

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

Model #		RFV121LW				
FCC ID #		L6ARFV120LW				
DeviceType	Sample #	Device PIN	HW REV #	CPR #	Software Bundle	Date (mm/dd/yy)
Radiated	70	2FFFE967	2	26845	10.2.0.1521	10/02/2013
Radiated	71	2FFFE9A7	2	26845	10.2.0.1521	10/02/2013

System accuracy verification

f (MHz)	Limits / Measured	Scan Type	SAR 1g/10g (W/kg)	Dielectric Parameters		Liquid Temp. (°C)
				ϵ_r	σ [S/m]	
750	Measured (10/07/2013)	Zoom Scan	7.72/5.06	40.5	0.90	21.4
	Recommended Limits (Dipole: 1021)		8.46/5.51	41.9	0.89	N/A
835	Measured (10/04/2013)	Zoom Scan	9.05/5.93	40.3	0.87	22.9
	Recommended Limits (Dipole: 446)		9.39/6.13	41.5	0.90	N/A
1800	Measured (10/03/2013)	Zoom Scan	36.5/19.2	38.9	1.43	23.0
	Recommended Limits (Dipole: 2d020)		38.5/20.3	40.0	1.40	N/A
1900	Measured (10/02/2013)	Zoom Scan	39.7/20.8	38.8	1.38	22.9
	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]	
750	Head	Measured (10/07/2013)	705	41.1	0.86	21.4
			715	41.0	0.87	
			750	40.5	0.90	
			775	40.1	0.92	
			790	40.0	0.94	
		Recommended Limits	750	41.9	0.89	N/A
835	Head	Measured (10/04/2013)	815	40.6	0.86	22.9
			835	40.3	0.87	
			850	40.2	0.89	
		Recommended Limits	835	41.5	0.90	N/A
1800	Head	Measured (10/03/2013)	1710	39.2	1.35	23.0
			1750	39.0	1.38	
			1800	38.9	1.43	
		Recommended Limits	1800	40.0	1.40	N/A
1900	Head	Measured (10/02/2013)	1850	39.0	1.33	22.9
			1900	38.8	1.38	
			1910	38.8	1.39	
			1980	38.6	1.46	
		Recommended Limits	1900	40.0	1.40	N/A

SAR Test Data: VA VC

Measured SAR Values - Head - LTE Band 17 700 MHz (10 MHz BW)										
Channel	Freq. (MHz)	Position	Mod.	RB #	OFFSET	1 g SAR (W/kg)	% delta from Closed Loop	Scan #	Comments	Hotspot Coordinates
										(x,y,z) mm
23780	709.0	Left Cheek	QPSK	1	0	0.43	0.00	1	Closed Loop	67.79, 264.5, -171.5
23780	709.0	Left Cheek	QPSK	1	0	0.43	0.00	2	Cap 1= Max C, Cap 2= Max C	67.78, 264.5, -171.5
23780	709.0	Left Cheek	QPSK	1	0	0.41	-4.65	3	Cap 1= Max C, Cap 2= Min C	67.78, 264.5, -171.4
23780	709.0	Left Cheek	QPSK	1	0	0.39	-9.30	4	Cap 1= Mid C, Cap 2= Mid C	67.77, 264.5, -171.5
23780	709.0	Left Cheek	QPSK	1	0	0.19	-55.81	5	Cap 1= Min C, Cap 2= Max C	69.02, 263.8, -171.1
23780	709.0	Left Cheek	QPSK	1	0	0.21	-51.16	6	Cap 1= Min C, Cap 2= Min C	69.03, 263.7, -171.1

Measured SAR Values - Head - LTE Band 17 700 MHz (10 MHz BW)						
Channel	Freq. (MHz)	Position	Declared Conducted power (dBm)	Measured Conducted power (dBm)	Measured 1 g SAR (W/kg)	Extrapolated 1 g SAR (W/kg)
23780	709.0	Left Cheek	24.00	23.59	0.43	0.47
23780	709.0	Left Cheek	24.00	23.59	0.43	0.47
23780	709.0	Left Cheek	24.00	23.59	0.41	0.45
23780	709.0	Left Cheek	24.00	23.59	0.39	0.43
23780	709.0	Left Cheek	24.00	23.59	0.19	0.21
23780	709.0	Left Cheek	24.00	23.59	0.21	0.23

Device Model	RFV121LW
Hardware Rev. #	2
Software Bundle #	10.2.0.1521
Date	10/07/2013

Measured SAR Values - Head - LTE Band 5 850 MHz (10 MHz BW)										
Channel	Freq. (MHz)	Position	Mod.	RB #	OFFSET	1 g SAR (W/kg)	% delta from Closed Loop	Scan #	Comments	Hotspot Coordinates
										(x,y,z) mm
20250	829.0	Left Cheek	QPSK	1	49	0.51	0.00	1	Closed Loop	65.52, 267.4, -171.9
20250	829.0	Left Cheek	QPSK	1	49	0.28	-45.10	2	Cap 1= Max C, Cap 2= Max C	65.53, 267.4, -171.9
20250	829.0	Left Cheek	QPSK	1	49	0.23	-54.90	3	Cap 1= Max C, Cap 2= Min C	65.52, 267.4, -171.9
20250	829.0	Left Cheek	QPSK	1	49	0.30	-41.18	4	Cap 1= Mid C, Cap 2= Mid C	65.50, 267.4, -171.9
20250	829.0	Left Cheek	QPSK	1	49	0.42	-17.65	5	Cap 1= Min C, Cap 2= Max C	64.27, 268.2, -172.1
20250	829.0	Left Cheek	QPSK	1	49	0.51	0.00	6	Cap 1= Min C, Cap 2= Min C	65.51, 267.4, -171.9

Measured SAR Values - Head - LTE Band 5 850 MHz (10 MHz BW)						
Channel	Freq. (MHz)	Position	Declared Conducted power (dBm)	Measured Conducted power (dBm)	Measured 1 g SAR (W/kg)	Extrapolated 1 g SAR (W/kg)
20250	829.0	Left Cheek	24.00	23.60	0.51	0.56
20250	829.0	Left Cheek	24.00	23.60	0.28	0.31
20250	829.0	Left Cheek	24.00	23.60	0.23	0.25
20250	829.0	Left Cheek	24.00	23.60	0.30	0.33
20250	829.0	Left Cheek	24.00	23.60	0.42	0.46
20250	829.0	Left Cheek	24.00	23.60	0.51	0.56

Device Model	RFV121LW
Hardware Rev. #	2
Software Bundle #	10.2.0.1521
Date	10/04/2013

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
20450	829.0	Left Cheek	0.43	0.00	1	Closed Loop	66.25, 269.8, -171.7
20450	829.0	Left Cheek	0.32	-25.58	2	Cap 1= Max C, Cap 2= Max C	65.02, 263.8, -171.6
20450	829.0	Left Cheek	0.26	-39.53	3	Cap 1= Max C, Cap 2= Min C	66.24, 263.1, -171.2
20450	829.0	Left Cheek	0.34	-20.93	4	Cap 1= Mid C, Cap 2= Mid C	65.02, 263.8, -171.7
20450	829.0	Left Cheek	0.43	0.00	5	Cap 1= Min C, Cap 2= Max C	65.78, 265.1, -171.6
20450	829.0	Left Cheek	0.43	0.00	6	Cap 1= Min C, Cap 2= Min C	65.02, 263.8, -171.6

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)
20450	829.0	Left Cheek	23.50	23.20	0.43	0.46
20450	829.0	Left Cheek	23.50	23.20	0.32	0.34
20450	829.0	Left Cheek	23.50	23.20	0.26	0.28
20450	829.0	Left Cheek	23.50	23.20	0.34	0.36
20450	829.0	Left Cheek	23.50	23.20	0.43	0.46
20450	829.0	Left Cheek	23.50	23.20	0.43	0.46

Device Model	RFV121LW
Hardware Rev. #	2
Software Bundle #	10.2.0.1521
Date	10/04/2013

Measured SAR Values - Head - LTE Band 4 1800 MHz (20 MHz BW)										
Channel	Freq. (MHz)	Position	Mod.	RB #	OFFSET	1 g SAR (W/kg)	% delta from Closed Loop	Scan #	Comments	Hotspot Coordinates
										(x,y,z) mm
20050	1720.0	Left Cheek	QPSK	1	50	0.57	0.00	1	Closed Loop	64.53, 250.9, -170.4
20050	1720.0	Left Cheek	QPSK	1	50	0.55	-3.51	2	Cap 1= Max C, Cap 2= Max C	63.31, 251.6, -170.8
20050	1720.0	Left Cheek	QPSK	1	50	0.52	-8.77	3	Cap 1= Max C, Cap 2= Min C	63.84, 249.6, -170.4
20050	1720.0	Left Cheek	QPSK	1	50	0.55	-3.51	4	Cap 1= Mid C, Cap 2= Mid C	63.83, 249.6, -170.4
20050	1720.0	Left Cheek	QPSK	1	50	0.48	-15.79	5	Cap 1= Min C, Cap 2= Max C	63.83, 249.6, -170.4
20050	1720.0	Left Cheek	QPSK	1	50	0.56	-1.75	6	Cap 1= Min C, Cap 2= Min C	62.62, 250.4, -170.9

Measured SAR Values - Head - LTE Band 4 1800 MHz (20 MHz BW)						
Channel	Freq. (MHz)	Position	Declared Conducted power (dBm)	Measured Conducted power (dBm)	Measured 1 g SAR (W/kg)	Extrapolated 1 g SAR (W/kg)
20050	1720.0	Left Cheek	23.00	22.55	0.57	0.63
20050	1720.0	Left Cheek	23.00	22.55	0.55	0.61
20050	1720.0	Left Cheek	23.00	22.55	0.52	0.58
20050	1720.0	Left Cheek	23.00	22.55	0.55	0.61
20050	1720.0	Left Cheek	23.00	22.55	0.48	0.53
20050	1720.0	Left Cheek	23.00	22.55	0.56	0.62

Device Model	RFV121LW
Hardware Rev. #	2
Software Bundle #	10.2.0.1521
Date	10/03/2013

Measured SAR Values - Head - WCDMA FDD IV 1800 MHz							
Channel	Freq. (MHz)	Position	1 g SAR (W/kg)	% delta from Closed Loop	Scan #	Comments	Hotspot Coordinates
							(x, y, z) mm
1413	1732.6	Left Cheek	0.64	0.00	1	Closed Loop	66.20, 254.5, -170.0
1413	1732.6	Left Cheek	0.60	-6.25	2	Cap 1= Max C, Cap 2= Max C	66.24, 254.5, -170.1
1413	1732.6	Left Cheek	0.60	-6.25	3	Cap 1= Max C, Cap 2= Min C	66.23, 254.4, -170.1
1413	1732.6	Left Cheek	0.62	-3.13	4	Cap 1= Mid C, Cap 2= Mid C	64.98, 255.2, -170.5
1413	1732.6	Left Cheek	0.47	-26.56	5	Cap 1= Min C, Cap 2= Max C	66.23, 254.4, -170.1
1413	1732.6	Left Cheek	0.62	-3.13	6	Cap 1= Min C, Cap 2= Min C	66.24, 254.5, -170.1

Measured SAR Values - Head - WCDMA FDD IV 1800 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)
1413	1732.6	Left Cheek	23.00	23.00	0.64	0.64
1413	1732.6	Left Cheek	23.00	23.00	0.60	0.60
1413	1732.6	Left Cheek	23.00	23.00	0.60	0.60
1413	1732.6	Left Cheek	23.00	23.00	0.62	0.62
1413	1732.6	Left Cheek	23.00	23.00	0.47	0.47
1413	1732.6	Left Cheek	23.00	23.00	0.62	0.62

Device Model	RFV121LW
Hardware Rev. #	2
Software Bundle #	10.2.0.1521
Date	10/04/2013

Measured SAR Values - Head - LTE Band 2 1900 MHz (20 MHz BW)										
Channel	Freq. (MHz)	Position	Mod.	RB #	OFFSET	1 g SAR (W/kg)	% delta from Closed Loop	Scan #	Comments	Hotspot Coordinates
										(x,y,z) mm
18700	1860.0	Left Cheek	QPSK	1	50	0.52	0.00	1	Closed Loop	67.04, 254.6, -170.2
18700	1860.0	Left Cheek	QPSK	1	50	0.32	-38.46	2	Cap 1= Max C, Cap 2= Max C	67.48, 252.6, -169.7
18700	1860.0	Left Cheek	QPSK	1	50	0.44	-15.38	3	Cap 1= Max C, Cap 2= Mid C	68.20, 253.9, -169.7
18700	1860.0	Left Cheek	QPSK	1	50	0.45	-13.46	4	Cap 1= Max C, Cap 2= Min C	68.20, 253.9, -169.7
18700	1860.0	Left Cheek	QPSK	1	50	0.31	-40.38	5	Cap 1= Mid C, Cap 2= Max C	67.47, 252.6, -169.7
18700	1860.0	Left Cheek	QPSK	1	50	0.43	-17.31	6	Cap 1= Mid C, Cap 2= Mid C	68.20, 253.9, -169.6
18700	1860.0	Left Cheek	QPSK	1	50	0.46	-11.54	7	Cap 1 = Mid C, Cap 2= Min C	68.20, 253.9, -169.6
18700	1860.0	Left Cheek	QPSK	1	50	0.25	-51.92	8	Cap 1= Min C, Cap 2= Max C	68.20, 253.9, -169.6
18700	1860.0	Left Cheek	QPSK	1	50	0.39	-25.00	9	Cap 1= Min C, Cap 2= Mid C	68.21, 253.9, -169.7
18700	1860.0	Left Cheek	QPSK	1	50	0.45	-13.46	10	Cap 1= Min C, Cap 2= Min C	67.49, 252.6, -169.7

Measured SAR Values - Head - LTE Band 2 1900 MHz (20 MHz BW)						
Channel	Freq. (MHz)	Position	Declared Conducted power (dBm)	Measured Conducted power (dBm)	Measured 1 g SAR (W/kg)	Extrapolated 1 g SAR (W/kg)
18700	1860.0	Left Cheek	22.50	22.38	0.52	0.53
18700	1860.0	Left Cheek	22.50	22.38	0.32	0.33
18700	1860.0	Left Cheek	22.50	22.38	0.44	0.45
18700	1860.0	Left Cheek	22.50	22.38	0.45	0.46
18700	1860.0	Left Cheek	22.50	22.38	0.31	0.32
18700	1860.0	Left Cheek	22.50	22.38	0.43	0.44
18700	1860.0	Left Cheek	22.50	22.38	0.46	0.47
18700	1860.0	Left Cheek	22.50	22.38	0.25	0.26
18700	1860.0	Left Cheek	22.50	22.38	0.39	0.40
18700	1860.0	Left Cheek	22.50	22.38	0.45	0.46

Device Model	RFV121LW
Hardware Rev. #	2
Software Bundle #	10.2.0.1521
Date	10/03/2013

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	0.51	0.00	1	Closed Loop	65.67, 256.5, -170.4
9400	1880.0	Left Cheek	0.44	-13.73	2	Cap 1= Max C, Cap 2= Max C	65.67, 256.5, -170.4
9400	1880.0	Left Cheek	0.49	-3.92	3	Cap 1= Max C, Cap 2= Min C	65.68, 256.5, -170.4
9400	1880.0	Left Cheek	0.49	-3.92	4	Cap 1= Mid C, Cap 2= Mid C	65.66, 256.5, -170.4
9400	1880.0	Left Cheek	0.30	-41.18	5	Cap 1= Min C, Cap 2= Max C	64.97, 255.2, -170.4
9400	1880.0	Left Cheek	0.50	-1.96	6	Cap 1= Min C, Cap 2= Min C	64.97, 255.2, -170.4

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	0.51	0.56
9400	1880.0	Left Cheek	23.00	22.60	0.44	0.48
9400	1880.0	Left Cheek	23.00	22.60	0.49	0.54
9400	1880.0	Left Cheek	23.00	22.60	0.49	0.54
9400	1880.0	Left Cheek	23.00	22.60	0.30	0.33
9400	1880.0	Left Cheek	23.00	22.60	0.50	0.55

Device Model	RFV121LW
Hardware Rev. #	2
Software Bundle #	10.2.0.1521
Date	10/02/2013

SAR Plots:

Date/Time: 10/7/2013 1:30:03 AM

Test Laboratory: BlackBerry RTS

DipoleValidation_750MHz_10_07_13_Amb_Tem_23.8_Liq_Tem_21.4C

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1021

Communication System: UID 0 - n/a, CW; Frequency: 750 MHz

Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.9 \text{ S/m}$; $\epsilon_r = 40.473$; $\rho = 1000 \text{ kg/m}^3$

