SAR TEST REPORT

The following samples were submitted and identified on behalf of the client as:

Equipment Under Test	Mobile Phone
Marketing Name	C2105
Brand Name	Sony
Model No.	PM-0290-BV
Company Name	Sony Mobile Communications AB
Company Address	Nya Vattentornet 22188 Lund/SWEDEN
Standards	OET 65 supplement C, IEEE /ANSI C95.1 , C95.3, IEEE 1528
FCC ID	PY7PM-0290
Date of Receipt	Oct. 31, 2012
Date of Test(s)	Nov. 16, 2012 ~ Dec. 06, 2012
Date of Issue	May 12, 2013

In the configuration tested, the EUT complied with the standards specified above.

Remarks:

This report details the results of the testing carried out on two samples, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS Taiwan Electronic & Communication Laboratory or testing done by SGS Taiwan Electronic & Communication Laboratory in connection with distribution or use of the product described in this report must be approved by SGS Taiwan Electronic & Communication Laboratory in writing.

Signed on behalf of SGS

Sr. Engineer	**Asst. Manager**
Chris Tsung	Kelly Tsai
Chris Tsung	**Kelly Tsai**
Date: May 12, 2013	**Date: May 12, 2013**

Version

Report Number	Revision	Date	Memo
EN/2012/A0008	00	2013/01/16	Initial creation of test report.
EN/2012/A0008	01	2013/01/29	1st modification
EN/2012/A0008	02	2013/01/30	2nd modification
EN/2012/A0008	03	2013/02/04	3rd modification
EN/2012/A0008	04	2013/04/12	4th modification
EN/2012/A0008	05	2013/04/26	5th modification
EN/2012/A0008	06	2013/05/03	6th modification
EN/2012/A0008	07	2013/05/09	7th modification
EN/2012/A0008	08	2013/05/12	8th modification

This test report contains a reference to the previous version test report that it replaces.

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1. General Information

1.1 Testing Laboratory

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1.2 Details of Applicant

Company Name	Sony Mobile Communications AB
Company Address	Nya Vattentornet 22188 Lund/SWEDEN

1.3 Description of EUT

EUT Name	Mobile Phone		
Marketing Name	C2105		
Brand Name	Sony		
Model No.	PM-0290-BV		
HW Version	A		
SW Version	15.0.A.1.1		
Serial No.	WWAN: 463848645 / WLAN: 463845426		
IMEI Code	WWAN: 004402146100213 / WLAN: 004402146100163		
FCC ID	PY7PM-0290		
Mode of Operation	☒GSM ☒GPRS ☒EDGE ☒Bluetooth ☒WLAN802.11 b/g/n(20M/40M)		
Duty Cycle	GSM	1/8.3	
	GPRS (support multi class 12 max)	1/2 (1Dn4UP) 1/2.76 (1Dn3UP) 1/4.1 (1Dn2UP) 1/8.3 (1Dn1UP)	
	EDGE (support multi class 12 max)	1/2 (1Dn4UP) 1/2.76 (1Dn3UP) 1/4.1 (1Dn2UP) 1/8.3 (1Dn1UP)	
	WLAN 802.11 a/b/g/n(20M/40M)	1	
	Bluetooth	1	
TX Frequency Range (MHz)	GSM850	824.2 —	848.8
	GSM1900	1850.2 —	1909.8
	WLAN 802.11 b/g/n(20M)	2412 —	2462

	WLAN802.11 a 5.2G	5180	—	5240
	WLAN802.11 a 5.3G	5260	—	5320
	WLAN802.11 a 5.5G	5500	—	5700
	WLAN802.11 a 5.8G	5745	—	5825
	WLAN802.11 n (20M) 5.2G	5180	—	5240
	WLAN802.11 n (20M) 5.3G	5260	—	5320
	WLAN802.11 n (20M) 5.5G	5500	—	5700
	WLAN802.11 n (20M) 5.8G	5745	—	5825
	WLAN802.11 n (40M) 5.2G	5190	—	5230
	WLAN802.11 n (40M) 5.3G	5270	—	5310
	WLAN802.11 n (40M) 5.5G	5510	—	5670
	WLAN802.11 n (40M) 5.8G	5755	—	5795
	Bluetooth	2402	—	2480
Channel Number (ARFCN)	GSM850	128	—	251
	GSM1900	512	—	810
	WLAN802.11 b/g/n(20M)	1	—	11
	WLAN802.11 a 5.2G	36	—	48
	WLAN802.11 a 5.3G	52	—	64
	WLAN802.11 a 5.5G	100	—	140
	WLAN802.11 a 5.8G	149	—	165
	WLAN802.11 n (20M) 5.2G	36	—	48
	WLAN802.11 n (20M) 5.3G	52	—	64
	WLAN802.11 n (20M) 5.5G	100	—	140
	WLAN802.11 n (20M) 5.8G	149	—	165
	WLAN802.11 n (40M) 5.2G	38	—	46
	WLAN802.11 n (40M) 5.3G	54	—	62
	WLAN802.11 n (40M) 5.5G	102	—	134
	WLAN802.11 n (40M) 5.8G	151	—	159
	Bluetooth	0	—	78

Max. Reported SAR (1 g) (Unit: W/Kg)	Head	GSM850	0.653	☐Left ☒Right ☒Cheek ☐Tilt 251 Channel
		GSM1900	0.299	☒Left ☐Right ☒Cheek ☐Tilt 810 Channel
		WLAN802.11 b	0.754	☒Left ☐Right ☒Cheek ☐Tilt 6 Channel
		WLAN802.11n (20M) 5.2G	0.215	☒Left ☐Right ☒Cheek ☐Tilt 36 Channel
		WLAN802.11a 5.3G	0.307	☒Left ☐Right ☒Cheek ☐Tilt 64 Channel
		WLAN802.11n (20M) 5.5G	0.092	☒Left ☐Right ☒Cheek ☐Tilt 100 Channel
		WLAN802.11n (20M) 5.8G	0.092	☒Left ☐Right ☒Cheek ☐Tilt 165 Channel
	Body worn (speech mode)	GSM 850	0.400	☒Front ☐Back 190 Channel - with headset (MH410C)
		GSM 1900	0.338	☐Front ☒Back 661 Channel - with headset (MH410C)

Max. Reported SAR (1 g) (Unit: W/Kg)	Hotspot mode	GPRS 850	0.854	☐Front ☒Back ☐Bottom ☐Right ☐Left 251 Channel
		GPRS 1900	1.036	☐Front ☒Back ☐Bottom ☐Right ☐Left 810 Channel - with headset (MH410C)
		WLAN802.11 b	0.806	☐Front ☒Back ☐Top ☐Right ☐Left 11 Channel
		WLAN802.11a 5.2G	0.553	☐Front ☐Back ☐Top ☒Right ☐Left 44 Channel
		WLAN802.11a 5.3G	0.634	☐Front ☐Back ☐Top ☒Right ☐Left 52 Channel
		WLAN802.11n (20M) 5.5G	0.102	☐Front ☐Back ☐Top ☒Right ☐Left 100 Channel
		WLAN802.11a 5.8G	0.048	☐Front ☐Back ☐Top ☒Right ☐Left 161 Channel

Max. SAR of reported SAR max WWAN and WLAN DTS 2.4GHz, ΣSAR evaluation						
Frequency band	Position	reported SAR / W/kg		ΣSAR	Calculated distance (mm)	SPLSR (≦0.04)
		WWAN	WLAN	<1.6W/kg		
GSM 850	Left cheek	0.442	0.754	1.196	-	-
GPRS 850 (1Dn3UP)	Back	0.854	0.806	**1.66**	53.7	0.040
GSM 1900	Left cheek	0.299	0.754	1.053	-	-
GPRS 1900 (1Dn3UP)	Back	1.036	0.806	**1.842**	104.7	0.024
Note: We calculate the peak location separation ratio of simultaneous transmitting antenna pair, the SPLSR value is with less than 0.04. According to KDB447498 D01v05 simultaneous transmission SAR evaluation is not required.						

Max. SAR of reported SAR max WWAN and WLAN DTS 5.8GHz, ΣSAR evaluation						
Frequency band	Position	reported SAR / W/kg		ΣSAR	Calculated distance (mm)	SPLSR (≦0.04)
		WWAN	WLAN	<1.6W/kg		
GSM 850	Right cheek	0.653	0.042	0.695	-	-
GPRS 850 (1Dn3UP)	Back	0.854	0.045	0.899	-	-
GSM 1900	Left cheek	0.299	0.092	0.391	-	-
GPRS 1900 (1Dn3UP)	Back	1.036	0.045	1.081	-	-

Max. SAR of reported SAR max WWAN and WLAN UNII 5GHz, ΣSAR evaluation						
Frequency band	Position	reported SAR / W/kg		ΣSAR	Calculated distance (mm)	SPLSR (≦0.04)
		WWAN	WLAN	<1.6W/kg		
GSM 850	Left cheek	0.442	0.307	0.749	-	-
GPRS 850 (1Dn3UP)	Back	0.854	0.556	1.41	-	-
GSM 1900	Left cheek	0.299	0.307	0.606	-	-
GPRS 1900 (1Dn3UP)	Back	1.036	0.556	1.592	-	-

Max. SAR of reported SAR max WWAN and Bluetooth, ΣSAR evaluation						
Frequency band	Position	reported SAR / W/kg		ΣSAR	Calculated distance (mm)	SPLSR (≦0.04)
		WWAN	Bluetooth	<1.6W/kg		
GPRS 850 (1Dn3UP)	Back	0.854	0.195	1.049	-	-
GPRS 1900 (1Dn3UP)	Back	1.036	0.195	1.231	-	-

Scaling SAR table:

Mode		Band	Channel	Power (dBm)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Scaling	Max. SAR Measured (1 g)(W/Kg)	Reported SAR (1 g)(W/Kg)
Head		GSM 850	251	33.37	33.5	3.04%	0.634	0.653
		GSM 1900	810	30.28	30.5	5.20%	0.284	0.299
		WLAN802.11 b	6	17.87	18	3.04%	0.732	**0.754**
		WLAN802.11n (20M) 5.2G	36	15.94	16	1.39%	0.212	0.215
		WLAN802.11a 5.3G	64	15.93	16	1.62%	0.302	0.307
		WLAN802.11n (20M) 5.5G	100	15.99	16	0.23%	0.092	0.092
		WLAN802.11n (20M) 5.8G	165	15.98	16	0.46%	0.092	0.092
Body	Body worn (speech mode)	GSM 850	190	33.14	33.5	8.64%	0.368	0.400
		GSM 1900	661	30.21	30.5	6.91%	0.316	0.338
	Hotspot mode	GPRS 850 1Dn3UP	251	30.39	30.5	2.57%	0.833	0.854
		GPRS1900 1Dn3UP	810	27.09	27.5	9.90%	0.943	**1.036**
		WLAN802.11 b	11	17.86	18	3.28%	0.780	0.806
		WLAN802.11a 5.2G	44	15.97	16	0.69%	0.549	0.553
		WLAN802.11a 5.3G	52	15.93	16	1.62%	0.624	0.634
		WLAN802.11n (20M) 5.5G	100	15.99	16	0.23%	0.102	0.102
		WLAN802.11a 5.8G	149	15.99	16	0.23%	0.047	0.047
		WLAN802.11a 5.8G	161	15.92	16	1.86%	0.047	0.048

#. GSM/GPRS/EDGE conducted power table:

EUT mode	Frequency (MHz)	CH	Max. Rated Avg. Power + Max. Tolerance (dBm)	Burst average power	Source-based time average power
				Avg.(dBm)	Avg.(dBm)
GSM 850 (GMSK)	824.2	128	33.5	33.02	23.99
	836.6	190	33.5	33.14	24.11
	848.8	251	33.5	33.37	24.34
The division factor compared to the number of TX time slot					
Division factor				1 TX time slot	
				-9.03	

Burst average power						
Max. Rated Avg. Power + Max. Tolerance (dBm)			33.5	30.5	30.5	27.5
			1Dn1UP	1Dn2UP	1Dn3UP	1Dn4UP
EUT mode	Frequency (MHz)	CH	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)
GPRS 850 (GMSK)	824.2	128	33.03	30.32	30.12	27.09
	836.6	190	33.01	30.39	30.35	27.20
	848.8	251	33.24	30.40	30.39	27.34
Source-based time average power						
GPRS 850 (GMSK)	824.2	128	24.00	24.30	25.86	24.08
	836.6	190	23.98	24.37	26.09	24.19
	848.8	251	24.21	24.38	26.13	24.33
The division factor compared to the number of TX time slot						
Division factor			1 TX time slot	2 TX time slot	3 TX time slot	4 TX time slot
			-9.03	-6.02	-4.26	-3.01

Burst average power						
Max. Rated Avg. Power + Max. Tolerance (dBm)			27.5	27.3	27.1	26.9
			1Dn1UP	1Dn2UP	1Dn3UP	1Dn4UP
EUT mode	Frequency (MHz)	CH	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)
EDGE 850 (MCS 5)	824.2	128	27.20	26.87	26.78	26.50
	836.6	190	27.37	27.09	26.81	26.76
	848.8	251	27.46	27.22	27.05	26.82
Source-based time average power						
EDGE 850 (MCS 5)	824.2	128	18.17	20.85	22.52	23.49
	836.6	190	18.34	21.07	22.55	23.75
	848.8	251	18.43	21.20	22.79	23.81
The division factor compared to the number of TX time slot						

Burst average power						
Max. Rated Avg. Power + Max. Tolerance (dBm)			33.5	30.5	30.5	27.5
			1Dn1UP	1Dn2UP	1Dn3UP	1Dn4UP
EUT mode	Frequency (MHz)	CH	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)
EDGE 850 (MCS 4)	824.2	128	33.00	30.20	30.00	27.00
	836.6	190	33.00	30.30	30.00	27.10
	848.8	251	33.20	30.20	30.20	27.10
Source-based time average power						
EDGE 850 (MCS 4)	824.2	128	23.97	24.18	25.74	23.99
	836.6	190	23.97	24.28	25.74	24.09
	848.8	251	24.17	24.18	25.94	24.09
The division factor compared to the number of TX time slot						
Division factor			1 TX time slot	2 TX time slot	3 TX time slot	4 TX time slot
			-9.03	-6.02	-4.26	-3.01

Burst average power						
Max. Rated Avg. Power + Max. Tolerance (dBm)			27.5	27.3	27.1	26.9
			1Dn1UP	1Dn2UP	1Dn3UP	1Dn4UP
EUT mode	Frequency (MHz)	CH	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)
EDGE 850 (MCS 9)	824.2	128	27.44	27.25	27.00	26.80
	836.6	190	27.47	27.27	27.08	26.89
	848.8	251	27.49	27.29	27.10	26.90
Source-based time average power						
EDGE 850 (MCS 9)	824.2	128	18.41	21.23	22.74	23.79
	836.6	190	18.44	21.25	22.82	23.88
	848.8	251	18.46	21.27	22.84	23.89
The division factor compared to the number of TX time slot						

EUT mode	Frequency (MHz)	CH	Max. Rated Avg. Power + Max. Tolerance (dBm)	Burst average power	Source-based time average power
				Avg.(dBm)	Avg.(dBm)
GSM 1900 (GMSK)	1850.2	512	30.5	30.14	21.11
	1880	661	30.5	30.21	21.18
	1909.8	810	30.5	30.28	21.25
The division factor compared to the number of TX time slot					
Division factor				1 TX time slot	
				-9.03	

