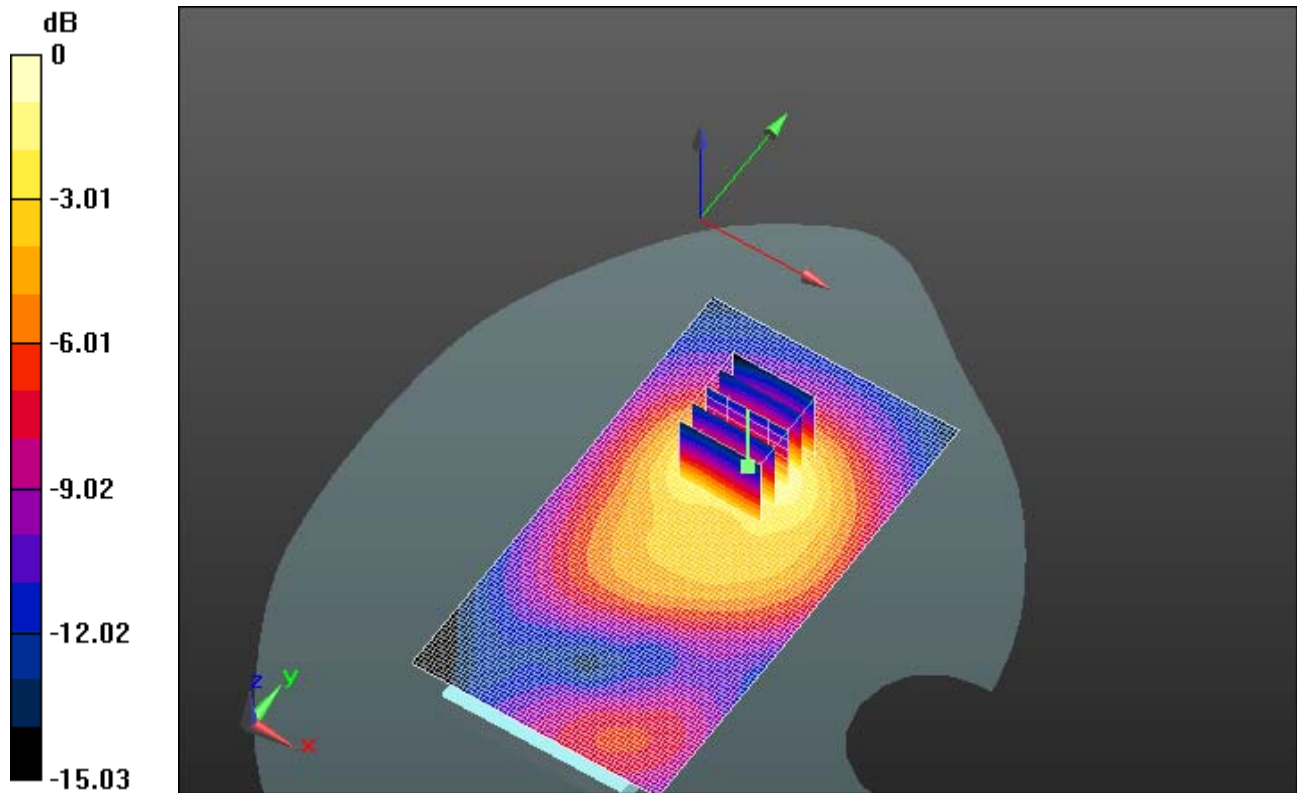
Reference Value = 11.291 V/m ; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.7130

SAR(1 g) = 0.444 mW/g ; SAR(10 g) = 0.260 mW/g

Maximum value of SAR (measured) = 0.531 mW/g

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0 dB = 0.530mW/g = -5.51 dB mW/g

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Author Data Andrew Becker	Dates of Test June 04 – October 29, 2012	Test Report No RTS-6012-1208-35	FCC ID: L6ARFF90LW	IC ID 2503A-RFF90LW	

Date/Time: 6/12/2012 5:56:49 AM

Test Laboratory: RIM Testing Services

Vertical_Holster_Front_UMTS_II_mid_chan_amb_temp_22.3_liq_temp_2 1.5C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A20270D

Communication System: WCDMA FDD II; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.523 \text{ mho/m}$; $\epsilon_r = 50.843$; $\rho = 1000 \text{ kg/m}^3$

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
- DASY52 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) = 0.286 mW/g

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

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

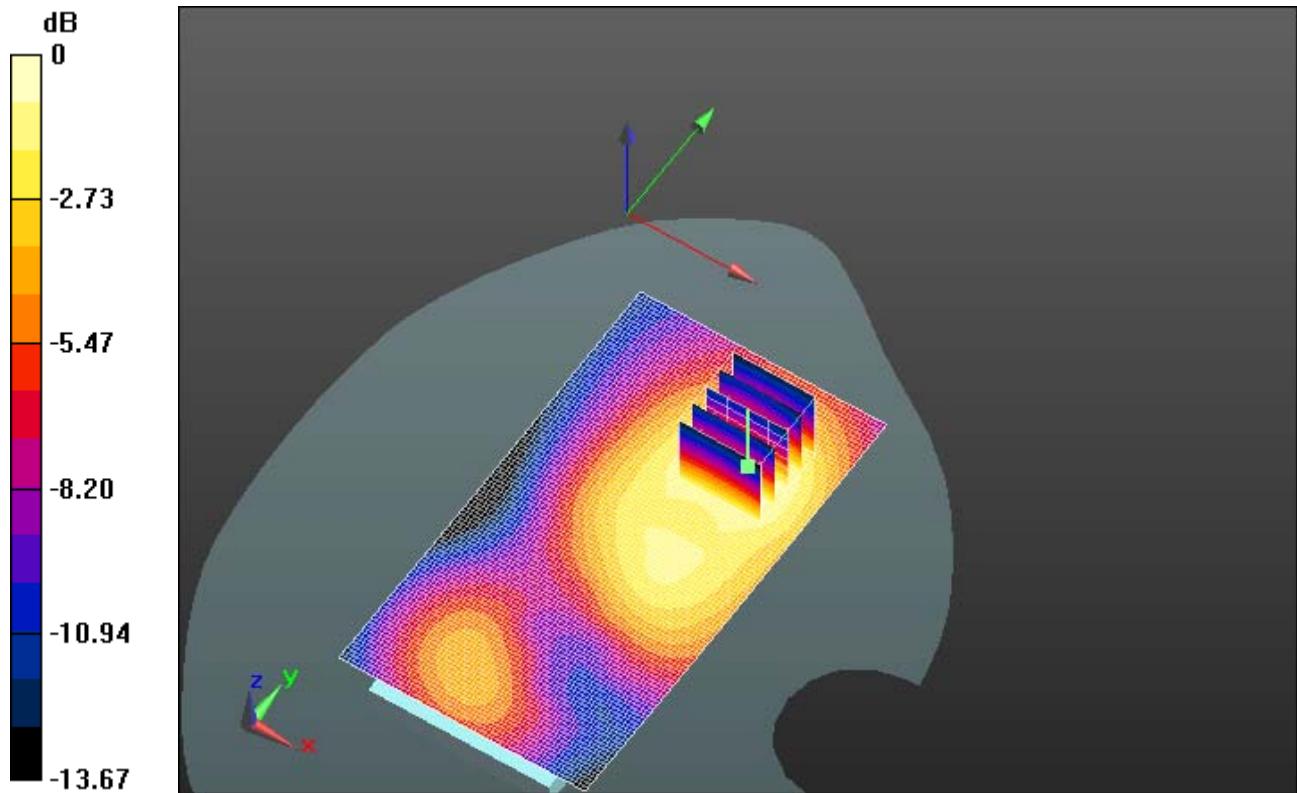
Reference Value = 7.386 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.3820

SAR(1 g) = 0.248 mW/g; SAR(10 g) = 0.154 mW/g

Maximum value of SAR (measured) = 0.292 mW/g

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0 dB = 0.290mW/g = -10.75 dB mW/g

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Author Data Andrew Becker	Dates of Test June 04 – October 29, 2012	Test Report No RTS-6012-1208-35	FCC ID: L6ARFF90LW	IC ID 2503A-RFF90LW

Date/Time: 9/27/2012 7:13:33 PM

Test Laboratory: RIM Testing Services

15mm_Spacer_Back_UMTS_Band_II_low_chan_amb_temp_24.0_liq_temper_22.4C

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A8C7018

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz

Medium parameters used (interpolated): $f = 1852.4 \text{ MHz}$; $\sigma = 1.542 \text{ mho/m}$; $\epsilon_r = 51.204$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (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:
 $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 1.119 mW/g