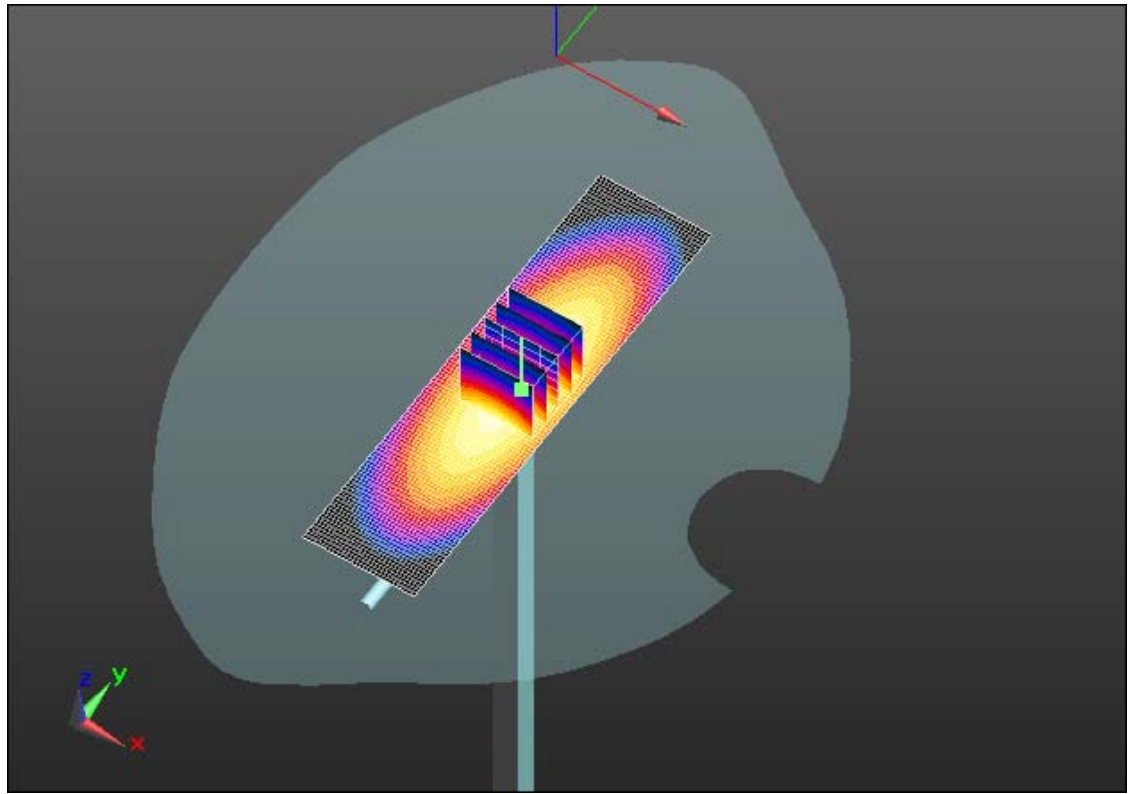
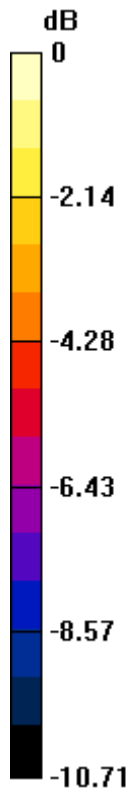
Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.56, 6.56, 6.56); 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=15mm, Pin=1000mW/Area Scan (31x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$ Maximum value of SAR (interpolated) = 8.97 W/kg **Configuration/d=15mm, Pin=1000mW/Zoom Scan (5x5x7) 2 2 (5x5x7)/Cube 0:** Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$ Reference Value = 103.7 V/m ; Power Drift = -0.05 dB Peak SAR (extrapolated) = 11.6 W/kg **SAR(1 g) = 7.72 W/kg ; SAR(10 g) = 5.03 W/kg** Maximum value of SAR (measured) = 9.06 W/kg



0 dB = 9.06 W/kg = 9.57 dBW/kg

Date/Time: 10/4/2013 9:19:12 AM

Test Laboratory: BlackBerry RTS

DipoleValidation_835MHz_10_04_13_Amb_Tem_23.6C_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: $f = 835 \text{ MHz}$; $\sigma = 0.874 \text{ S/m}$; $\epsilon_r = 40.331$; $\rho = 1000 \text{ kg/m}^3$

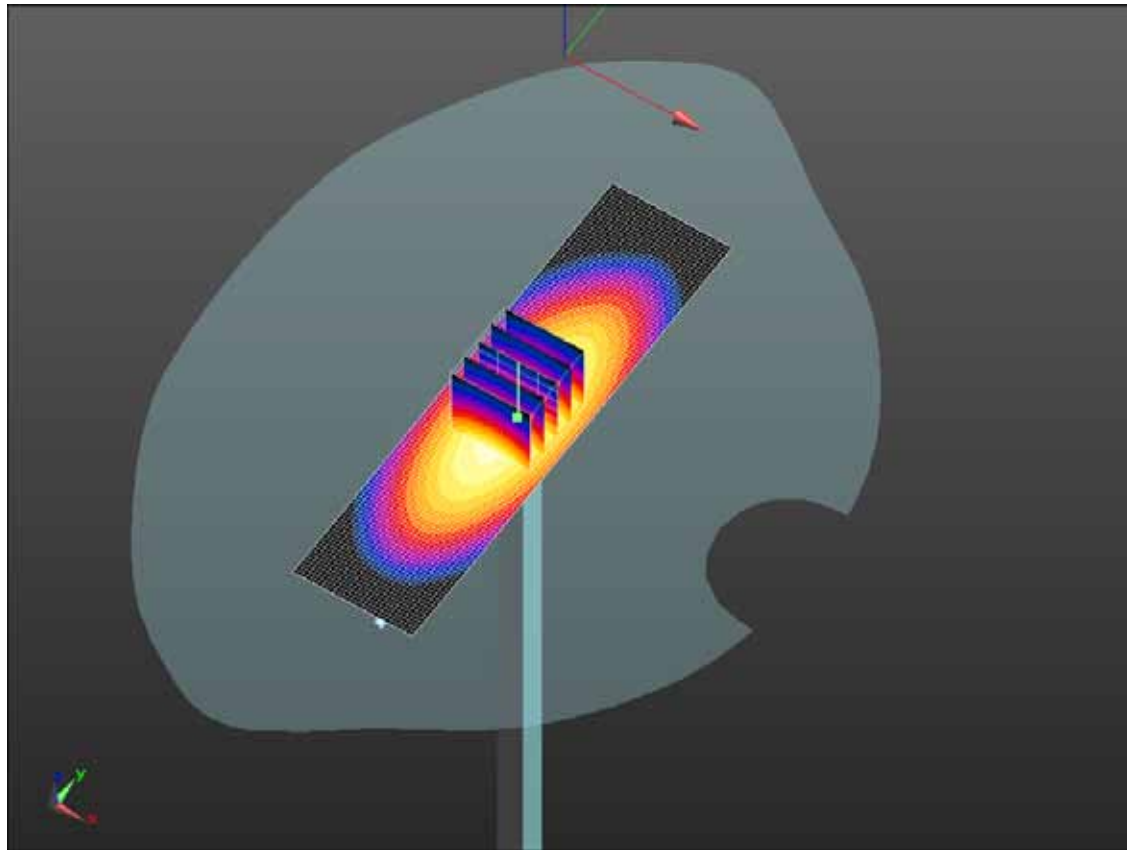
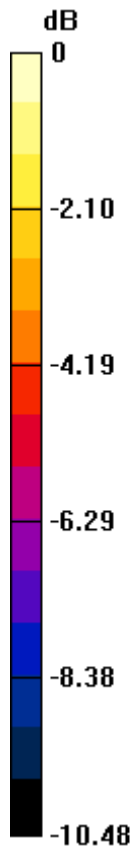
Phantom section: Flat Section

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

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF(6.19, 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
- DASYS2 52.8.6(1115); SEMCAD X 14.6.9(7117)

Configuration/d=15mm, Pin=1000mW/Area Scan (31x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$ Reference Value = 113.4 V/m ; Power Drift = -0.01 dB **Fast SAR: SAR(1 g) = 9.08 W/kg; SAR(10 g) = 6.03 W/kg**Maximum value of SAR (interpolated) = 10.5 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 = 113.4 V/m ; Power Drift = -0.01 dB Peak SAR (extrapolated) = 13.4 W/kg **SAR(1 g) = 9.05 W/kg; SAR(10 g) = 5.93 W/kg**Maximum value of SAR (measured) = 10.6 W/kg



0 dB = 10.6 W/kg = 10.25 dBW/kg

Date/Time: 10/3/2013 2:45:57 PM

Test Laboratory: BlackBerry RTS

DipoleValidation_1800MHz_10_03_13_Amb_Tem_24.0_Liq_Tem_23.0C

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:2d020

Communication System: UID 0 - n/a, CW; Frequency: 1800 MHz

Medium parameters used: $f = 1800$ MHz; $\sigma = 1.428$ S/m; $\epsilon_r = 38.878$; $\rho = 1000$ kg/m³

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

Reference Value = 185.1 V/m; Power Drift = 0.00 dB

Fast SAR: SAR(1 g) = 37.7 W/kg; SAR(10 g) = 20.4 W/kg

Maximum value of SAR (interpolated) = 46.3 W/kg

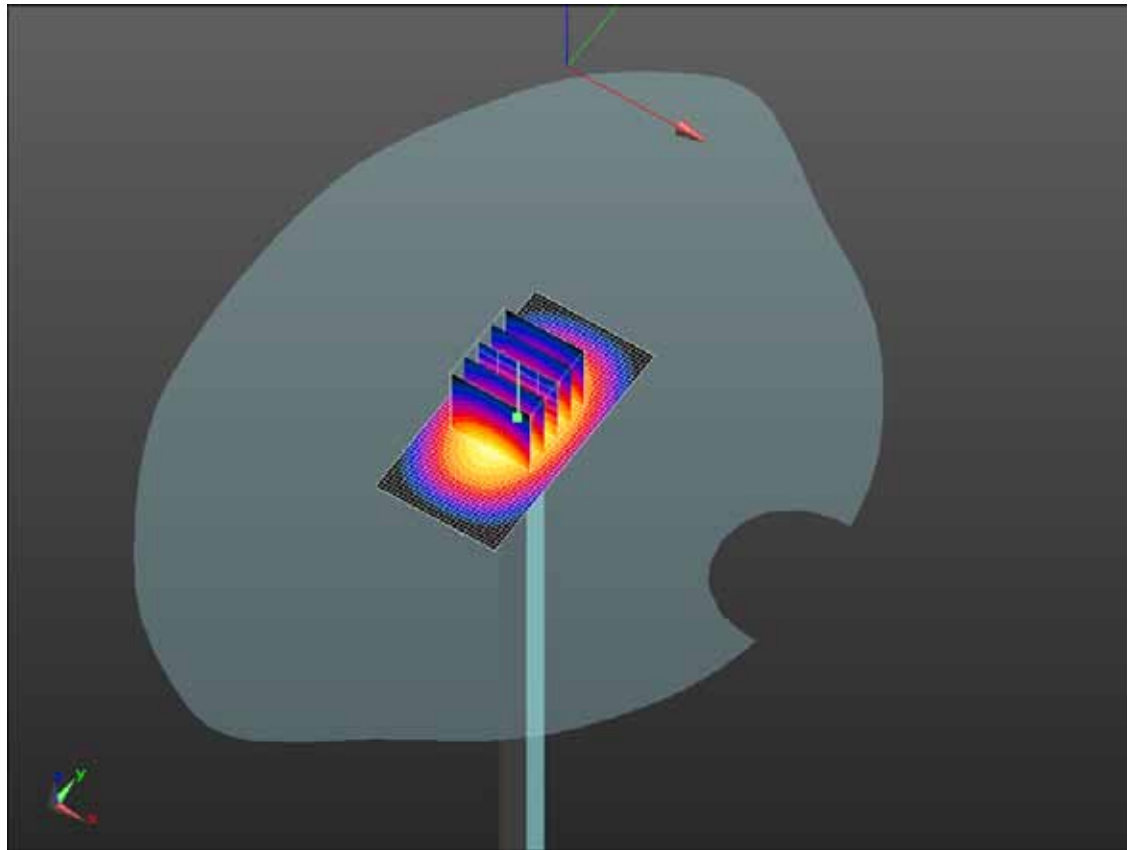
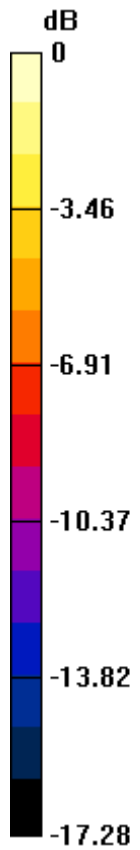
Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) 2 (5x5x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 185.1 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 65.7 W/kg

SAR(1 g) = 36.5 W/kg; SAR(10 g) = 19.2 W/kg

Maximum value of SAR (measured) = 46.4 W/kg



0 dB = 46.4 W/kg = 16.67 dBW/kg

Date/Time: 10/2/2013 4:12:26 PM

Test Laboratory: BlackBerry RTS

DipoleValidation_1900MHz_10_02_13_Amb_Tem_23.4C_Liq_Tem_22.9C**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:545**

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.378$ S/m; $\epsilon_r = 38.836$; $\rho = 1000$ kg/m³

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

Reference Value = 198.8 V/m; Power Drift = 0.01 dB

Fast SAR: SAR(1 g) = 40.3 W/kg; SAR(10 g) = 21.3 W/kg

Maximum value of SAR (interpolated) = 50.4 W/kg

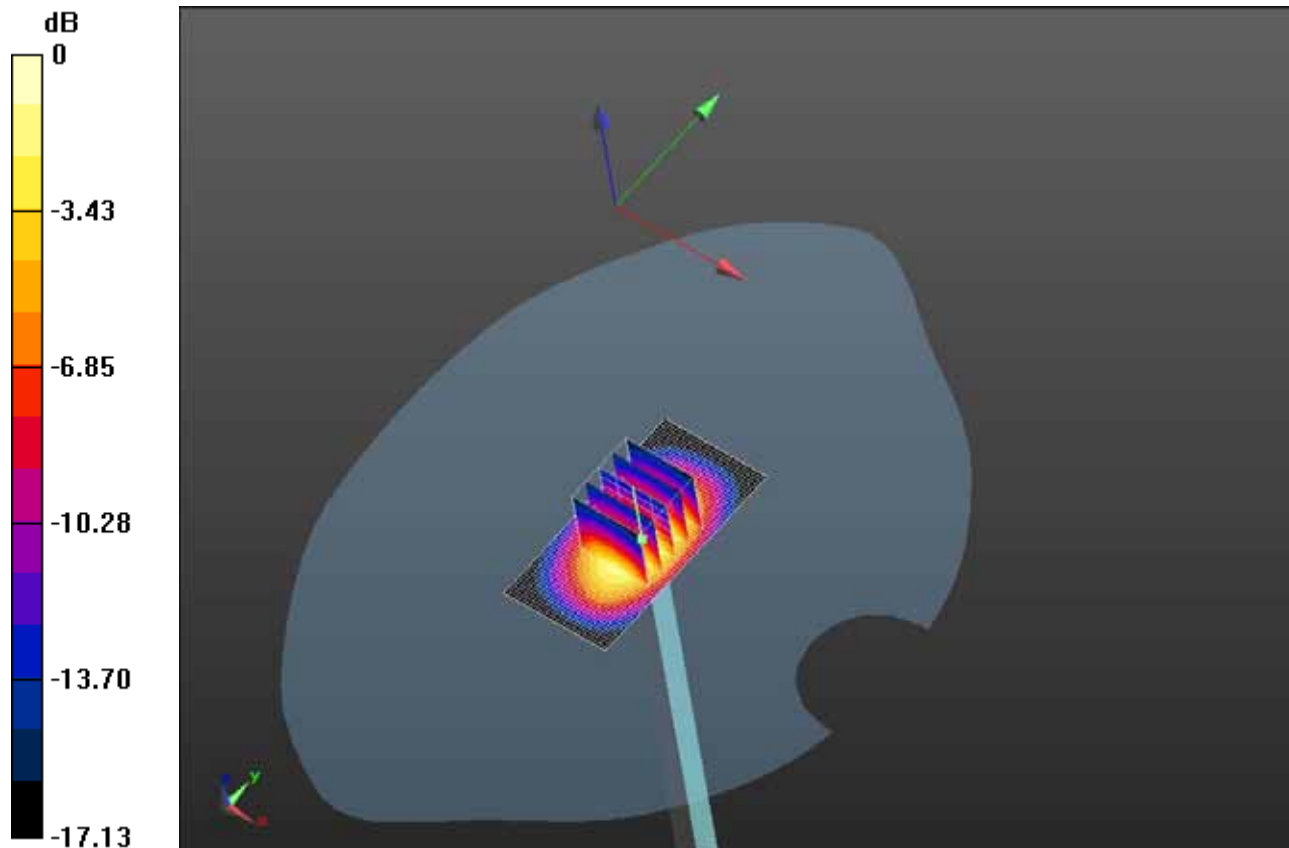
Configuration/d=10mm, Pin=1000mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 198.8 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 70.4 W/kg

SAR(1 g) = 39.7 W/kg; SAR(10 g) = 20.8 W/kg

Maximum value of SAR (measured) = 50.2 W/kg



0 dB = 50.2 W/kg = 17.01 dBW/kg

Date: 10/7/2013

Test Lab: BlackBerry RTS

DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE9A7**Configuration: Left-Hand-Side HSL - LTE Band 17**

Communication System: LTE band 17; Communication System Band: LTE 17; Frequency: 709 MHz

Medium Parameters used: $f=709$ MHz; $\sigma = 0.862$ S/m; $\epsilon_r = 41.055$; $\rho = 1.000$ g/cm³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3225; ConvF: (6.56,6.56,6.56); 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)

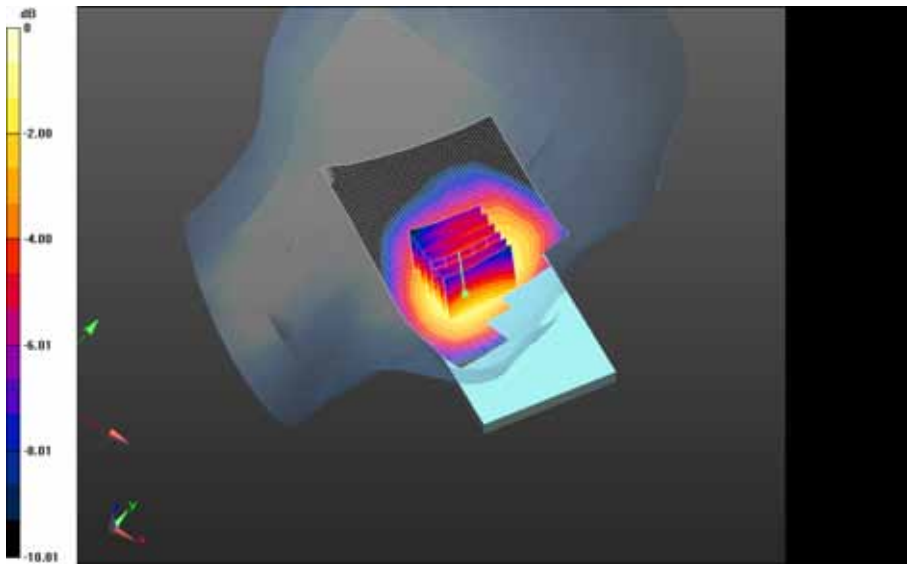
Left-Hand-Side HSL - LTE Band 17/Touch Position -**LTE_Band_17_Scan1_chan23780_RB1_OFFSET0_amb_temp_24.0C_liq_temp_22.6C/Area Scan (61x101x1):**