Burst average power						
Max. Rated Avg. Power + Max. Tolerance (dBm)			30.5	27.5	27.5	24.5
			1Dn1UP	1Dn2UP	1Dn3UP	1Dn4UP
EUT mode	Frequency (MHz)	CH	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)
GPRS 1900 (GMSK)	1850.2	512	30.36	27.26	27.13	24.06
	1880	661	30.42	27.32	27.16	24.19
	1909.8	810	30.38	27.40	27.09	24.00
Source-based time average power						
GPRS 1900 (GMSK)	1850.2	512	21.33	21.24	22.87	21.05
	1880	661	21.39	21.30	22.90	21.18
	1909.8	810	21.35	21.38	22.83	20.99
The division factor compared to the number of TX time slot						
Division factor			1 TX time slot	2 TX time slot	3 TX time slot	4 TX time slot
			-9.03	-6.02	-4.26	-3.01

Burst average power						
Max. Rated Avg. Power + Max. Tolerance (dBm)			26.5	26.3	26.1	25.9
			1Dn1UP	1Dn2UP	1Dn3UP	1Dn4UP
EUT mode	Frequency (MHz)	CH	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)
EDGE 1900 (MCS 5)	1850.2	512	26.37	26.08	26.05	25.75
	1880	661	26.45	26.11	26.04	25.76
	1909.8	810	26.30	25.97	25.90	25.72
Source-based time average power						
EDGE 1900 (MCS 5)	1850.2	512	17.34	20.06	21.79	22.74
	1880	661	17.42	20.09	21.78	22.75
	1909.8	810	17.27	19.95	21.64	22.71
The division factor compared to the number of TX time slot						

Burst average power						
Max. Rated Avg. Power + Max. Tolerance (dBm)			30.5	27.5	27.5	24.5
			1Dn1UP	1Dn2UP	1Dn3UP	1Dn4UP
EUT mode	Frequency (MHz)	CH	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)
EDGE 1900 (MCS 4)	1850.2	512	30.30	27.00	27.10	24.00
	1880	661	30.20	27.10	26.80	23.90
	1909.8	810	30.30	27.00	26.80	23.80
Source-based time average power						
EDGE 1900 (MCS 4)	1850.2	512	21.27	20.98	22.84	20.99
	1880	661	21.17	21.08	22.54	20.89
	1909.8	810	21.27	20.98	22.54	20.79
The division factor compared to the number of TX time slot						
Division factor			1 TX time slot	2 TX time slot	3 TX time slot	4 TX time slot
			-9.03	-6.02	-4.26	-3.01

Burst average power						
Max. Rated Avg. Power + Max. Tolerance (dBm)			26.5	26.3	26.1	25.9
			1Dn1UP	1Dn2UP	1Dn3UP	1Dn4UP
EUT mode	Frequency (MHz)	CH	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)
EDGE 1900 (MCS 9)	1850.2	512	26.26	25.97	25.68	25.56
	1880	661	26.29	26.00	25.69	25.44
	1909.8	810	26.14	25.80	25.50	25.25
Source-based time average power						
EDGE 1900 (MCS 9)	1850.2	512	17.23	19.95	21.42	22.55
	1880	661	17.26	19.98	21.43	22.43
	1909.8	810	17.11	19.78	21.24	22.24
The division factor compared to the number of TX time slot						

#. WLAN802.11 a/b/g/n (20M/40M) conducted power table:

802.11b		Max. Rated Avg. Power + Max. Tolerance (dBm)	Average Power Output (dBm)			
CH	Frequency (MHz)		Data Rate (Mbps)			
			1	2	5.5	11
1	2412	18.0	17.83	17.73	17.68	17.62
6	2437	18.0	17.87	17.79	17.74	17.66
11	2462	18.0	17.86	17.78	17.68	17.58

802.11g		Max. Rated Avg. Power + Max. Tolerance (dBm)	Average Power Output(dBm)							
CH	Frequency (MHz)		Data Rate (Mbps)							
			6	9	12	18	24	36	48	54
1	2412	12.00	11.16	11.08	11.02	10.93	10.86	10.80	10.74	10.65
6	2437	16.00	15.83	15.76	15.71	15.66	15.60	15.51	15.45	15.38
11	2462	15.00	14.95	14.89	14.82	14.76	14.68	14.60	14.51	14.42

802.11n (20M)		Max. Rated Avg. Power + Max. Tolerance (dBm)	Average Power Output(dBm)							
CH	Frequency (MHz)		Data Rate (Mbps)							
			6.5	13	19.5	26	39	52	58.5	65
1	2412	11.50	11.14	11.04	10.96	10.90	10.82	10.76	10.69	10.60
6	2437	16.00	15.69	15.62	15.55	15.49	15.41	15.32	15.22	15.13
11	2462	13.00	12.89	12.83	12.78	12.69	12.62	12.55	12.49	12.41

802.11a 5.2G/5.3G/5.5G/5.8G		Max. Rated Avg. Power + Max. Tolerance (dBm)	Average Power (dBm)							
CH	Frequency (MHz)		Data Rate (Mbps)							
			6	9	12	18	24	36	48	54
36	5180	16.0	15.87	15.78	15.68	15.62	15.52	15.43	15.36	15.30
40	5200	16.0	15.82	15.73	15.66	15.59	15.53	15.47	15.40	15.34
44	5220	16.0	15.97	15.88	15.81	15.71	15.65	15.59	15.54	15.46
48	5240	16.0	15.91	15.84	15.77	15.69	15.60	15.51	15.41	15.32
52	5260	16.0	15.93	15.85	15.79	15.72	15.63	15.57	15.48	15.38
56	5280	16.0	15.92	15.83	15.74	15.64	15.57	15.51	15.42	15.35
60	5300	16.0	15.88	15.80	15.74	15.67	15.57	15.49	15.39	15.29
64	5320	16.0	15.93	15.84	15.74	15.68	15.59	15.51	15.43	15.36
100	5500	16.0	15.91	15.82	15.76	15.70	15.61	15.54	15.44	15.38
104	5520	16.0	15.64	15.55	15.45	15.39	15.33	15.24	15.16	15.11
108	5540	16.0	15.77	15.69	15.59	15.51	15.44	15.35	15.28	15.18
112	5560	16.0	15.62	15.56	15.49	15.42	15.35	15.28	15.18	15.13
116	5580	16.0	15.98	15.92	15.82	15.75	15.70	15.61	15.54	15.47
120	5600	16.0	15.77	15.69	15.60	15.51	15.46	15.38	15.31	15.22
124	5620	16.0	15.71	15.64	15.56	15.49	15.44	15.38	15.31	15.25
128	5640	16.0	15.66	15.59	15.53	15.48	15.39	15.33	15.23	15.15
132	5660	16.0	15.61	15.55	15.47	15.38	15.30	15.21	15.14	15.07
136	5680	16.0	15.54	15.48	15.40	15.32	15.24	15.15	15.07	15.00
140	5700	14.0	13.92	13.86	13.80	13.74	13.67	13.58	13.52	13.46
149	5745	16.0	15.99	15.93	15.83	15.75	15.68	15.61	15.53	15.48
153	5765	16.0	15.98	15.89	15.79	15.71	15.61	15.55	15.46	15.40
157	5785	16.0	15.97	15.88	15.82	15.74	15.68	15.61	15.56	15.50
161	5805	16.0	15.95	15.88	15.80	15.73	15.67	15.61	15.55	15.48
165	5825	16.0	15.89	15.82	15.73	15.63	15.53	15.44	15.37	15.31

802.11n(20M) 5.2G/5.3G/5.5G/5.8G		Max. Rated Avg. Power + Max. Tolerance (dBm)	Average Power (dBm)							
			Data Rate (Mbps)							
CH	Frequency (MHz)		6.5	13	19.5	26	39	52	58.5	65
36	5180	16.0	15.94	15.87	15.79	15.71	15.66	15.58	15.52	15.44
48	5240	16.0	15.92	15.83	15.76	15.70	15.61	15.53	15.48	15.41
52	5260	16.0	15.95	15.86	15.80	15.75	15.66	15.60	15.53	15.47
64	5320	16.0	15.90	15.85	15.76	15.67	15.62	15.56	15.48	15.39
100	5500	16.0	15.99	15.93	15.84	15.79	15.71	15.65	15.60	15.51
116	5580	16.0	15.98	15.90	15.82	15.74	15.69	15.60	15.51	15.43
140	5700	13.5	13.37	13.31	13.22	13.14	13.05	12.95	12.88	12.80
149	5745	16.0	15.95	15.86	15.77	15.67	15.58	15.52	15.44	15.38
157	5785	16.0	15.91	15.85	15.79	15.69	15.63	15.56	15.50	15.41
165	5825	16.0	15.98	15.91	15.84	15.79	15.72	15.63	15.56	15.49

802.11n(40M) 5.2G/5.3G/5.5G/5.8G		Max. Rated Avg. Power + Max. Tolerance (dBm)	Average Power (dBm)							
			Data Rate (Mbps)							
CH	Frequency (MHz)		13.5	27	40.5	54	81	108	121.5	135
38	5190	12.5	12.09	12.00	11.94	11.87	11.81	11.74	11.65	11.58
46	5230	16.0	15.92	15.86	15.79	15.70	15.64	15.57	15.49	15.39
54	5270	16.0	15.88	15.82	15.76	15.68	15.63	15.53	15.44	15.34
62	5310	13.0	12.51	12.44	12.34	12.29	12.23	12.14	12.07	11.99
102	5510	12.5	12.23	12.17	12.09	12.01	11.95	11.86	11.78	11.72
118	5590	16.0	15.79	15.72	15.65	15.59	15.53	15.48	15.38	15.32
134	5670	16.0	15.94	15.87	15.79	15.73	15.67	15.58	15.53	15.48
151	5755	16.0	15.98	15.90	15.80	15.71	15.65	15.58	15.50	15.43
159	5795	16.0	15.97	15.90	15.83	15.77	15.72	15.65	15.56	15.50

#. Bluetooth conducted power table:

Frequency (MHz)	AV(dBm)		
	GFSK	π4DQPSK	8DPSK
2402	8.67	9.30	9.75
2441	8.42	9.03	9.44
2480	8.28	8.89	9.23

Frequency (MHz)	BT4.0
	AV(dBm)
2402	-0.89
2442	-1.08
2480	-1.71

#. WLAN + BT Antenna Gain

Antenna Designation	PIFA Antenna
	2.4GHz Gain: 0.02dBi
	5.2GHz Gain: 0.26dBi
	5.3GHz Gain: 1.03dBi
	5.5GHz Gain: 3.40dBi
	5.8GHz Gain: 3.11dBi

1.4 Test Environment

Ambient Temperature : 22±2° C

Tissue Simulating Liquid: 22±2° C

1.5 Operation Description

General:

1. The EUT is controlled by using a Radio Communication Tester (R&S CMU200), and the communication between the EUT and the tester is established by air link.
2. Measurements are performed respectively on the lowest, middle and highest channels of the operating band(s). The EUT is set to maximum power level during all tests, and at the beginning of each test the battery is fully charged.
3. During the SAR testing, the DASY 5 system checks power drift by comparing the e-field strength of one specific location measured at the beginning with that measured at the end of the SAR testing.
4. Testing head SAR at lowest, middle and highest channel for all bands with Left Tilt /Left Cheek/Right Tilt/Right Cheek conditions.
5. Testing body-worn speech mode SAR by separating the EUT and the phantom **15mm** distance when performing GSM850 and GSM1900. (Both front side & back side)
6. Testing hotspot mode SAR by separating the EUT and the phantom **10mm** distance.

   #. The SAR testing for portable devices with wireless router capability is refered as test guidance of **KDB 941225 D06v01** (SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities).

   #. The following procedures are applicable when the overall device length and width are ≥9 cm x 5 cm respectively. A test separation of 10 mm is required. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25 mm from that surface or edge, for the data modes, wireless technologies and frequency bands supporting hotspot mode.

   # For WLAN (15mm separation): the testing device support mobile hotspot function, the separation distance is **10mm (No need to perform SAR testing**

with Body worn accessory (15mm separation distance) due to the hotspot mode (10mm separation distance) is more conservative than Body worn accessory mode).

Test configurations:

(1) Front side

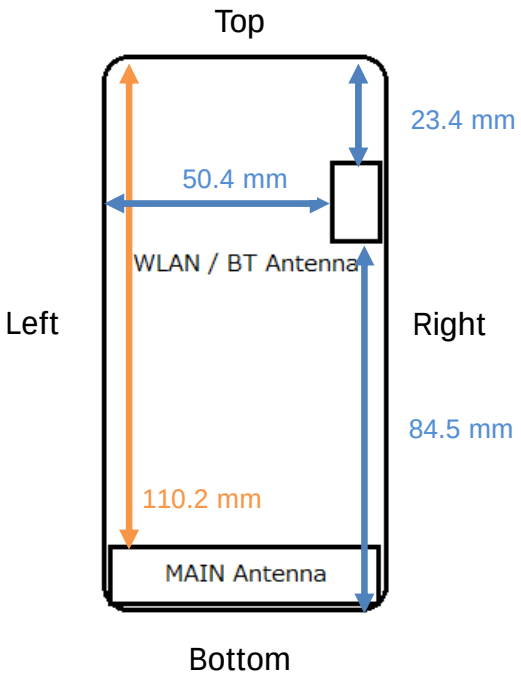
(2) Back side

(3) Top side.(WWAN antenna to edge distance >25mm_ No SAR measurement is necessary for this configuration)

(4) Bottom side. (WLAN antenna to edge distance >25mm_ No SAR measurement is necessary for this configuration)

(5) Right side.

