

SAR Test Datasheet

BlackBerry Closed Loop Antenna Tuning Experiments

As per FCC OET, SAR measurements were performed in 9 tunings states on the first mode which resulted in the worst case SAR value to investigate the effect and cover the corners, midpoints of the edges, and the mid-point of the tuning range, in addition to the Closed Loop condition.

Second worst case mode was tested in the 4 corners and mid-point of tuning range to minimize the number of tests, in addition to the Closed Loop condition.

For other band/mode combinations, the single data scan was chosen, based on simulation, to yield the lowest predicted SAR, in addition to the Closed Loop condition.

Please refer to the Confidential Exhibit: Operational Description for detailed information about the Closed Loop Antenna Tuning and the Tuner Test Matrices explaining the capacitor values for the tuning states.

Device Information

BlackBerry Model #		RFW121LW				
FCC ID #		L6ARFW120LW				
DeviceType	Sample #	Device PIN	HW REV #	CPR #	Software Bundle	Date (mm/dd/yy)
Radiated	22	2FFFE461	2	26843	10.2.0.519	09/12-14/2013

System accuracy verification

f (MHz)	Limits / Measured	Scan Type	SAR 1g/10g (W/kg)	Dielectric Parameters		Liquid Temp. (°C)
				ϵ_r	σ [S/m]	
835	Measured	Zoom Scan	8.83/5.79	40.0	0.88	22.9
	Recommended Limits (Dipole: 446)		9.39 / 6.13	41.5	0.90	N/A
1900	Measured	Zoom Scan	38.6/20.3	38.1	1.41	22.6
	Recommended Limits (Dipole: 545)		40.2/21.1	40.0	1.40	N/A

Electrical parameters of tissue simulating liquid

Band (MHz)	Tissue Type	Limits / Measured	f (MHz)	Dielectric Parameters		Liquid Temp (°C)
				ϵ_r	σ [S/m]	
835	Head	Measured	815	40.2	0.86	22.9
			825	40.2	0.87	
			835	40.0	0.88	
		Recommended Limits	850	39.8	0.89	N/A
1900	Head	Measured	1850	38.2	1.36	22.6
			1900	38.1	1.41	
			1910	38.0	1.43	
		Recommended Limits	1900	40.0	1.40	N/A

SAR Test Data:

Measured SAR Values - Head - WCDMA FDD II 1900 MHz							
Channel	Freq. (MHz)	Position	1 g SAR (W/kg)	% delta from Closed Loop	Scan #	Comments	Hotspot Coordinates (x, y, z) mm
9400	1880.0	Left Cheek	0.67	0.00	1	Closed Loop	64.31, 253.9, -170.5
9400	1880.0	Left Cheek	0.60	-10.45	2	Cap 1= Max C, Cap 2= Max C	64.31, 253.9, -170.5
9400	1880.0	Left Cheek	0.67	0.00	3	Cap 1= Max C, Cap 2= Mid C	64.31, 253.9, -170.6
9400	1880.0	Left Cheek	0.65	-2.99	4	Cap 1= Max C, Cap 2= Min C	64.99, 255.2, -170.4
9400	1880.0	Left Cheek	0.66	-1.49	5	Cap 1= Mid C, Cap 2= Max C	64.98, 255.2, -170.4
9400	1880.0	Left Cheek	0.65	-2.99	6	Cap 1= Mid C, Cap 2= Mid C	64.99, 255.2, -170.5
9400	1880.0	Left Cheek	0.63	-5.97	7	Cap 1= Mid C, Cap 2= Min C	65.02, 255.2, -170.6
9400	1880.0	Left Cheek	0.49	-26.87	8	Cap 1= Min C, Cap 2= Max C	64.32, 253.9, -170.5
9400	1880.0	Left Cheek	0.57	-14.93	9	Cap 1= Min C, Cap 2= Mid C	64.32, 253.9, -170.5
9400	1880.0	Left Cheek	0.63	-5.97	10	Cap 1= Min C, Cap 2= Min C	63.79, 255.9, -170.9

Measured SAR Values - Head - WCDMA FDD II 1900 MHz						
Channel	Freq. (MHz)	Position	Declared Conducted power (dBm)	Measured Conducted power (dBm)	Measured 1 g SAR (W/kg)	Extrapolated 1 g SAR (W/kg)
9400	1880.0	Left Cheek	23.00	22.60	0.67	0.73
9400	1880.0	Left Cheek	23.00	22.60	0.60	0.66
9400	1880.0	Left Cheek	23.00	22.60	0.67	0.73
9400	1880.0	Left Cheek	23.00	22.60	0.65	0.71
9400	1880.0	Left Cheek	23.00	22.60	0.66	0.72
9400	1880.0	Left Cheek	23.00	22.60	0.65	0.71
9400	1880.0	Left Cheek	23.00	22.60	0.63	0.69
9400	1880.0	Left Cheek	23.00	22.60	0.49	0.54
9400	1880.0	Left Cheek	23.00	22.60	0.57	0.62
9400	1880.0	Left Cheek	23.00	22.60	0.63	0.69

Device Model	RFW121LW
Hardware Rev. #	2
Software Bundle #	10.2.0.519
Date	09/12/2013

Measured SAR Values - Head - WCDMA FDD V 850 MHz

Channel	Freq. (MHz)	Position	1 g SAR (W/kg)	% delta from Closed Loop	Scan #	Comments	Hotspot Coordinates
							(x, y, z) mm
4182	836.4	Left Cheek	0.42	0.00	1	Closed Loop	66.25, 275.1, -173.9
4182	836.4	Left Cheek	0.40	-4.76	2	Cap 1= Max C, Cap 2= Max C	65.81, 273.7, -172.6
4182	836.4	Left Cheek	0.41	-2.38	3	Cap 1= Max C, Cap 2= Min C	65.47, 275.7, -174.5
4182	836.4	Left Cheek	0.42	0.00	4	Cap 1= Mid C, Cap 2= Mid C	66.75, 274.9, -174.2
4182	836.4	Left Cheek	0.39	-7.14	5	Cap 1= Min C, Cap 2= Max C	66.77, 274.9, -174.2
4182	836.1	Left Cheek	0.24	-42.86	6	Cap 1= Min C, Cap 2= Min C	66.75, 274.9, -174.1

Measured SAR Values - Head - WCDMA FDD V 850 MHz

Channel	Freq. (MHz)	Position	Declared Conducted power (dBm)	Measured Conducted power (dBm)	Measured 1 g SAR (W/kg)	Extrapolated 1 g SAR (W/kg)
4182	836.4	Left Cheek	23.50	23.20	0.42	0.45
4182	836.4	Left Cheek	23.50	23.20	0.40	0.43
4182	836.4	Left Cheek	23.50	23.20	0.41	0.44
4182	836.4	Left Cheek	23.50	23.20	0.42	0.45
4182	836.4	Left Cheek	23.50	23.20	0.39	0.42
4182	836.1	Left Cheek	23.50	23.20	0.24	0.26