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

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

Reference Value = 9.759 V/m ; Power Drift = -0.03 dB

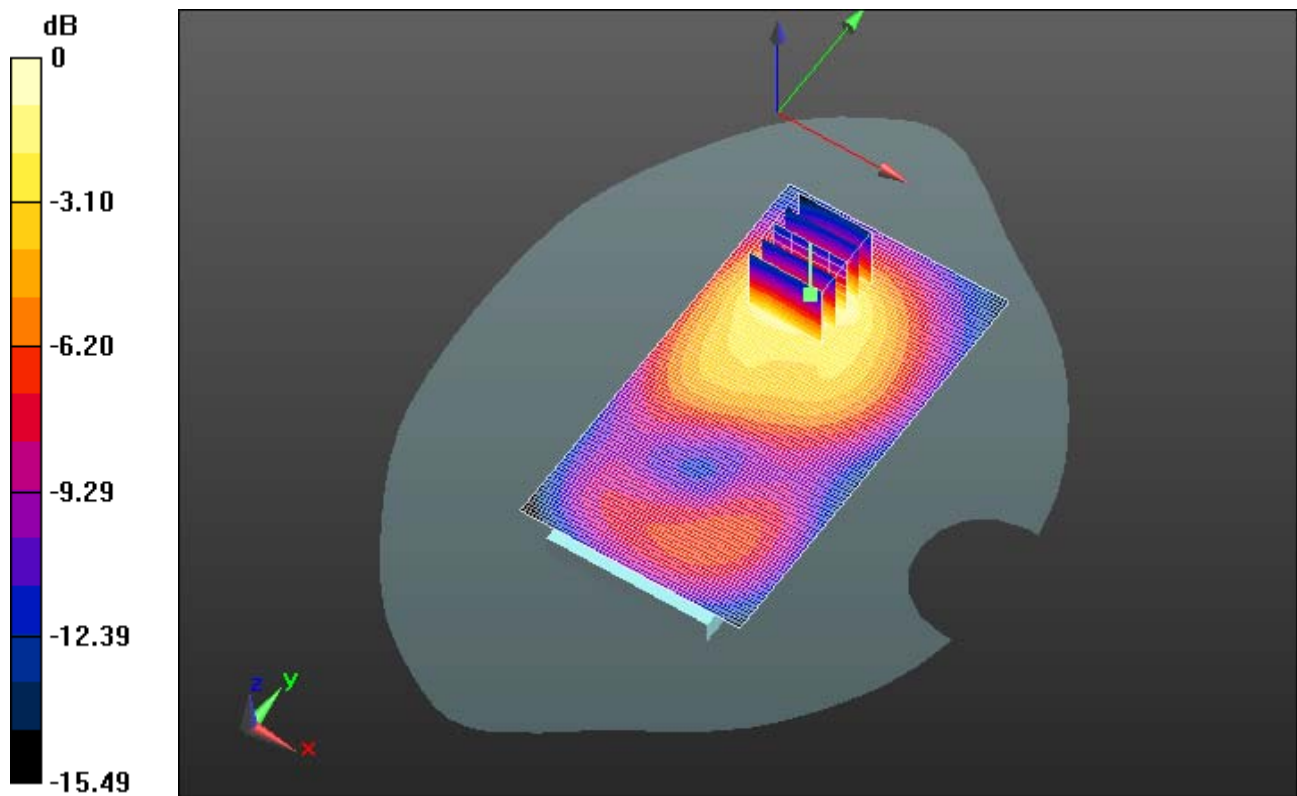
Peak SAR (extrapolated) = 1.4820

SAR(1 g) = 0.908 mW/g ; SAR(10 g) = 0.530 mW/g

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

Maximum value of SAR (measured) = 1.112 mW/g

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0 dB = 1.110mW/g = 0.91 dB mW/g

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Date/Time: 9/27/2012 6:37:57 PM

Test Laboratory: RIM Testing Services

15mm_Spacer_Back_UMTS_Band_II_mid_chan_amb_temp_24.0_liq_temper_22.4C

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A8C7018

Communication System: WCDMA FDD II; Frequency: 1880 MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.568 \text{ mho/m}$; $\epsilon_r = 51.052$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (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:

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

Maximum value of SAR (interpolated) = 1.112 mW/g

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

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

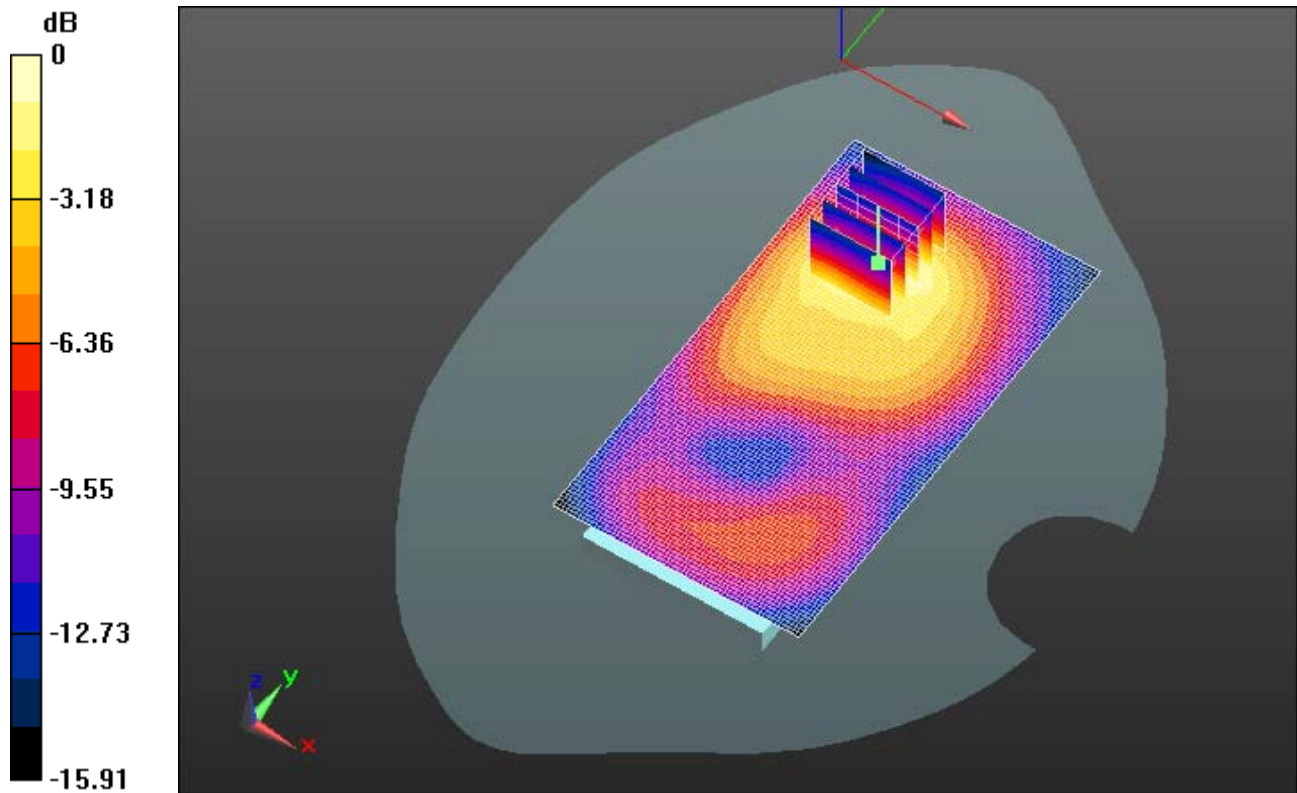
Reference Value = 9.146 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.4730

SAR(1 g) = 0.895 mW/g; SAR(10 g) = 0.515 mW/g

Maximum value of SAR (measured) = 1.109 mW/g

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0 dB = 1.110mW/g = 0.91 dB mW/g

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Date/Time: 9/27/2012 7:58:13 PM

Test Laboratory: RIM Testing Services

15mm_Spacer_Back_UMTS_Band_II_high_chan_amb_temp_24.0_liq_temp_22.4C

DUT: BlackBerry Smartphone; Type: Sample; Serial: 2A8C7018

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz
Medium parameters used (interpolated): $f = 1907.6$ MHz; $\sigma = 1.591$ mho/m; $\epsilon_r = 50.918$;
 $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASY5 (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:
 $dx=15$ mm, $dy=15$ mm