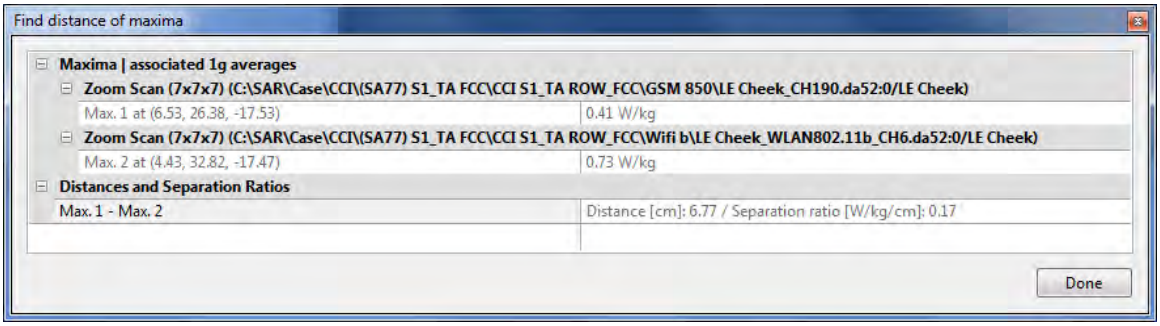
(6) Left side. (WLAN antenna to edge distance >25mm_ No SAR measurement is necessary for this configuration)

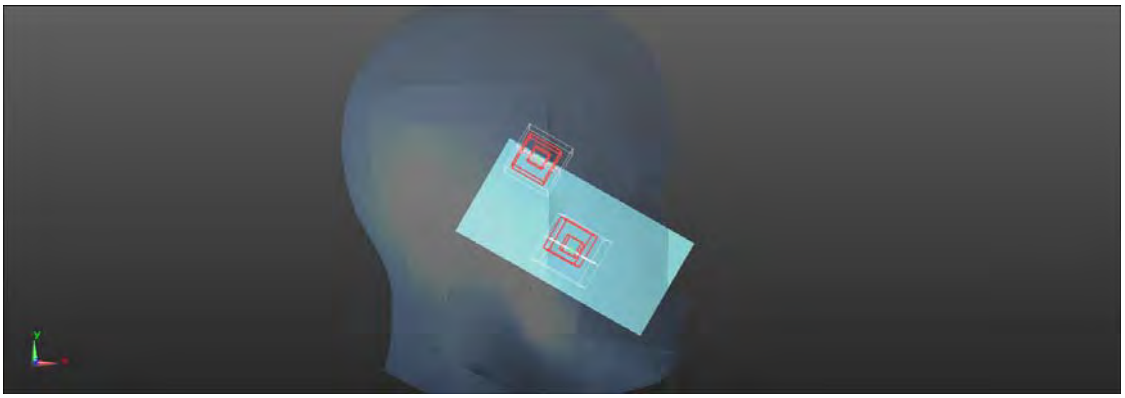


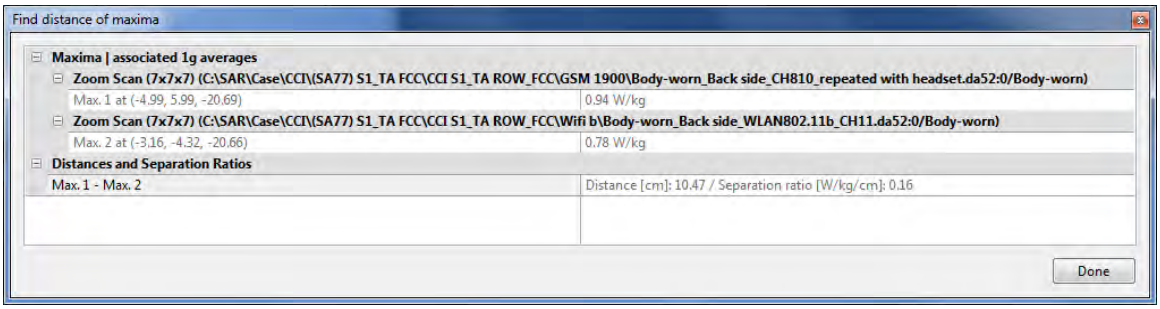
7. **For FCC:** According to **KDB447498 D01v05** – The 1-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances≤ 50 mm are determined by: [(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR, SAR evaluation is not required. **(Max power of Bluetooth (in average) = 9.75dBm)**
   For IC: SAR evaluation is required if the separation distance between the user and the radiating element of the device is less than or equal to 20 cm, except when the device operates as follows:
   - from 3 kHz up to 1 GHz inclusively, and with output power (i.e. the higher of the conducted or equivalent isotropically radiated power (e.i.r.p.) source-based, time-averaged output power) that is less than or equal to 200 mW for general public use and 1000 mW for controlled use;
   - above 1 GHz and up to 2.2 GHz inclusively, and with output power (i.e. the higher of the conducted or radiated (e.i.r.p.) source-based, time-averaged output power) that is less than or equal to 100 mW for general public use and 500 mW for controlled use;
   - above 2.2 GHz and up to 3 GHz inclusively, and with output power (i.e. the higher of the conducted or radiated (e.i.r.p.) source-based, time-averaged output power) that is less than or equal to 20 mW for general public use and 100 mW for controlled use;
   - above 3 GHz and up to 6 GHz inclusively, and with output power (i.e. the higher of the conducted or radiated (e.i.r.p.) source-based, time-averaged output power) that is less than or equal to 10 mW for general public use and 50 mW for controlled use.
8. According to **KDB248227 D01v01**-SAR is not required for 802.11 g/HT20 channels when the maximum average output power is higher than that measured on the corresponding 802.11b channels but increase less than 1/4 dB.
9. For Head, the highest 1-g SAR for WLAN is 0.754 W/kg and the highest 1-g SAR for WWAN is 0.442 W/kg. The sum of 1-g for simultaneous transmitting WLAN and WWAN antenna pair is 0. 754 +0.442 = 1. 196W/kg. WLAN / WWAN – Antenna separation is 6.77cm> 5cm, sum of SAR is less than 1.6W/kg, hence no simultaneous

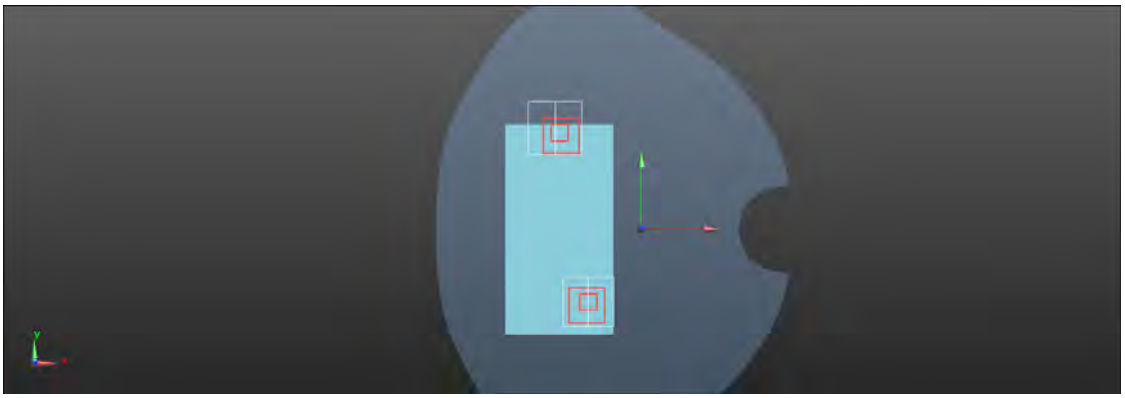
SAR is needed. Summing 1-g SAR for WLAN and WWAN **were lower than the limit 1.6W/kg.** According to **KDB648474 D04v01/KDB447498 D01v05** simultaneous SAR evaluation is not required.

10. For Body, The highest 1-g SAR for WLAN is 0.806 W/kg and the highest 1-g SAR for WWAN is 1.036 W/kg. The sum of 1-g for simultaneous transmitting WLAN and WWAN antenna pair is 0.806 +1.036 = 1.842 W/kg, which higher than the limit 1.6W/kg. By the way, the peak distance (hotspot to hotspot) for WLAN and WWAN antenna is 10.47 cm, we calculate the peak location separation ratio of simultaneous transmitting antenna pair, the SPLSR value is 0.024 with less than 0.04. According to **KDB447498 D01v05** simultaneous transmission SAR evaluation is not required.









11. WLAN / WWAN – According to **KDB447498 D01v05 & KDB648474 D01v01r05**, antenna separation is > 5cm, sum of SAR is less than 1.6W/kg, hence no simultaneous SAR is needed.

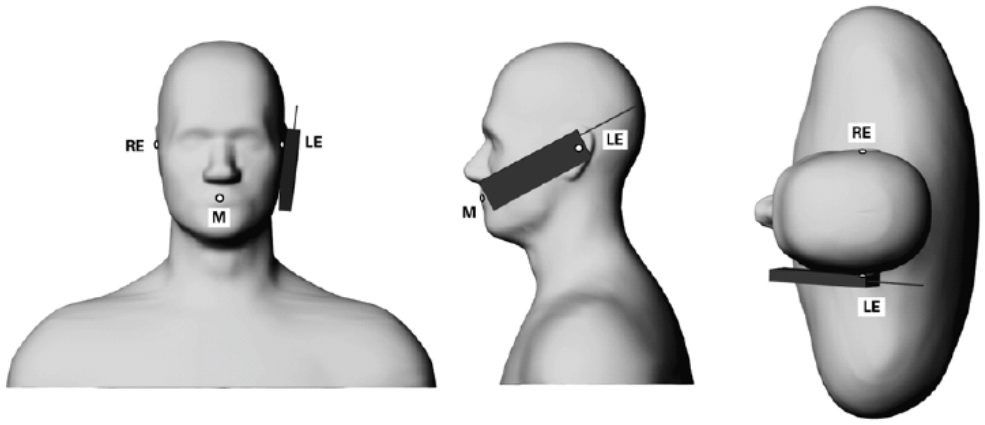
Additional configuration (Head):

12. For highest SAR configuration in this band repeated with external Memory card inside. (GSM 850 - Right cheek position – CH251)

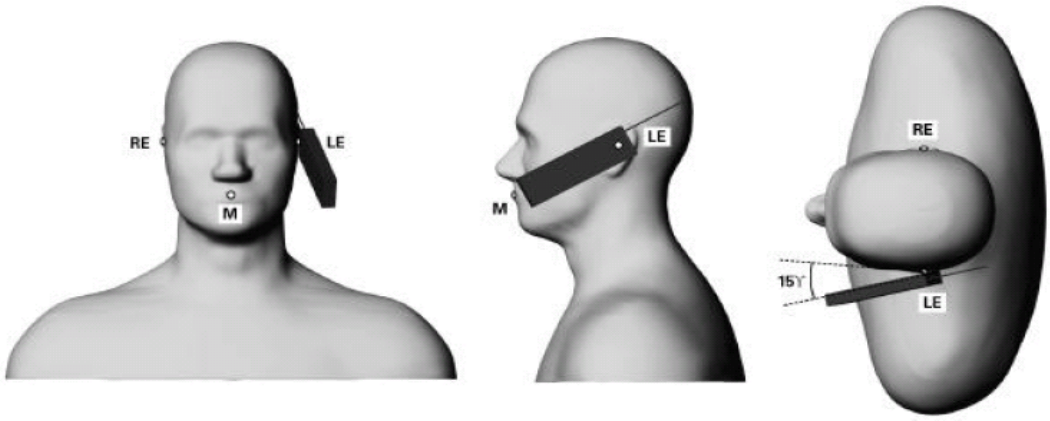
Additional configuration(Body):

13. For highest SAR configuration in this band repeated with external Memory card inside. (GSM 1900- Back side – CH810)
14. For highest SAR configuration in this band repeated with Headset (MH410C). (GSM 1900- Back side – CH810)

1.6 Positioning Procedure



Phone position 1, “cheek” or “touch” position. The reference points for the right ear (RE), left ear (LE) and mouth (M), which define the reference plane for phone positioning.



Phone position 2, “tilted position.” The reference points for the right ear (RE), left ear (LE) and mouth (M), which define the reference plane for phone positioning.

Cheek/Touch Position:
The handset was brought toward the mouth of the head phantom by pivoting against the ear reference point until any point of the mouthpiece or keypad touched the phantom.
Ear/Tilt Position:
With the phone aligned in the Cheek/Touch position, the handset was tilted away from

the mouth with respect to the test device reference point by 15 degrees.

1.7 Evaluation Procedures

The entire evaluation of the spatial peak values is performed within the Post-processing engine (SEMCAD). The system always gives the maximum values for the 1 g and 10 g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

1. The extraction of the measured data (grid and values) from the Zoom Scan.
2. The calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters).
3. The generation of a high-resolution mesh within the measured volume.
4. The interpolation of all measured values from the measurement grid to the high-resolution grid.
5. The extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface.
6. The calculation of the averaged SAR within masses of 1g and 10g.

The probe is calibrated at the center of the dipole sensors that is located 1 to 2.7mm away from the probe tip. During measurements, the probe stops shortly above the phantom surface, depending on the probe and the surface detecting system. Both distances are included as parameters in the probe configuration file. The software always knows exactly how far away the measured point is from the surface. As the probe cannot directly measure at the surface, the values between the deepest measured point and the surface must be extrapolated. The angle between the probe axis and the surface normal line is less than 30 degree.

In the Area Scan, the gradient of the interpolation function is evaluated to find all the extreme of the SAR distribution. The uncertainty on the locations of the extreme is less than 1/20 of the grid size. Only local maximum within –2 dB of the global maximum are searched and passed for the Cube Scan measurement. In the Cube Scan, the interpolation function is used to extrapolate the Peak SAR from the lowest measurement points to the inner phantom surface (the extrapolation distance). The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g

and 10 g cubes, the extrapolation distance should not be larger than 5mm.

The maximum search is automatically performed after each area scan measurement. It is based on splines in two or three dimensions. The procedure can find the maximum for most SAR distributions even with relatively large grid spacing. After the area scanning measurement, the probe is automatically moved to a position at the interpolated maximum. The following scan can directly use this position for reference, e.g., for a finer resolution grid or the cube evaluations. The 1g and 10g peak evaluations are only available for the predefined cube 7x7x7 scans.

The routines are verified and optimized for the grid dimensions used in these cube measurements. The measured volume of 30x30x30mm contains about 30g of tissue. The first procedure is an extrapolation (incl. Boundary correction) to get the points between the lowest measured plane and the surface. The next step uses 3D interpolation to get all points within the measured volume. In the last step, a 1g cube is placed numerically into the volume and its averaged SAR is calculated. This cube is the moved around until the highest averaged SAR is found.

If the highest SAR is found at the edge of the measured volume, the system will issue a warning: higher SAR values might be found outside of the measured volume. In that case the cube measurement can be repeated, using the new interpolated maximum as the center.

1.8 Probe Calibration Procedures

For the calibration of E-field probes in lossy liquids, an electric field with an accurately known field strength must be produced within the measured liquid. For standardization purposes it would be desirable if all measurements which are necessary to assess the correct field strength would be traceable to standardized measurement procedures. In the following two different calibration techniques are summarized:

1.8.1 Transfer Calibration with Temperature Probes

In lossy liquids the specific absorption rate (SAR) is related both to the electric field (E) and the temperature gradient ($\delta T / \delta t$) in the liquid.

$$SAR = \frac{\sigma}{\rho}|E|^2 = c\frac{\delta T}{\delta t}$$

whereby σ is the conductivity, ρ the density and c the heat capacity of the liquid.

Hence, the electric field in lossy liquid can be measured indirectly by measuring the temperature gradient in the liquid. Non-disturbing temperature probes (optical probes or thermistor probes with resistive lines) with high spatial resolution (<1-2 mm) and fast reaction time (<1 s) are available and can be easily calibrated with high precision [1]. The setup and the exciting source have no influence on the calibration; only the relative positioning uncertainties of the standard temperature probe and the E-field probe to be calibrated must be considered. However, several problems limit the available accuracy of probe calibrations with temperature probes:

- The temperature gradient is not directly measurable but must be evaluated from temperature measurements at different time steps. Special precaution is necessary to avoid measurement errors caused by temperature gradients due to energy equalizing effects or convection currents in the liquid. Such effects cannot be completely avoided, as the measured field itself destroys the thermal equilibrium in the liquid. With a

careful setup these errors can be kept small.

- The measured volume around the temperature probe is not well defined. It is difficult to calculate the energy transfer from a surrounding gradient temperature field into the probe. These effects must be considered, since temperature probes are calibrated in liquid with homogeneous temperatures. There is no traceable standard for temperature rise measurements.
- The calibration depends on the assessment of the specific density, the heat capacity and the conductivity of the medium. While the specific density and heat capacity can be measured accurately with standardized procedures (~ 2% for c; much better for ρ) , there is no standard for the measurement of the conductivity. Depending on the method and liquid, the error can well exceed ±5%.
- Temperature rise measurements are not very sensitive and therefore are often performed at a higher power level than the E-field measurements. The nonlinearities in the system (e.g., power measurements, different components, etc.) must be considered.