Device Model	RFW121LW
Hardware Rev. #	2
Software Bundle #	10.2.0.519
Date	09/14/2013

SAR Plots:

Date/Time: 9/11/2013 12:57:02 AM

Test Laboratory: RIM Testing Services

DipoleValidation_835MHz_09_11_13_Amb_Tem_24.0C_Liq_Tem_22.9C

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:446

Communication System: UID 0 - n/a, CW; Frequency: 835 MHz

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.876 \text{ S/m}$; $\epsilon_r = 40.009$; $\rho = 1000 \text{ kg/m}^3$

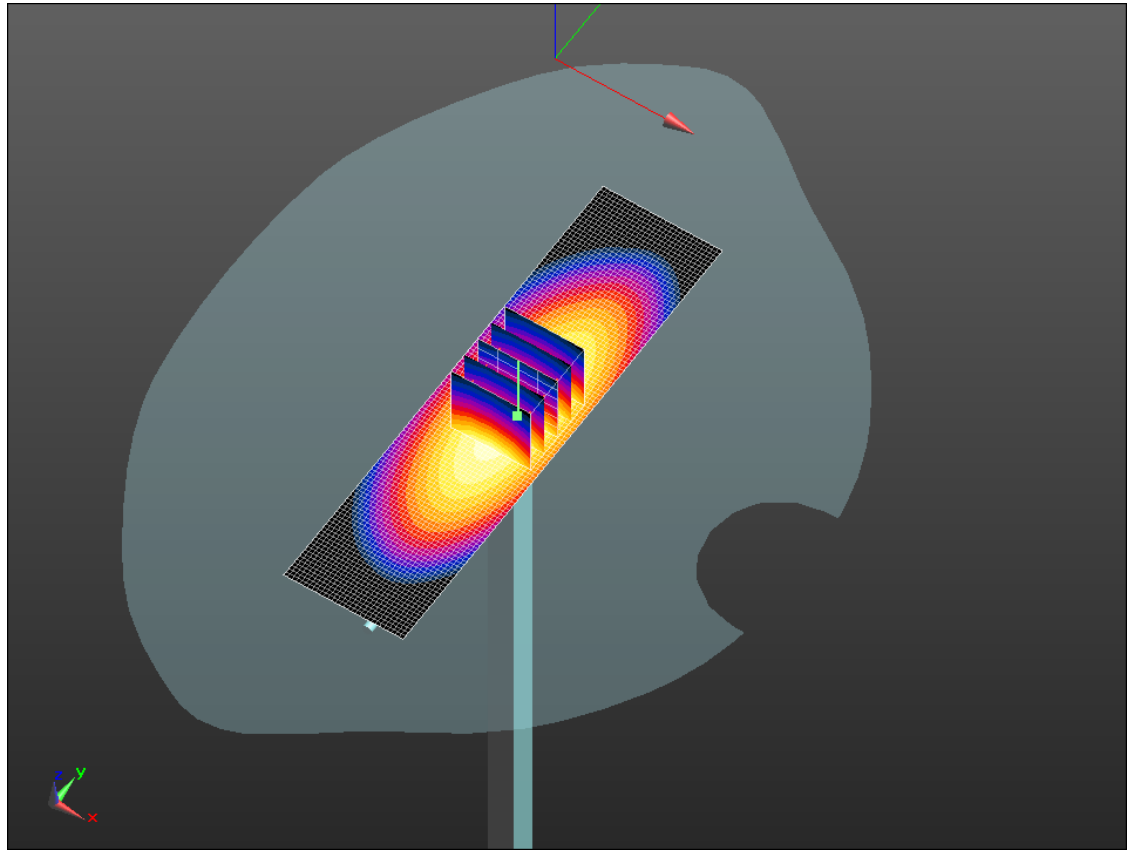
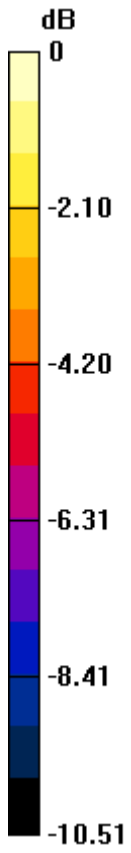
Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.19, 6.19, 6.19); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Interpolated
grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$ Maximum value of SAR (interpolated) = 10.1 W/kg **Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube****0:** Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$ Reference Value = 110.8 V/m ; Power Drift = 0.07 dB Peak SAR (extrapolated) = 13.1 W/kg **SAR(1 g) = 8.83 W/kg ; SAR(10 g) = 5.79 W/kg** Maximum value of SAR (measured) = 10.3 W/kg



0 dB = 10.3 W/kg = 10.13 dBW/kg

Date/Time: 9/10/2013 7:40:24 PM

Test Laboratory: RIM Testing Services

DipoleValidation_1900MHz_09_10_13_Amb_Tem_22.9C_Liq_Tem_22.6C

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:545

Communication System: UID 0 - n/a, CW; Frequency: 1900 MHz

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.412 \text{ S/m}$; $\epsilon_r = 38.067$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(5.35, 5.35, 5.35); Calibrated: 1/10/2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection), $z = 2.0, 32.0$
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASYS2 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=10mm, Pin=1000mW/Area Scan (31x61x1): Interpolatedgrid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 49.5 W/kg