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

Maximum value of SAR (interpolated) = 1.177 mW/g

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

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

Reference Value = 8.957 V/m; Power Drift = 0.10 dB

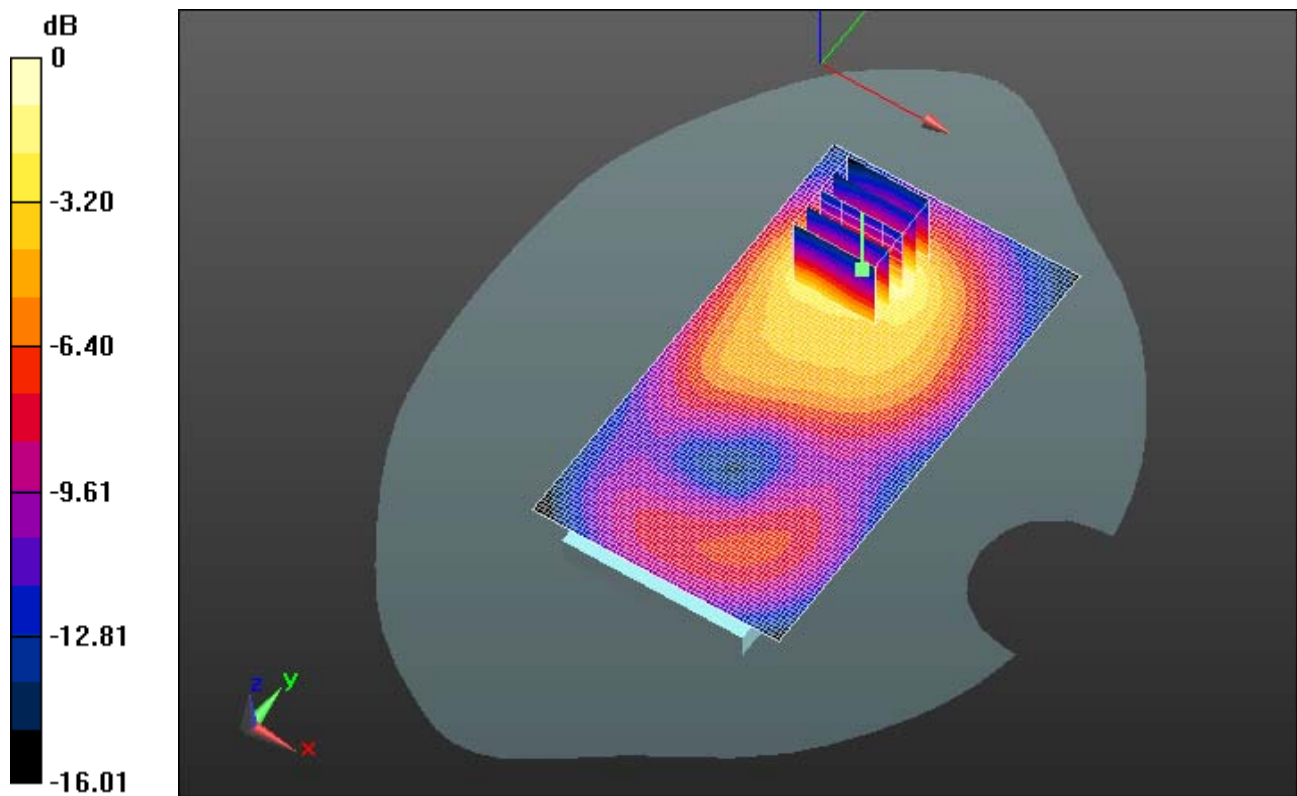
Peak SAR (extrapolated) = 1.5740

SAR(1 g) = 0.949 mW/g; SAR(10 g) = 0.531 mW/g

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

Maximum value of SAR (measured) = 1.167 mW/g

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0 dB = 1.170mW/g = 1.36 dB mW/g

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Date/Time: 6/20/2012 10:26:37 PM

Test Laboratory: RIM Testing Services

15mm_Spacer_Back_802.11b_mid_chan_amb_temp_23.1_liq_temp_22.3C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A211C01

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

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.899$ mho/m; $\epsilon_r = 52.043$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.3, 4.3, 4.3); 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 (61x101x1): Measurement grid:
 $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.217 mW/g

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

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

Reference Value = 2.997 V/m; Power Drift = -0.19 dB

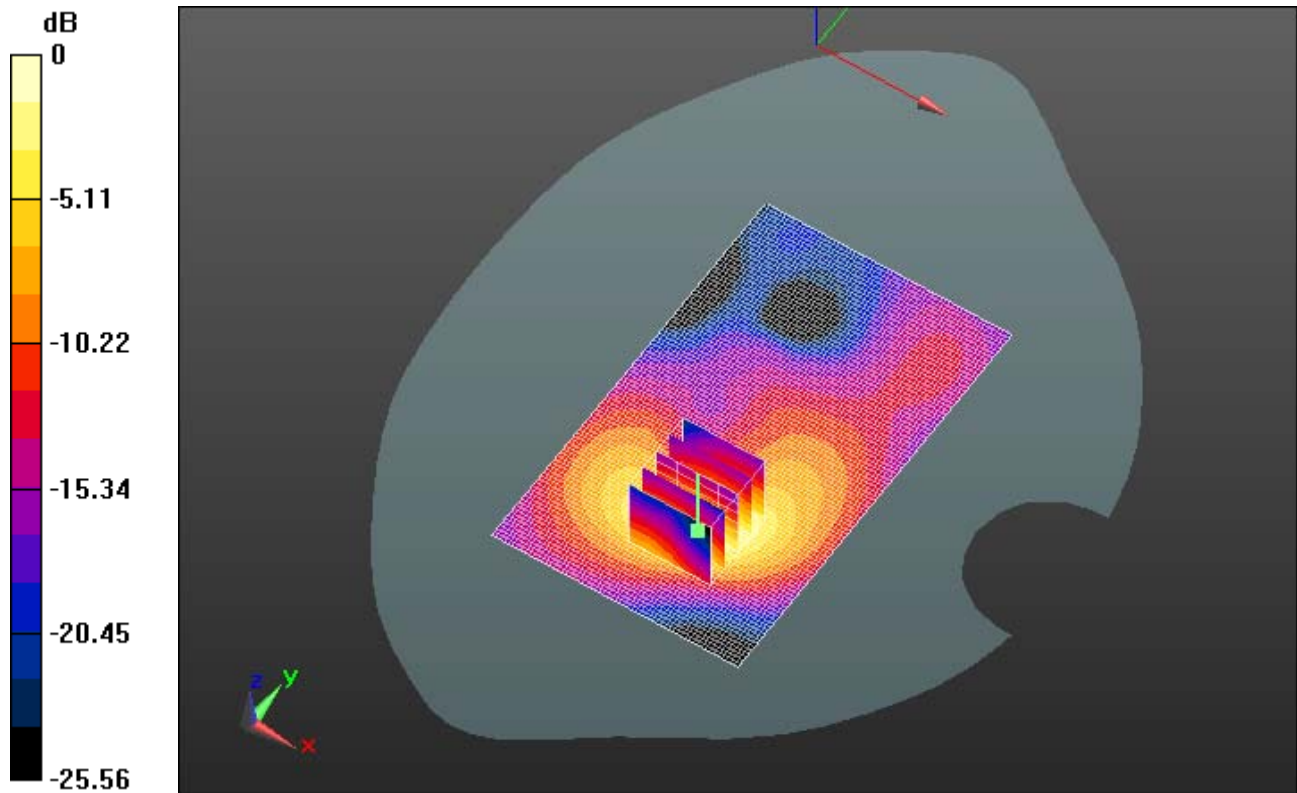
Peak SAR (extrapolated) = 0.3700

SAR(1 g) = 0.185 mW/g; SAR(10 g) = 0.089 mW/g

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

Maximum value of SAR (measured) = 0.244 mW/g

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0 dB = 0.240mW/g = -12.40 dB mW/g

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Date/Time: 6/20/2012 11:58:01 PM

Test Laboratory: RIM Testing Services

Vertical_Holster_Back_802.11b_mid_chan_amb_temp_22.8_liq_temp_2

2.3C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A211C01

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

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.899$ mho/m; $\epsilon_r = 52.043$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.3, 4.3, 4.3); 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 (61x101x1): Measurement grid:
 $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.092 mW/g