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

Maximum value of SAR (interpolated) = 0.456 W/kg

Left-Hand-Side HSL - LTE Band 17/Touch Position -**LTE_Band_17_Scan1_chan23780_RB1_OFFSET0_amb_temp_24.0C_liq_temp_22.6C/Zoom Scan****(26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 8.411 V/m; **Power Drift = -0.012 dB****Averaged SAR: SAR(1g) = 0.427 W/kg; SAR(10g) = 0.327 W/kg**

Maximum value of SAR (interpolated) = 0.537 W/kg



0 dB = 0.465 W/kg = -3.33 dBW/kg

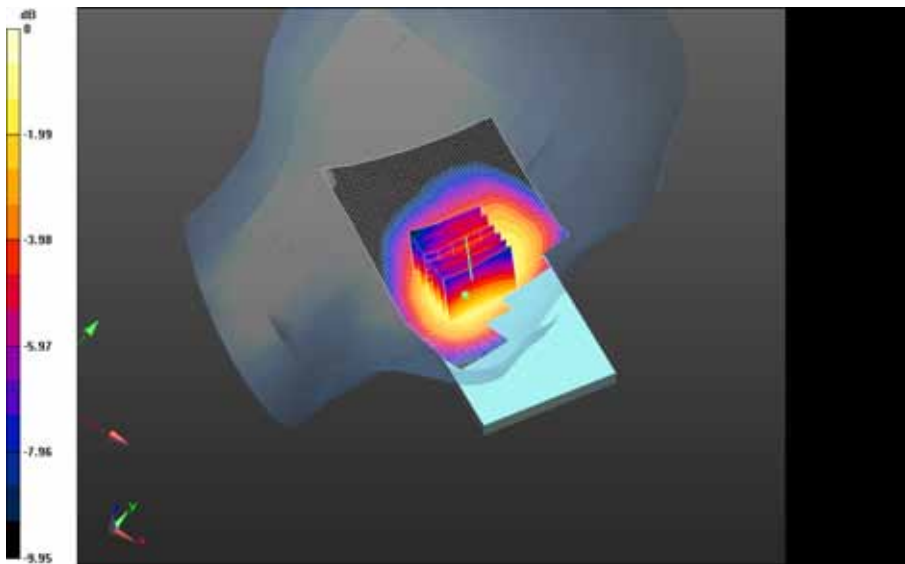
Left-Hand-Side HSL - LTE Band 17/Touch Position -**LTE_Band_17_Scan2_chan23780_RB1_OFFSET0_amb_temp_24.0C_liq_temp_22.6C/Area Scan (61x101x1):**

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

Maximum value of SAR (interpolated) = 0.460 W/kg

Left-Hand-Side HSL - LTE Band 17/Touch Position -**LTE_Band_17_Scan2_chan23780_RB1_OFFSET0_amb_temp_24.0C_liq_temp_22.6C/Zoom Scan****(26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 8.560 V/m; **Power Drift = 0.142 dB****Averaged SAR: SAR(1g) = 0.432 W/kg; SAR(10g) = 0.334 W/kg**

Maximum value of SAR (interpolated) = 0.530 W/kg



0 dB = 0.465 W/kg = -3.33 dBW/kg

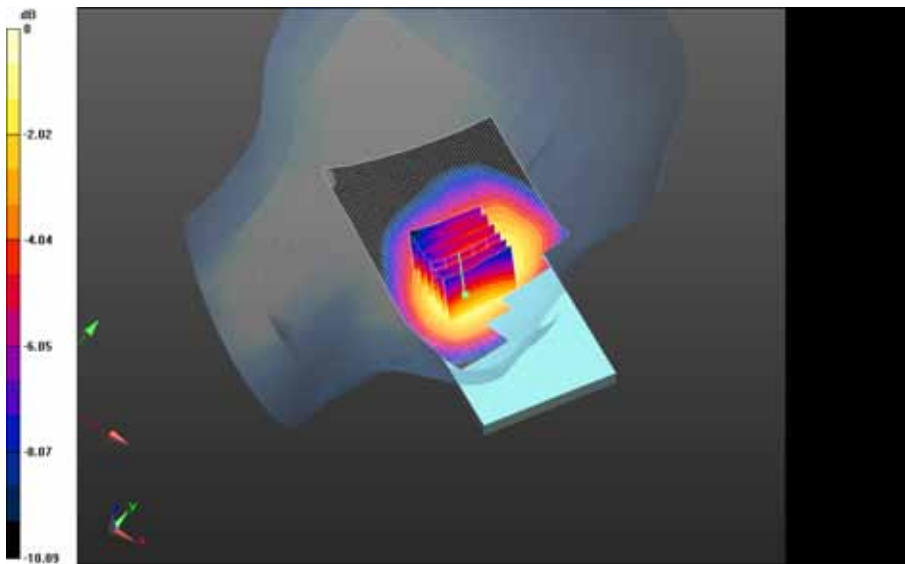
Left-Hand-Side HSL - LTE Band 17/Touch Position -**LTE_Band_17_Scan3_chan23780_RB1_OFFSET0_amb_temp_24.0C_liq_temp_22.6C/Area Scan (61x101x1):**

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

Maximum value of SAR (interpolated) = 0.443 W/kg

Left-Hand-Side HSL - LTE Band 17/Touch Position -**LTE_Band_17_Scan3_chan23780_RB1_OFFSET0_amb_temp_24.0C_liq_temp_22.6C/Zoom Scan****(26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 8.136 V/m; **Power Drift = 0.011 dB****Averaged SAR: SAR(1g) = 0.407 W/kg; SAR(10g) = 0.311 W/kg**

Maximum value of SAR (interpolated) = 0.517 W/kg



0 dB = 0.466 W/kg = -3.32 dBW/kg

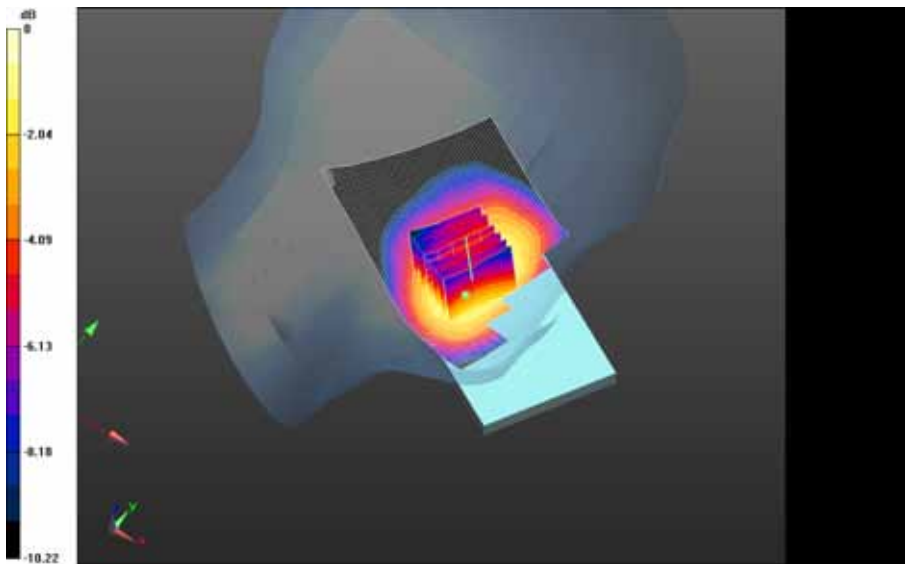
Left-Hand-Side HSL - LTE Band 17/Touch Position -**LTE_Band_17_Scan4_chan23780_RB1_OFFSET0_amb_temp_24.0C_liq_temp_22.6C/Area Scan (61x101x1):**

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

Maximum value of SAR (interpolated) = 0.418 W/kg

Left-Hand-Side HSL - LTE Band 17/Touch Position -**LTE_Band_17_Scan4_chan23780_RB1_OFFSET0_amb_temp_24.0C_liq_temp_22.6C/Zoom Scan****(26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 8.042 V/m; **Power Drift = -0.017 dB****Averaged SAR: SAR(1g) = 0.387 W/kg; SAR(10g) = 0.295 W/kg**

Maximum value of SAR (interpolated) = 0.484 W/kg



0 dB = 0.445 W/kg = -3.52 dBW/kg

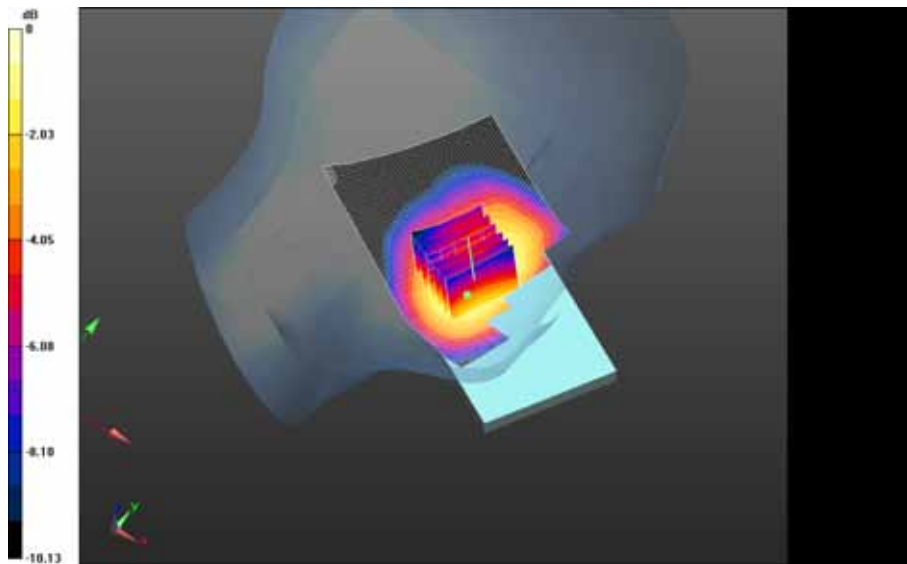
Left-Hand-Side HSL - LTE Band 17/Touch Position -**LTE_Band_17_Scan5_chan23780_RB1_OFFSET0_amb_temp_24.0C_liq_temp_22.6C/Area Scan (61x101x1):**

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

Maximum value of SAR (interpolated) = 0.206 W/kg

Left-Hand-Side HSL - LTE Band 17/Touch Position -**LTE_Band_17_Scan5_chan23780_RB1_OFFSET0_amb_temp_24.0C_liq_temp_22.6C/Zoom Scan****(26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 5.521 V/m; **Power Drift = -0.187 dB****Averaged SAR: SAR(1g) = 0.186 W/kg; SAR(10g) = 0.143 W/kg**

Maximum value of SAR (interpolated) = 0.236 W/kg



0 dB = 0.424 W/kg = -3.73 dBW/kg

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

LTE_Band_17_Scan6_chan23780_RB1_OFFSET0_amb_temp_24.0C_liq_temp_22.6C/Area Scan (61x101x1):

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

Maximum value of SAR (interpolated) = 0.236 W/kg

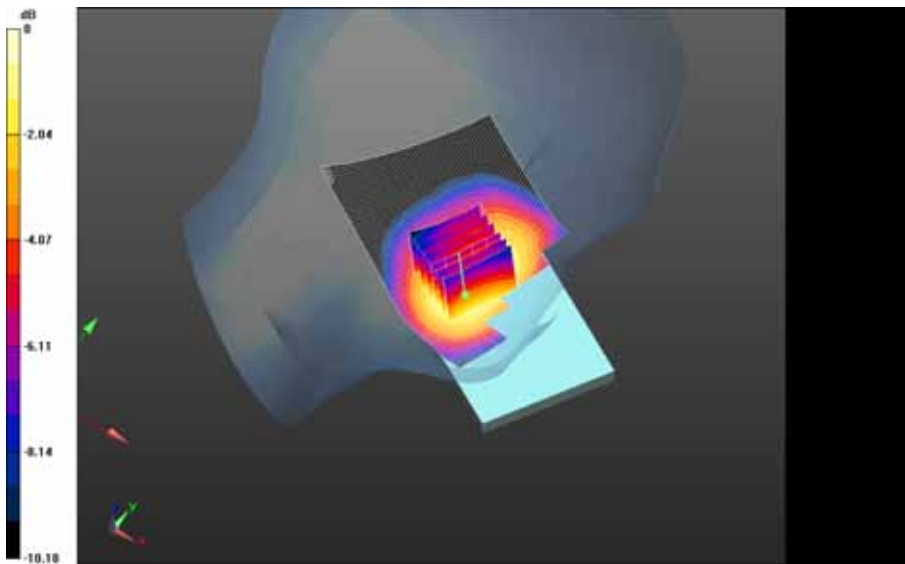
Left-Hand-Side HSL - LTE Band 17/Touch Position -

LTE_Band_17_Scan6_chan23780_RB1_OFFSET0_amb_temp_24.0C_liq_temp_22.6C/Zoom Scan

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

Reference Value = 5.213 V/m; **Power Drift = -0.051 dB****Averaged SAR: SAR(1g) = 0.212 W/kg; SAR(10g) = 0.160 W/kg**

Maximum value of SAR (interpolated) = 0.273 W/kg



0 dB = 0.205 W/kg = -6.88 dBW/kg

Date: 10/5/2013

Test Lab: BlackBerry RTS

DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE9A7**Configuration: Left-Hand-Side HSL - LTE Band 5**

Communication System: LTE 5; Communication System Band: LTE 5; Frequency: 829 MHz

Medium Parameters used: $f=829$ MHz; $\sigma = 0.869$ S/m; $\epsilon_r = 40.422$; $\rho = 1.000$ 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)

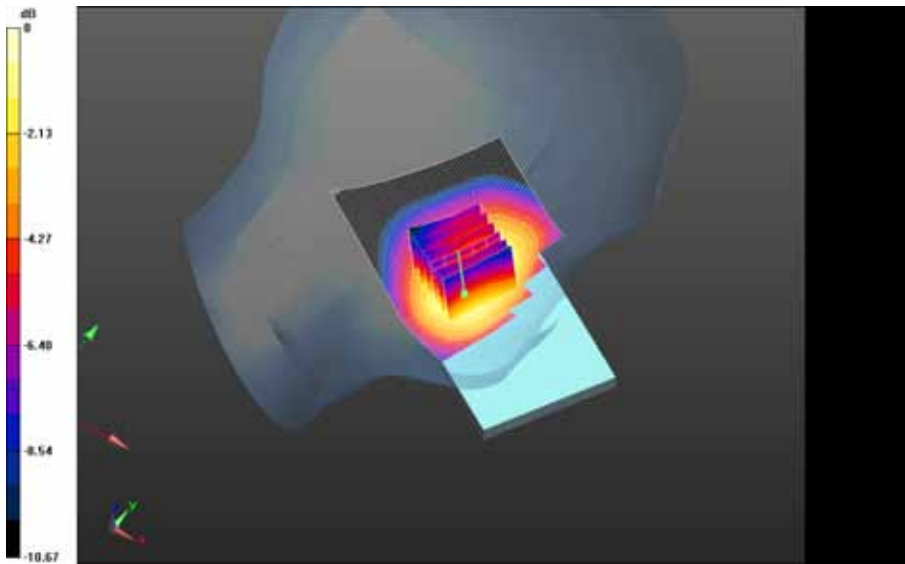
Left-Hand-Side HSL - LTE Band 5/Touch Position -**LTE_5_chan20450_QPSK_RB1_OFFSET49_Scan#1_amb_temp_23.5C_liq_temp_22.1C/Area Scan (61x81x1):**

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

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

Left-Hand-Side HSL - LTE Band 5/Touch Position -**LTE_5_chan20450_QPSK_RB1_OFFSET49_Scan#1_amb_temp_23.5C_liq_temp_22.1C/Zoom Scan****(26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 7.330 V/m; **Power Drift = 0.123 dB****Averaged SAR: SAR(1g) = 0.509 W/kg; SAR(10g) = 0.382 W/kg**

Maximum value of SAR (interpolated) = 0.662 W/kg



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

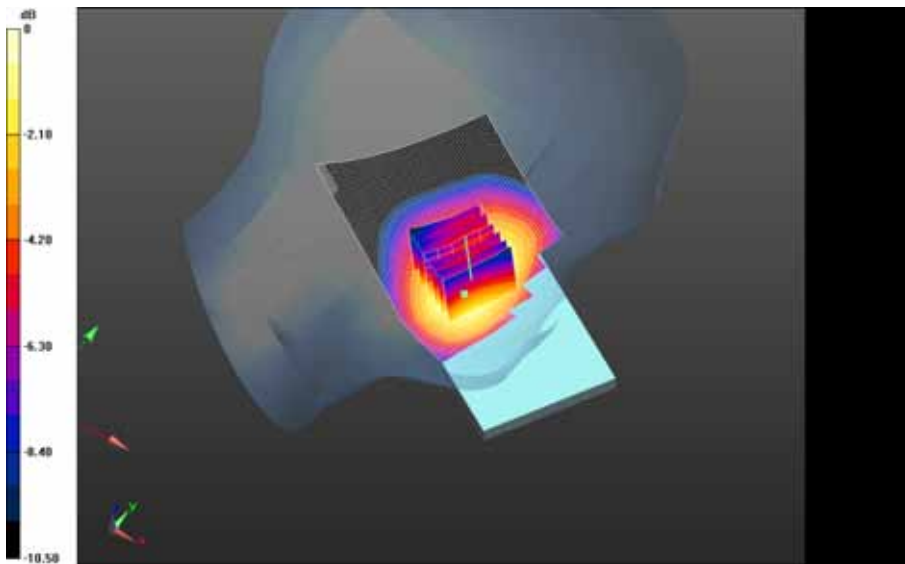
Left-Hand-Side HSL - LTE Band 5/Touch Position -**LTE_5_chan20450_QPSK_RB1_OFFSET49_Scan#2_amb_temp_23.3C_liq_temp_22.1C/Area Scan (61x91x1):**

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

Maximum value of SAR (interpolated) = 0.308 W/kg

Left-Hand-Side HSL - LTE Band 5/Touch Position -**LTE_5_chan20450_QPSK_RB1_OFFSET49_Scan#2_amb_temp_23.3C_liq_temp_22.1C/Zoom Scan****(26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 6.077 V/m; **Power Drift = 0.210 dB****Averaged SAR: SAR(1g) = 0.277 W/kg; SAR(10g) = 0.207 W/kg**