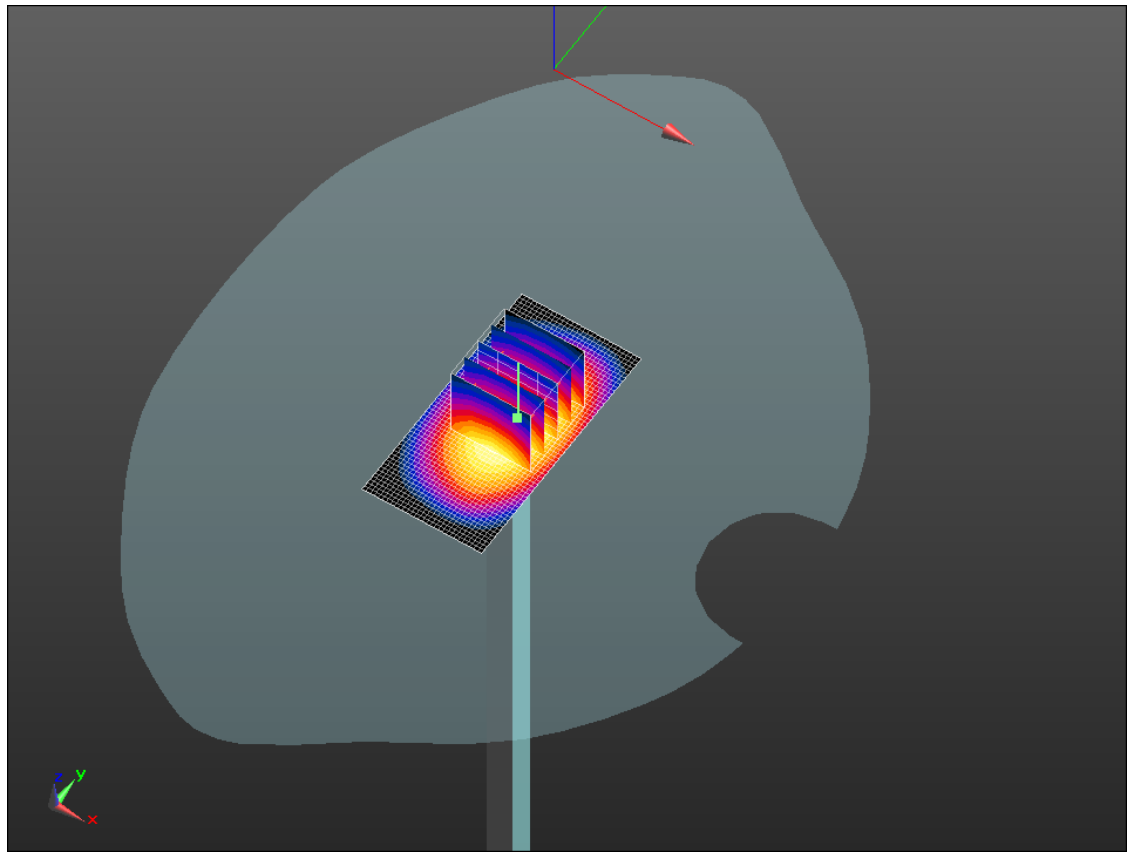
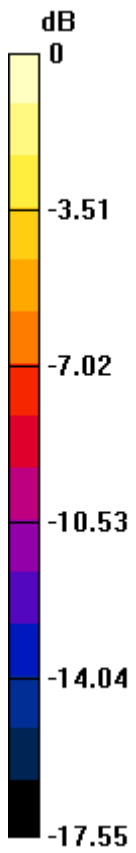
Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube**0:** Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 193.3 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 68.8 W/kg

SAR(1 g) = 38.6 W/kg; SAR(10 g) = 20.3 W/kg

Maximum value of SAR (measured) = 48.6 W/kg



0 dB = 48.6 W/kg = 16.87 dBW/kg

Date: 9/12/2013

Test Lab: RIM Testing Services

DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE461**Configuration: Left-Hand-Side HSL - UMTS II**

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

Medium Parameters used: $f=1880$ MHz; $\sigma = 1.391$ S/m; $\epsilon_r = 38.121$; $\rho = 1.000$ g/cm³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (5.35,5.35,5.35); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

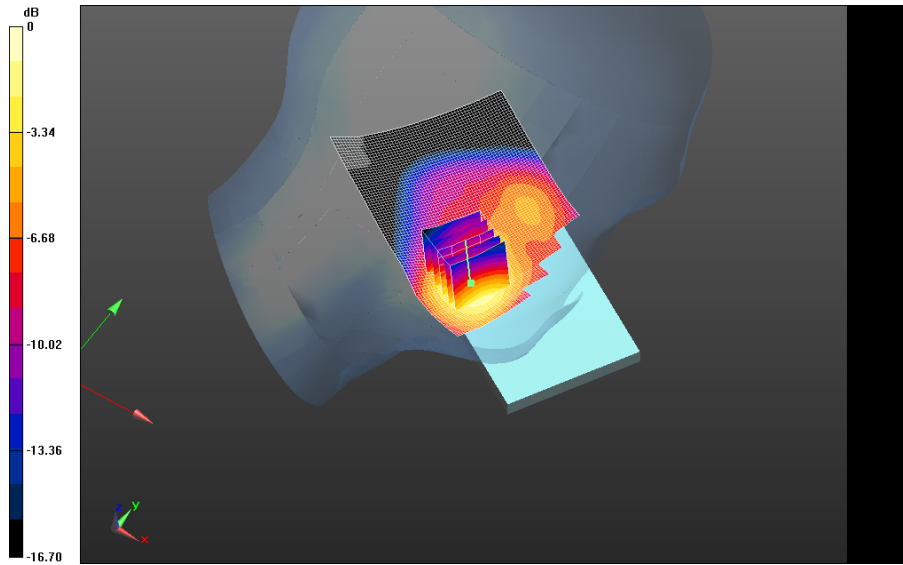
Left-Hand-Side HSL - UMTS II/Touch Position -**UMTS_II_chan9400_Scan#1_amb_temp_23.0C_liq_temp_22.0C/Area Scan (61x91x1):**

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

Maximum value of SAR (interpolated) = 0.798 W/kg

Left-Hand-Side HSL - UMTS II/Touch Position -**UMTS_II_chan9400_Scan#1_amb_temp_23.0C_liq_temp_22.0C/Zoom Scan (21x21x36)/Cube****0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 6.380 V/m; **Power Drift = -0.055 dB****Averaged SAR: SAR(1g) = 0.672 W/kg; SAR(10g) = 0.406 W/kg**

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



0 dB = 0.804 W/kg = -0.95 dBW/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

UMTS_II_chan9400_Scan#2__amb_temp_23.2C_liq_temp_21.9C/Area Scan (61x91x1):

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

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

Left-Hand-Side HSL - UMTS II/Touch Position -

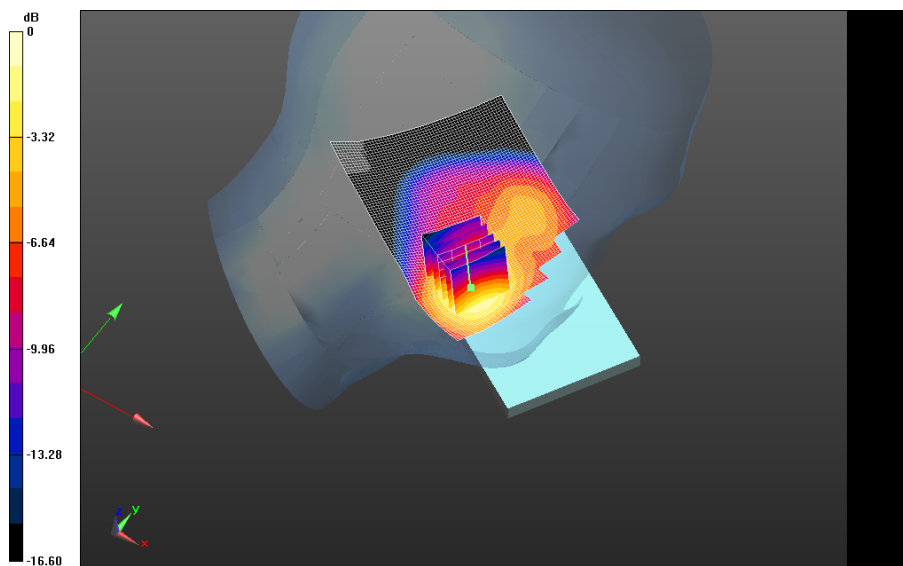
UMTS_II_chan9400_Scan#2__amb_temp_23.2C_liq_temp_21.9C/Zoom Scan (21x21x36)/Cube