Considering these problems, the possible accuracy of the calibration of E-field probes with temperature gradient measurements in a carefully designed setup is about ±10% (RSS) [2]. Recently, a setup which is a combination of the waveguide techniques and the thermal measurements was presented in [3]. The estimated uncertainty of the setup is ±5% (RSS) when the same liquid is used for the calibration and for actual measurements and ±7-9% (RSS) when not, which is in good agreement with the estimates given in [2].

1.8.2 Calibration with Analytical Fields

In this method a technical setup is used in which the field can be calculated analytically from measurements of other physical magnitudes (e.g., input power). This corresponds to the standard field method for probe calibration in air; however, there is no standard defined for fields in lossy liquids.

When using calculated fields in lossy liquids for probe calibration, several points must be

considered in the assessment of the uncertainty:

- The setup must enable accurate determination of the incident power.
- The accuracy of the calculated field strength will depend on the assessment of the dielectric parameters of the liquid.
- Due to the small wavelength in liquids with high permittivity, even small setups might be above the resonant cutoff frequencies. The field distribution in the setup must be carefully checked for conformity with the theoretical field distribution.

References

[1] N. Kuster, Q. Balzano, and J.C. Lin, Eds., *Mobile Communications Safety*, Chapman & Hall, London, 1997.

[2] K. Meier, M. Burkhardt, T. Schmid, and N. Kuster, \Broadband calibration of E-field probes in lossy media", *IEEE Transactions on Microwave Theory and Techniques*, vol. 44, no. 10, pp. 1954{1962, Oct. 1996.

[3] K. Jokela, P. Hyysalo, and L. Puranen, \Calibration of specific absorption rate (SAR) probes in waveguide at 900 MHz", *IEEE Transactions on Instrumentation and Measurements*, vol. 47, no. 2, pp. 432{438, Apr. 1998.

1.9 The SAR Measurement System

A block diagram of the SAR measurement system is given in Fig. a. This SAR measurement system uses a Computer-controlled 3-D stepper motor system (SPEAG DASY 5 professional system). A model EX3DV4 field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR= σ ($|Ei|^2$)/ ρ where σ and ρ are the conductivity and mass density of the tissue-simulant.

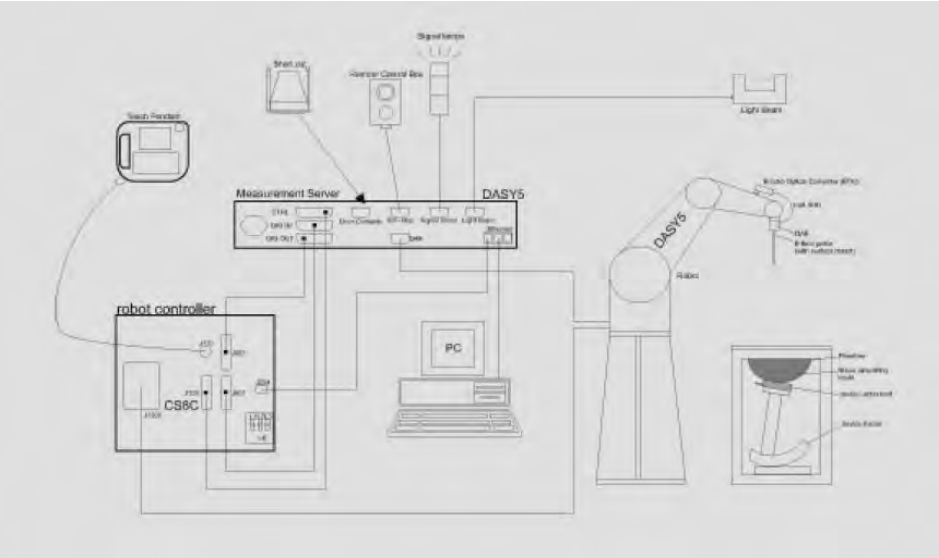


Fig. a A block diagram of the SAR measurement system

The DASY 5 system for performing compliance tests consists of the following items:

- A standard high precision 6-axis robot (Staubli RX family) with controller, teach pendant and software. An arm extension is for accommodating the data acquisition electronics (DAE).
- A dosimetric probe, i.e., an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection,

collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.

- The Electro-optical converter (EOC) performs the conversion between optical and electrical of the signals for the digital communication to the DAE and for the analog signal from the optical surface detection. The EOC is connected to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
- A computer operating Windows XP.
- DASY 5 software.
- Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
- The SAM twin phantom enabling testing left-hand and right-hand usage.
- The device holder for handheld mobile phones.
- Tissue simulating liquid mixed according to the given recipes.
- Validation dipole kits allowing to validate the proper functioning of the system.

1.10 System Components

EX3DV4 E-Field Probe

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Calibration	Basic Broad Band Calibration in air Conversion Factors (CF) for HSL835/1900/2450/5200/5500/5800MHz Additional CF for other liquids and frequencies upon request	
Frequency	10 MHz to > 6 GHz; Linearity: ± 0.6 dB (30 MHz to 4 GHz)	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 µW/g to > 100 mW/g; Linearity: ± 0.2 dB (noise: typically < 1 µW/g)	
Dimensions	Tip diameter: 2.5 mm	
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.	

SAM PHANTOM V4.0C

Construction:	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528-200X, CENELEC 50361 and IEC 62209. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points with the robot.	
Shell Thickness:	2 ± 0.2 mm	
Filling Volume:	Approx. 25 liters	
Dimensions:	Height: 810 mm; Length: 1000 mm; Width: 500 mm	

DEVICE HOLDER

Construction	In combination with the Twin SAM Phantom V4.0/V4.0C or Twin SAM, the Mounting Device (made from POM) enables the rotation of the mounted transmitter in spherical coordinates, whereby the rotation point is the ear opening. The devices can be easily and accurately positioned according to IEC, IEEE, CENELEC, FCC or other specifications. The device holder can be locked at different phantom locations (left head, right head, and flat phantom).	 Device Holder

1.11 SAR System Verification

The microwave circuit arrangement for system verification is sketched in Fig. b. The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within +/- 10% from the target SAR values.

These tests were done at 835/1900/2450/5200/5500/5800 MHz. The tests were conducted on the same days as the measurement of the DUT. The obtained results from the system accuracy verification are displayed in the table 1. During the tests, the ambient temperature of the laboratory was 21.7°C, the relative humidity was 62% and the liquid depth above the ear reference points was above 15 cm in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.

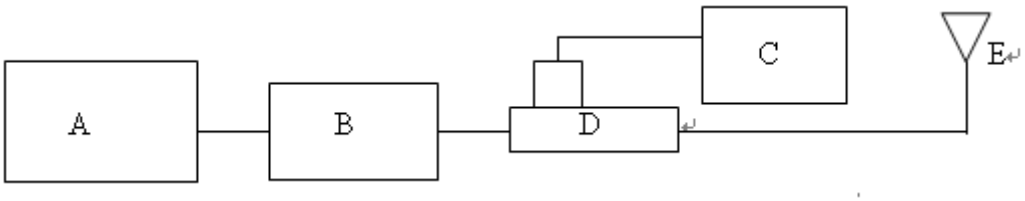


Fig. b The block diagram of system verification

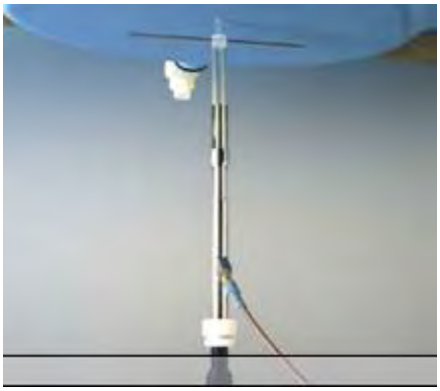
A. Signal Generator

B. Amplifier

C. Power Meter

D. Dual Directional Coupling

E. Reference Dipole Antenna



Photograph of the Dipole Antenna

Validation Kit	S/N	Frequency (MHz)		Target SAR (1g) (Pin=250mW) (mW/g)	Measured SAR (1g)(mW/g)	Measured Date
D835V2	4d063	835	Head	2.36	2.21	Nov. 09, 2012
			Body	2.46	2.42	Nov. 09, 2012
D1900V2	5d027	1900	Head	9.43	9.76	Nov. 07, 2012
			Body	10	9.86	Nov. 07, 2012
D2450V2	727	2450	Head	12.8	12.6	Nov. 14, 2012
			Body	12.7	13.2	Nov. 14, 2012
D5GHzV2	1104	5200	Head	8.22	8.01	Nov. 21, 2012
			Body	7.41	7.56	Nov. 25, 2012
D5GHzV2	1104	5200	Head	8.22	7.92	Nov. 26, 2012
			Body	7.41	7.63	Nov. 30, 2012
D5GHzV2	1104	5500	Head	8.54	8.21	Dec. 03, 2012
			Body	7.89	7.83	Dec. 10, 2012
D5GHzV2	1104	5800	Head	8.08	8.1	Dec. 11, 2012
			Body	7.32	7.31	Dec. 12, 2012

Table 1. System validation (follow manufacture target value)

1.12 Tissue Simulant Fluid for the Frequency Band

The dielectric properties for this Head-simulant fluid were measured by using the Agilent Model 85070E Dielectric Probe (rates frequency band 200 MHz to 20 GHz) in connection with Network Analyzer.

All dielectric parameters of tissue simulates were measured within 24 hours of SAR measurements. The depth of the tissue simulant in the flat section of the phantom was at least 15 cm during all tests. (Appendix Fig. 2)

Frequency (MHz)	Tissue Type	Dielectric Parameters		Recommended Limits	Measured	Measurement Date
835	Head	ε_r	Verification	38.57-42.63	41.069	Nov. 09, 2012
			Test CH (L)_GSM		41.208	
			Test CH (M)_GSM		41.043	
			Test CH (H)_GSM		40.903	
		σ (S/m)	Verification	0.85-0.93	0.885	
			Test CH (L)_GSM		0.877	
			Test CH (M)_GSM		0.887	
			Test CH (H)_GSM		0.897	
		Simulated Tissue Temp.(℃)		20-24	21.7	
	Body	ε_r	Verification	51.59-57.02	54.714	
			Test CH (L)_GSM		54.805	
			Test CH (M)_GSM		54.693	
			Test CH (H)_GSM		54.556	
		σ (S/m)	Verification	0.95-1.05	1.006	
			Test CH (L)_GSM		0.995	
			Test CH (M)_GSM		1.008	
			Test CH (H)_GSM		1.021	
		Simulated Tissue Temp.(℃)		20-24	21.7	

Frequency (MHz)	Tissue Type	Dielectric Parameters		Recommended Limits	Measured	Measurement Date
1900	Head	ε_r	Verification	38.76-42.84	39.56	Nov. 07, 2012
			Test CH (L)_GSM		39.693	
			Test CH (M)_GSM		39.783	
			Test CH (H)_GSM		39.423	
		σ (S/m)	Verification	1.3-1.44	1.362	
			Test CH (L)_GSM		1.337	
			Test CH (M)_GSM		1.354	
			Test CH (H)_GSM		1.37	
		Simulated Tissue Temp.(℃)		20-24	21.7	
	Body	ε_r	Verification	50.64-55.97	52.461	
			Test CH (L)_GSM		52.693	
			Test CH (M)_GSM		52.57	
			Test CH (H)_GSM		52.427	
		σ (S/m)	Verification	1.43-1.59	1.487	
			Test CH (L)_GSM		1.436	
			Test CH (M)_GSM		1.463	
			Test CH (H)_GSM		1.5	
		Simulated Tissue Temp.(℃)		20-24	21.7	

Frequency (MHz)	Tissue Type	Dielectric Parameters		Recommended Limits	Measured	Measurement Date
2450	Head	ε_r	Verification	37.62-41.58	39.847	Nov. 14, 2012
			Test CH 1_WLAN		39.944	
			Test CH 6_WLAN		39.883	
			Test CH 11_WLAN		39.801	
		σ (S/m)	Verification	1.72-1.9	1.804	
			Test CH 1_WLAN		1.76	
			Test CH 6_WLAN		1.76	
			Test CH 11_WLAN		1.815	
		Simulated Tissue Temp.(℃)		20-24	21.7	
	Body	ε_r	Verification	49.78-55.02	53.021	
			Test CH 1_WLAN		53.111	
			Test CH 6_WLAN		53.034	
			Test CH 11_WLAN		53.002	
		σ (S/m)	Verification	1.88-2.08	1.956	
			Test CH 1_WLAN		1.894	
			Test CH 6_WLAN		1.935	
			Test CH 11_WLAN		1.973	
		Simulated Tissue Temp.(℃)		20-24	21.7	

Frequency (MHz)	Tissue Type	Dielectric Parameters		Recommended Limits	Measured	Measurement Date
5200	Head	ε_r	Verification	33.25-36.75	35.423	Nov. 21, 2012
			Test CH 36_WLAN		35.463	
			Test CH 38_WLAN		35.443	
			Test CH 44_WLAN		35.368	
			Test CH 46_WLAN		35.349	
			Test CH 48_WLAN		35.329	
		σ (S/m)	Verification	4.29-4.75	4.473	
			Test CH 36_WLAN		4.455	
			Test CH 38_WLAN		4.464	
			Test CH 44_WLAN		4.499	
			Test CH 46_WLAN		4.51	
			Test CH 48_WLAN		4.52	
		Simulated Tissue Temp.(℃)		20-24	21.7	
	Body	ε_r	Verification	45.41-50.19	48.516	Nov. 25, 2012
			Test CH 36_WLAN		48.558	
			Test CH 38_WLAN		48.539	
			Test CH 44_WLAN		48.462	
			Test CH 46_WLAN		48.447	
			Test CH 48_WLAN		48.426	
		σ (S/m)	Verification	5.14-5.68	5.31	
			Test CH 36_WLAN		5.284	
			Test CH 38_WLAN		5.297	
			Test CH 44_WLAN		5.341	
			Test CH 46_WLAN		5.355	
			Test CH 48_WLAN		5.368	
		Simulated Tissue Temp.(℃)		20-24	21.7	

Frequency (MHz)	Tissue Type	Dielectric Parameters		Recommended Limits	Measured	Measurement Date
5200	Head	ε_r	Verification	33.25-36.75	35.485	Nov. 26, 2012
			Test CH 52_WLAN		35.281	
			Test CH 54_WLAN		35.264	
			Test CH 62_WLAN		35.186	
			Test CH 64_WLAN		35.158	
		σ (S/m)	Verification	4.29-4.75	4.491	
			Test CH 52_WLAN		4.544	
			Test CH 54_WLAN		4.556	
			Test CH 62_WLAN		4.597	
			Test CH 64_WLAN		4.609	
		Simulated Tissue Temp.(℃)		20-24	21.7	
	Body	ε_r	Verification	45.41-50.19	48.522	Nov. 30, 2012
			Test CH 52_WLAN		48.382	
			Test CH 54_WLAN		48.363	
			Test CH 62_WLAN		48.284	
			Test CH 64_WLAN		48.26	
		σ (S/m)	Verification	5.14-5.68	5.299	
			Test CH 52_WLAN		5.397	
			Test CH 54_WLAN		5.413	
			Test CH 62_WLAN		5.468	
			Test CH 64_WLAN		5.483	
		Simulated Tissue Temp.(℃)		20-24	21.7	