Maximum value of SAR (interpolated) = 0.361 W/kg



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

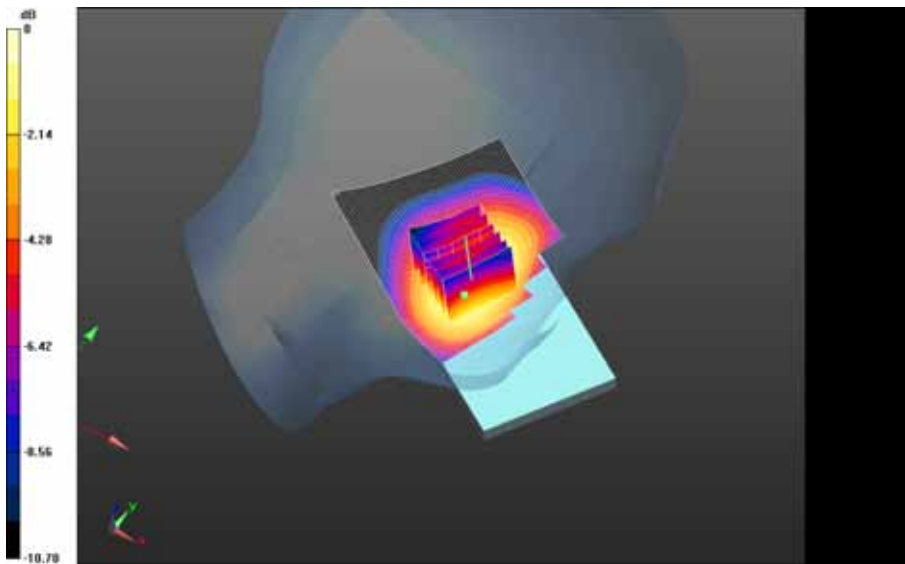
Left-Hand-Side HSL - LTE Band 5/Touch Position -**LTE_5_chan20450_QPSK_RB1_OFFSET49_Scan#3_amb_temp_23.4C_liq_temp_22.1C/Area Scan (61x81x1):**

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

Maximum value of SAR (interpolated) = 0.249 W/kg

Left-Hand-Side HSL - LTE Band 5/Touch Position -**LTE_5_chan20450_QPSK_RB1_OFFSET49_Scan#3_amb_temp_23.4C_liq_temp_22.1C/Zoom Scan****(26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 5.433 V/m; **Power Drift = -0.189 dB****Averaged SAR: SAR(1g) = 0.225 W/kg; SAR(10g) = 0.168 W/kg**

Maximum value of SAR (interpolated) = 0.290 W/kg



0 dB = 0.305 W/kg = -5.16 dBW/kg

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

LTE_5_chan20450_QPSK_RB1_OFFSET49_Scan#4_amb_temp_23.3C_liq_temp_22.1C/Area Scan (61x81x1):

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

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

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

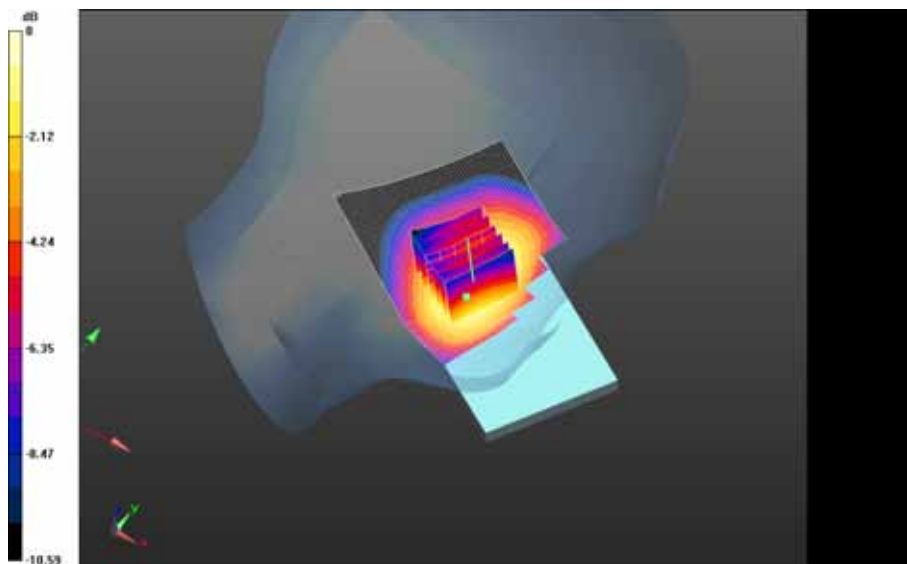
LTE_5_chan20450_QPSK_RB1_OFFSET49_Scan#4_amb_temp_23.3C_liq_temp_22.1C/Zoom Scan

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

Reference Value = 6.189 V/m; **Power Drift = 0.083 dB**

Averaged SAR: SAR(1g) = 0.299 W/kg; SAR(10g) = 0.224 W/kg

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



0 dB = 0.248 W/kg = -6.06 dBW/kg

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

LTE_5_chan20450_QPSK_RB1_OFFSET49_Scan#5_amb_temp_23.4C_liq_temp_22.1C/Area Scan (61x81x1):

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

Maximum value of SAR (interpolated) = 0.471 W/kg

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

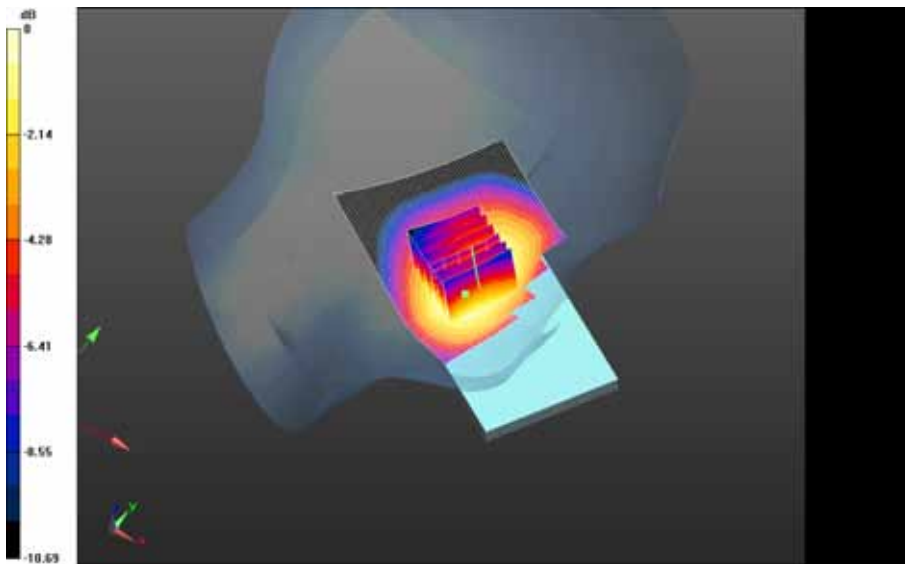
LTE_5_chan20450_QPSK_RB1_OFFSET49_Scan#5_amb_temp_23.4C_liq_temp_22.1C/Zoom Scan

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

Reference Value = 7.702 V/m; **Power Drift = -0.082 dB**

Averaged SAR: SAR(1g) = 0.418 W/kg; SAR(10g) = 0.316 W/kg

Maximum value of SAR (interpolated) = 0.541 W/kg



0 dB = 0.327 W/kg = -4.85 dBW/kg

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

LTE_5_chan20450_QPSK_RB1_OFFSET49_Scan#6_amb_temp_23.4C_liq_temp_22.1C/Area Scan (61x81x1):

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

Maximum value of SAR (interpolated) = 0.571 W/kg

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

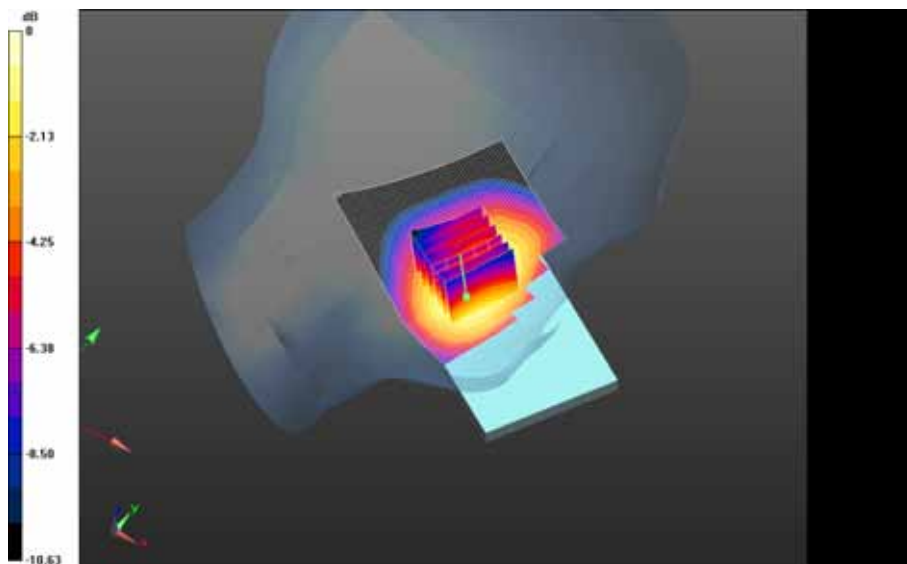
LTE_5_chan20450_QPSK_RB1_OFFSET49_Scan#6_amb_temp_23.4C_liq_temp_22.1C/Zoom Scan

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

Reference Value = 7.427 V/m; **Power Drift = -0.0079 dB**

Averaged SAR: SAR(1g) = 0.513 W/kg; SAR(10g) = 0.386 W/kg

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



0 dB = 0.453 W/kg = -3.44 dBW/kg

Date: 10/4/2013

Test Lab: BlackBerry RTS

DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE967**Configuration: Left-Hand-Side HSL - UMTS V**

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

Medium Parameters used: $f=836.4$ MHz; $\sigma = 0.875$ S/m; $\epsilon_r = 40.316$; $\rho = 1.000$ 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)

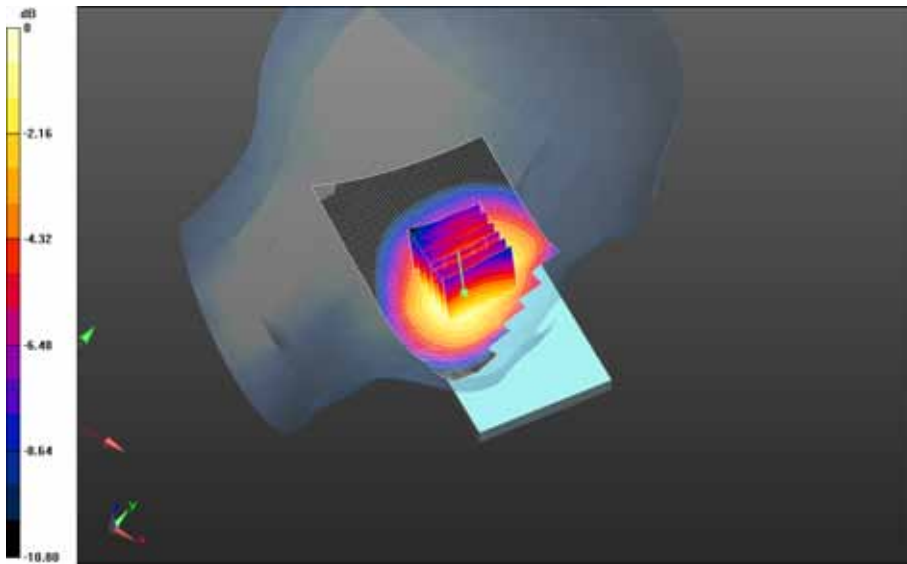
Left-Hand-Side HSL - UMTS V/Touch Position -**UMTS_V_chan4182_Scan#1_amb_temp_23.6C_liq_temp_22.9C/Area Scan (61x101x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.484 W/kg

Left-Hand-Side HSL - UMTS V/Touch Position -**UMTS_V_chan4182_Scan#1_amb_temp_23.6C_liq_temp_22.9C/Zoom Scan (26x26x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 6.349 V/m; **Power Drift = 0.016 dB****Averaged SAR: SAR(1g) = 0.432 W/kg; SAR(10g) = 0.325 W/kg**

Maximum value of SAR (interpolated) = 0.560 W/kg



0 dB = 0.479 W/kg = -3.20 dBW/kg

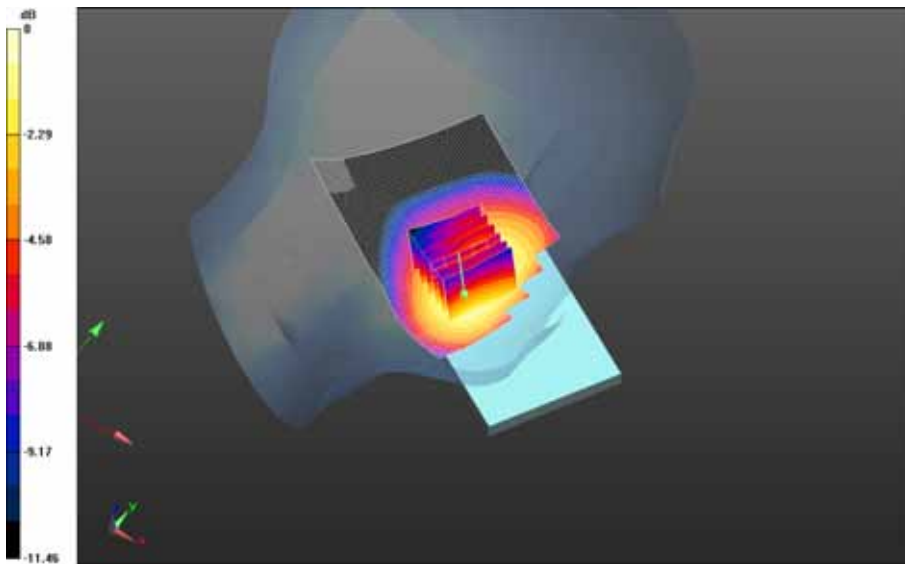
Left-Hand-Side HSL - UMTS V/Touch Position -

UMTS_V_chan4182_Scan#2_amb_temp_23.8C_liq_temp_22.8C/Area Scan (61x91x1): Interpolated grid:
dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.357 W/kg

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

UMTS_V_chan4182_Scan#2_amb_temp_23.8C_liq_temp_22.8C/Zoom Scan (26x26x36)/Cube 0: Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm
Reference Value = 5.964 V/m; **Power Drift = -0.163 dB**

Averaged SAR: SAR(1g) = 0.317 W/kg; SAR(10g) = 0.237 W/kg
Maximum value of SAR (interpolated) = 0.419 W/kg



0 dB = 0.479 W/kg = -3.20 dBW/kg

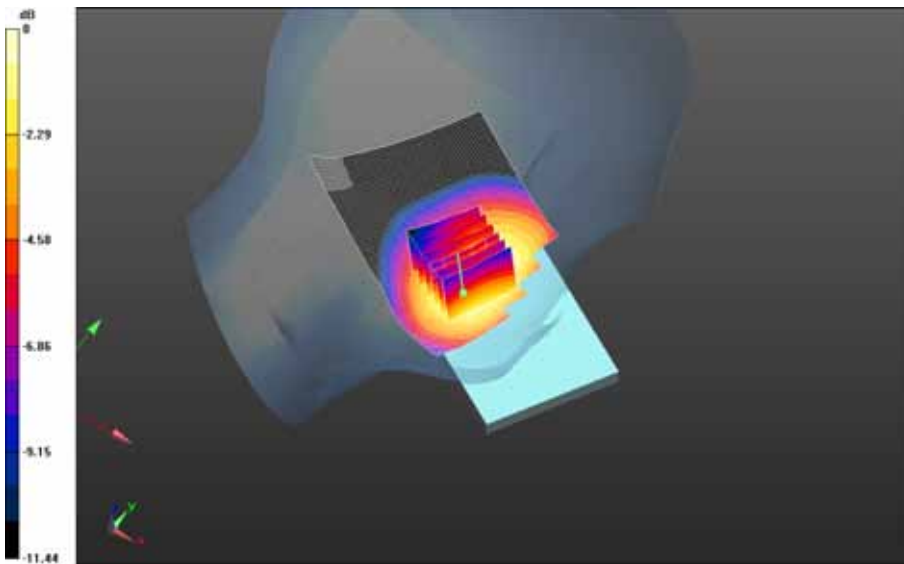
Left-Hand-Side HSL - UMTS V/Touch Position -

UMTS_V_chan4182_Scan#3_amb_temp_23.7C_liq_temp_22.9C/Area Scan (61x91x1): Interpolated grid:
dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.285 W/kg

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

UMTS_V_chan4182_Scan#3_amb_temp_23.7C_liq_temp_22.9C/Zoom Scan (26x26x36)/Cube 0: Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm
Reference Value = 4.433 V/m; **Power Drift = -0.184 dB**

Averaged SAR: SAR(1g) = 0.255 W/kg; SAR(10g) = 0.191 W/kg
Maximum value of SAR (interpolated) = 0.331 W/kg



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

Left-Hand-Side HSL - UMTS V/Touch Position -**UMTS_V_chan4182_Scan#4_amb_temp_23.6C_liq_temp_22.8C/Area Scan (61x91x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