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

Reference Value = 6.476 V/m; **Power Drift = -0.032 dB**

Averaged SAR: SAR(1g) = 0.601 W/kg; SAR(10g) = 0.366 W/kg

Maximum value of SAR (interpolated) = 0.911 W/kg



0 dB = 0.804 W/kg = -0.95 dBW/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

UMTS_II_chan9400_Scan#3_amb_temp_23.0C_liq_temp_22.0C/Area Scan (61x91x1):

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

Maximum value of SAR (interpolated) = 0.820 W/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

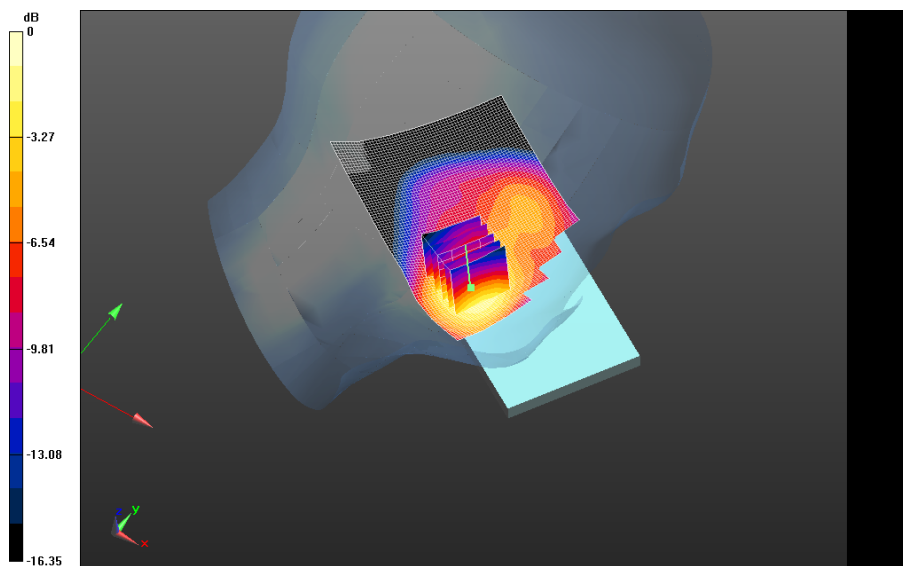
UMTS_II_chan9400_Scan#3_amb_temp_23.0C_liq_temp_22.0C/Zoom Scan (21x21x36)/Cube

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

Reference Value = 6.895 V/m; **Power Drift = 0.053 dB**

Averaged SAR: SAR(1g) = 0.670 W/kg; SAR(10g) = 0.411 W/kg

Maximum value of SAR (interpolated) = 1.01 W/kg



0 dB = 0.721 W/kg = -1.42 dBW/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

UMTS_II_chan9400_Scan#4_amb_temp_22.8C_liq_temp_22.0C/Area Scan (61x91x1):

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

Maximum value of SAR (interpolated) = 0.780 W/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

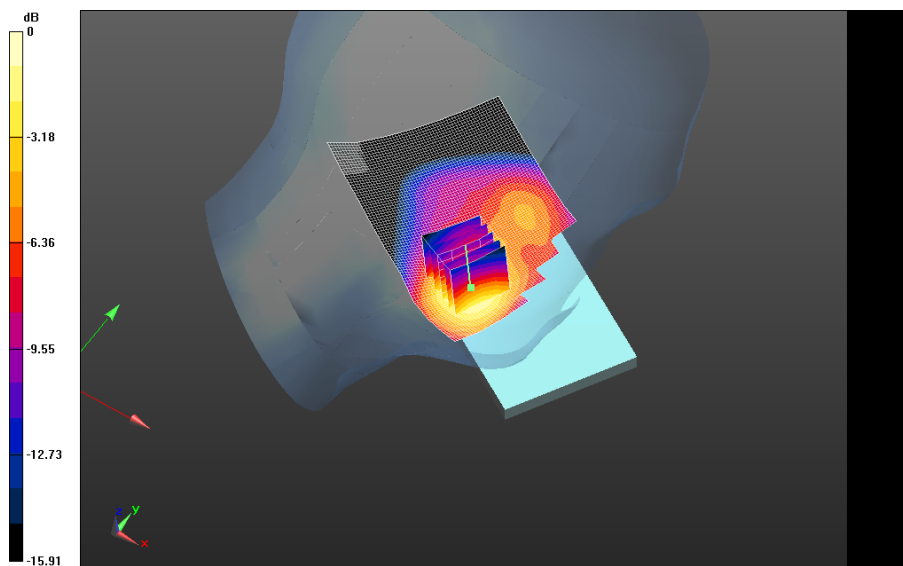
UMTS_II_chan9400_Scan#4_amb_temp_22.8C_liq_temp_22.0C/Zoom Scan (21x21x36)/Cube

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

Reference Value = 6.377 V/m; **Power Drift = 0.112 dB**

Averaged SAR: SAR(1g) = 0.648 W/kg; SAR(10g) = 0.395 W/kg

Maximum value of SAR (interpolated) = 0.988 W/kg



0 dB = 0.796 W/kg = -0.99 dBW/kg

Left-Hand-Side HSL - UMTS II/Touch Position -
UMTS_II_chan9400_Scan#5_amb_temp_23.4C_liq_temp_22.0C/Area Scan (61x91x1):

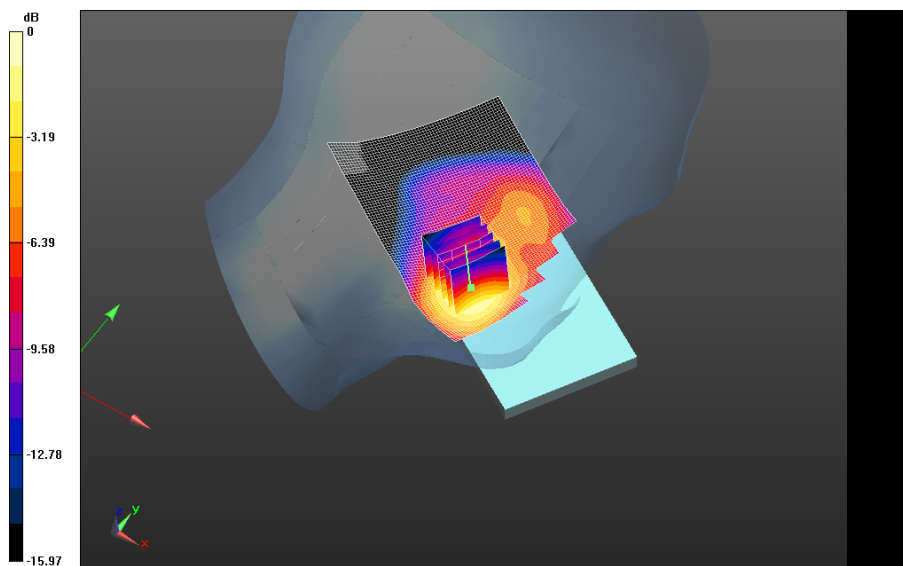
Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.816 W/kg