Frequency (MHz)	Tissue Type	Dielectric Parameters		Recommended Limits	Measured	Measurement Date
5500	Head	ε_r	Verification	32.87-36.33	34.784	Dec. 03, 2012
			Test CH 100_WLAN		34.784	
			Test CH 102_WLAN		34.759	
			Test CH 116_WLAN		34.603	
			Test CH 118_WLAN		34.588	
			Test CH 120_WLAN		34.573	
			Test CH 132_WLAN		34.438	
			Test CH 134_WLAN		34.417	
			Test CH 140_WLAN		34.363	
		σ (S/m)	Verification	4.56-5.04	4.818	
			Test CH 100_WLAN		4.818	
			Test CH 102_WLAN		4.825	
			Test CH 116_WLAN		4.902	
			Test CH 118_WLAN		4.911	
			Test CH 120_WLAN		4.92	
			Test CH 132_WLAN		4.989	
			Test CH 134_WLAN		5.002	
			Test CH 140_WLAN		5.033	
		Simulated Tissue Temp.(℃)		20-24	21.7	

Frequency (MHz)	Tissue Type	Dielectric Parameters		Recommended Limits	Measured	Measurement Date
5500	Body	ε_r	Verification	44.94-49.67	47.906	Dec. 10, 2012
			Test CH 100_WLAN		47.906	
			Test CH 102_WLAN		47.886	
			Test CH 116_WLAN		47.725	
			Test CH 118_WLAN		47.715	
			Test CH 120_WLAN		47.703	
			Test CH 132_WLAN		47.579	
			Test CH 134_WLAN		47.551	
			Test CH 140_WLAN		47.506	
		σ (S/m)	Verification	5.49-6.07	5.741	
			Test CH 100_WLAN		5.741	
			Test CH 102_WLAN		5.755	
			Test CH 116_WLAN		5.858	
			Test CH 118_WLAN		5.873	
			Test CH 120_WLAN		5.886	
			Test CH 132_WLAN		5.967	
			Test CH 134_WLAN		5.985	
			Test CH 140_WLAN		6.032	
		Simulated Tissue Temp.(℃)		20-24	21.7	

Frequency (MHz)	Tissue Type	Dielectric Parameters		Recommended Limits	Measured	Measurement Date
5800	Head	ε_r	Verification	32.4-35.81	34.161	Dec. 11, 2012
			Test CH 149_WLAN		34.274	
			Test CH 151_WLAN		34.249	
			Test CH 153_WLAN		34.226	
			Test CH 157_WLAN		34.186	
			Test CH 159_WLAN		34.169	
			Test CH 161_WLAN		34.148	
			Test CH 165_WLAN		34.103	
		σ (S/m)	Verification	4.85-5.37	5.146	
			Test CH 149_WLAN		5.083	
			Test CH 151_WLAN		5.095	
			Test CH 153_WLAN		5.118	
			Test CH 157_WLAN		5.132	
			Test CH 159_WLAN		5.142	
			Test CH 161_WLAN		5.151	
			Test CH 165_WLAN		5.176	
		Simulated Tissue Temp.(℃)		20-24	21.7	

Frequency (MHz)	Tissue Type	Dielectric Parameters		Recommended Limits	Measured	Measurement Date
5800	Body	ε_r	Verification	44.46-49.14	47.31	Dec. 12, 2012
			Test CH 149_WLAN		47.437	
			Test CH 151_WLAN		47.407	
			Test CH 153_WLAN		47.378	
			Test CH 157_WLAN		47.334	
			Test CH 159_WLAN		47.318	
			Test CH 161_WLAN		47.301	
			Test CH 165_WLAN		47.277	
		σ (S/m)	Verification	5.89-6.51	6.178	
			Test CH 149_WLAN		6.092	
			Test CH 151_WLAN		6.106	
			Test CH 153_WLAN		6.122	
			Test CH 157_WLAN		6.156	
			Test CH 159_WLAN		6.171	
			Test CH 161_WLAN		6.186	
			Test CH 165_WLAN		6.218	
		Simulated Tissue Temp.(℃)		20-24	21.7	

Table 2. Dielectric Parameters of Tissue Simulant Fluid

The composition of the brain tissue simulating liquid:

Frequency (MHz)	Mode	Ingredient						Total amount
		DGMBE	Water	Salt	Preventol D-7	Cellulose	Sugar	
850	Head	—	532.98 g	18.3 g	2.4 g	3.2 g	766 g	1.0L(Kg)
	Body	—	631.68 g	11.72 g	1.2 g	—	600 g	1.0L(Kg)
1900	Head	444.52 g	552.42 g	3.06 g	—	—	—	1.0L(Kg)
	Body	300.67 g	716.56 g	4.0 g	—	—	—	1.0L(Kg)
2450	Head	550ml	450ml	—	—	—	—	1.0L(Kg)
	Body	301.7ml	698.3ml	—	—	—	—	1.0L(Kg)

Simulating Liquids for 5 GHz, Manufactured by SPEAG:

Ingredients	Water	Esters, Emulsifiers, Inhibitors	Sodium and Salt
(% by weight)	60-80	20-40	0-1.5

Table 3. Recipes for tissue simulating liquid

1.13 Test Standards and Limits

According to FCC 47CFR §2.1093(d) The limits to be used for evaluation are based generally on criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (“SAR”) in Section 4.2 of “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz,” ANSI/IEEE C95.1–1992, Copyright 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017.

These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in “Biological Effects and Exposure Criteria for Radio frequency Electromagnetic Fields,” NCRP Report No. 86, Section 17.4.5. Copyright NCRP, 1986, Bethesda, Maryland 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards. The criteria to be used are specified in paragraphs (d)(1) and (d)(2) of this section and shall apply for portable devices transmitting in the frequency range from 100 kHz to 6 GHz. Portable devices that transmit at frequencies above 6 GHz are to be evaluated in terms of the MPE limits specified in § 1.1310 of this chapter.

Measurements and calculations to demonstrate compliance with MPE field strength or power density limits for devices operating above 6 GHz should be made at a minimum distance of 5 cm from the radiating source.

(1) Limits for Occupational/Controlled exposure: 0.4 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 8 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 20 W/kg, as averaged over a 10 grams of tissue (defined as a tissue volume in the shape of a cube).

Occupational/Controlled limits apply when persons are exposed as a consequence of their employment provided these persons are fully aware of and exercise control over their exposure. Awareness of exposure can be accomplished by use of warning labels

or by specific training or education through appropriate means, such as an RF safety program in a work environment.

(2) Limits for General Population/Uncontrolled exposure: 0.08 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube).

Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube).

General Population/Uncontrolled limits apply when the general public may be exposed, or when persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or do not exercise control over their exposure.

Warning labels placed on consumer devices such as cellular telephones will not be sufficient reason to allow these devices to be evaluated subject to limits for occupational/controlled exposure in paragraph (d)(1) of this section.(Table .6)

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Spatial Peak SAR (Brain)	1.60 m W/g	8.00 m W/g
Spatial Average SAR (Whole Body)	0.08 m W/g	0.40 m W/g
Spatial Peak SAR (Hands/Feet/Ankle/Wrist)	4.00 m W/g	20.00 m W/g

Table 4. RF exposure limits

Notes:

1. Uncontrolled environments are defined as locations where there is potential exposure of individuals who have no knowledge or control of their potential exposure.
2. Controlled environments are defined as locations where there is potential exposure of individuals who have knowledge of their potential exposure and can exercise control over their exposure.

2. Summary of Results

GSM 850 MHz

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
GSM (Head)	Right cheek	-	128	824.2	33.5	33.02	11.69%	0.329	0.367	71
	Right cheek	-	190	836.6	33.5	33.14	8.64%	0.458	0.498	72
	Right cheek	-	251	848.8	33.5	33.37	3.04%	0.634	0.653	73
	Right cheek -with memory card	-	251	848.8	33.5	33.37	3.04%	0.619	0.638	75
	Right tilt	-	190	836.6	33.5	33.14	8.64%	0.259	0.281	76
	Left cheek	-	190	836.6	33.5	33.14	8.64%	0.407	0.442	77
	Left tilt	-	190	836.6	33.5	33.14	8.64%	0.255	0.277	78
GSM (Body-worn speech mode)	Front	15mm	190	836.6	33.5	33.14	8.64%	0.368	0.400	79
	Back	15mm	190	836.6	33.5	33.14	8.64%	0.248	0.269	80
GPRS (Hotspot) (1Dn3UP)	Front	10mm	190	836.6	30.5	30.35	3.51%	0.689	0.713	81
	Back	10mm	128	824.2	30.5	30.12	9.14%	0.694	0.757	82
	Back	10mm	190	836.6	30.5	30.35	3.51%	0.703	0.728	83
	Back	10mm	251	848.8	30.5	30.39	2.57%	0.833	0.854	84
	Back *	10mm	251	848.8	30.5	30.39	2.57%	0.818	0.839	85
	Bottom	10mm	190	836.6	30.5	30.35	3.51%	0.133	0.138	86
	Right	10mm	190	836.6	30.5	30.35	3.51%	0.37	0.383	87
	Left	10mm	190	836.6	30.5	30.35	3.51%	0.404	0.418	88

* - repeated at the highest SAR measurement according to the FCC KDB 865664

Using KDB941225 D03v01 and KDB941225 D04v01 to exclude SAR test requirements for EDGE modes due to the source-based time-averaged output power for EDGE mode is lower than that in the GPRS mode.

GSM 1900 MHz

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
GSM (Head)	Right cheek	-	661	1880	30.5	30.21	6.91%	0.235	0.251	89
	Right tilt	-	661	1880	30.5	30.21	6.91%	0.091	0.097	90
	Left cheek	-	512	1850.2	30.5	30.14	8.64%	0.241	0.262	91
	Left cheek	-	661	1880	30.5	30.21	6.91%	0.255	0.273	92
	Left cheek	-	810	1909.8	30.5	30.28	5.20%	0.284	0.299	93
	Left tilt	-	661	1880	30.5	30.21	6.91%	0.098	0.105	94
GSM (Body-worn speech mode)	Front	15mm	661	1880	30.5	30.21	6.91%	0.251	0.268	95
	Back	15mm	661	1880	30.5	30.21	6.91%	0.316	0.338	96
GPRS (Hotspot) (1Dn3UP)	Front	10mm	661	1880	27.5	27.16	8.14%	0.512	0.554	97
	Back	10mm	512	1850.2	27.5	27.13	8.89%	0.821	0.894	98
	Back	10mm	661	1880	27.5	27.16	8.14%	0.872	0.943	99
	Back	10mm	810	1909.8	27.5	27.09	9.90%	0.912	1.002	100
	Back -with memory card	10mm	810	1909.8	27.5	27.09	9.90%	0.806	0.886	101
	Back -with headset (MH410C)	10mm	810	1909.8	27.5	27.09	9.90%	0.943	1.036	102
	Back -with headset (MH410C)*	10mm	810	1909.8	27.5	27.09	9.90%	0.938	1.031	104
	Bottom	10mm	512	1850.2	27.5	27.13	8.89%	0.886	0.965	105
	Bottom	10mm	661	1880	27.5	27.16	8.14%	0.81	0.876	106
	Bottom	10mm	810	1909.8	27.5	27.09	9.90%	0.836	0.919	107
	Right	10mm	661	1880	27.5	27.16	8.14%	0.062	0.067	108
	Left	10mm	661	1880	27.5	27.16	8.14%	0.226	0.244	109

* - repeated at the highest SAR measurement according to the FCC KDB 865664

Using KDB941225 D03v01 and KDB941225 D04v01 to exclude SAR test requirements for EDGE modes due to the source-based time-averaged output power for EDGE mode is lower than that in the GPRS mode.

WLAN802.11 b

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
Head	Right cheek	-	6	2437	18	17.87	3.04%	0.277	0.285	110
	Right tilt	-	6	2437	18	17.87	3.04%	0.168	0.173	111
	Left cheek	-	1	2412	18	17.83	3.99%	0.494	0.514	112
	Left cheek	-	6	2437	18	17.87	3.04%	0.732	0.754	113
	Left cheek	-	11	2462	18	17.86	3.28%	0.705	0.728	115
	Left cheek -with memory card	-	6	2437	18	17.87	3.04%	0.644	0.664	116
	Left cheek -with Bluetooth	-	6	2437	18	17.87	3.04%	0.632	0.651	117
	Left tilt	-	6	2437	18	17.87	3.04%	0.309	0.318	118
Hotspot	Front	10mm	6	2437	18	17.87	3.04%	0.103	0.106	119
	Back	10mm	1	2412	18	17.83	3.99%	0.307	0.319	120
	Back	10mm	6	2437	18	17.87	3.04%	0.488	0.503	121
	Back	10mm	11	2462	18	17.86	3.28%	0.78	0.806	122
	Back -with memory card	10mm	11	2462	18	17.86	3.28%	0.506	0.523	124
	Back -with Bluetooth	10mm	11	2462	18	17.86	3.28%	0.559	0.577	125
	Back -with headset (MH410C)	10mm	11	2462	18	17.86	3.28%	0.395	0.408	126
	Top	10mm	6	2437	18	17.87	3.04%	0.048	0.049	127
	Right	10mm	6	2437	18	17.87	3.04%	0.388	0.400	128

Using KDB248227 D01v01-SAR is not required for 802.11 g/HT20 channels when the maximum average output power is higher than that measured on the corresponding 802.11b channels but increase less than 1/4 dB.
According to KDB447498 D01v05 the 1-g SAR for the highest output channel is less than 0.8 W/kg, where the transmission band corresponding to all channels is ≤ 100 MHz, testing for the other channels is not required.
Refer to section 1.5 (6) for justification of test reduction for body-worn configuration testing

WLAN802.11 a 5.2G

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
Head	Right cheek	-	44	5220	16	15.97	0.69%	0.041	0.041	129
	Right tilt	-	44	5220	16	15.97	0.69%	0.027	0.027	130
	Left cheek	-	36	5180	16	15.87	3.04%	0.206	0.212	131
	Left cheek	-	44	5220	16	15.97	0.69%	0.18	0.181	132
	Left tilt	-	44	5220	16	15.97	0.69%	0.063	0.063	133
Hotspot	Front	10mm	44	5220	16	15.97	0.69%	0.046	0.046	134
	Back	10mm	44	5220	16	15.97	0.69%	0.534	0.538	135
	Top	10mm	44	5220	16	15.97	0.69%	0.031	0.031	136
	Right	10mm	36	5180	16	15.87	3.04%	0.458	0.472	137
	Right	10mm	44	5220	16	15.97	0.69%	0.549	0.553	138

As per KDB248227 D01v01, when SAR at default channel where maximum power occurs is less than 0.8W/kg, SAR tests on other default channel is option.

As per KDB248227 D01v01, when the maximum average output channel in each frequency band is not include in the "default test channels", the maximum channel should be tested instead of an adjacent "default test channels".