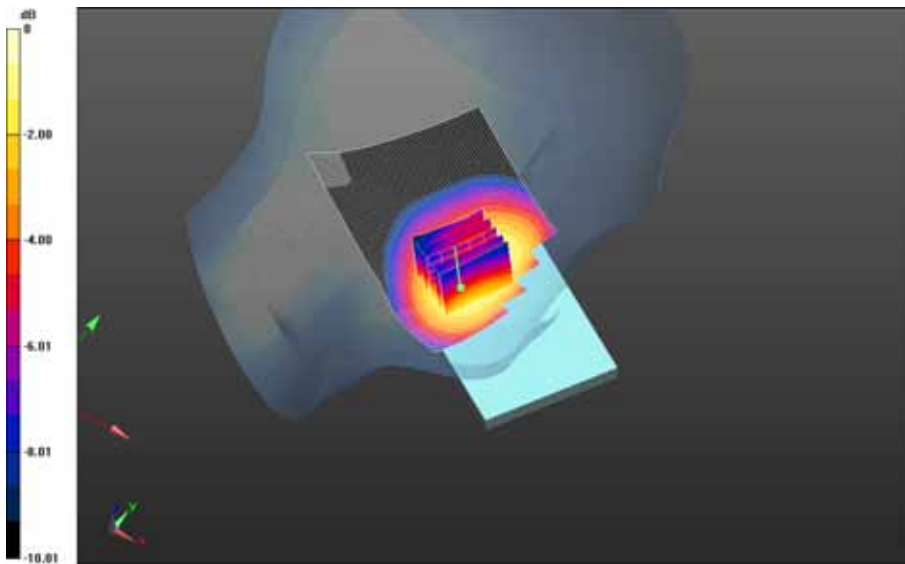
Maximum value of SAR (interpolated) = 0.367 W/kg

Left-Hand-Side HSL - UMTS V/Touch Position -**UMTS_V_chan4182_Scan#4_amb_temp_23.6C_liq_temp_22.8C/Zoom Scan (26x21x36)/Cube 0:** Interpolated

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

Reference Value = 5.675 V/m; **Power Drift = -0.079 dB****Averaged SAR: SAR(1g) = 0.338 W/kg; SAR(10g) = 0.254 W/kg**

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



0 dB = 0.278 W/kg = -5.56 dBW/kg

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

UMTS_V_chan4182_Scan#5_amb_temp_23.5C_liq_temp_22.9C/Area Scan (61x91x1): Interpolated grid:
dx=1.500 mm, dy=1.500 mm

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

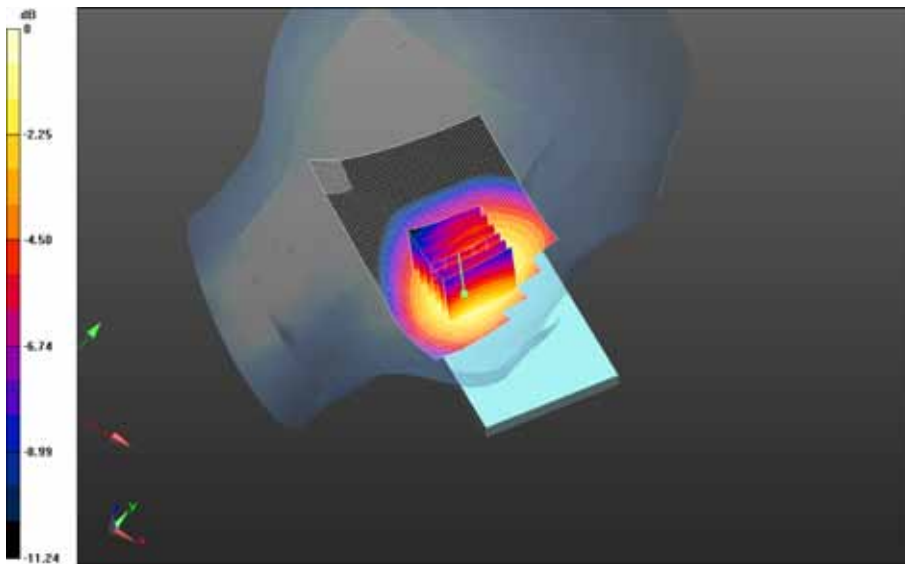
Left-Hand-Side HSL - UMTS V/Touch Position -

UMTS_V_chan4182_Scan#5_amb_temp_23.5C_liq_temp_22.9C/Zoom Scan (26x26x36)/Cube 0: Interpolated
grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mm

Reference Value = 6.533 V/m; **Power Drift = -0.094 dB**

Averaged SAR: SAR(1g) = 0.437 W/kg; SAR(10g) = 0.328 W/kg

Maximum value of SAR (interpolated) = 0.565 W/kg



0 dB = 0.376 W/kg = -4.25 dBW/kg

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

UMTS_V_chan4182_Scan#6_amb_temp_23.3C_liq_temp_22.8C/Area Scan (61x91x1): Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.473 W/kg

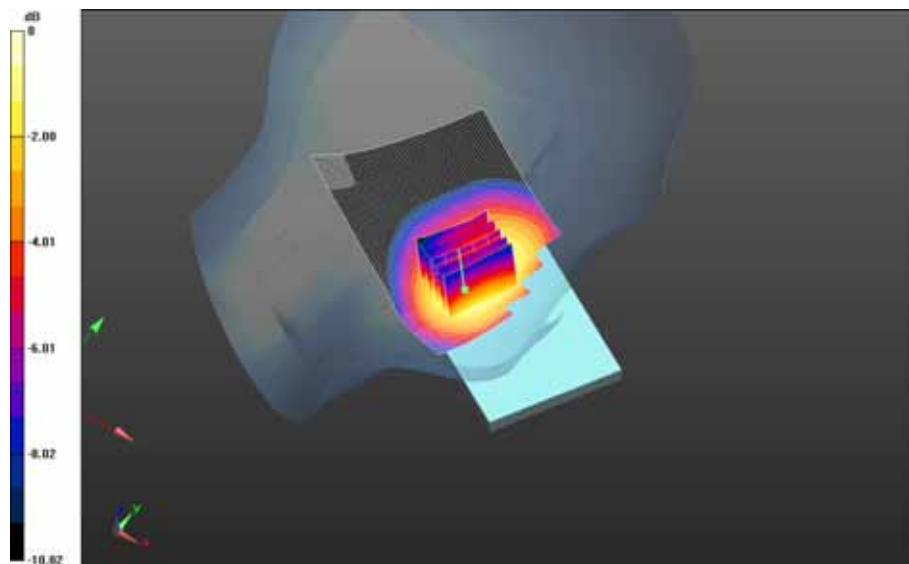
Left-Hand-Side HSL - UMTS V/Touch Position -

UMTS_V_chan4182_Scan#6_amb_temp_23.3C_liq_temp_22.8C/Zoom Scan (26x21x36)/Cube 0: Interpolated

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

Reference Value = 5.851 V/m; **Power Drift = 0.190 dB****Averaged SAR: SAR(1g) = 0.428 W/kg; SAR(10g) = 0.324 W/kg**

Maximum value of SAR (interpolated) = 0.555 W/kg



0 dB = 0.480 W/kg = -3.19 dBW/kg

Date: 10/4/2013

Test Lab: BlackBerry RTS

DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE967**Configuration: Left-Hand-Side HSL - LTE Band 4**

Communication System: LTE 4; Communication System Band: LTE 4; Frequency: 1720 MHz

Medium Parameters used: $f=1720$ MHz; $\sigma = 1.354$ S/m; $\epsilon_r = 39.142$; $\rho = 1.000$ 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)

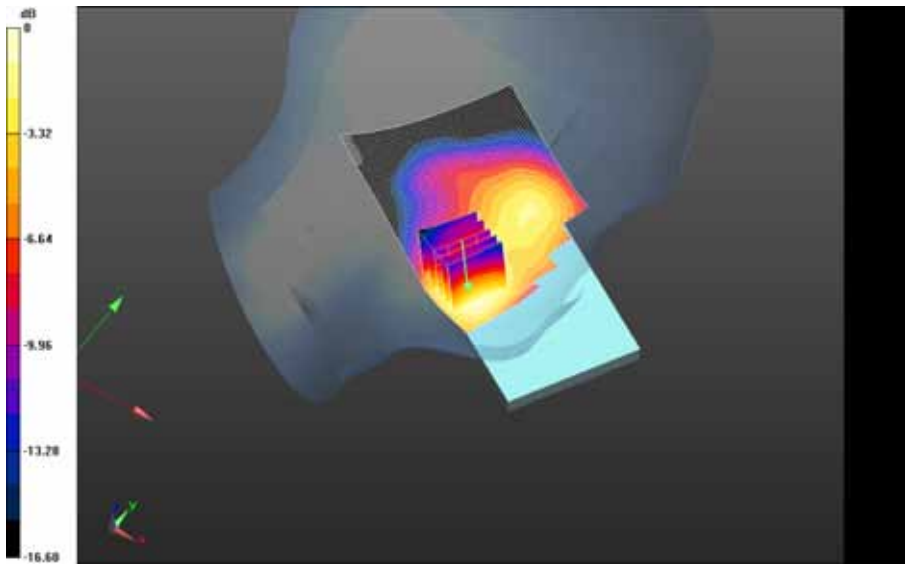
Left-Hand-Side HSL - LTE Band 4/Touch Position -**LTE_4_chan20050_QPSK_RB1_OFFSET50_Scan#1_amb_temp_23.8C_liq_temp_23.0C/Area Scan (61x91x1):**

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

Maximum value of SAR (interpolated) = 0.687 W/kg

Left-Hand-Side HSL - LTE Band 4/Touch Position -**LTE_4_chan20050_QPSK_RB1_OFFSET50_Scan#1_amb_temp_23.8C_liq_temp_23.0C/Zoom Scan****(21x21x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 7.250 V/m; **Power Drift = -0.047 dB****Averaged SAR: SAR(1g) = 0.569 W/kg; SAR(10g) = 0.361 W/kg**

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



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

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

LTE_4_chan20050_QPSK_RB1_OFFSET50_Scan#2_amb_temp_23.6C_liq_temp_23.0C/Area Scan (61x81x1):

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

Maximum value of SAR (interpolated) = 0.675 W/kg

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

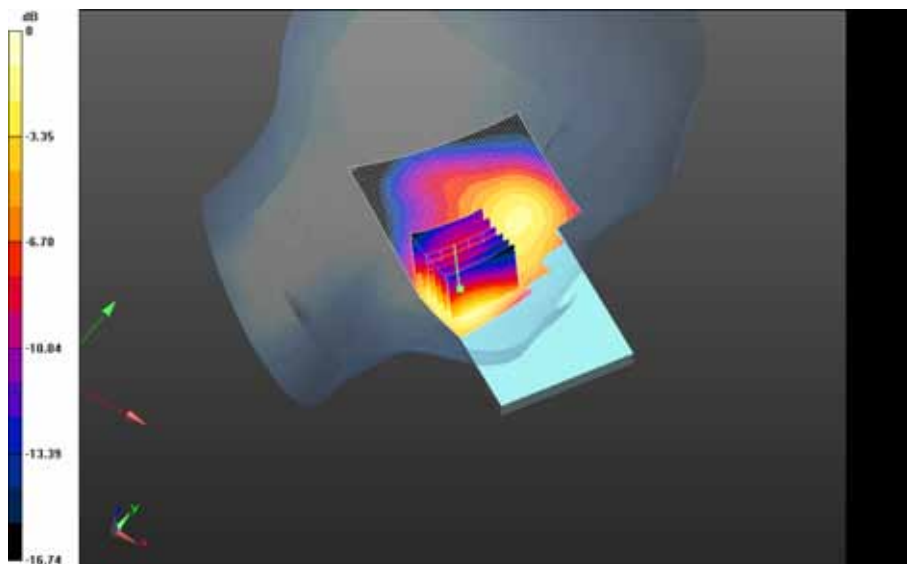
LTE_4_chan20050_QPSK_RB1_OFFSET50_Scan#2_amb_temp_23.6C_liq_temp_23.0C/Zoom Scan

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

Reference Value = 6.930 V/m; **Power Drift = 0.098 dB**

Averaged SAR: SAR(1g) = 0.550 W/kg; SAR(10g) = 0.351 W/kg

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



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

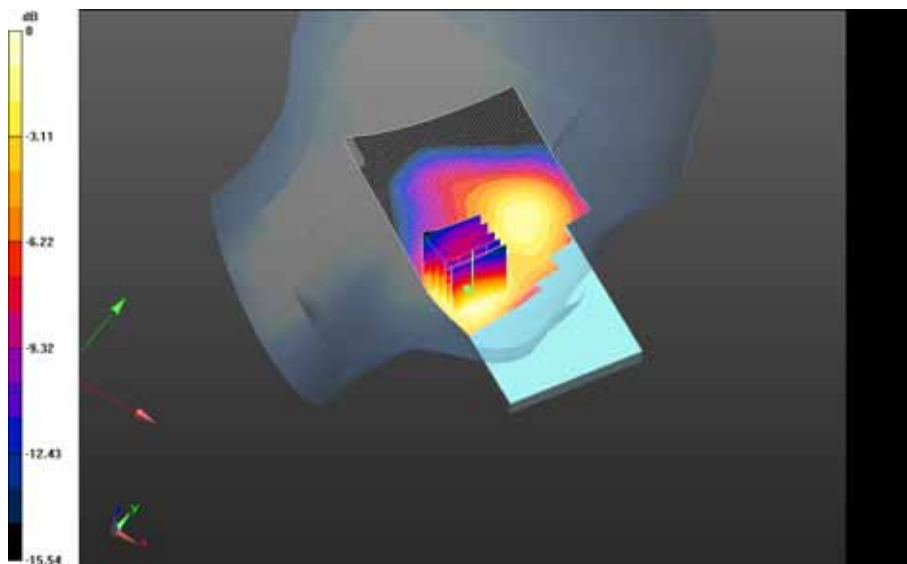
Left-Hand-Side HSL - LTE Band 4/Touch Position -**LTE_4_chan20050_QPSK_RB1_OFFSET50_Scan#3_amb_temp_23.8C_liq_temp_22.9C/Area Scan (61x91x1):**

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

Maximum value of SAR (interpolated) = 0.631 W/kg

Left-Hand-Side HSL - LTE Band 4/Touch Position -**LTE_4_chan20050_QPSK_RB1_OFFSET50_Scan#3_amb_temp_23.8C_liq_temp_22.9C/Zoom Scan****(21x21x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 6.557 V/m; **Power Drift = 0.037 dB****Averaged SAR: SAR(1g) = 0.520 W/kg; SAR(10g) = 0.334 W/kg**

Maximum value of SAR (interpolated) = 0.747 W/kg



0 dB = 0.645 W/kg = -1.90 dBW/kg

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

LTE_4_chan20050_QPSK_RB1_OFFSET50_Scan#4_amb_temp_23.1C_liq_temp_22.6C/Area Scan (61x81x1):

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

Maximum value of SAR (interpolated) = 0.679 W/kg

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

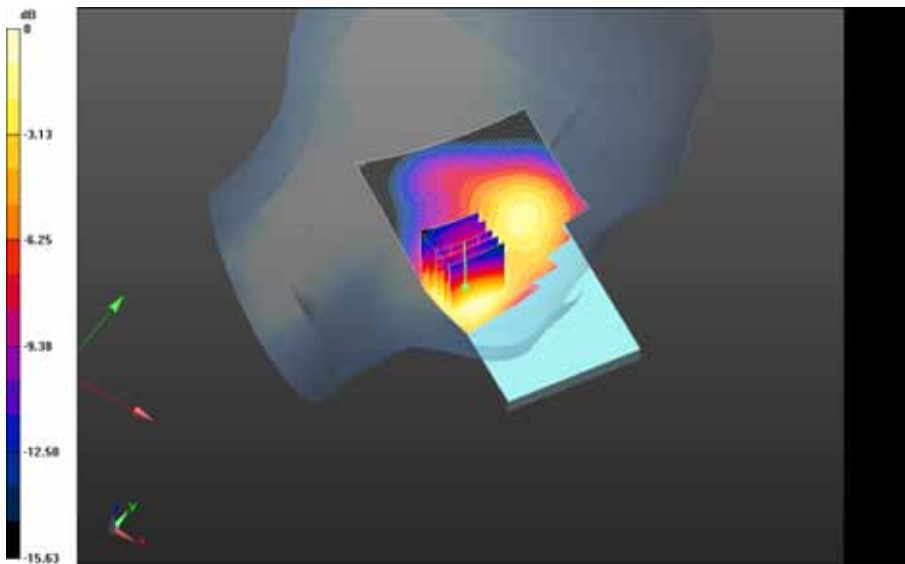
LTE_4_chan20050_QPSK_RB1_OFFSET50_Scan#4_amb_temp_23.1C_liq_temp_22.6C/Zoom Scan

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

Reference Value = 7.097 V/m; **Power Drift = -0.022 dB**

Averaged SAR: SAR(1g) = 0.554 W/kg; SAR(10g) = 0.354 W/kg

Maximum value of SAR (interpolated) = 0.803 W/kg



0 dB = 0.597 W/kg = -2.24 dBW/kg

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

LTE_4_chan20050_QPSK_RB1_OFFSET50_Scan#5_amb_temp_23.4C_liq_temp_22.0C/Area Scan (61x81x1):

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

Maximum value of SAR (interpolated) = 0.578 W/kg

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

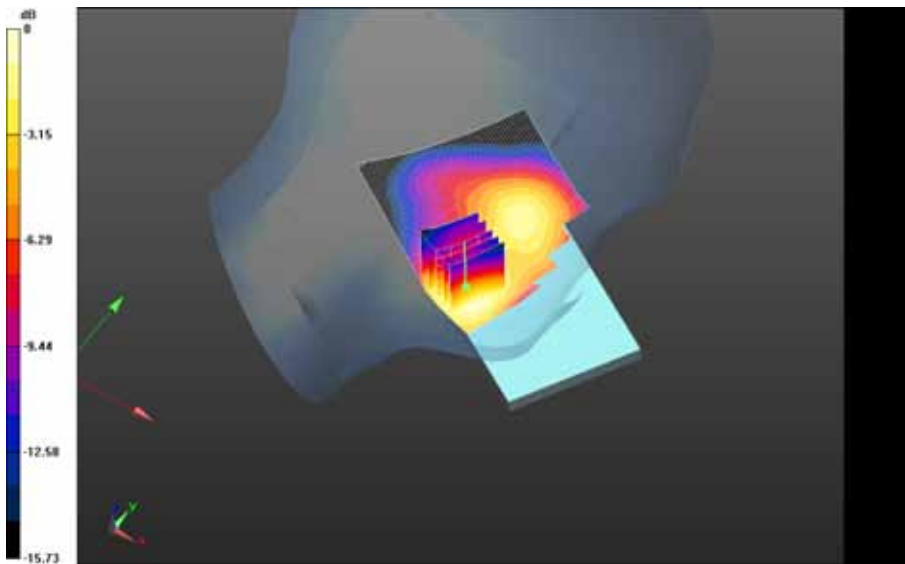
LTE_4_chan20050_QPSK_RB1_OFFSET50_Scan#5_amb_temp_23.4C_liq_temp_22.0C/Zoom Scan