Left-Hand-Side HSL - UMTS II/Touch Position -
UMTS_II_chan9400_Scan#5_amb_temp_23.4C_liq_temp_22.0C/Zoom Scan (21x21x36)/Cube
0: Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 6.817 V/m; **Power Drift = 0.021 dB**
Averaged SAR: SAR(1g) = 0.662 W/kg; SAR(10g) = 0.404 W/kg

Maximum value of SAR (interpolated) = 0.998 W/kg



0 dB = 0.765 W/kg = -1.16 dBW/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

UMTS_II_chan9400_Scan#6_amb_temp_22.8C_liq_temp_21.9C/Area Scan (61x91x1):

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

Maximum value of SAR (interpolated) = 0.797 W/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

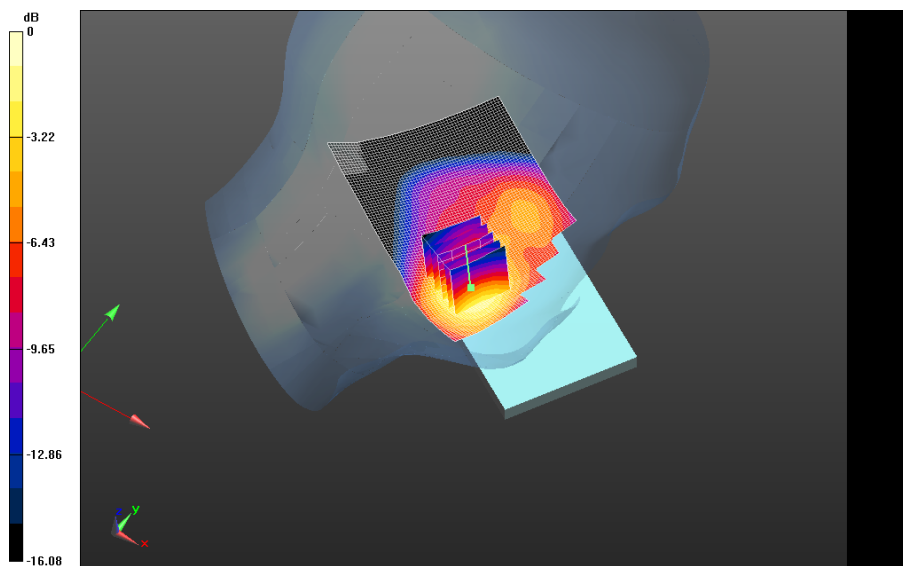
UMTS_II_chan9400_Scan#6_amb_temp_22.8C_liq_temp_21.9C/Zoom Scan (21x21x36)/Cube

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

Reference Value = 6.569 V/m; **Power Drift = -0.085 dB**

Averaged SAR: SAR(1g) = 0.654 W/kg; SAR(10g) = 0.398 W/kg

Maximum value of SAR (interpolated) = 0.996 W/kg



0 dB = 0.777 W/kg = -1.10 dBW/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

UMTS_II_chan9400_Scan#7_amb_temp_23.4C_liq_temp_22.0C 2/Area Scan (61x91x1):

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

Maximum value of SAR (interpolated) = 0.775 W/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

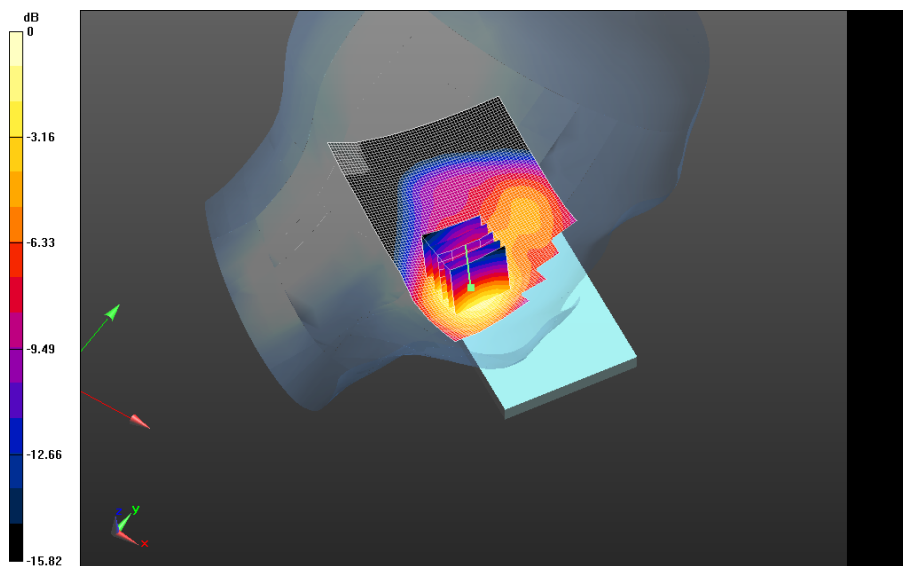
UMTS_II_chan9400_Scan#7_amb_temp_23.4C_liq_temp_22.0C 2/Zoom Scan

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

Reference Value = 6.766 V/m; **Power Drift = 0.061 dB**

Averaged SAR: SAR(1g) = 0.630 W/kg; SAR(10g) = 0.386 W/kg

Maximum value of SAR (interpolated) = 0.960 W/kg



0 dB = 0.776 W/kg = -1.10 dBW/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

UMTS_II_chan9400_Scan#8_amb_temp_22.9C_liq_temp_22.0C/Area Scan (61x91x1):

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

Maximum value of SAR (interpolated) = 0.600 W/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

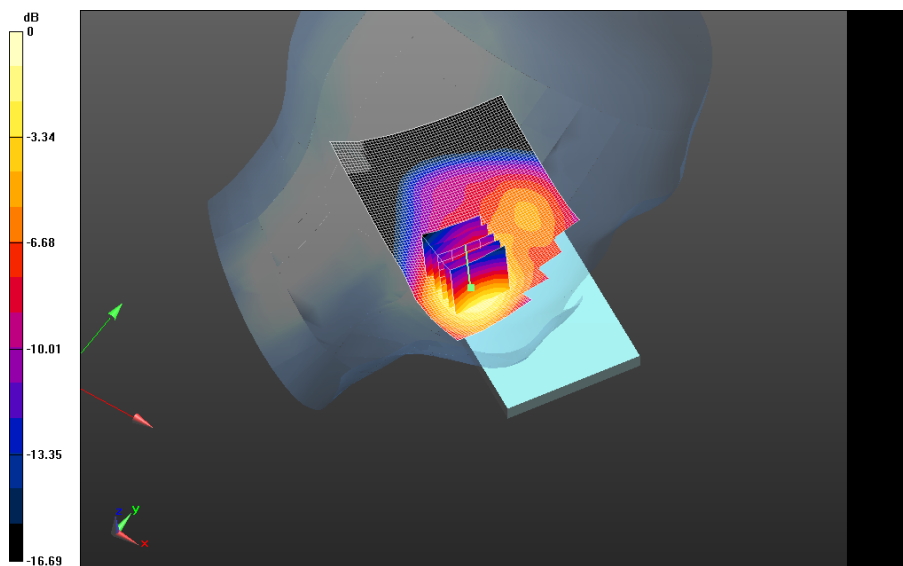
UMTS_II_chan9400_Scan#8_amb_temp_22.9C_liq_temp_22.0C/Zoom Scan (21x21x36)/Cube