Refer to section 1.5 (6) for justification of test reduction for body-worn configuration testing

WLAN802.11 a 5.3G

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
Head	Right cheek	-	52	5260	16	15.93	1.62%	0.05	0.051	139
	Right tilt	-	52	5260	16	15.93	1.62%	0.036	0.037	140
	Left cheek	-	52	5260	16	15.93	1.62%	0.181	0.184	141
	Left cheek	-	64	5320	16	15.93	1.62%	0.302	0.307	142
	Left tilt	-	52	5260	16	15.93	1.62%	0.083	0.084	143
Hotspot	Front	10mm	52	5260	16	15.93	1.62%	0.061	0.062	144
	Back	10mm	52	5260	16	15.93	1.62%	0.432	0.439	145
	Top	10mm	52	5260	16	15.93	1.62%	0.028	0.028	146
	Right	10mm	52	5260	16	15.93	1.62%	0.624	0.634	147
	Right	10mm	64	5320	16	15.93	1.62%	0.447	0.454	148

As per KDB248227 D01v01, when SAR at default channel where maximum power occurs is less than 0.8W/kg, SAR tests on other default channel is option.

As per KDB248227 D01v01, when the maximum average output channel in each frequency band is not include in the "default test channels", the maximum channel should be tested instead of an adjacent "default test channels".

Refer to section 1.5 (6) for justification of test reduction for body-worn configuration testing

WLAN802.11 a 5.5G

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
Head	Right cheek	-	100	5500	16	15.91	2.09%	0.015	0.015	149
	Right tilt	-	100	5500	16	15.91	2.09%	0.021	0.021	150
	Left cheek	-	100	5500	16	15.91	2.09%	0.09	0.092	151
	Left cheek	-	116	5580	16	15.98	0.46%	0.064	0.064	152
	Left cheek	-	120	5600	16	15.77	5.44%	0.077	0.081	153
	Left cheek	-	132	5660	16	15.61	9.40%	0.061	0.067	154
	Left tilt	-	100	5500	16	15.91	2.09%	0.047	0.048	155
Hotspot	Front	10mm	100	5500	16	15.91	2.09%	0.02	0.020	156
	Back	10mm	100	5500	16	15.91	2.09%	0.057	0.058	157
	Top	10mm	100	5500	16	15.91	2.09%	0.017	0.017	158
	Right	10mm	100	5500	16	15.91	2.09%	0.098	0.100	159
	Right	10mm	116	5580	16	15.98	0.46%	0.063	0.063	160
	Right	10mm	120	5600	16	15.77	5.44%	0.078	0.082	161
	Right	10mm	132	5660	16	15.61	9.40%	0.049	0.054	162

As per KDB248227 D01v01, when SAR at default channel where maximum power occurs is less than 0.4W/kg, SAR tests on other default channel is option.

As per KDB248227 D01v01, when the maximum average output channel in each frequency band is not include in the "default test channels", the maximum channel should be tested instead of an adjacent "default test channels".

Refer to section 1.5 (6) for justification of test reduction for body-worn configuration testing

WLAN802.11 a 5.8G

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
Head	Right cheek	-	149	5745	16	15.99	0.23%	0.00481	0.005	163
	Right tilt	-	149	5745	16	15.99	0.23%	0.000673	0.001	164
	Left cheek	-	149	5745	16	15.99	0.23%	0.054	0.054	165
	Left cheek	-	153	5765	16	15.98	0.46%	0.039	0.039	166
	Left cheek	-	161	5805	16	15.95	1.16%	0.044	0.045	167
	Left tilt	-	149	5745	16	15.99	0.23%	0.023	0.023	168
Hotspot	Front	10mm	149	5745	16	15.99	0.23%	0.013	0.013	169
	Back	10mm	149	5745	16	15.99	0.23%	0.045	0.045	170
	Top	10mm	149	5745	16	15.99	0.23%	0.00611	0.006	171
	Right	10mm	149	5745	16	15.99	0.23%	0.047	0.047	172
	Right	10mm	153	5765	16	15.98	0.46%	0.034	0.034	173
	Right	10mm	161	5805	16	15.95	1.16%	0.047	0.048	174

As per KDB248227 D01v01, when SAR at default channel where maximum power occurs is less than 0.8W/kg, SAR tests on other default channel is option.

As per KDB248227 D01v01, when the maximum average output channel in each frequency band is not include in the "default test channels", the maximum channel should be tested instead of an adjacent "default test channels".

Refer to section 1.5 (6) for justification of test reduction for body-worn configuration testing

WLAN802.11 n (20M) 5.2G

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
Head	Right cheek	-	36	5180	16	15.94	1.39%	0.037	0.038	175
	Right tilt	-	36	5180	16	15.94	1.39%	0.021	0.021	176
	Left cheek	-	36	5180	16	15.94	1.39%	0.212	0.215	177
	Left cheek	-	48	5240	16	15.92	1.86%	0.142	0.145	178
	Left tilt	-	36	5180	16	15.94	1.39%	0.041	0.042	179
Hotspot	Front	10mm	36	5180	16	15.94	1.39%	0.033	0.033	180
	Back	10mm	36	5180	16	15.94	1.39%	0.354	0.359	181
	Top	10mm	36	5180	16	15.94	1.39%	0.027	0.027	182
	Right	10mm	36	5180	16	15.94	1.39%	0.452	0.458	183
	Right	10mm	48	5240	16	15.92	1.86%	0.465	0.474	184

According to KDB447498 D01v05 the 1-g SAR for the highest output channel is less than 0.8 W/kg, where the transmission band corresponding to all channels is ≤ 100 MHz, testing for the other channels is not required.

Refer to section 1.5 (6) for justification of test reduction for body-worn configuration testing

WLAN802.11 n (20M) 5.3G

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
Head	Right cheek	-	52	5260	16	15.95	1.16%	0.047	0.048	185
	Right tilt	-	52	5260	16	15.95	1.16%	0.038	0.038	186
	Left cheek	-	52	5260	16	15.95	1.16%	0.195	0.197	187
	Left cheek	-	64	5320	16	15.9	2.33%	0.272	0.278	188
	Left tilt	-	52	5260	16	15.95	1.16%	0.102	0.103	189
Hotspot	Front	10mm	52	5260	16	15.95	1.16%	0.042	0.042	190
	Back	10mm	52	5260	16	15.95	1.16%	0.438	0.443	191
	Top	10mm	52	5260	16	15.95	1.16%	0.025	0.025	192
	Right	10mm	52	5260	16	15.95	1.16%	0.469	0.474	193
	Right	10mm	64	5320	16	15.9	2.33%	0.356	0.364	194

According to KDB447498 D01v05 the 1-g SAR for the highest output channel is less than 0.8 W/kg, where the transmission band corresponding to all channels is ≤ 100 MHz, testing for the other channels is not required.

Refer to section 1.5 (6) for justification of test reduction for body-worn configuration testing

WLAN802.11 n (20M) 5.5G

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
Head	Right cheek	-	100	5500	16	15.99	0.23%	0.00348	0.003	195
	Right tilt	-	100	5500	16	15.99	0.23%	0.00949	0.010	196
	Left cheek	-	100	5500	16	15.99	0.23%	0.092	0.092	197
	Left cheek	-	116	5580	16	15.98	0.46%	0.06	0.060	198
	Left cheek	-	140	5700	13.5	13.37	3.04%	0.022	0.023	199
	Left tilt	-	100	5500	16	15.99	0.23%	0.041	0.041	200
Hotspot	Front	10mm	100	5500	16	15.99	0.23%	0.021	0.021	201
	Back	10mm	100	5500	16	15.99	0.23%	0.087	0.087	202
	Top	10mm	100	5500	16	15.99	0.23%	0.014	0.014	203
	Right	10mm	100	5500	16	15.99	0.23%	0.102	0.102	204
	Right	10mm	116	5580	16	15.98	0.46%	0.071	0.071	205
	Right	10mm	140	5700	13.5	13.37	3.04%	0.023	0.024	206

As per KDB447498 D01v05, while the 1g/SAR at the channel of highest output power is less than 0.4 W/kg, where the transmission band corresponding to all channels is ≤ 200 MHz, testing for the other channels is not required

Refer to section 1.5 (6) for justification of test reduction for body-worn configuration testing

WLAN802.11 n (20M) 5.8G

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
Head	Right cheek	-	165	5825	16	15.98	0.46%	0.039	0.039	207
	Right tilt	-	165	5825	16	15.98	0.46%	0.018	0.018	208
	Left cheek	-	149	5745	16	15.95	1.16%	0.049	0.050	209
	Left cheek	-	157	5785	16	15.91	2.09%	0.054	0.055	210
	Left cheek	-	165	5825	16	15.98	0.46%	0.092	0.092	211
	Left tilt	-	165	5825	16	15.98	0.46%	0.027	0.027	212
Hotspot	Front	10mm	165	5825	16	15.98	0.46%	0.011	0.011	213
	Back	10mm	149	5745	16	15.95	1.16%	0.041	0.041	214
	Back	10mm	157	5785	16	15.91	2.09%	0.033	0.034	215
	Back	10mm	165	5825	16	15.98	0.46%	0.042	0.042	216
	Top	10mm	165	5825	16	15.98	0.46%	0.00292	0.003	217
	Right	10mm	165	5825	16	15.98	0.46%	0.038	0.038	218

According to KDB447498 D01v05 the 1-g SAR for the highest output channel is less than 0.8 W/kg, where the transmission band corresponding to all channels is ≤ 100 MHz, testing for the other channels is not required.

Refer to section 1.5 (6) for justification of test reduction for body-worn configuration testing

WLAN802.11 n (40M) 5.2G

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
Head	Right cheek	-	46	5230	16	15.92	1.86%	0.043	0.044	219
	Right tilt	-	46	5230	16	15.92	1.86%	0.034	0.035	220
	Left cheek	-	38	5190	12.5	12.09	9.90%	0.057	0.063	221
	Left cheek	-	46	5230	16	15.92	1.86%	0.188	0.191	222
	Left tilt	-	46	5230	16	15.92	1.86%	0.098	0.100	223
Hotspot	Front	10mm	46	5230	16	15.92	1.86%	0.044	0.045	224
	Back	10mm	46	5230	16	15.92	1.86%	0.518	0.528	225
	Top	10mm	46	5230	16	15.92	1.86%	0.029	0.030	226
	Right	10mm	38	5190	12.5	12.09	9.90%	0.178	0.196	227
	Right	10mm	46	5230	16	15.92	1.86%	0.548	0.558	228

According to KDB447498 D01v05 the 1-g SAR for the highest output channel is less than 0.8 W/kg, where the transmission band corresponding to all channels is ≤ 100 MHz, testing for the other channels is not required.

Refer to section 1.5 (6) for justification of test reduction for body-worn configuration testing

WLAN802.11 n (40M) 5.3G

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
Head	Right cheek	-	54	5270	16	15.88	2.80%	0.041	0.042	229
	Right tilt	-	54	5270	16	15.88	2.80%	0.032	0.033	230
	Left cheek	-	54	5270	16	15.88	2.80%	0.182	0.187	231
	Left cheek	-	62	5310	13	12.51	11.94%	0.098	0.110	232
	Left tilt	-	54	5270	16	15.88	2.80%	0.095	0.098	233
Hotspot	Front	10mm	54	5270	16	15.88	2.80%	0.035	0.036	234
	Back	10mm	54	5270	16	15.88	2.80%	0.541	0.556	235
	Top	10mm	54	5270	16	15.88	2.80%	0.033	0.034	236
	Right	10mm	54	5270	16	15.88	2.80%	0.602	0.619	237
	Right	10mm	62	5310	13	12.51	11.94%	0.213	0.238	238

According to KDB447498 D01v05 the 1-g SAR for the highest output channel is less than 0.8 W/kg, where the transmission band corresponding to all channels is ≤ 100 MHz, testing for the other channels is not required.

Refer to section 1.5 (6) for justification of test reduction for body-worn configuration testing

WLAN802.11 n (40M) 5.5G

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
Head	Right cheek	-	134	5670	16	15.94	1.39%	0.00927	0.009	239
	Right tilt	-	134	5670	16	15.94	1.39%	0.015	0.015	240
	Left cheek	-	102	5510	12.5	12.23	6.41%	0.061	0.065	241
	Left cheek	-	118	5590	16	15.79	4.95%	0.072	0.076	242
	Left cheek	-	134	5670	16	15.94	1.39%	0.056	0.057	243
	Left tilt	-	134	5670	16	15.94	1.39%	0.021	0.021	244
Hotspot	Front	10mm	134	5670	16	15.94	1.39%	0.00147	0.001	245
	Back	10mm	134	5670	16	15.94	1.39%	0.011	0.011	246
	Top	10mm	134	5670	16	15.94	1.39%	0.00751	0.008	247
	Right	10mm	102	5510	12.5	12.23	6.41%	0.066	0.070	248
	Right	10mm	118	5590	16	15.79	4.95%	0.047	0.049	249
	Right	10mm	134	5670	16	15.94	1.39%	0.028	0.028	250

As per KDB447498 D01v05, while the 1g/SAR at the channel of highest output power is less than 0.4 W/kg, where the transmission band corresponding to all channels is ≤ 200 MHz, testing for the other channels is not required

Refer to section 1.5 (6) for justification of test reduction for body-worn configuration testing

WLAN802.11 n (40M) 5.8G

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
Head	Right cheek	-	151	5755	16	15.98	0.46%	0.042	0.042	251
	Right tilt	-	151	5755	16	15.98	0.46%	0.014	0.014	252
	Left cheek	-	151	5755	16	15.98	0.46%	0.046	0.046	253
	Left cheek	-	159	5795	16	15.97	0.69%	0.048	0.048	254
	Left tilt	-	151	5755	16	15.98	0.46%	0.018	0.018	255
Hotspot	Front	10mm	151	5755	16	15.98	0.46%	0.00836	0.008	256
	Back	10mm	151	5755	16	15.98	0.46%	0.043	0.043	257
	Top	10mm	151	5755	16	15.98	0.46%	0.017	0.017	258
	Right	10mm	151	5755	16	15.98	0.46%	0.043	0.043	259
	Right	10mm	159	5795	16	15.97	0.69%	0.039	0.039	260

According to KDB447498 D01v05 the 1-g SAR for the highest output channel is less than 0.8 W/kg, where the transmission band corresponding to all channels is ≤ 100 MHz, testing for the other channels is not required.