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

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

Reference Value = 2.454 V/m; Power Drift = 0.48 dB

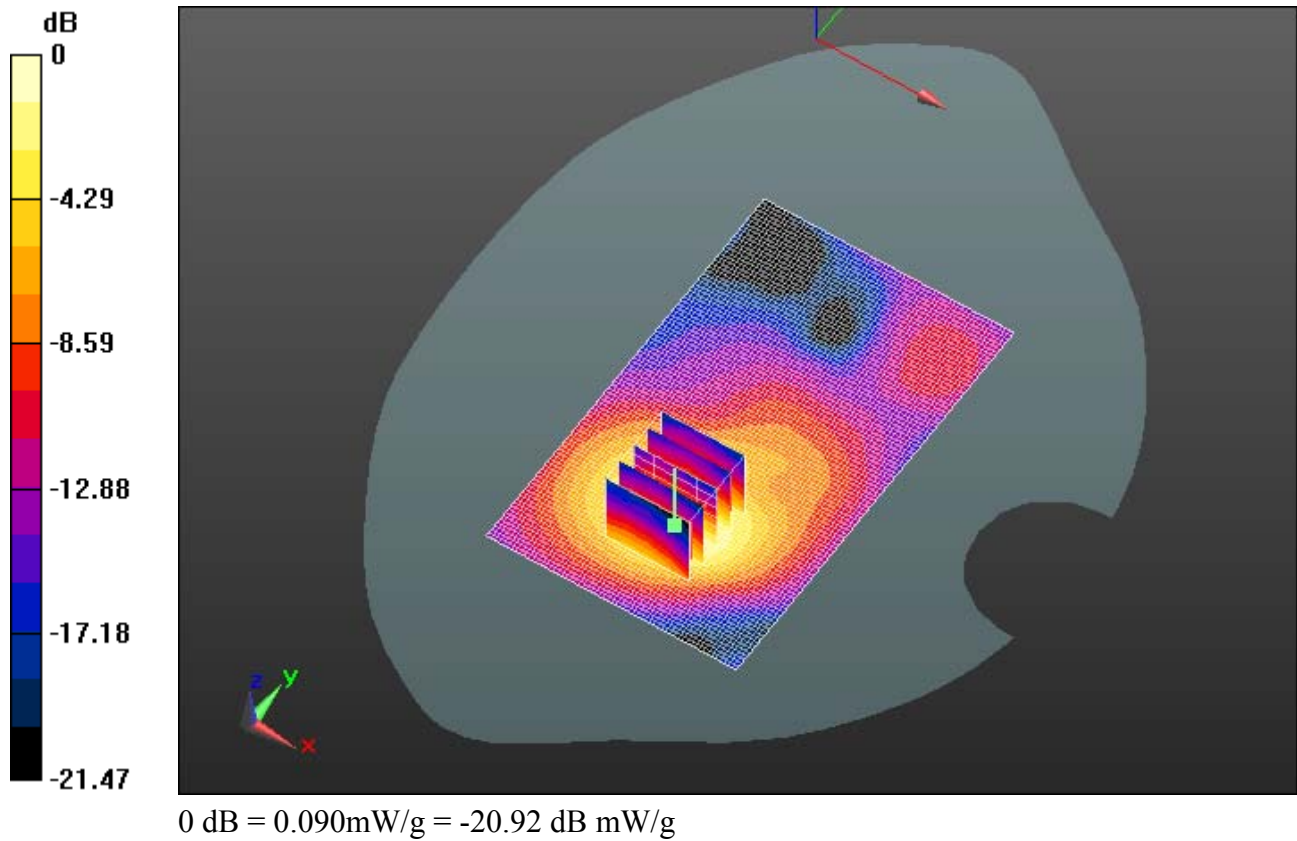
Peak SAR (extrapolated) = 0.1380

SAR(1 g) = 0.073 mW/g; SAR(10 g) = 0.039 mW/g

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

Maximum value of SAR (measured) = 0.092 mW/g

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Date/Time: 6/20/2012 11:25:34 PM

Test Laboratory: RIM Testing Services

Vertical_Holster_Front_802.11b_mid_chan_amb_temp_22.9_liq_temp_2 2.3C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A211C01

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

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.899$ mho/m; $\epsilon_r = 52.043$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.3, 4.3, 4.3); 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 (61x101x1): Measurement grid:
dx=15mm, dy=15mm

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

Maximum value of SAR (interpolated) = 0.031 mW/g

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

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

Reference Value = 1.984 V/m; Power Drift = 0.24 dB

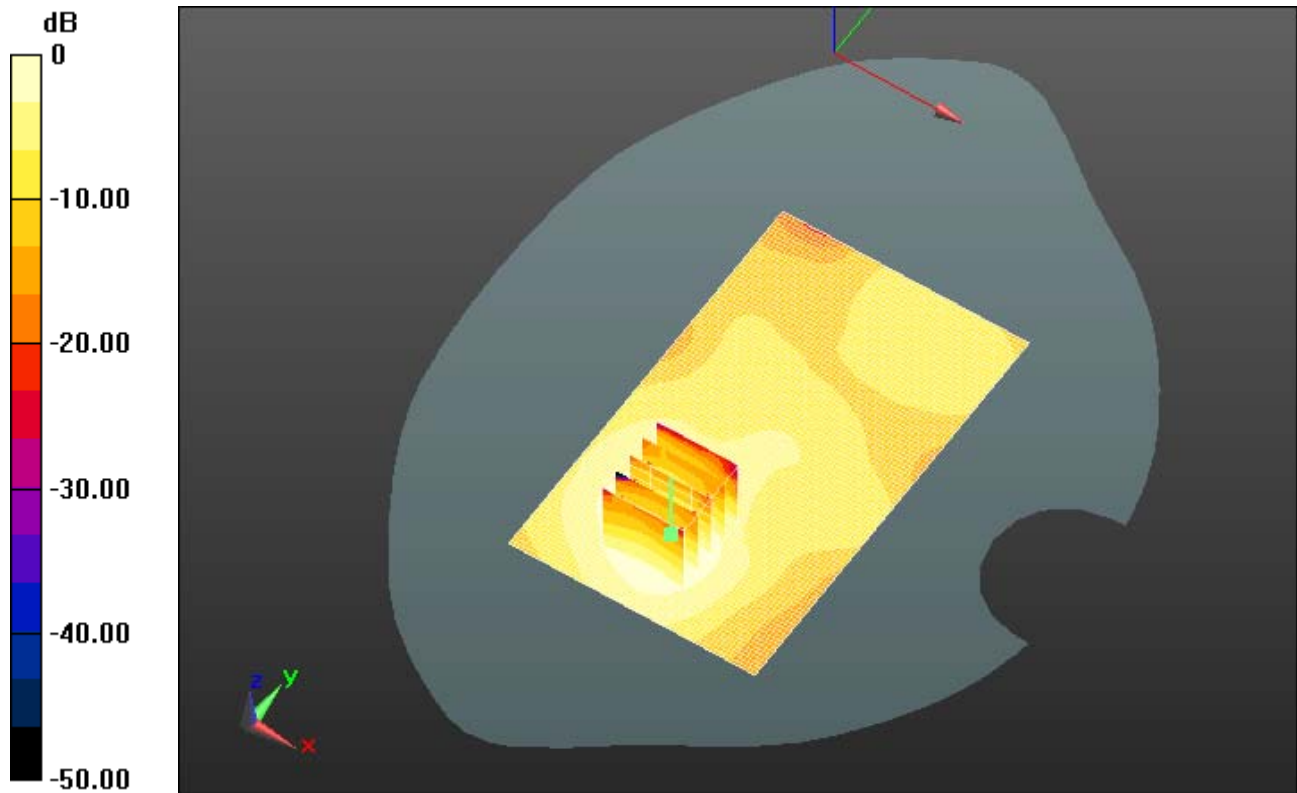
Peak SAR (extrapolated) = 0.0450

SAR(1 g) = 0.025 mW/g; SAR(10 g) = 0.014 mW/g

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

Maximum value of SAR (measured) = 0.030 mW/g

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0 dB = 0.030mW/g = -30.46 dB mW/g

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Date/Time: 9/14/2012 3:17:58 AM

Test Laboratory: RIM Testing Services

15mm_Spacer_Back_802.11b_low_chan_amb_temp_24.0_liq_temp_21.3C

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A8C7018

Communication System: 802.11 b (2450); Frequency: 2412 MHz

Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.866$ mho/m; $\epsilon_r = 52.901$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(4.3, 4.3, 4.3); 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 (61x101x1): Measurement grid:
 $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.240 mW/g

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

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

Reference Value = 2.249 V/m; Power Drift = 0.75 dB

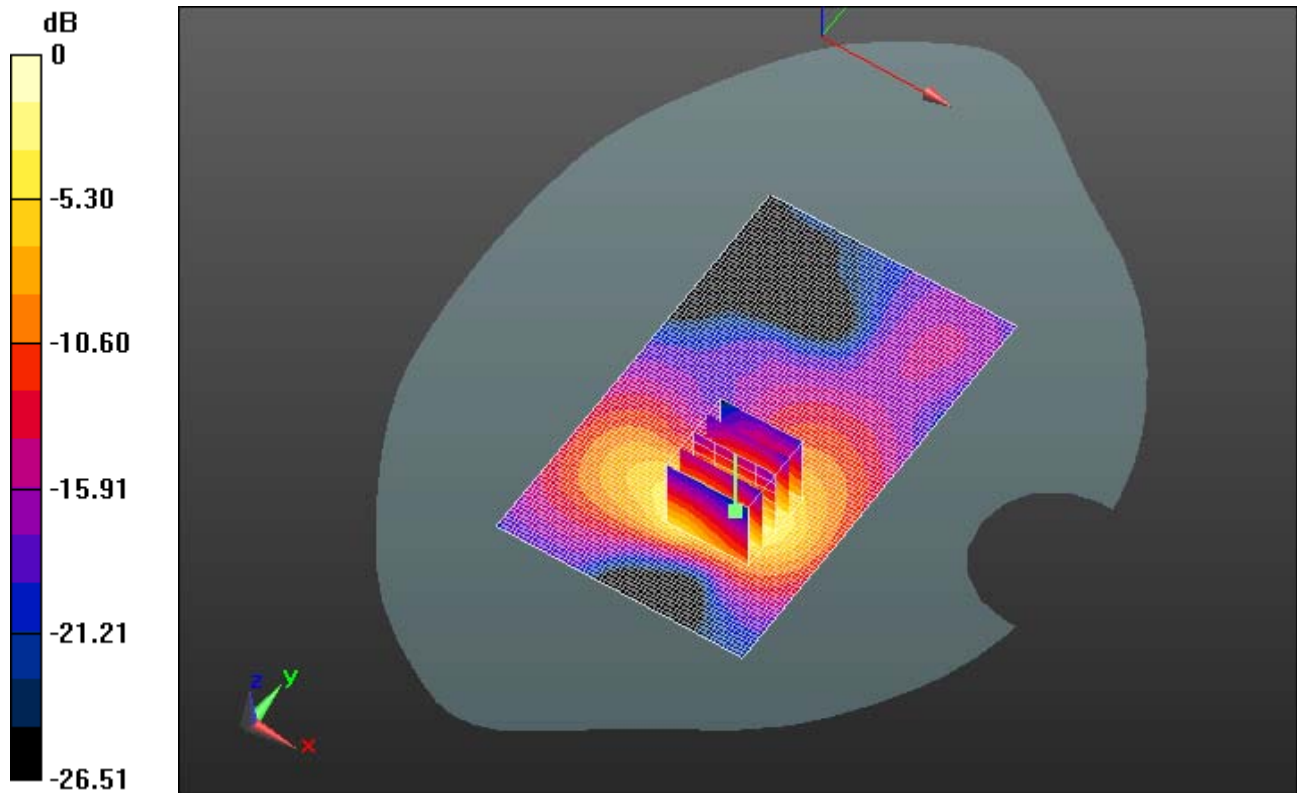
Peak SAR (extrapolated) = 0.4470

SAR(1 g) = 0.210 mW/g; SAR(10 g) = 0.094 mW/g

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

Maximum value of SAR (measured) = 0.253 mW/g

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0 dB = 0.250mW/g = -12.04 dB mW/g