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

Reference Value = 5.755 V/m; **Power Drift = -0.047 dB**

Averaged SAR: SAR(1g) = 0.493 W/kg; SAR(10g) = 0.301 W/kg

Maximum value of SAR (interpolated) = 0.760 W/kg



0 dB = 0.750 W/kg = -1.25 dBW/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

UMTS_II_chan9400_Scan#9_amb_temp_22.8C_liq_temp_22.0C/Area Scan (61x91x1):

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

Maximum value of SAR (interpolated) = 0.689 W/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

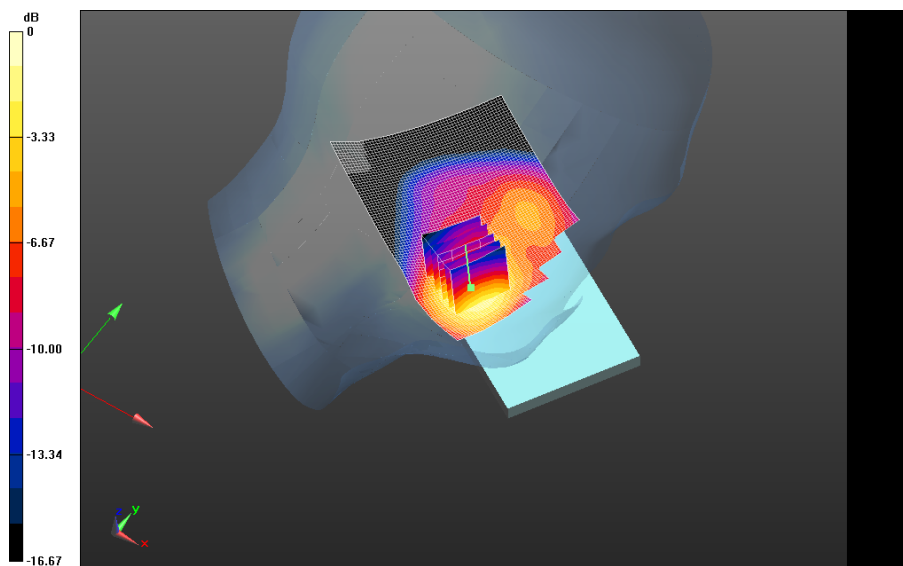
UMTS_II_chan9400_Scan#9_amb_temp_22.8C_liq_temp_22.0C/Zoom Scan (21x21x36)/Cube

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

Reference Value = 6.137 V/m; **Power Drift = -0.019 dB**

Averaged SAR: SAR(1g) = 0.574 W/kg; SAR(10g) = 0.346 W/kg

Maximum value of SAR (interpolated) = 0.887 W/kg



0 dB = 0.591 W/kg = -2.28 dBW/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

UMTS_II_chan9400_Scan#10_amb_temp_22.9C_liq_temp_22.1C/Area Scan (61x91x1):

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

Maximum value of SAR (interpolated) = 0.767 W/kg

Left-Hand-Side HSL - UMTS II/Touch Position -

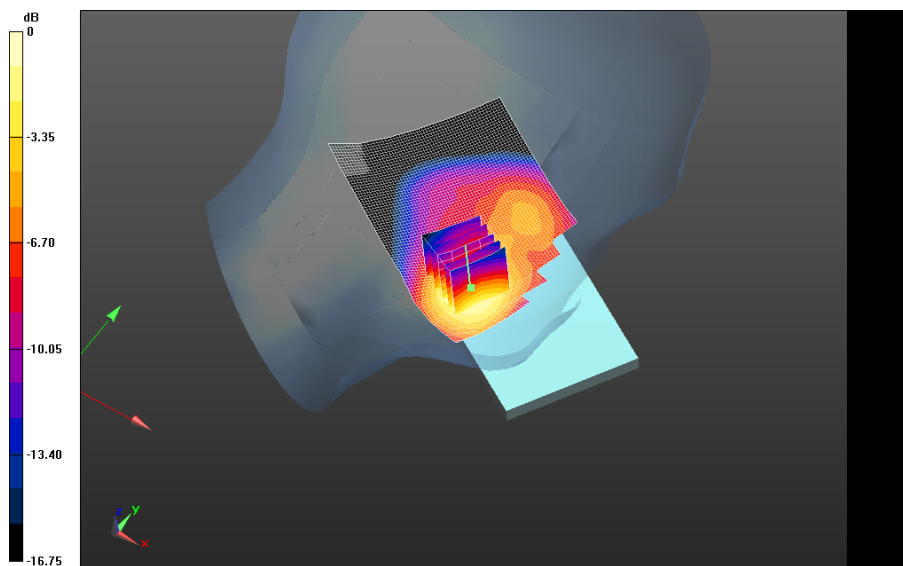
UMTS_II_chan9400_Scan#10_amb_temp_22.9C_liq_temp_22.1C/Zoom Scan (21x21x36)/Cube

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

Reference Value = 6.355 V/m; **Power Drift = 0.052 dB**

Averaged SAR: SAR(1g) = 0.632 W/kg; SAR(10g) = 0.383 W/kg

Maximum value of SAR (interpolated) = 0.973 W/kg



0 dB = 0.695 W/kg = -1.58 dBW/kg

Date: 9/14/2013

Test Lab: RIM Testing Services

DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE461**Configuration: Left-Hand-Side HSL - UMTS V**

Communication System: WCDMA FDD V; Communication System Band: UMTS band V;
Frequency: 836.4 MHz, Communication System PAR: 0 dB; PMF: 1.07029; Duty Cycle: 1:1
Medium Parameters used: $f=836.4$ MHz; $\sigma = 0.877$ S/m; $\epsilon_r = 39.993$; $\rho = 1.000$ g/cm³
Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (6.19,6.19,6.19); Calibrated: 1/10/2013;
- Sensor-Surface: 3 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn881; Calibrated: 1/14/2013
- Phantom: SAM 1; Type: SAM 4.0; Serial: 1076
- DASY52 52.8.6(1115); SEMCAD X Version 14.6.9 (7117)

Left-Hand-Side HSL - UMTS V/Touch Position -**UMTS_V_chan4182_Scan#1_amb_temp_23.0C_liq_temp_22.0C/Area Scan (61x101x1):**