Refer to section 1.5 (6) for justification of test reduction for body-worn configuration testing

Simultaneous Tramsmission Scenarios

Simultaneous Transmit Configurations	Head	Hot Spot
GSM850/1900 Voice + 2.4GHz Wi-Fi	Yes	No
GSM850/1900 Voice + 5GHz Wi-Fi	Yes	No
GPRS850/1900 Data + 2.4GHz Wi-Fi	No	Yes
GPRS850/1900 Data + 5GHz Wi-Fi	No	Yes
GSM850/1900 Data + 2.4GHz Bluetooth	No	Yes
Notes: Bluetooth, 5GHz WiFi, and 2.4GHz WiFi share the same antenna path and cannot transmit simultaneously		

Simultaneous Transmission Combination

reported SAR max WWAN and WLAN DTS 2.4GHz, ΣSAR evaluation							
Frequency band	Position		reported SAR / W/kg		ΣSAR	Calculated distance (mm)	SPLSR (≦0.04)
			WWAN	WLAN	<1.6W/kg		
GSM 850	Head	Right cheek	0.653	0.285	0.938	-	-
		Right tilt	0.281	0.173	0.454	-	-
		Left cheek	0.442	0.754	1.196	-	-
		Left tilt	0.277	0.318	0.595	-	-
GPRS 850 (1Dn3UP)	Hotspot	Front	0.713	0.106	0.819	-	-
		Back	0.854	0.806	**1.66**	53.7	0.040
		Top	-	0.049	-	-	-
		Bottom	0.138	-	-	-	-
		Right	0.383	0.4	0.783	-	-
		Left	0.418	-	-	-	-
GSM 1900	Head	Right cheek	0.251	0.285	0.536	-	-
		Right tilt	0.097	0.173	0.27	-	-
		Left cheek	0.299	0.754	1.053	-	-
		Left tilt	0.105	0.318	0.423	-	-
GPRS 1900 (1Dn3UP)	Hotspot	Front	0.554	0.106	0.66	-	-
		Back	1.036	0.806	**1.842**	104.7	0.024
		Top	-	0.049	-	-	-
		Bottom	0.965	-	-	-	-
		Right	0.067	0.4	0.467	-	-
		Left	0.244	-	-	-	-

We calculate the peak location separation ratio of simultaneous transmitting antenna pair, the SPLSR value is 0.04 & 0.024 with less than 0.04. According to KDB447498 D01v05 simultaneous transmission SAR evaluation is not required.

reported SAR max WWAN and WLAN DTS 5.8GHz, ΣSAR evaluation							
Frequency band	Position		reported SAR / W/kg		ΣSAR	Calculated distance (mm)	SPLSR (≦0.04)
			WWAN	WLAN	<1.6W/kg		
GSM 850	Head	Right cheek	0.653	0.042	0.695	-	-
		Right tilt	0.281	0.018	0.299	-	-
		Left cheek	0.442	0.092	0.534	-	-
		Left tilt	0.277	0.027	0.304	-	-
GPRS 850 (1Dn3UP)	Hotspot	Front	0.713	0.013	0.726	-	-
		Back	0.854	0.045	0.899	-	-
		Top	-	0.017	-	-	-
		Bottom	0.138	-	-	-	-
		Right	0.383	0.048	0.431	-	-
		Left	0.418	-	-	-	-
GSM 1900	Head	Right cheek	0.251	0.042	0.293	-	-
		Right tilt	0.097	0.018	0.115	-	-
		Left cheek	0.299	0.092	0.391	-	-
		Left tilt	0.105	0.027	0.132	-	-
GPRS 1900 (1Dn3UP)	Hotspot	Front	0.554	0.013	0.567	-	-
		Back	1.036	0.045	1.081	-	-
		Top	-	0.017	-	-	-
		Bottom	0.965	-	-	-	-
		Right	0.067	0.048	0.115	-	-
		Left	0.244	-	-	-	-

reported SAR max WWAN and WLAN UNII 5GHz, ΣSAR evaluation							
Frequency band	Position		reported SAR / W/kg		ΣSAR	Calculated distance (mm)	SPLSR (≦0.04)
			WWAN	WLAN	<1.6W/kg		
GSM 850	Head	Right cheek	0.653	0.051	0.704	-	-
		Right tilt	0.281	0.038	0.319	-	-
		Left cheek	0.442	0.307	0.749	-	-
		Left tilt	0.277	0.103	0.38	-	-
GPRS 850 (1Dn3UP)	Hotspot	Front	0.713	0.062	0.775	-	-
		Back	0.854	0.556	1.41	-	-
		Top	-	0.034	-	-	-
		Bottom	0.138	-	-	-	-
		Right	0.383	0.634	1.017	-	-
		Left	0.418	-	-	-	-
GSM 1900	Head	Right cheek	0.251	0.051	0.302	-	-
		Right tilt	0.097	0.038	0.135	-	-
		Left cheek	0.299	0.307	0.606	-	-
		Left tilt	0.105	0.103	0.208	-	-
GPRS 1900 (1Dn3UP)	Hotspot	Front	0.554	0.062	0.616	-	-
		Back	1.036	0.556	1.592	-	-
		Top	-	0.034	-	-	-
		Bottom	0.965	-	-	-	-
		Right	0.067	0.634	0.701	-	-
		Left	0.244	-	-	-	-

reported SAR max WWAN and Bluetooth, ΣSAR evaluation							
Frequency band	Position		reported SAR / W/kg		ΣSAR	Calculated distance (mm)	SPLSR (≦0.04)
			WWAN	Bluetooth	<1.6W/kg		
GPRS 850 (1Dn3UP)	Hotspot	Front	0.713	0.195	0.908	-	-
		Back	0.854	0.195	1.049	-	-
		Top	-	0.195	-	-	-
		Bottom	0.138	-	-	-	-
		Right	0.383	0.195	0.578	-	-
		Left	0.418	-	-	-	-
GPRS 1900 (1Dn3UP)	Hotspot	Front	0.554	0.195	0.749	-	-
		Back	1.036	0.195	1.231	-	-
		Top	-	0.195	-	-	-
		Bottom	0.965	-	-	-	-
		Right	0.067	0.195	0.262	-	-
		Left	0.244	-	-	-	-

3. Instruments List

Device	Manufacturer	Type	Serial number	Date of last calibration	Date of next calibration
Dosimetric E-Field Probe	Schmid & Partner Engineering AG	EX3DV4	3848	Jun.04,2012	Jun.03,2013
835/1900/2450/5200/5500/5800 MHz System Validation Dipole	Schmid & Partner Engineering AG	D835V2	4d063	May25,2012	May24,2013
		D1900V2	5d027	Apr.26,2012	Apr.25,2013
		D2450V2	727	Apr.25,2012	Apr.24,2013
		D5GHzV2	1104	Apr.18,2012	Apr.17,2013
Data acquisition Electronics	Schmid & Partner Engineering AG	DAE4	1336	Jun.05,2012	Jun.04,2013
Software	Schmid & Partner Engineering AG	DASY 52 V52.8	N/A	Calibration not required	Calibration not required
Phantom	Schmid & Partner Engineering AG	SAM	N/A	Calibration not required	Calibration not required
Network Analyzer	Agilent	E5071C	MY46107530	Feb.16,2012	Feb.15,2013
Dielectric Probe Kit	Agilent	85070E	MY44300677	Calibration not required	Calibration not required
Dual-directional coupler	Agilent	772D	MY46151242	Jul.05,2012	Jul.04,2013
		778D	MY48220468	Mar.30,2012	Mar.29,2013
RF Signal Generator	Agilent	N5181A	MY50141235	Dec.12,2010	Dec.11,2013
Power Meter	Agilent	E4417A	MY51410006	Oct.24,2011	Oct.23,2013
Radio Communication Test	R&S	CMU200	122498	Jun.27,2012	Jun.26,2013
TECPEL	Digital thermometer	DTM-303A	TP102615	Mar.08,2012	Mar.07,2013
Power Meter	Anritsu	ML2495A	1005007	Feb.08,2012	Feb.07,2014
Power Sensor	Anritsu	MA2411B	917032	Feb.08,2012	Feb.07,2014
Spectrum Analyzer	Agilent	E4446A	MY51100003	Apr.15,2011	Apr.14,2013
Spectrum Analyzer	Agilent	E4440A	MY45304525	Mar.17,2012	Mar.16,2014

4. Measurements

Date: 2012/11/9

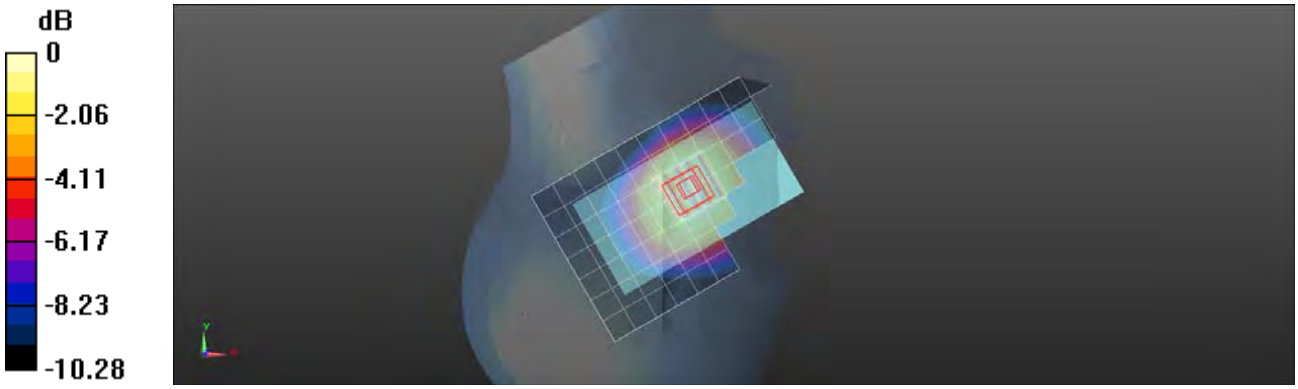
RE Cheek_CH128

Communication System: GSM; Frequency: 824.2 MHz
Medium parameters used: f = 824.2 MHz; σ = 0.877 mho/m; ε_r = 41.208; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(8.9, 8.9, 8.9); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.372 mW/g

Configuration/RE Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.043 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.413 mW/g
SAR(1 g) = 0.329 mW/g; SAR(10 g) = 0.246 mW/g
Maximum value of SAR (measured) = 0.375 mW/g



0 dB = 0.375 mW/g = -8.52 dB mW/g

Date: 2012/11/9

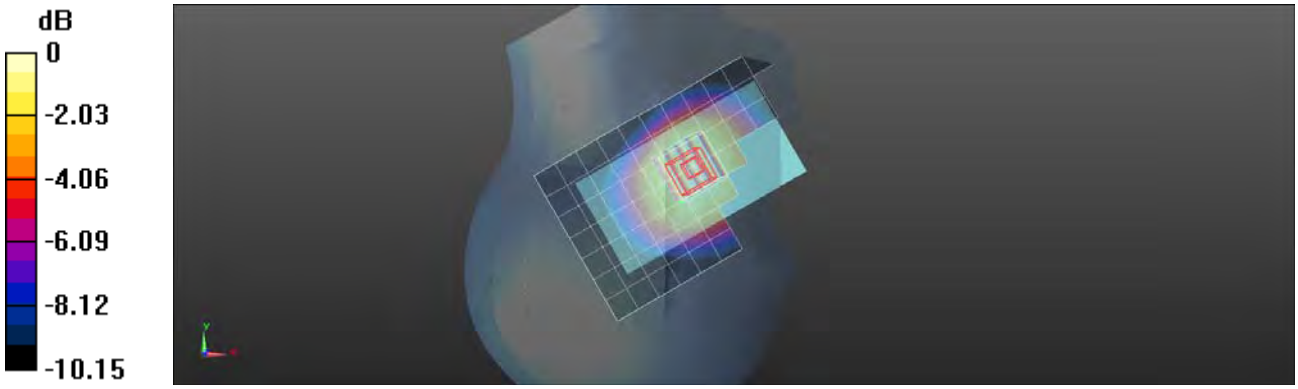
RE Cheek_CH190

Communication System: GSM; Frequency: 836.6 MHz
Medium parameters used: f = 837 MHz; σ = 0.887 mho/m; ε_r = 41.043; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(8.9, 8.9, 8.9); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.526 mW/g

Configuration/RE Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.601 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.569 mW/g
SAR(1 g) = 0.458 mW/g; SAR(10 g) = 0.341 mW/g
Maximum value of SAR (measured) = 0.524 mW/g



0 dB = 0.524 mW/g = -5.61 dB mW/g

Date: 2012/11/9

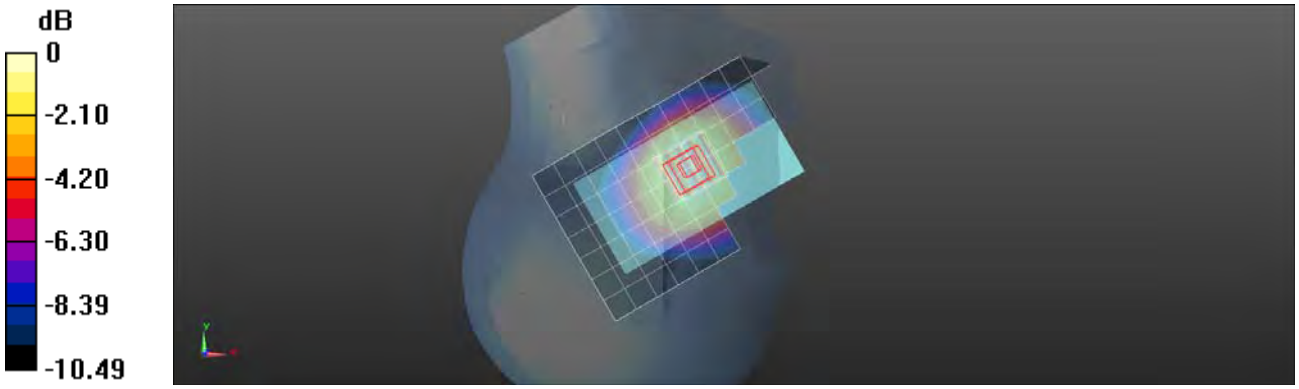
RE Cheek_CH251

Communication System: GSM; Frequency: 848.8 MHz
Medium parameters used: f = 849 MHz; σ = 0.897 mho/m; ε_r = 40.903; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