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Date/Time: 6/26/2012 12:31:28 AM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Back_802.11a_low_band_chan_48_amb_temp_24.1_liq_
temp_21.5C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A211C01

Communication System: 802.11a ; Frequency: 5240 MHz

Medium parameters used: $f = 5240 \text{ MHz}$; $\sigma = 5.277 \text{ mho/m}$; $\epsilon_r = 47.045$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF(3.95, 3.95, 3.95); Calibrated: 11/16/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 21.0$
- 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 - 2/Area Scan (91x151x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.139 mW/g

Configuration/Touch position - 2/Zoom Scan -Ext(24x24x20), Step

(4x4x2.5mm), dist=2mm (8x8x9)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$,

$dz=2.5\text{mm}$

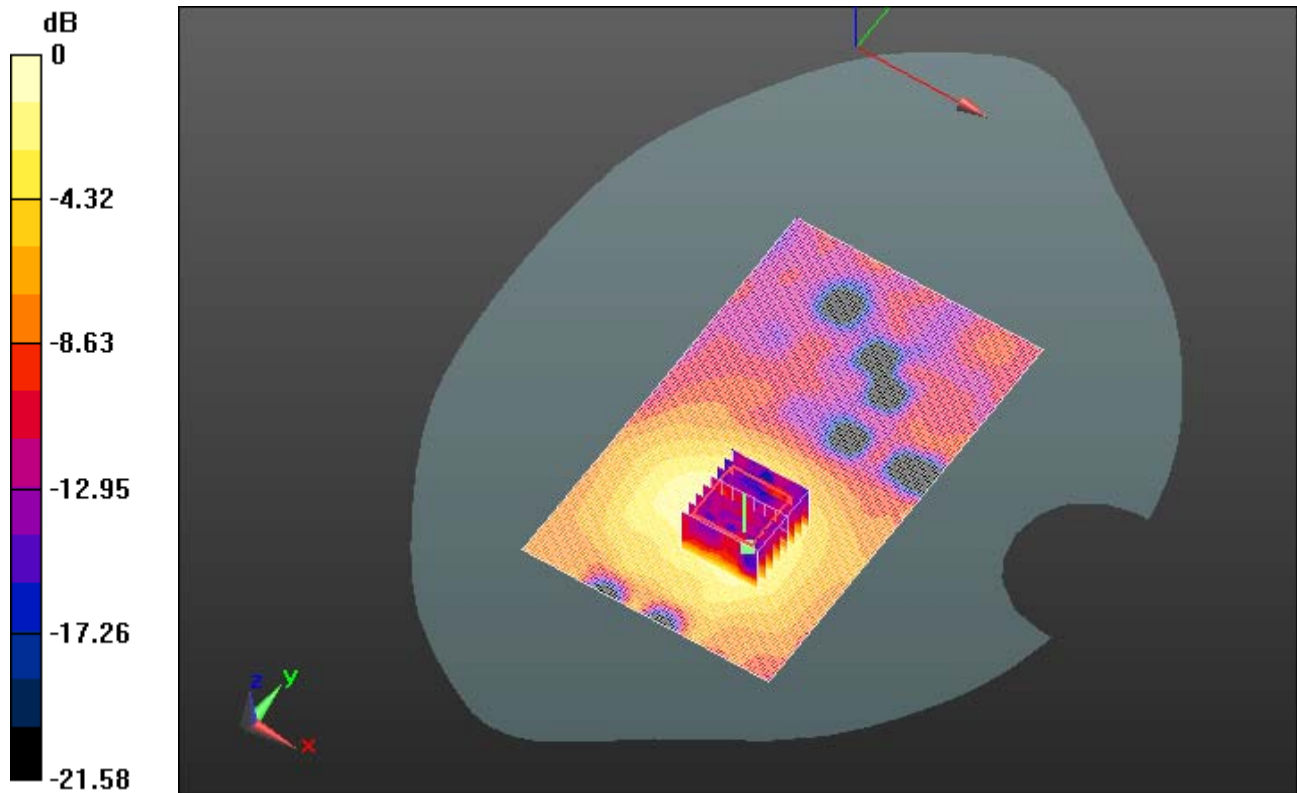
Reference Value = 5.630 V/m ; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 0.2460

SAR(1 g) = 0.080 mW/g ; SAR(10 g) = 0.034 mW/g

Maximum value of SAR (measured) = 0.140 mW/g

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0 dB = 0.140mW/g = -17.08 dB mW/g

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Date/Time: 6/26/2012 10:07:37 AM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Back_802.11a_mid_band_chan_60_amb_temp_23.0_liq
_temp_21.3C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A211C01

Communication System: 802.11a ; Frequency: 5300 MHz

Medium parameters used: $f = 5300 \text{ MHz}$; $\sigma = 5.328 \text{ mho/m}$; $\epsilon_r = 47.007$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF(3.95, 3.95, 3.95); Calibrated: 11/16/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 21.0$
- 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 - 2/Area Scan (91x151x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.152 mW/g

Configuration/Touch position - 2/Zoom Scan -Ext(24x24x20), Step

(4x4x2.5mm), dist=2mm (8x8x9)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2.5\text{mm}$

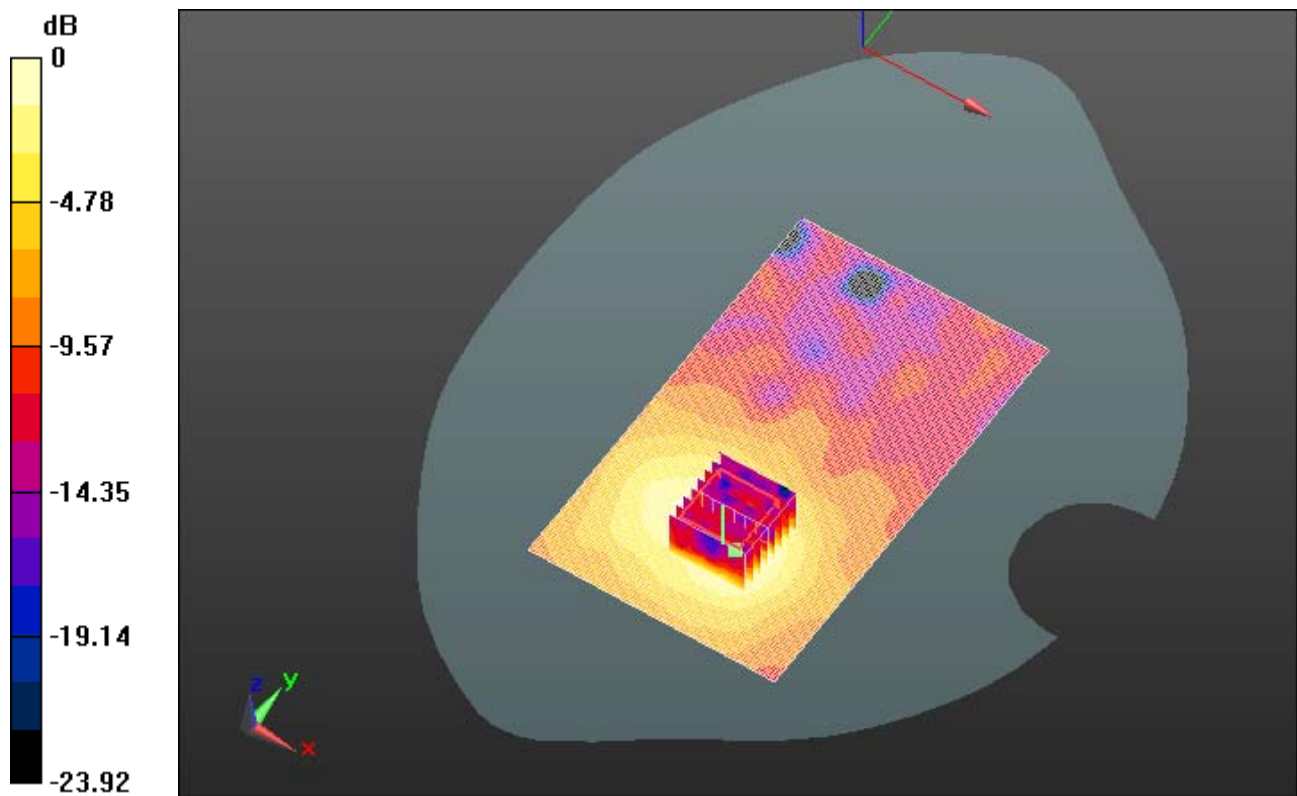
Reference Value = 1.961 V/m ; Power Drift = -0.28 dB