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

Reference Value = 6.095 V/m; **Power Drift = 0.139 dB**

Averaged SAR: SAR(1g) = 0.479 W/kg; SAR(10g) = 0.305 W/kg

Maximum value of SAR (interpolated) = 0.691 W/kg



0 dB = 0.644 W/kg = -1.91 dBW/kg

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

LTE_4_chan20050_QPSK_RB1_OFFSET50_Scan#6_amb_temp_22.8C_liq_temp_22.0C/Area Scan (61x81x1):

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

Maximum value of SAR (interpolated) = 0.693 W/kg

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

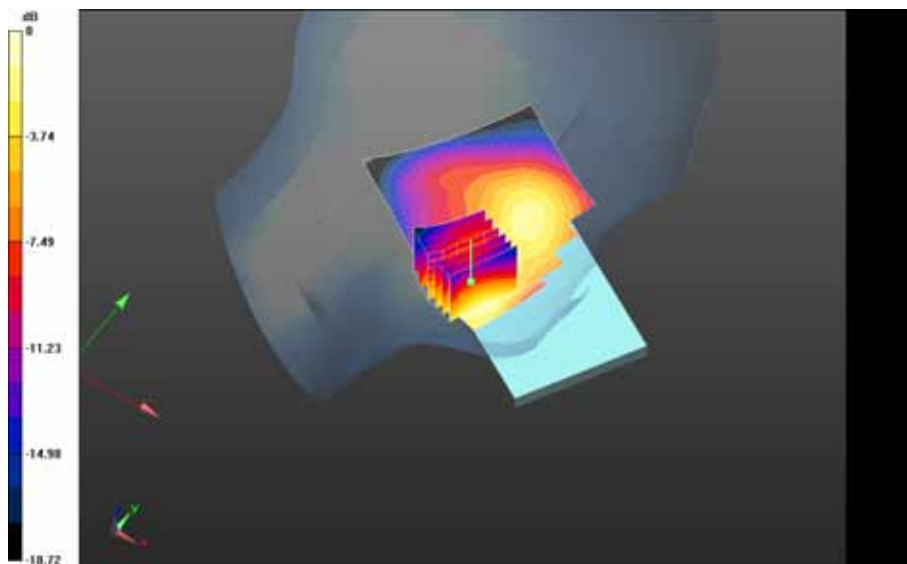
LTE_4_chan20050_QPSK_RB1_OFFSET50_Scan#6_amb_temp_22.8C_liq_temp_22.0C/Zoom Scan

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

Reference Value = 6.460 V/m; **Power Drift = 0.090 dB**

Averaged SAR: SAR(1g) = 0.562 W/kg; SAR(10g) = 0.361 W/kg

Maximum value of SAR (interpolated) = 0.806 W/kg



0 dB = 0.553 W/kg = -2.57 dBW/kg

Date: 10/4/2013

Test Lab: BlackBerry RTS

DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE9A7**Configuration: Left-Hand-Side HSL - UMTS IV**

Communication System: WCDMA FDD IV; Communication System Band: UMTS band IV; Frequency: 1732.6 MHz

Medium Parameters used: $f=1732.6$ MHz; $\sigma = 1.363$ S/m; $\epsilon_r = 39.079$; $\rho = 1.000$ 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 IV/Touch Position -**UMTS_IV_Scan1_chan1413_amb_temp_23.2C_liq_temp_22.6C/Area Scan (61x91x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

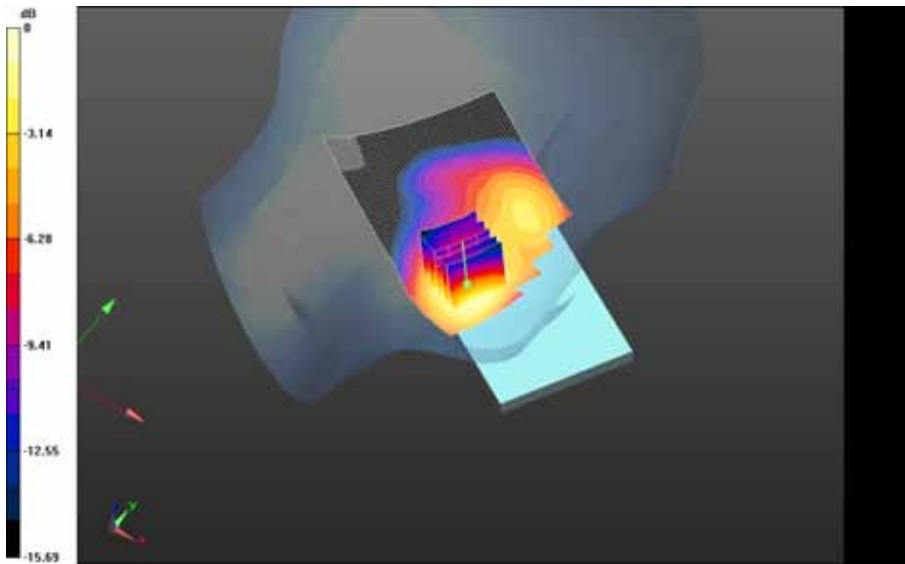
Maximum value of SAR (interpolated) = 0.758 W/kg

Left-Hand-Side HSL - UMTS IV/Touch Position -**UMTS_IV_Scan1_chan1413_amb_temp_23.2C_liq_temp_22.6C/Zoom Scan (21x21x36)/Cube 0:** Interpolated

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

Reference Value = 7.335 V/m; **Power Drift = -0.033 dB****Averaged SAR: SAR(1g) = 0.644 W/kg; SAR(10g) = 0.402 W/kg**

Maximum value of SAR (interpolated) = 0.968 W/kg



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

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

UMTS_IV_Scan2_chan1413_amb_temp_23.2C_liq_temp_22.6C/Area Scan (61x91x1): Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.724 W/kg

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

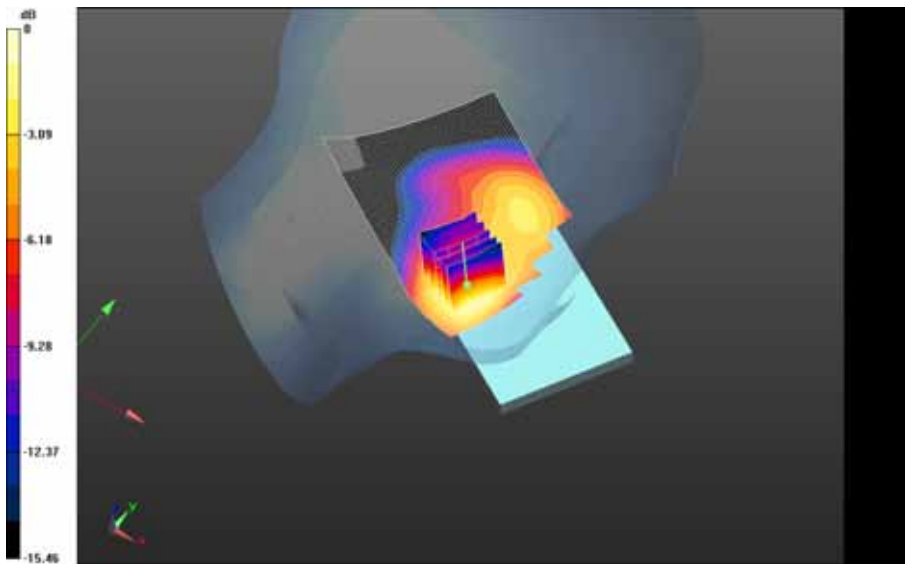
UMTS_IV_Scan2_chan1413_amb_temp_23.2C_liq_temp_22.6C/Zoom Scan (21x21x36)/Cube 0: Interpolated

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

Reference Value = 7.411 V/m; **Power Drift = 0.00955 dB**

Averaged SAR: SAR(1g) = 0.598 W/kg; SAR(10g) = 0.377 W/kg

Maximum value of SAR (interpolated) = 0.896 W/kg



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

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

UMTS_IV_Scan3_chan1413_amb_temp_23.2C_liq_temp_22.6C/Area Scan (61x91x1): Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.715 W/kg

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

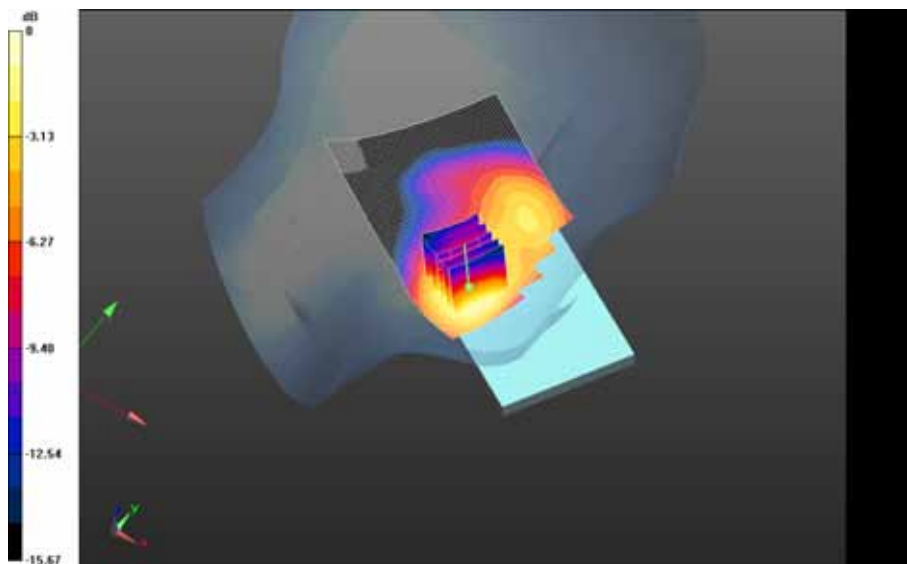
UMTS_IV_Scan3_chan1413_amb_temp_23.2C_liq_temp_22.6C/Zoom Scan (21x21x36)/Cube 0: Interpolated

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

Reference Value = 7.327 V/m; **Power Drift = 0.090 dB**

Averaged SAR: SAR(1g) = 0.602 W/kg; SAR(10g) = 0.378 W/kg

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



0 dB = 0.703 W/kg = -1.53 dBW/kg

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

UMTS_IV_Scan4_chan1413_amb_temp_23.2C_liq_temp_22.6C/Area Scan (61x91x1): Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.749 W/kg

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

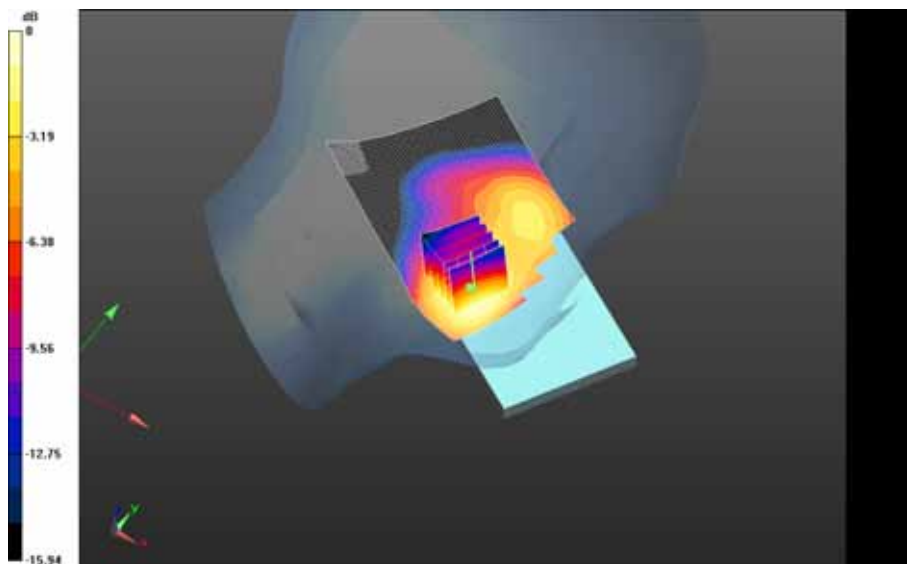
UMTS_IV_Scan4_chan1413_amb_temp_23.2C_liq_temp_22.6C/Zoom Scan (21x21x36)/Cube 0: Interpolated

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

Reference Value = 7.111 V/m; **Power Drift = 0.113 dB**

Averaged SAR: SAR(1g) = 0.620 W/kg; SAR(10g) = 0.391 W/kg

Maximum value of SAR (interpolated) = 0.927 W/kg



0 dB = 0.715 W/kg = -1.46 dBW/kg

Left-Hand-Side HSL - UMTS IV/Touch Position -**UMTS_IV_Scan5_chan1413_amb_temp_23.2C_liq_temp_22.6C/Area Scan (61x91x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

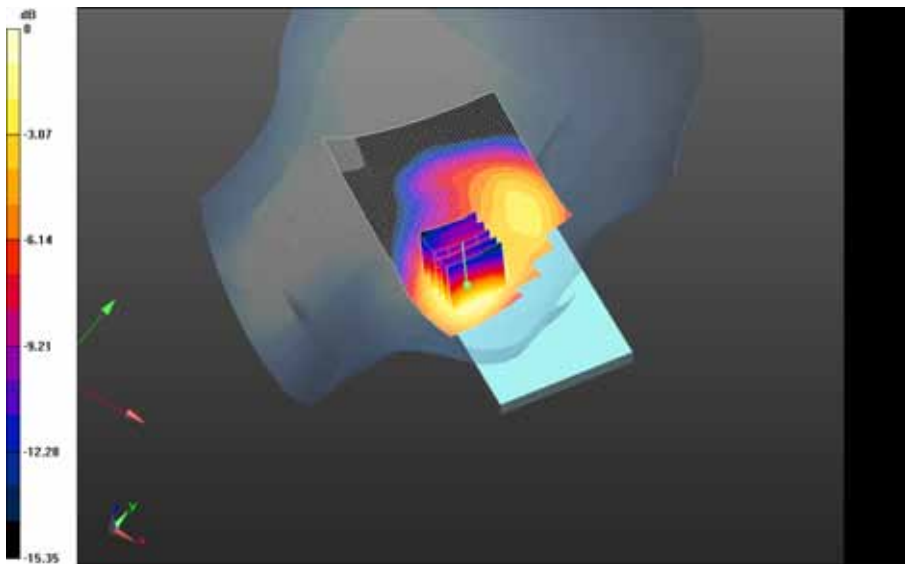
Maximum value of SAR (interpolated) = 0.576 W/kg

Left-Hand-Side HSL - UMTS IV/Touch Position -**UMTS_IV_Scan5_chan1413_amb_temp_23.2C_liq_temp_22.6C/Zoom Scan (21x21x36)/Cube 0:** Interpolated

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

Reference Value = 7.213 V/m; **Power Drift = 0.061 dB****Averaged SAR: SAR(1g) = 0.474 W/kg; SAR(10g) = 0.300 W/kg**

Maximum value of SAR (interpolated) = 0.706 W/kg



0 dB = 0.724 W/kg = -1.40 dBW/kg

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

UMTS_IV_Scan6_chan1413_amb_temp_23.2C_liq_temp_22.6C/Area Scan (61x91x1): Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.755 W/kg

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

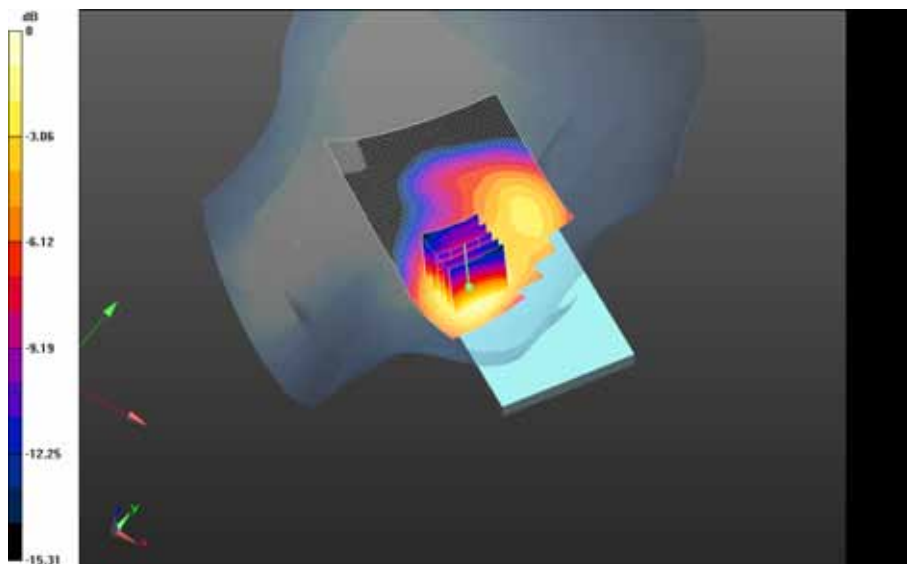
UMTS_IV_Scan6_chan1413_amb_temp_23.2C_liq_temp_22.6C/Zoom Scan (21x21x36)/Cube 0: Interpolated

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

Reference Value = 8.094 V/m; **Power Drift = 0.096 dB**

Averaged SAR: SAR(1g) = 0.622 W/kg; SAR(10g) = 0.390 W/kg

Maximum value of SAR (interpolated) = 0.933 W/kg



0 dB = 0.559 W/kg = -2.53 dBW/kg

Date: 10/3/2013

Test Lab: BlackBerry RTS

DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE9A7**Configuration: Left-Hand-Side HSL - LTE Band 2**

Communication System: LTE 2; Communication System Band: LTE Band 2; Frequency: 1860 MHz

Medium Parameters used: $f=1860$ MHz; $\sigma = 1.343$ S/m; $\epsilon_r = 39.000$; $\rho = 1.000$ 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)