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

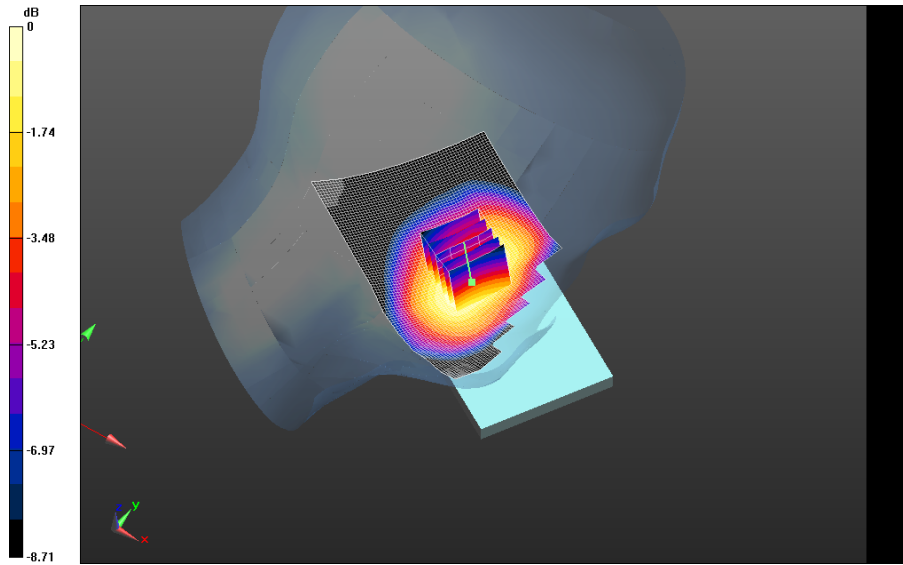
Maximum value of SAR (interpolated) = 0.453 W/kg

Left-Hand-Side HSL - UMTS V/Touch Position -**UMTS_V_chan4182_Scan#1_amb_temp_23.0C_liq_temp_22.0C/Zoom Scan (21x21x36)/Cube****0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 6.863 V/m; Power Drift = -0.221 dB

Averaged SAR: SAR(1g) = 0.415 W/kg; SAR(10g) = 0.316 W/kg

Maximum value of SAR (interpolated) = 0.515 W/kg



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

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

UMTS_V_chan4182_Scan#2_amb_temp_23.2C_liq_temp_21.9C/Area Scan (61x91x1):

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

Maximum value of SAR (interpolated) = 0.434 W/kg

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

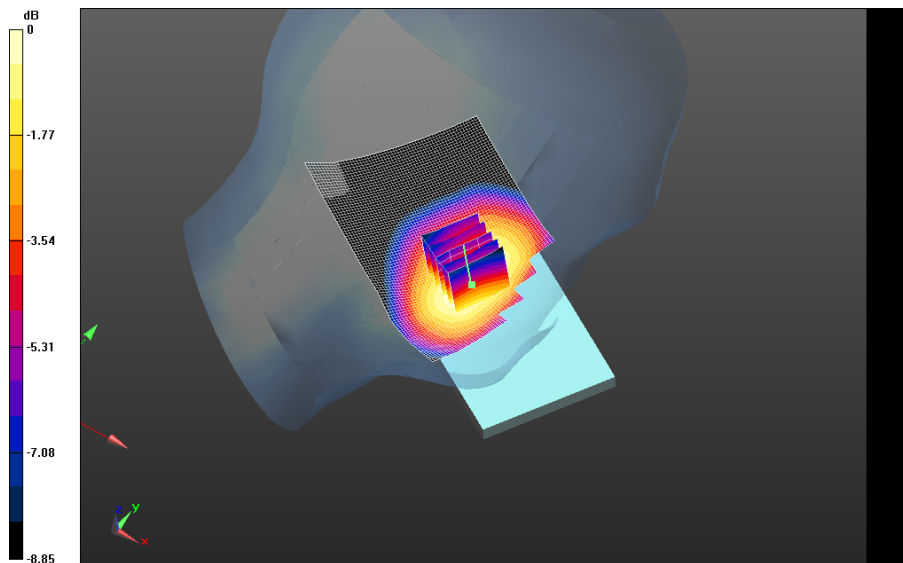
UMTS_V_chan4182_Scan#2_amb_temp_23.2C_liq_temp_21.9C/Zoom Scan (21x21x36)/Cube

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

Reference Value = 6.846 V/m; Power Drift = 0.056 dB

Averaged SAR: SAR(1g) = 0.404 W/kg; SAR(10g) = 0.309 W/kg

Maximum value of SAR (interpolated) = 0.512 W/kg



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

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

UMTS_V_chan4182_Scan#3_amb_temp_23.0C_liq_temp_22.0C/Area Scan (61x91x1):

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

Maximum value of SAR (interpolated) = 0.445 W/kg

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

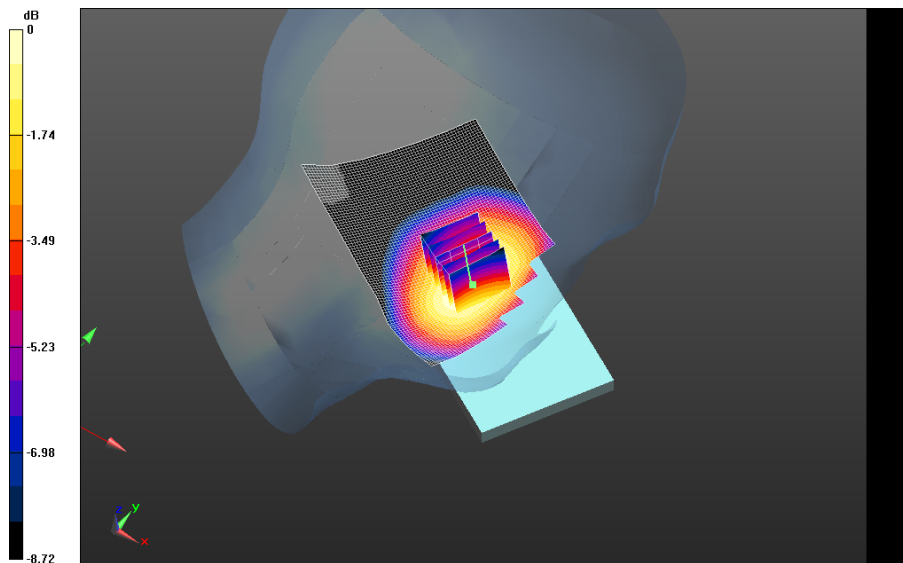
UMTS_V_chan4182_Scan#3_amb_temp_23.0C_liq_temp_22.0C/Zoom Scan (21x21x36)/Cube

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

Reference Value = 6.634 V/m; Power Drift = 0.316 dB

Averaged SAR: SAR(1g) = 0.409 W/kg; SAR(10g) = 0.312 W/kg

Maximum value of SAR (interpolated) = 0.512 W/kg



0 dB = 0.444 W/kg = -3.53 dBW/kg

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

UMTS_V_chan4182_Scan#4_amb_temp_22.8C_liq_temp_22.0C/Area Scan (61x91x1):