Peak SAR (extrapolated) = 0.2760

SAR(1 g) = 0.086 mW/g ; SAR(10 g) = 0.037 mW/g

Maximum value of SAR (measured) = 0.152 mW/g

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0 dB = 0.150mW/g = -16.48 dB mW/g

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Date/Time: 6/26/2012 6:05:59 PM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Back_802.11a_upper_band_I_chan_104_amb_temp_22.
9_liq_temp_21.8C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A211C01

Communication System: 802.11a ; Frequency: 5520 MHz

Medium parameters used: $f = 5520 \text{ MHz}$; $\sigma = 5.648 \text{ mho/m}$; $\epsilon_r = 46.405$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF(3.73, 3.73, 3.73); Calibrated: 11/16/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 21.0$
- 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 - 2/Area Scan (91x151x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.082 mW/g

Configuration/Touch position - 2/Zoom Scan -Ext(24x24x20), Step (4x4x2.5mm), dist=2mm (10x11x9)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2.5\text{mm}$

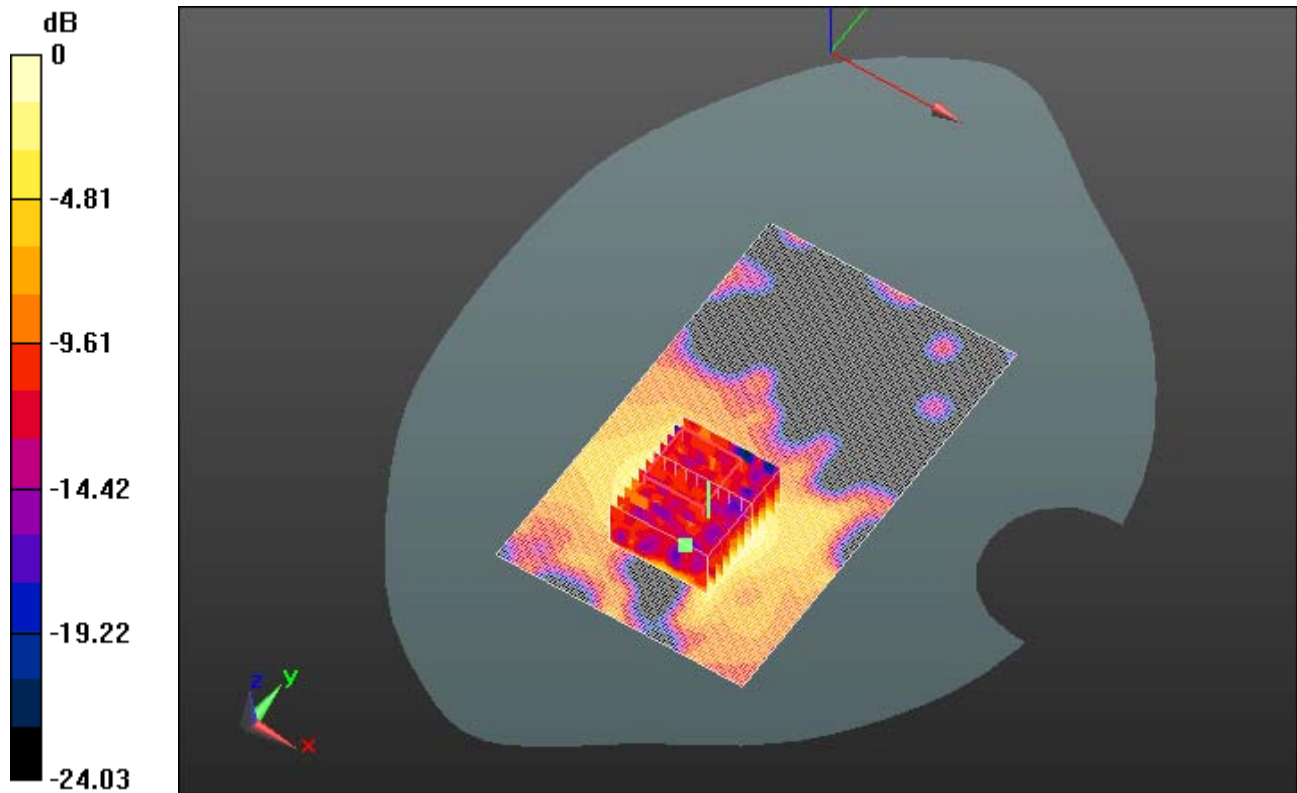
Reference Value = 4.464 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.2040

SAR(1 g) = 0.046 mW/g; SAR(10 g) = 0.020 mW/g

Maximum value of SAR (measured) = 0.087 mW/g

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0 dB = 0.090mW/g = -20.92 dB mW/g

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Date/Time: 6/26/2012 7:24:54 PM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Back_802.11a_upper_band_II_chan_149_amb_temp_22
.5_liq_temp_21.8C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A211C01

Communication System: 802.11a ; Frequency: 5745 MHz

Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 6.016 \text{ mho/m}$; $\epsilon_r = 46.216$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF(3.4, 3.4, 3.4); Calibrated: 11/16/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 21.0$
- 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 - 2/Area Scan (91x151x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.125 mW/g

Configuration/Touch position - 2/Zoom Scan -Ext(24x24x20), Step

(4x4x2.5mm), dist=2mm (9x9x9)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2.5\text{mm}$

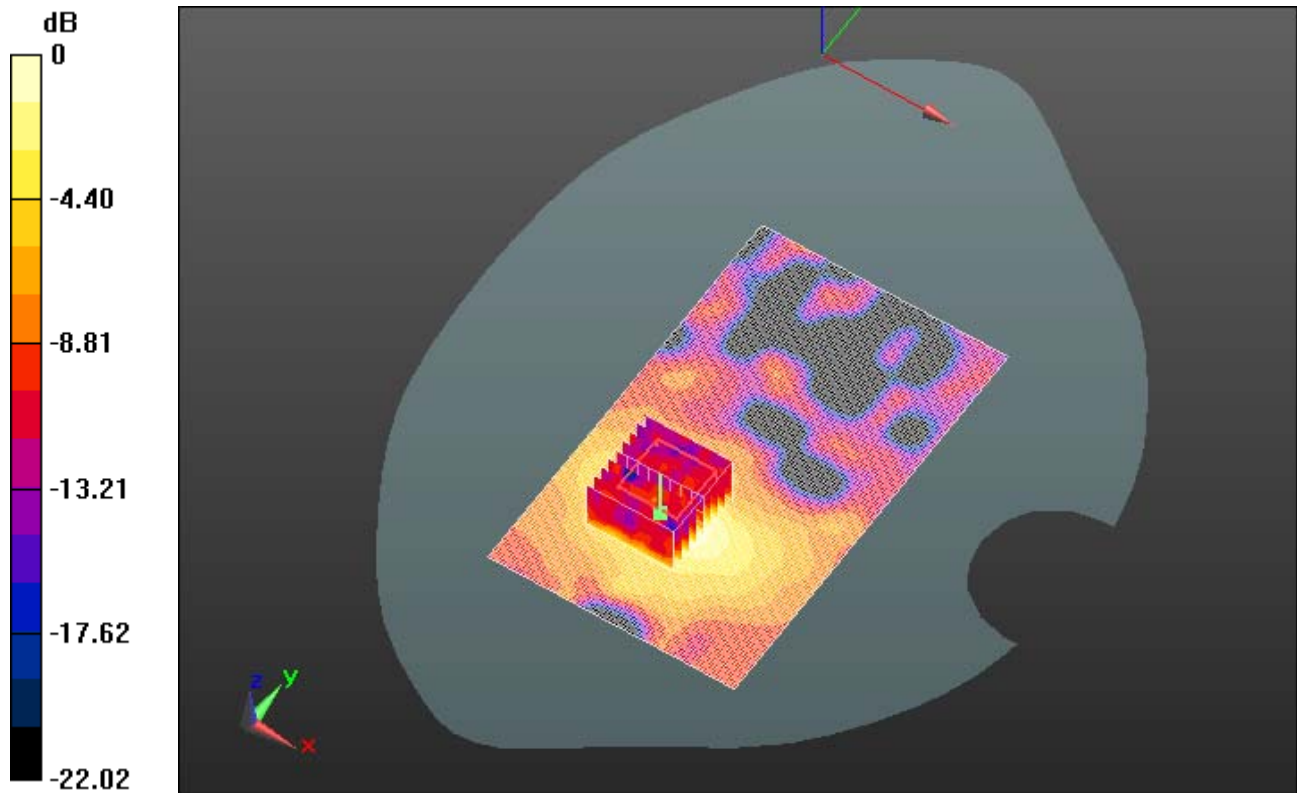
Reference Value = 5.240 V/m ; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.2180

SAR(1 g) = 0.071 mW/g ; SAR(10 g) = 0.029 mW/g

Maximum value of SAR (measured) = 0.131 mW/g

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0 dB = 0.130mW/g = -17.72 dB mW/g