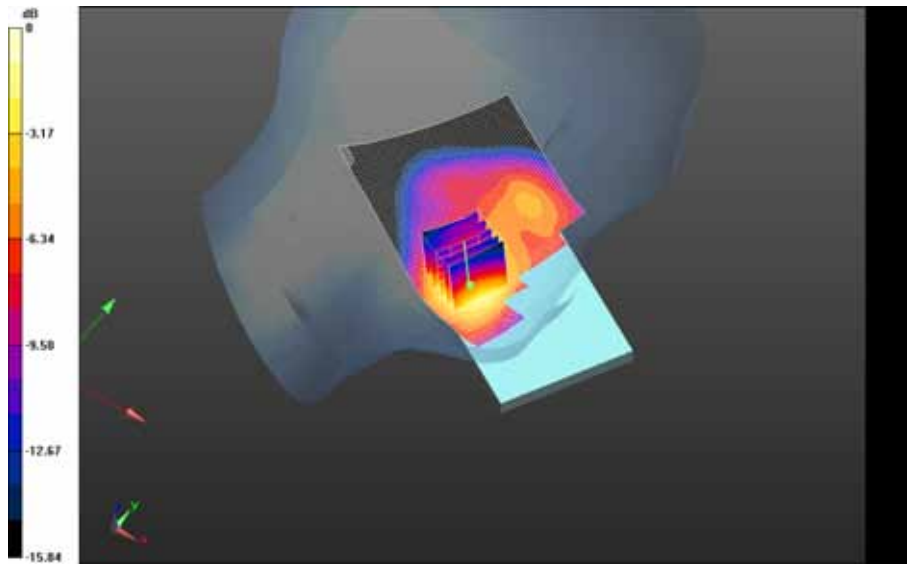
Left-Hand-Side HSL - LTE Band 2/Touch Position -**LTE_Band_2_Scan1_chan18700_RB1_OFFSET50_amb_temp_23.5C_liq_temp_22.3C/Area Scan (61x101x1):**

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

Maximum value of SAR (interpolated) = 0.597 W/kg

Left-Hand-Side HSL - LTE Band 2/Touch Position -**LTE_Band_2_Scan1_chan18700_RB1_OFFSET50_amb_temp_23.5C_liq_temp_22.3C/Zoom Scan****(21x21x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 5.953 V/m; **Power Drift = -0.078 dB****Averaged SAR: SAR(1g) = 0.515 W/kg; SAR(10g) = 0.313 W/kg**

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



0 dB = 0.613 W/kg = -2.13 dBW/kg

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

LTE_Band_2_Scan2_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C/Area Scan (61x101x1):

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

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

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

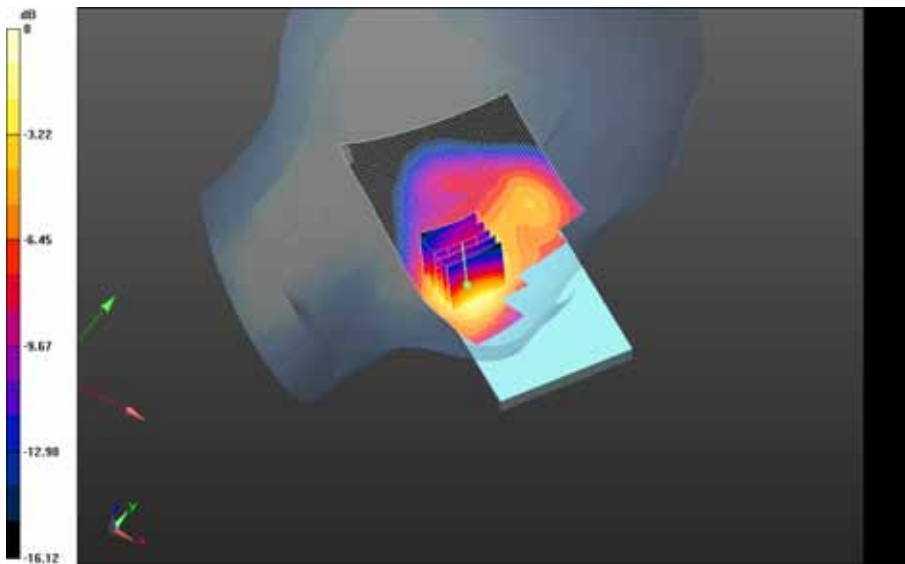
LTE_Band_2_Scan2_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C/Zoom Scan

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

Reference Value = 5.054 V/m; **Power Drift = 0.121 dB**

Averaged SAR: SAR(1g) = 0.324 W/kg; SAR(10g) = 0.198 W/kg

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



0 dB = 0.613 W/kg = -2.13 dBW/kg

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

LTE_Band_2_Scan3_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C 2/Area Scan (61x101x1):

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

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

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

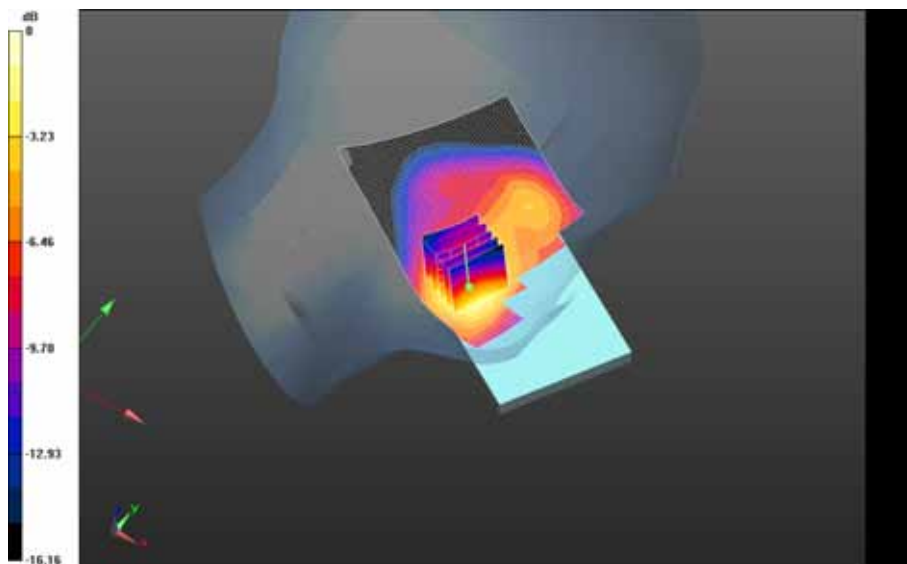
LTE_Band_2_Scan3_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C 2/Zoom Scan

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

Reference Value = 5.990 V/m; **Power Drift = -0.077 dB**

Averaged SAR: SAR(1g) = 0.438 W/kg; SAR(10g) = 0.267 W/kg

Maximum value of SAR (interpolated) = 0.659 W/kg



0 dB = 0.383 W/kg = -4.17 dBW/kg

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

LTE_Band_2_Scan4_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C 2 2/Area Scan (61x101x1):

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

Maximum value of SAR (interpolated) = 0.534 W/kg

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

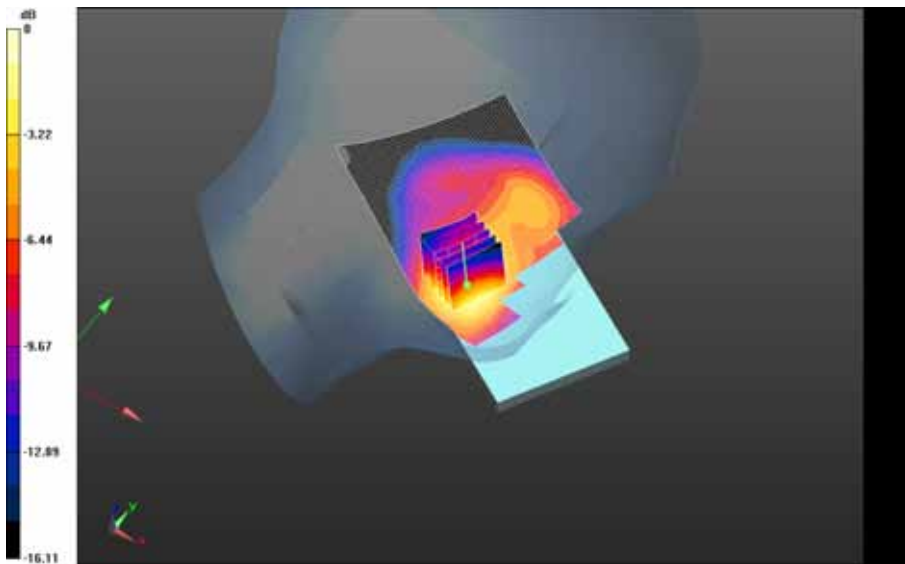
LTE_Band_2_Scan4_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C 2 2/Zoom Scan

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

Reference Value = 6.371 V/m; **Power Drift = 0.031 dB**

Averaged SAR: SAR(1g) = 0.455 W/kg; SAR(10g) = 0.277 W/kg

Maximum value of SAR (interpolated) = 0.692 W/kg



0 dB = 0.518 W/kg = -2.86 dBW/kg

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

LTE_Band_2_Scan5_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C/Area Scan (61x101x1):

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

Maximum value of SAR (interpolated) = 0.363 W/kg

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

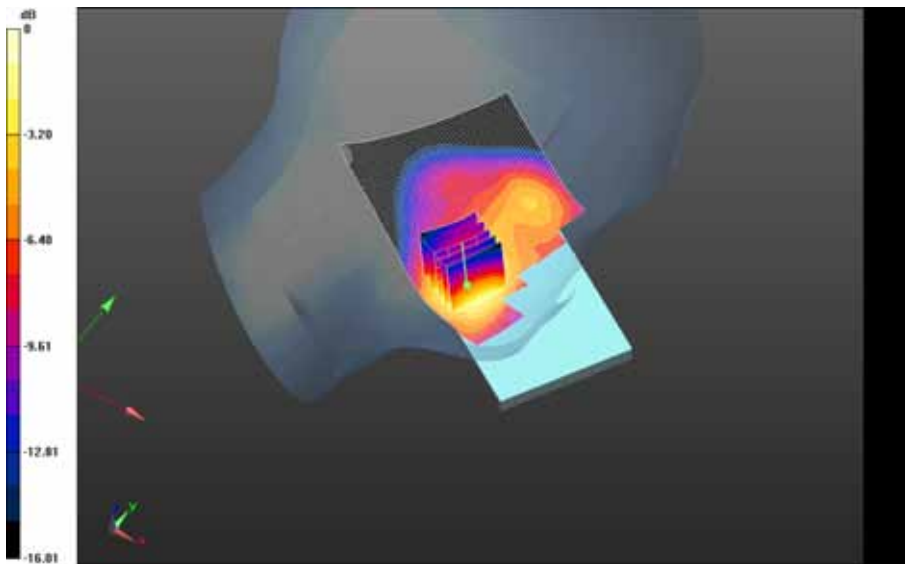
LTE_Band_2_Scan5_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C/Zoom Scan

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

Reference Value = 4.738 V/m; **Power Drift = -0.199 dB**

Averaged SAR: SAR(1g) = 0.308 W/kg; SAR(10g) = 0.188 W/kg

Maximum value of SAR (interpolated) = 0.466 W/kg



0 dB = 0.541 W/kg = -2.67 dBW/kg

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

LTE_Band_2_Scan6_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C/Area Scan (61x101x1):

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

Maximum value of SAR (interpolated) = 0.501 W/kg

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

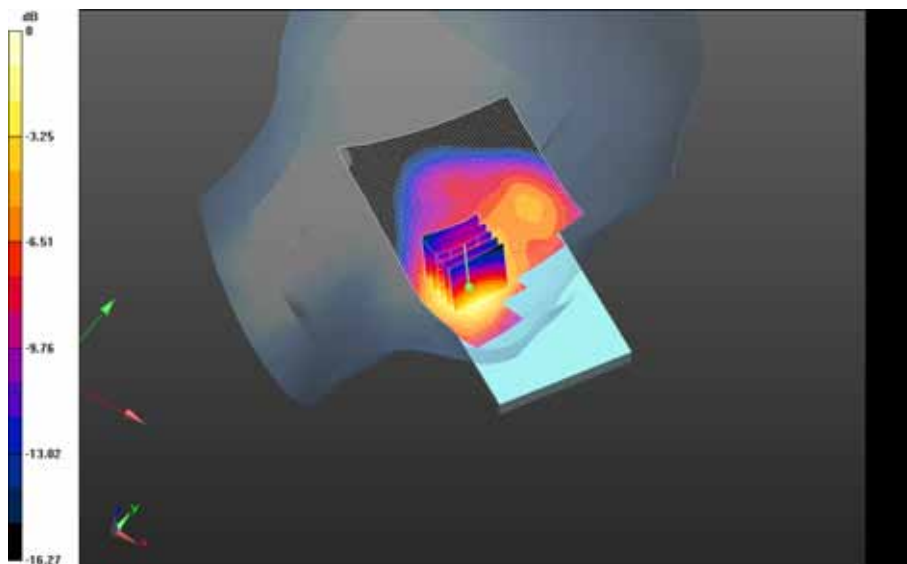
LTE_Band_2_Scan6_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C/Zoom Scan

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

Reference Value = 5.474 V/m; **Power Drift = 0.066 dB**

Averaged SAR: SAR(1g) = 0.427 W/kg; SAR(10g) = 0.258 W/kg

Maximum value of SAR (interpolated) = 0.649 W/kg



0 dB = 0.366 W/kg = -4.37 dBW/kg

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

LTE_Band_2_Scan7_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C/Area Scan (61x101x1):

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

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

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

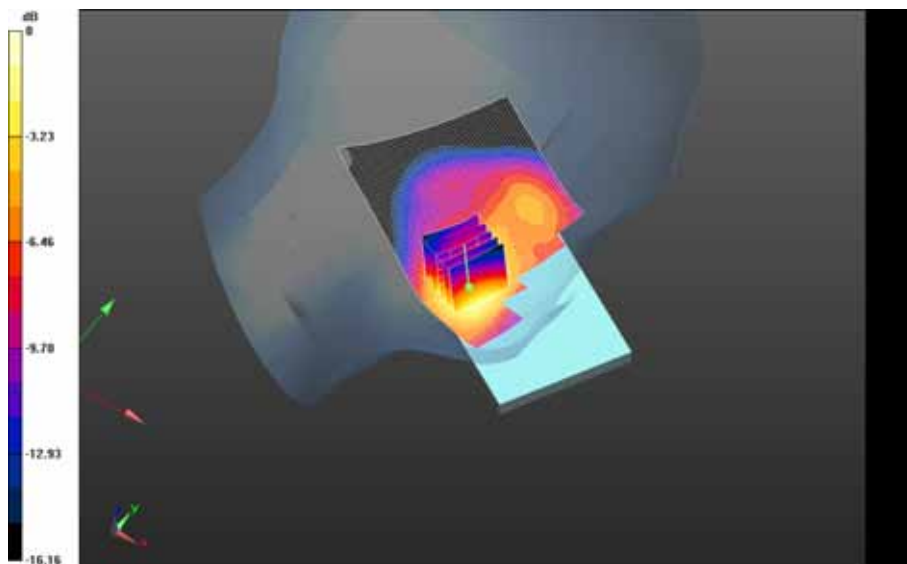
LTE_Band_2_Scan7_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C/Zoom Scan

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

Reference Value = 5.579 V/m; **Power Drift = 0.166 dB**

Averaged SAR: SAR(1g) = 0.458 W/kg; SAR(10g) = 0.280 W/kg

Maximum value of SAR (interpolated) = 0.697 W/kg



0 dB = 0.509 W/kg = -2.93 dBW/kg

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

LTE_Band_2_Scan8_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C/Area Scan (61x101x1):

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

Maximum value of SAR (interpolated) = 0.301 W/kg

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

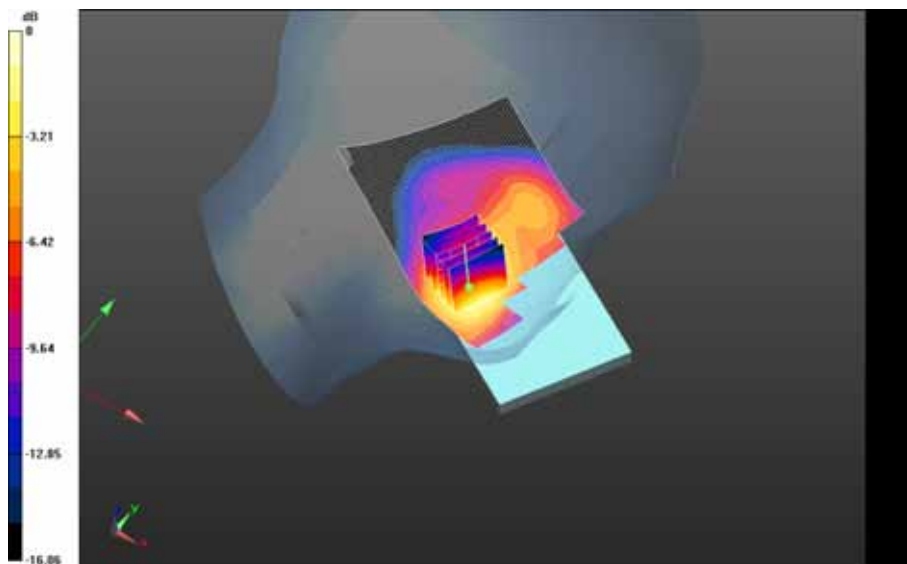
LTE_Band_2_Scan8_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C/Zoom Scan

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

Reference Value = 4.159 V/m; **Power Drift = -0.085 dB**

Averaged SAR: SAR(1g) = 0.252 W/kg; SAR(10g) = 0.155 W/kg

Maximum value of SAR (interpolated) = 0.380 W/kg



0 dB = 0.544 W/kg = -2.64 dBW/kg

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

LTE_Band_2_Scan9_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C/Area Scan (61x101x1):