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

Maximum value of SAR (interpolated) = 0.447 W/kg

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

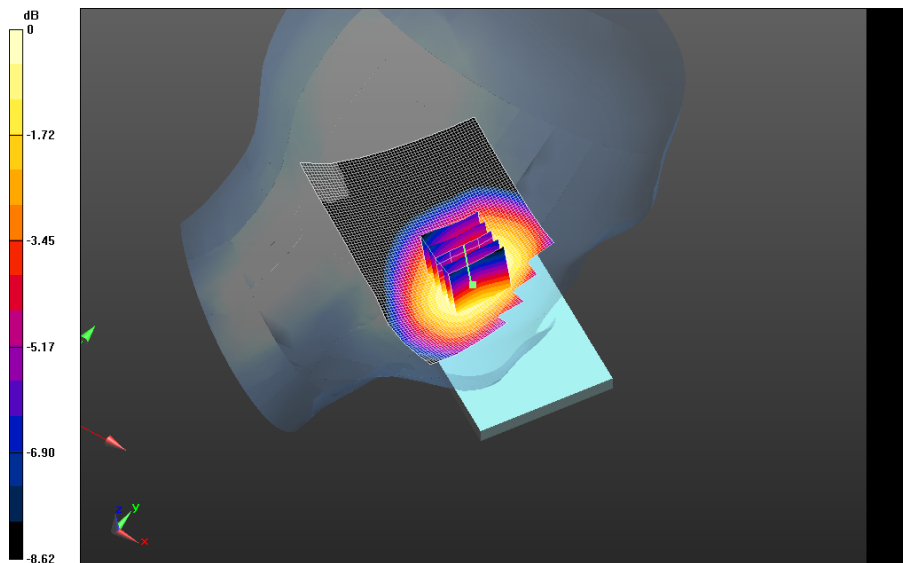
UMTS_V_chan4182_Scan#4_amb_temp_22.8C_liq_temp_22.0C/Zoom Scan (21x21x36)/Cube

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

Reference Value = 6.155 V/m; Power Drift = -0.092 dB

Averaged SAR: SAR(1g) = 0.416 W/kg; SAR(10g) = 0.317 W/kg

Maximum value of SAR (interpolated) = 0.518 W/kg



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

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

UMTS_V_chan4182_Scan#5_amb_temp_22.8C_liq_temp_22.0C/Area Scan (61x91x1):

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

Maximum value of SAR (interpolated) = 0.421 W/kg

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

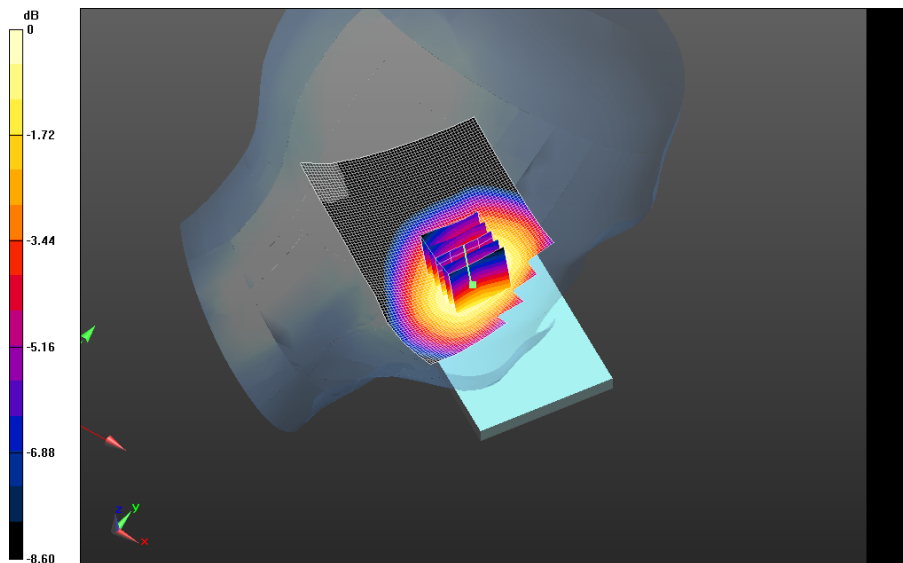
UMTS_V_chan4182_Scan#5_amb_temp_22.8C_liq_temp_22.0C/Zoom Scan (21x21x36)/Cube

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

Reference Value = 6.236 V/m; Power Drift = -0.00493 dB

Averaged SAR: SAR(1g) = 0.389 W/kg; SAR(10g) = 0.297 W/kg

Maximum value of SAR (interpolated) = 0.483 W/kg



0 dB = 0.456 W/kg = -3.41 dBW/kg

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

UMTS_V_chan4182_Scan#6_amb_temp_22.8C_liq_temp_22.0C/Area Scan (61x91x1):

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

Maximum value of SAR (interpolated) = 0.263 W/kg

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

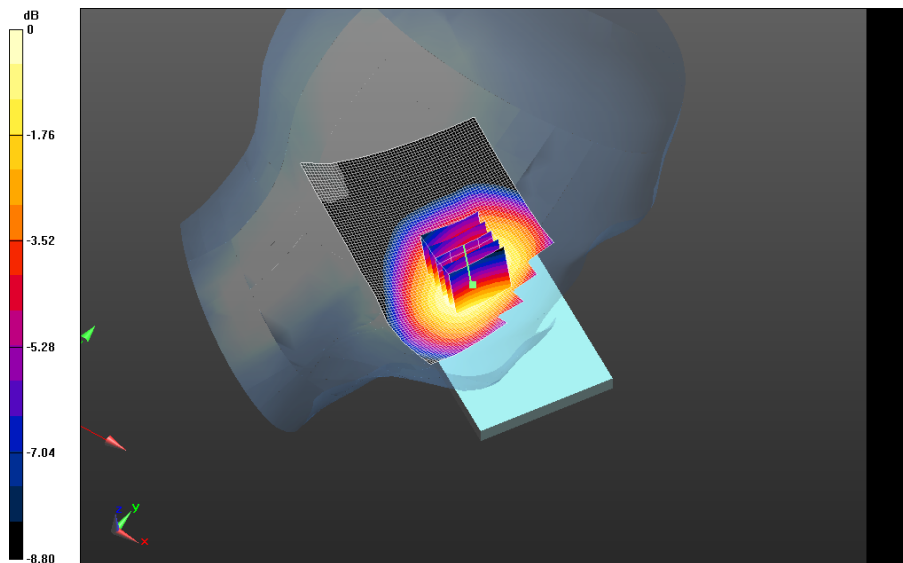
UMTS_V_chan4182_Scan#6_amb_temp_22.8C_liq_temp_22.0C/Zoom Scan (21x21x36)/Cube

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

Reference Value = 5.195 V/m; Power Drift = 0.170 dB

Averaged SAR: SAR(1g) = 0.244 W/kg; SAR(10g) = 0.185 W/kg

Maximum value of SAR (interpolated) = 0.305 W/kg



0 dB = 0.426 W/kg = -3.71 dBW/kg