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Date/Time: 6/26/2012 9:02:42 PM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Front_802.11a_low_band_chan_48_amb_temp_22.5_liq
_temp_21.8C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A211C01

Communication System: 802.11a ; Frequency: 5240 MHz

Medium parameters used: $f = 5240 \text{ MHz}$; $\sigma = 5.277 \text{ mho/m}$; $\epsilon_r = 47.045$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF(3.95, 3.95, 3.95); Calibrated: 11/16/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 21.0$
- 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 - 2/Area Scan (91x151x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.025 mW/g

Configuration/Touch position - 2/Zoom Scan -Ext(24x24x20), Step

(4x4x2.5mm), dist=2mm (11x10x9)/Cube 0: Measurement grid: $dx=4\text{mm}$,

$dy=4\text{mm}$, $dz=2.5\text{mm}$

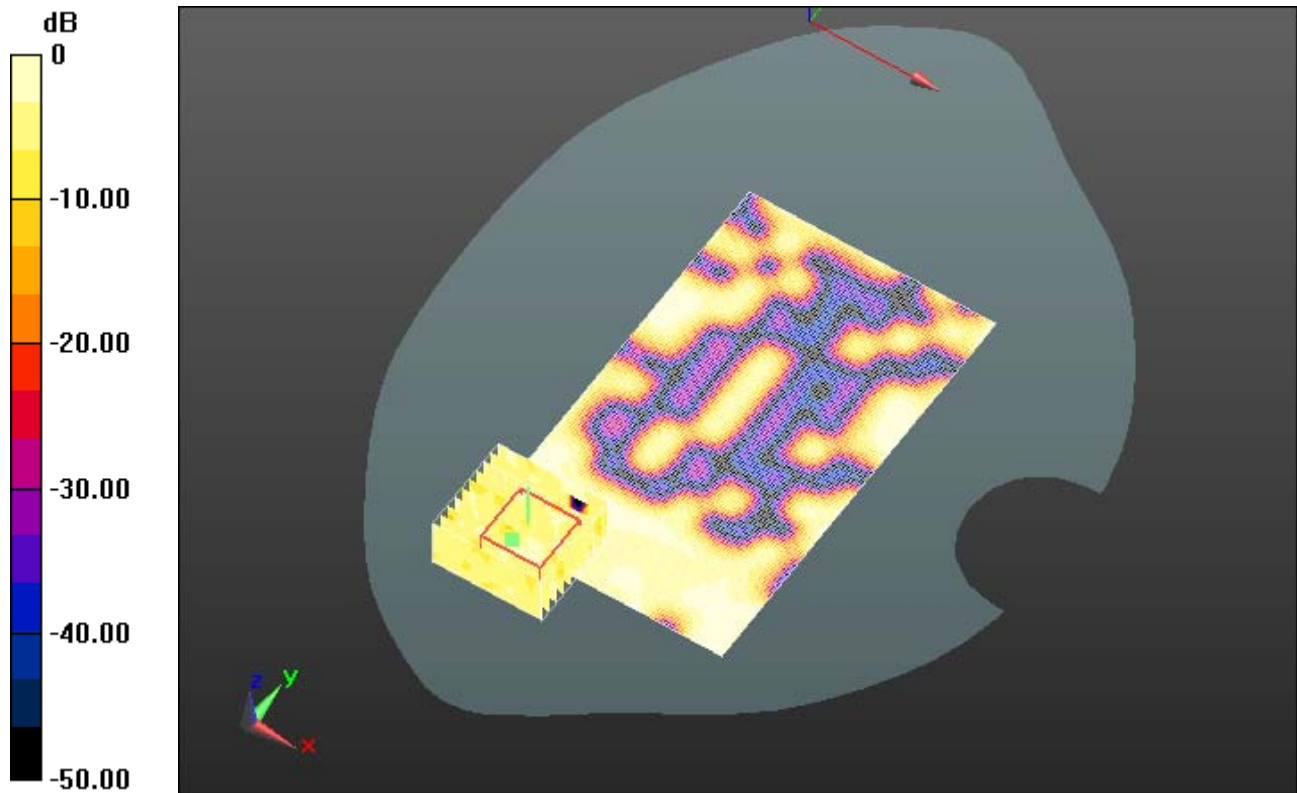
Reference Value = 1.668 V/m ; Power Drift = 0.32 dB

Peak SAR (extrapolated) = 0.0370

SAR(1 g) = 0.00831 mW/g ; SAR(10 g) = 0.00557 mW/g

Maximum value of SAR (measured) = 0.017 mW/g

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0 dB = 0.020mW/g = -33.98 dB mW/g

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Date/Time: 6/27/2012 12:14:21 AM

Test Laboratory: RIM Testing Services

**Vertical_Holster_Back_802.11a_low_band_chan_48_amb_temp_22.6_liq
_temp_21.4C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A211C01

Communication System: 802.11a ; Frequency: 5240 MHz

Medium parameters used: $f = 5240 \text{ MHz}$; $\sigma = 5.277 \text{ mho/m}$; $\epsilon_r = 47.045$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF(3.95, 3.95, 3.95); Calibrated: 11/16/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 21.0$
- 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 (51x71x1): Measurement grid:

$dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.151 mW/g

Configuration/Touch position - 2/Area Scan (91x151x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.865 mW/g

Configuration/Touch position - 2/Zoom Scan -Ext(24x24x20), Step (4x4x2.5mm), dist=2mm (9x9x9)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2.5\text{mm}$

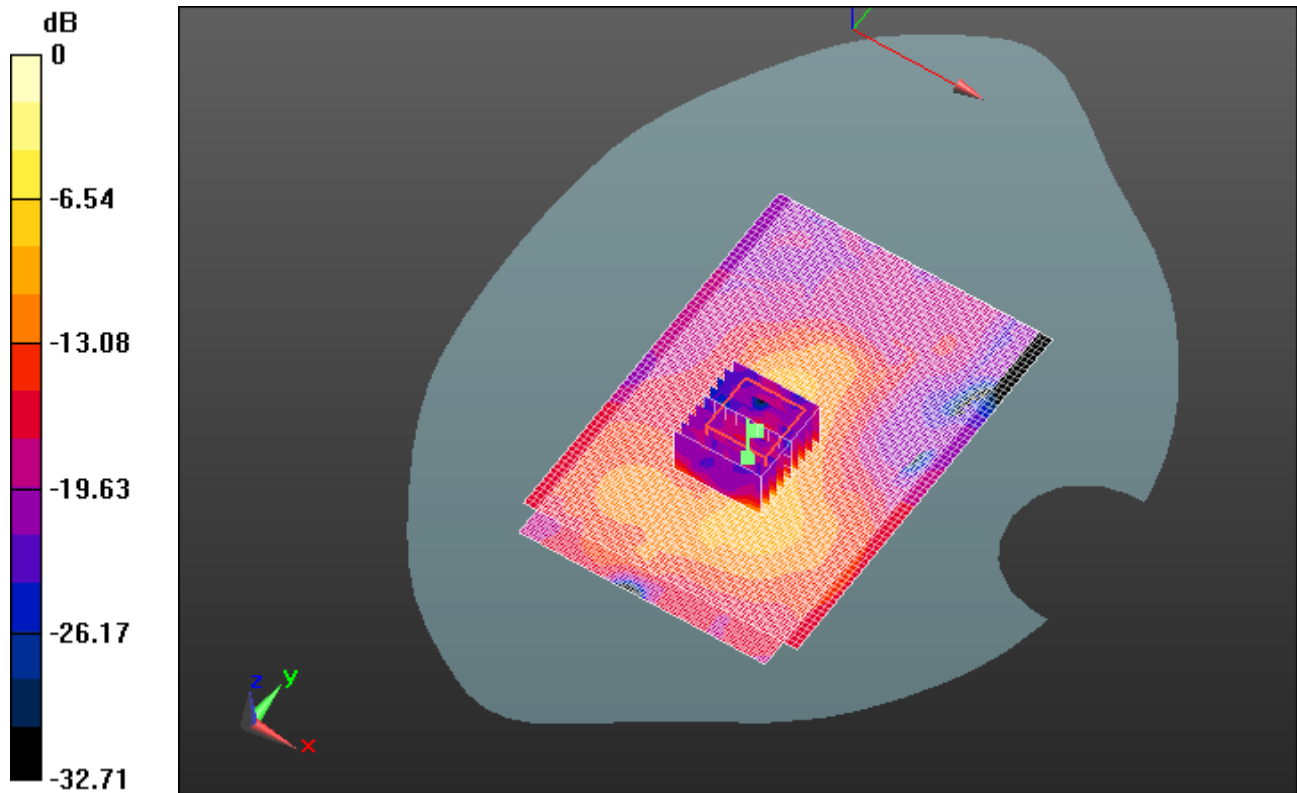
Reference Value = 7.079 V/m; Power Drift = -0.27 dB

Peak SAR (extrapolated) = 1.5770

SAR(1 g) = 0.389 mW/g; SAR(10 g) = 0.097 mW/g

Maximum value of SAR (measured) = 0.838 mW/g

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0 dB = 0.840mW/g = -1.51 dB mW/g