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

Maximum value of SAR (interpolated) = 0.468 W/kg

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

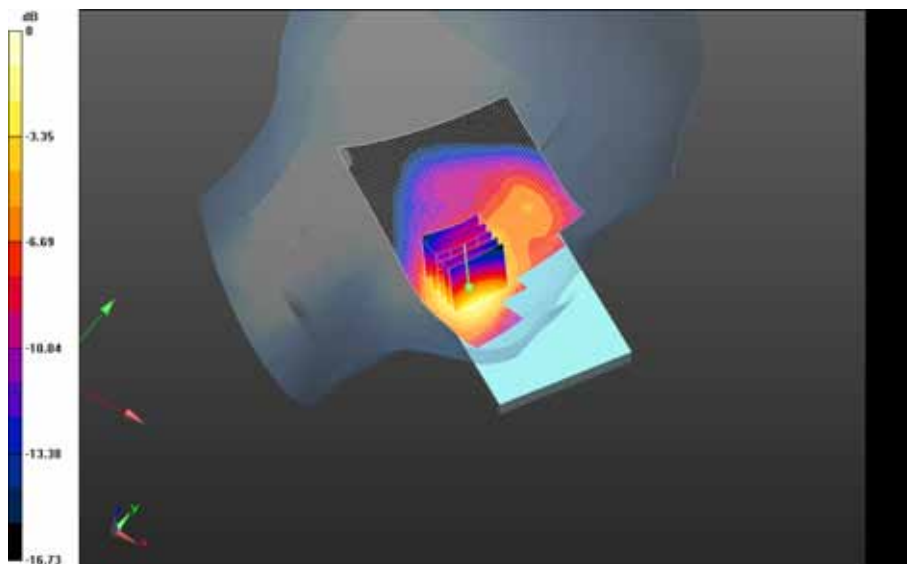
LTE_Band_2_Scan9_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C/Zoom Scan

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

Reference Value = 5.039 V/m; **Power Drift = 0.088 dB**

Averaged SAR: SAR(1g) = 0.390 W/kg; SAR(10g) = 0.237 W/kg

Maximum value of SAR (interpolated) = 0.596 W/kg



0 dB = 0.299 W/kg = -5.24 dBW/kg

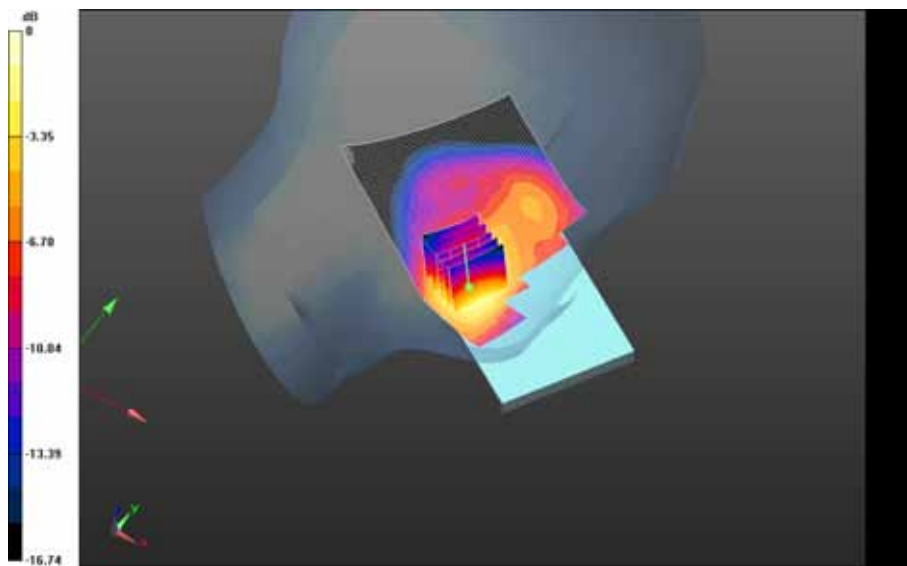
Left-Hand-Side HSL - LTE Band 2/Touch Position -**LTE_Band_2_Scan10_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C/Area Scan (61x101x1):**

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

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

Left-Hand-Side HSL - LTE Band 2/Touch Position -**LTE_Band_2_Scan10_chan18700_RB1_OFFSET50_amb_temp_23.3C_liq_temp_22.5C/Zoom Scan****(21x21x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 5.689 V/m; **Power Drift = 0.053 dB****Averaged SAR: SAR(1g) = 0.456 W/kg; SAR(10g) = 0.278 W/kg**

Maximum value of SAR (interpolated) = 0.697 W/kg



0 dB = 0.463 W/kg = -3.34 dBW/kg

UMTS band 2

Date: 10/2/2013

Test Lab: BlackBerry RTS

DUT Name: BlackBerry Smartphone, Type: Sample, Serial: 2FFFE9A7**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; $\sigma = 1.361$ S/m; $\epsilon_r = 38.935$; $\rho = 1.000$ 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)

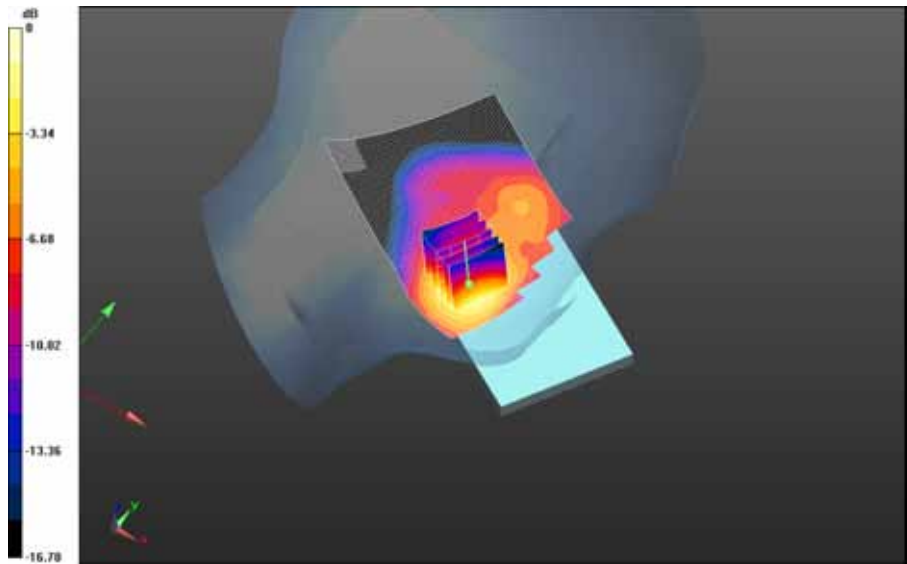
Left-Hand-Side HSL - UMTS II/Touch Position -**UMTS_II_chan9400_Scan#1_amb_temp_22.8C_liq_temp_21.7C/Area Scan (61x91x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.635 W/kg

Left-Hand-Side HSL - UMTS II/Touch Position -**UMTS_II_chan9400_Scan#1_amb_temp_22.8C_liq_temp_21.7C/Zoom Scan (21x21x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 6.546 V/m; **Power Drift = 0.030 dB****Averaged SAR: SAR(1g) = 0.514 W/kg; SAR(10g) = 0.312 W/kg**

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



0 dB = 0.609 W/kg = -2.15 dBW/kg

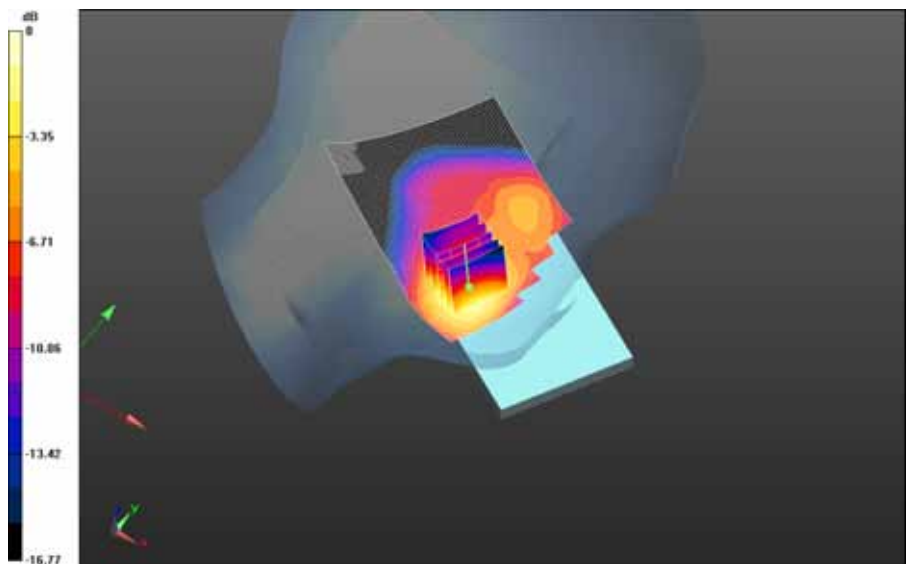
Left-Hand-Side HSL - UMTS II/Touch Position -**UMTS_II_chan9400_Scan#2_amb_temp_23.6C_liq_temp_21.7C/Area Scan (61x91x1):** Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.542 W/kg

Left-Hand-Side HSL - UMTS II/Touch Position -**UMTS_II_chan9400_Scan#2_amb_temp_23.6C_liq_temp_21.7C/Zoom Scan (21x21x36)/Cube 0:** Interpolated grid: dx=1.500 mm, dy=1.500 mm, dz=1.000 mmReference Value = 6.045 V/m; **Power Drift = -0.00464 dB****Averaged SAR: SAR(1g) = 0.442 W/kg; SAR(10g) = 0.269 W/kg**

Maximum value of SAR (interpolated) = 0.674 W/kg



0 dB = 0.609 W/kg = -2.15 dBW/kg

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

UMTS_II_chan9400_Scan#3_amb_temp_23.7C_liq_temp_21.8C/Area Scan (61x91x1): Interpolated grid:

dx=1.500 mm, dy=1.500 mm

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

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

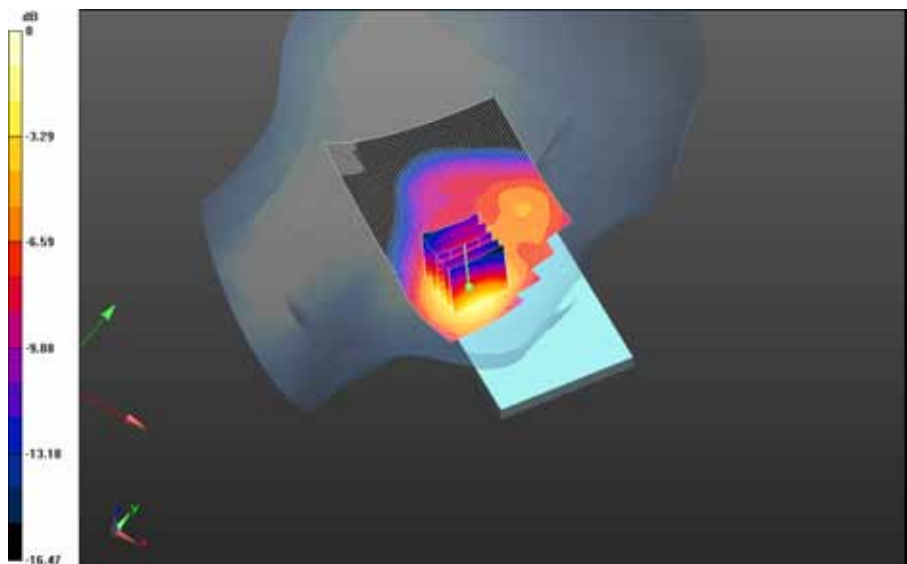
UMTS_II_chan9400_Scan#3_amb_temp_23.7C_liq_temp_21.8C/Zoom Scan (21x21x36)/Cube 0: Interpolated

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

Reference Value = 6.292 V/m; **Power Drift = 0.042 dB**

Averaged SAR: SAR(1g) = 0.492 W/kg; SAR(10g) = 0.299 W/kg

Maximum value of SAR (interpolated) = 0.750 W/kg



0 dB = 0.519 W/kg = -2.85 dBW/kg

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

UMTS_II_chan9400_Scan#4_amb_temp_23.7C_liq_temp_21.9C/Area Scan (61x91x1): Interpolated grid:

dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.612 W/kg

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

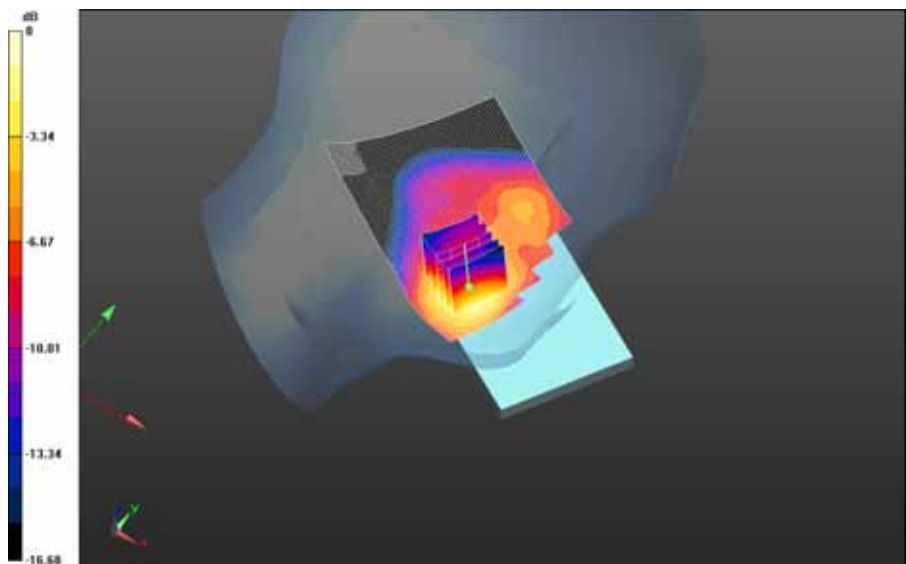
UMTS_II_chan9400_Scan#4_amb_temp_23.7C_liq_temp_21.9C/Zoom Scan (21x21x36)/Cube 0: Interpolated

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

Reference Value = 6.193 V/m; **Power Drift = 0.015 dB**

Averaged SAR: SAR(1g) = 0.494 W/kg; SAR(10g) = 0.300 W/kg

Maximum value of SAR (interpolated) = 0.754 W/kg



0 dB = 0.582 W/kg = -2.35 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

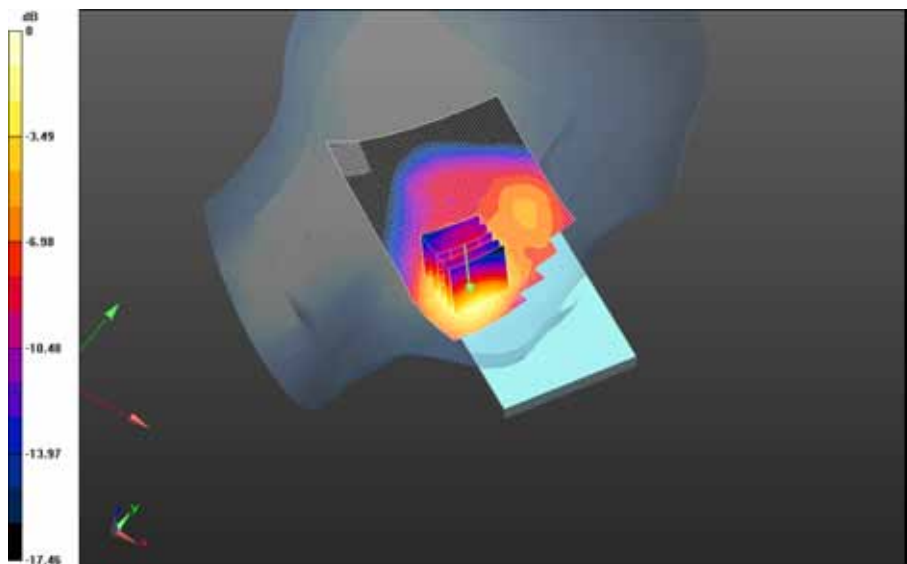
Maximum value of SAR (interpolated) = 0.365 W/kg

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 = 5.065 V/m; **Power Drift = 0.059 dB****Averaged SAR: SAR(1g) = 0.296 W/kg; SAR(10g) = 0.179 W/kg**

Maximum value of SAR (interpolated) = 0.451 W/kg



0 dB = 0.586 W/kg = -2.32 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) = 0.615 W/kg

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

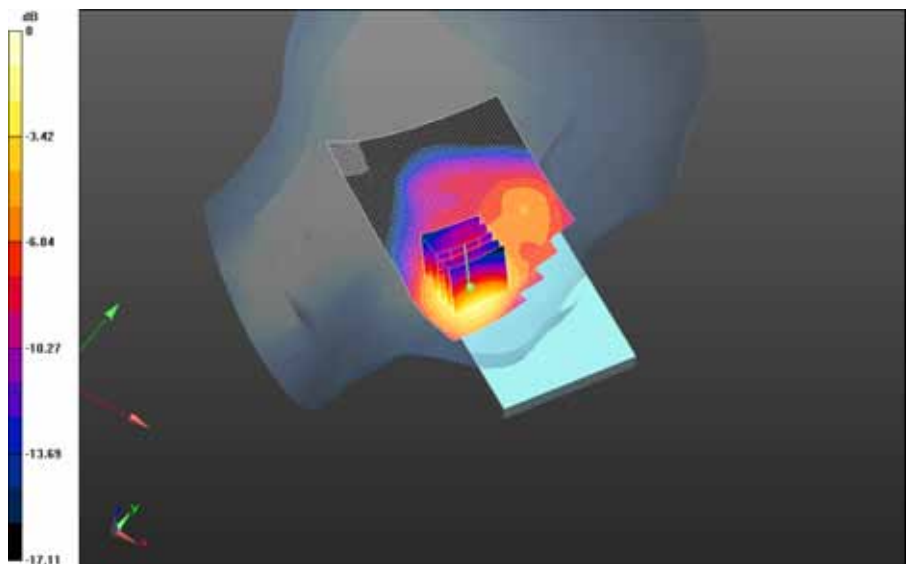
UMTS_II_chan9400_Scan#6_amb_temp_22.8C_liq_temp_21.9C/Zoom Scan (21x21x36)/Cube 0: Interpolated

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

Reference Value = 6.291 V/m; **Power Drift = 0.007 dB**

Averaged SAR: SAR(1g) = 0.498 W/kg; SAR(10g) = 0.301 W/kg

Maximum value of SAR (interpolated) = 0.763 W/kg



0 dB = 0.352 W/kg = -4.53 dBW/kg