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Date/Time: 6/26/2012 9:59:14 PM

Test Laboratory: RIM Testing Services

**15mm_Spacer_Back_Headset_802.11a_low_band_chan_48_amb_temp
_22.1_liq_temp_21.4C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A211C01

Communication System: 802.11a ; Frequency: 5240 MHz

Medium parameters used: $f = 5240 \text{ MHz}$; $\sigma = 5.277 \text{ mho/m}$; $\epsilon_r = 47.045$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF(3.95, 3.95, 3.95); Calibrated: 11/16/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 21.0$
- 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 - 2/Area Scan (91x151x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.131 mW/g

Configuration/Touch position - 2/Zoom Scan -Ext(24x24x20), Step

(4x4x2.5mm), dist=2mm (8x8x9)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2.5\text{mm}$

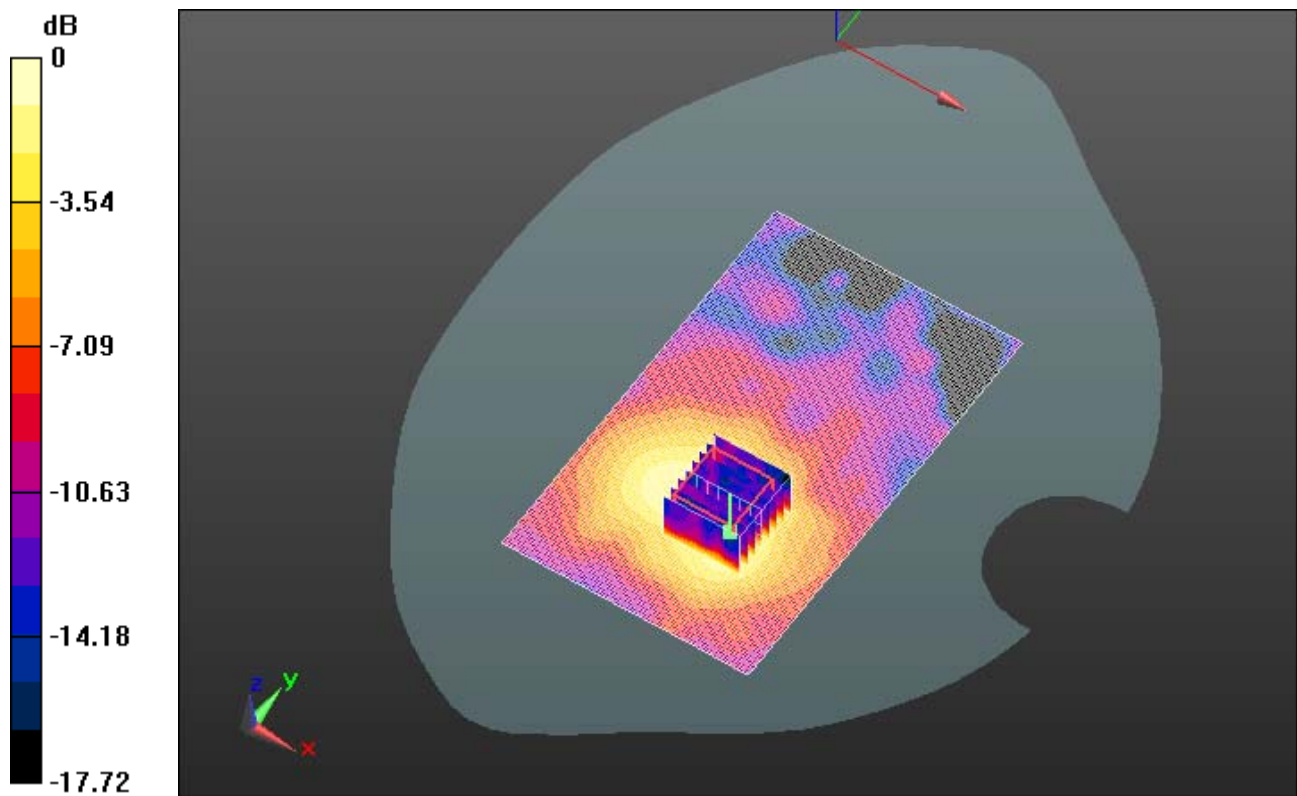
Reference Value = 2.233 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.2500

SAR(1 g) = 0.075 mW/g; SAR(10 g) = 0.032 mW/g

Maximum value of SAR (measured) = 0.132 mW/g

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0 dB = 0.130mW/g = -17.72 dB mW/g

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Date/Time: 9/18/2012 1:32:02 AM

Test Laboratory: RIM Testing Services

**Vertical_Holster_Back_802.11a_low_band_chan_104_amb_temp_23.5_li
q_temp_21.5C**

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A8C7018

Communication System: 802.11a ; Frequency: 5520 MHz

Medium parameters used: $f = 5520 \text{ MHz}$; $\sigma = 5.53 \text{ mho/m}$; $\epsilon_r = 46.86$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3592; ConvF(3.62, 3.62, 3.62); Calibrated: 11/16/2011
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 21.0$
- 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 - 2/Area Scan (91x151x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.266 mW/g

Configuration/Touch position - 2/Zoom Scan -Ext(24x24x20), Step

(4x4x2.5mm), dist=2mm (9x9x9)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2.5\text{mm}$

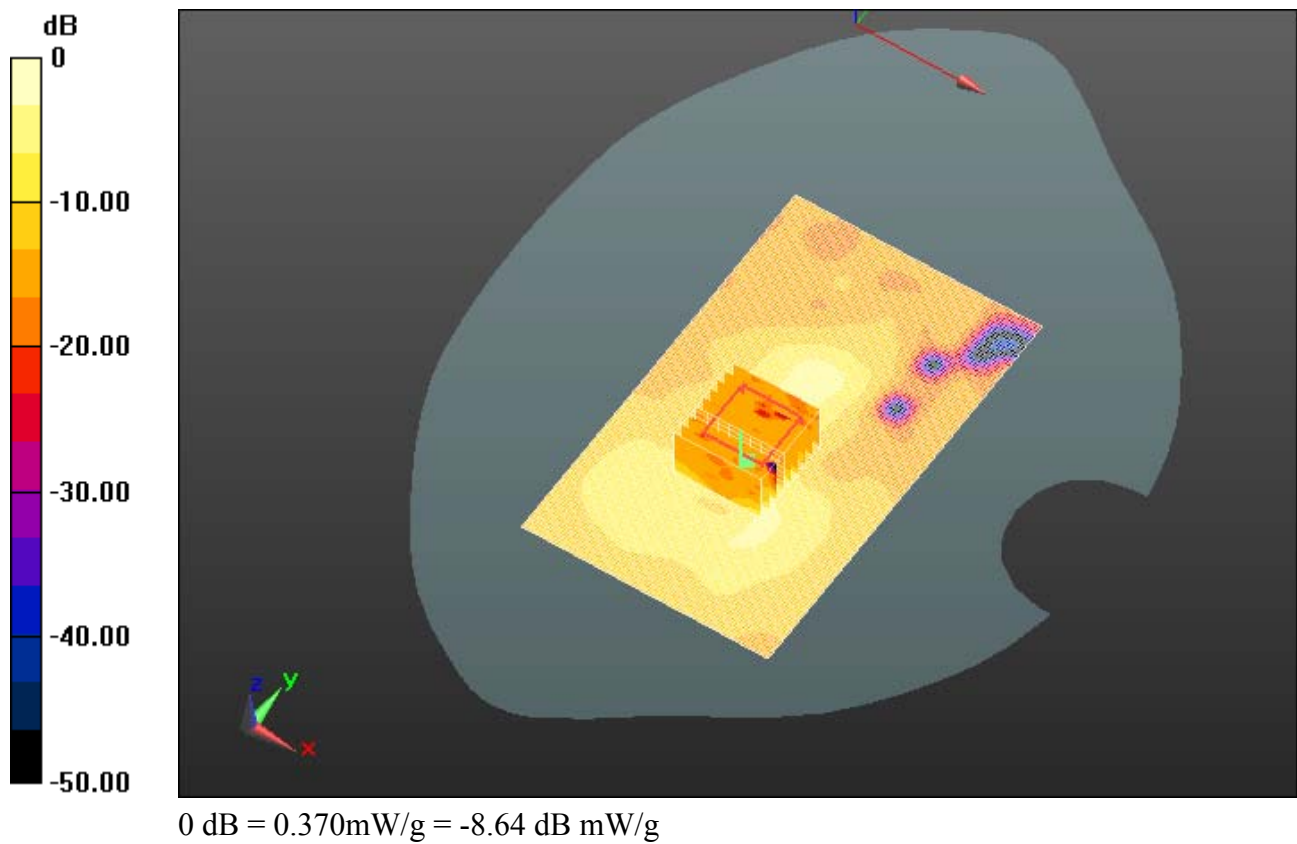
Reference Value = 4.779 V/m; Power Drift = -0.43 dB

Peak SAR (extrapolated) = 0.7260

SAR(1 g) = 0.166 mW/g; SAR(10 g) = 0.046 mW/g

Maximum value of SAR (measured) = 0.365 mW/g

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Z axis plot for the worst case body configuration