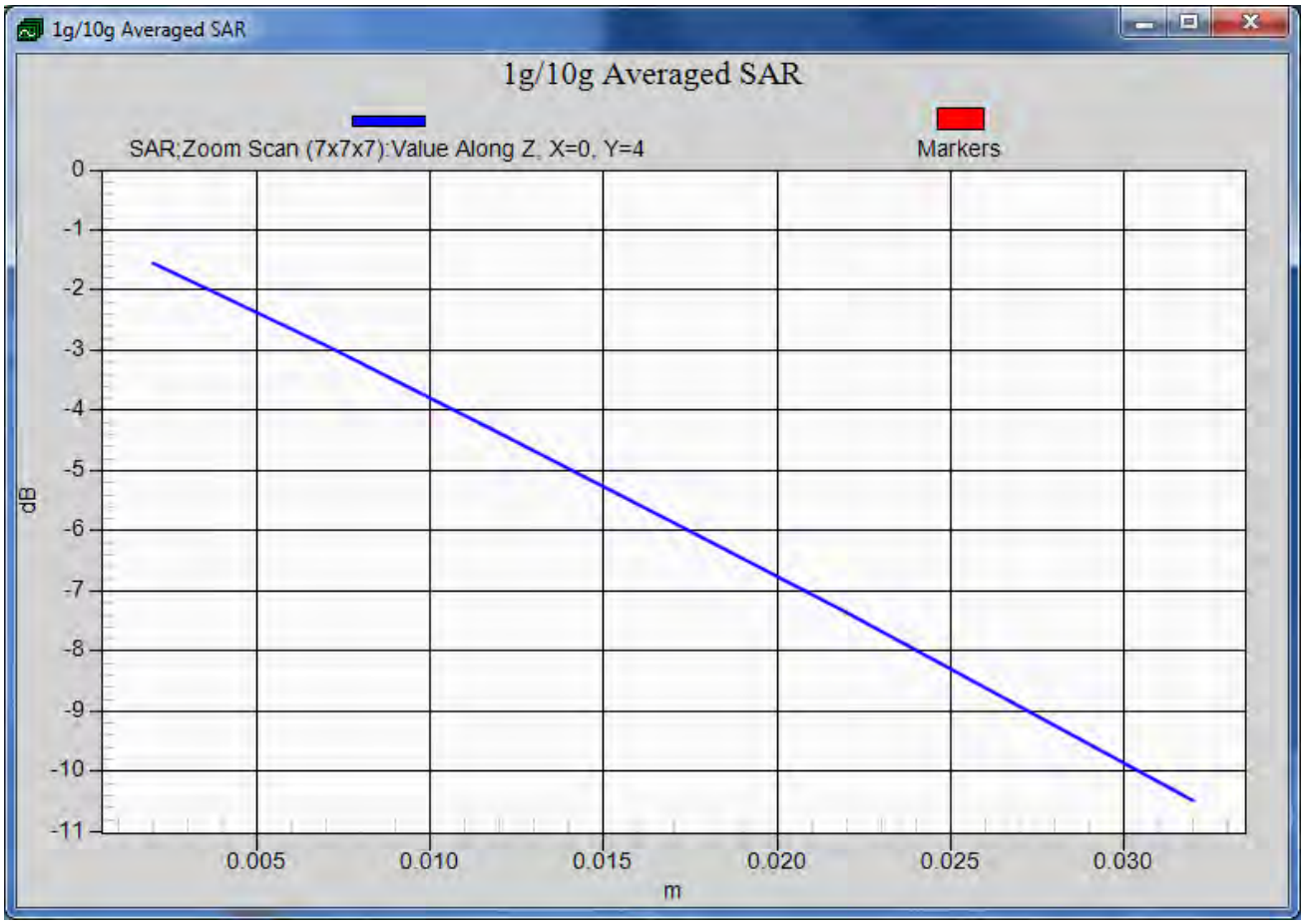
- Probe: EX3DV4 - SN3848; ConvF(8.9, 8.9, 8.9); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.729 mW/g

Configuration/RE Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.487 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.798 mW/g
SAR(1 g) = 0.634 mW/g; SAR(10 g) = 0.471 mW/g
Maximum value of SAR (measured) = 0.719 mW/g



0 dB = 0.719 mW/g = -2.87 dB mW/g



Date: 2012/11/9

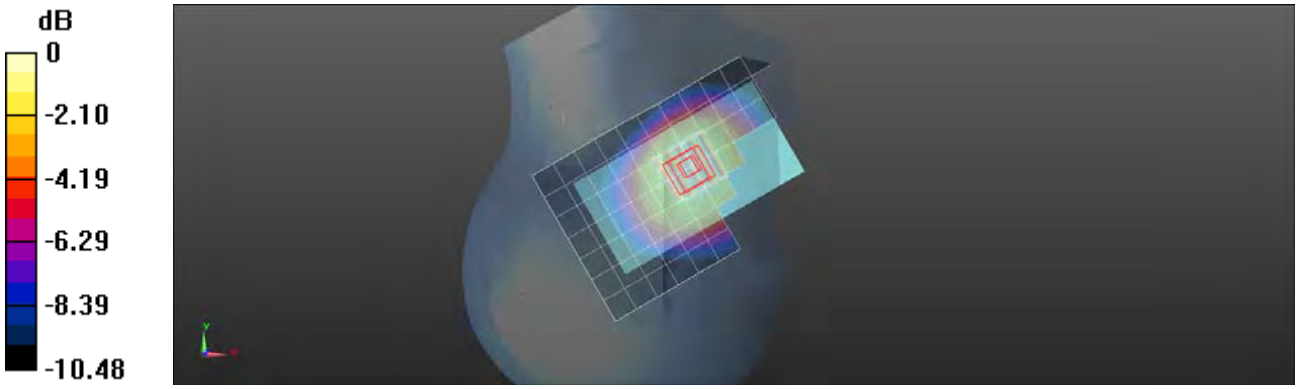
RE Cheek_CH251_repeated with external Memory card inside

Communication System: GSM; Frequency: 848.8 MHz
Medium parameters used: f = 849 MHz; σ = 0.897 mho/m; ε_r = 40.903; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(8.9, 8.9, 8.9); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.711 mW/g

Configuration/RE Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.554 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 0.779 mW/g
SAR(1 g) = 0.619 mW/g; SAR(10 g) = 0.459 mW/g
Maximum value of SAR (measured) = 0.702 mW/g



0 dB = 0.702 mW/g = -3.07 dB mW/g

Date: 2012/11/9

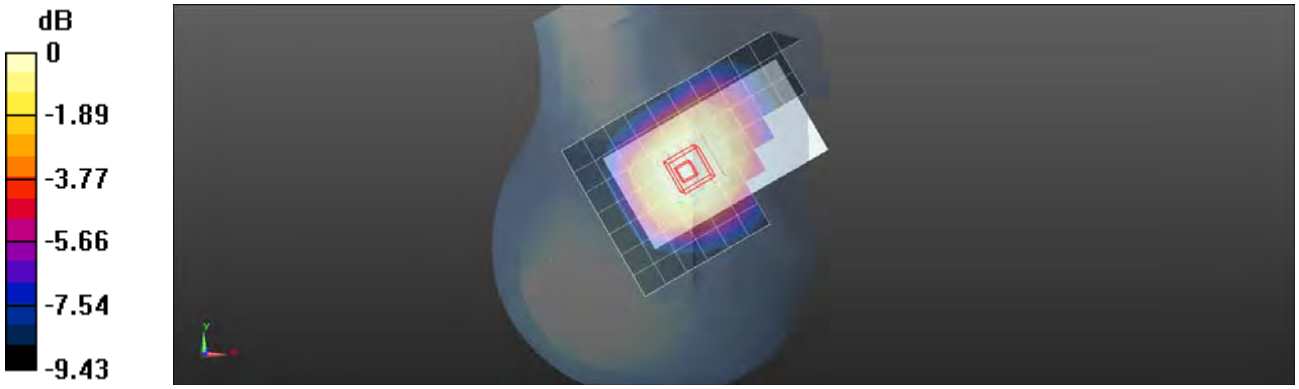
RE Tilt_CH190

Communication System: GSM; Frequency: 836.6 MHz
Medium parameters used: f = 837 MHz; σ = 0.887 mho/m; ε_r = 41.043; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(8.9, 8.9, 8.9); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.299 mW/g

Configuration/RE Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.197 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.328 mW/g
SAR(1 g) = 0.259 mW/g; SAR(10 g) = 0.192 mW/g
Maximum value of SAR (measured) = 0.297 mW/g



0 dB = 0.297 mW/g = -10.54 dB mW/g

Date: 2012/11/9

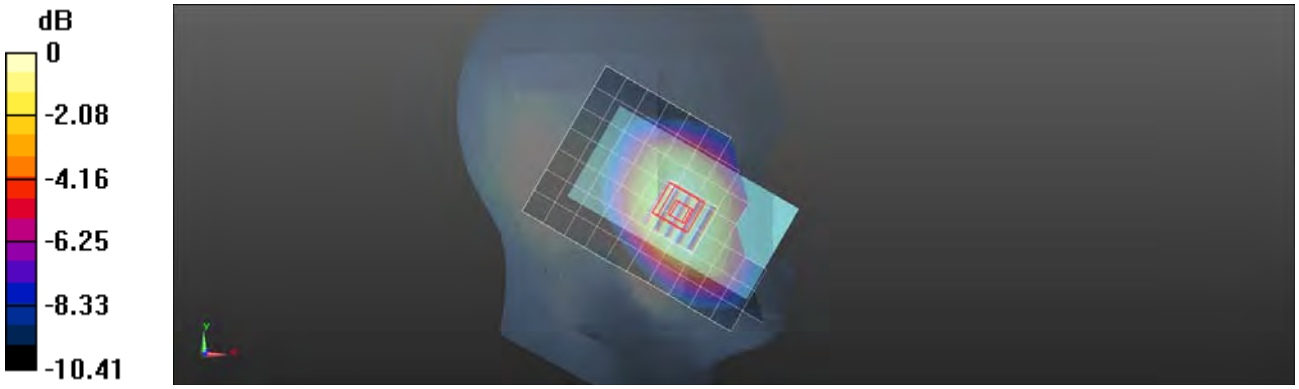
LE Cheek_CH190

Communication System: GSM; Frequency: 836.6 MHz
Medium parameters used: f = 837 MHz; σ = 0.887 mho/m; ε_r = 41.043; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(8.9, 8.9, 8.9); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.475 mW/g

Configuration/LE Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.586 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.523 mW/g
SAR(1 g) = 0.407 mW/g; SAR(10 g) = 0.298 mW/g
Maximum value of SAR (measured) = 0.472 mW/g



0 dB = 0.472 mW/g = -6.52 dB mW/g

Date: 2012/11/9

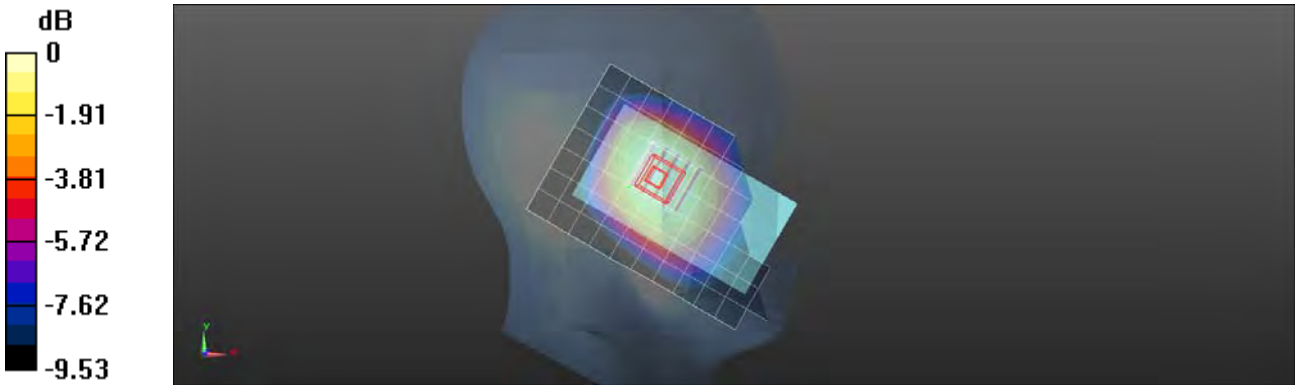
LE Tilt_CH190

Communication System: GSM; Frequency: 836.6 MHz
Medium parameters used: f = 837 MHz; σ = 0.887 mho/m; ε_r = 41.043; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(8.9, 8.9, 8.9); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.297 mW/g

Configuration/LE Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.335 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.323 mW/g
SAR(1 g) = 0.255 mW/g; SAR(10 g) = 0.188 mW/g
Maximum value of SAR (measured) = 0.292 mW/g



0 dB = 0.292 mW/g = -10.69 dB mW/g

Date: 2012/11/9

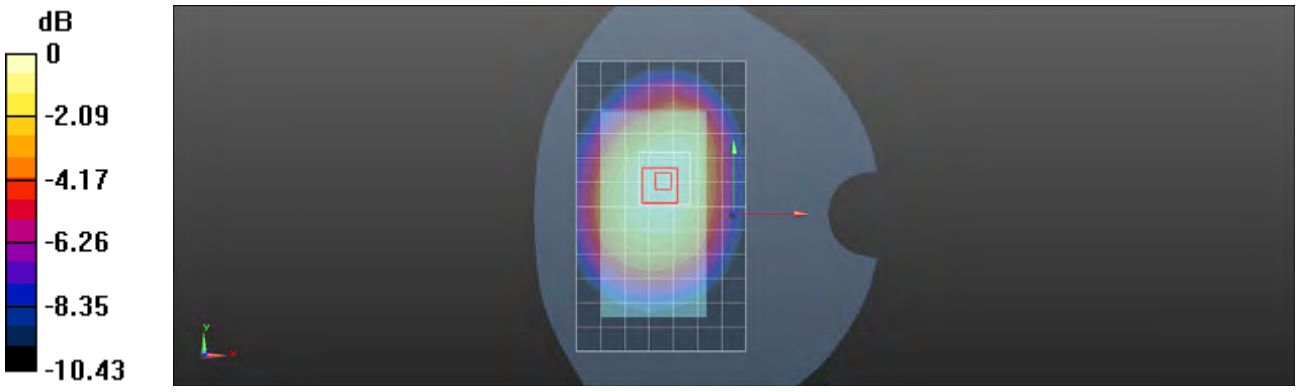
Speech mode_Front side_CH190_ repeated with headset (MH410C) _15mm

Communication System: GSM; Frequency: 836.6 MHz
Medium parameters used: f = 837 MHz; σ = 1.008 mho/m; ε_r = 54.693; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(9.11, 9.11, 9.11); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.428 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.936 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.492 mW/g
SAR(1 g) = 0.368 mW/g; SAR(10 g) = 0.269 mW/g
Maximum value of SAR (measured) = 0.436 mW/g



0 dB = 0.436 mW/g = -7.21 dB mW/g

Date: 2012/11/9

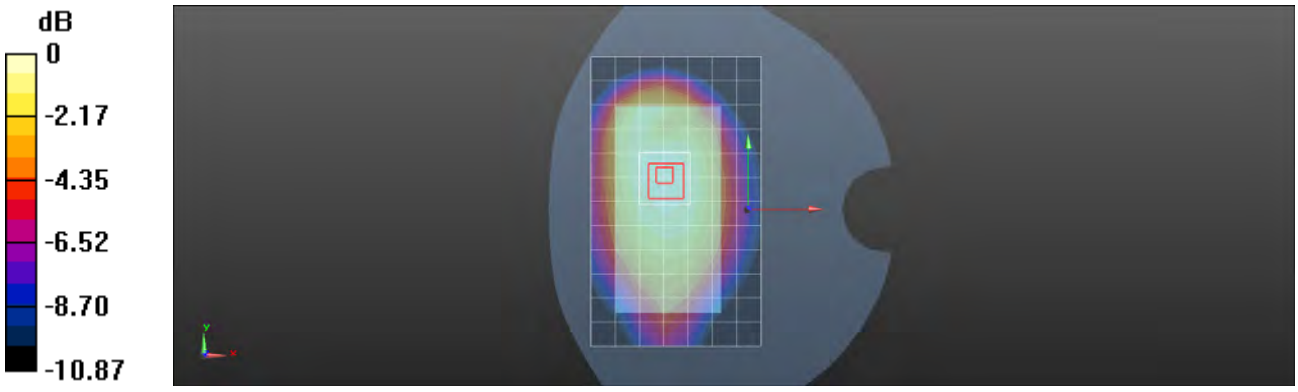
Speech mode_Back side_CH190_ repeated with headset (MH410C) _15mm

Communication System: GSM; Frequency: 836.6 MHz
Medium parameters used: f = 837 MHz; σ = 1.008 mho/m; ε_r = 54.693; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(9.11, 9.11, 9.11); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.288 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.724 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.337 mW/g
SAR(1 g) = 0.248 mW/g; SAR(10 g) = 0.178 mW/g
Maximum value of SAR (measured) = 0.295 mW/g



0 dB = 0.295 mW/g = -10.60 dB mW/g

Date: 2012/11/9

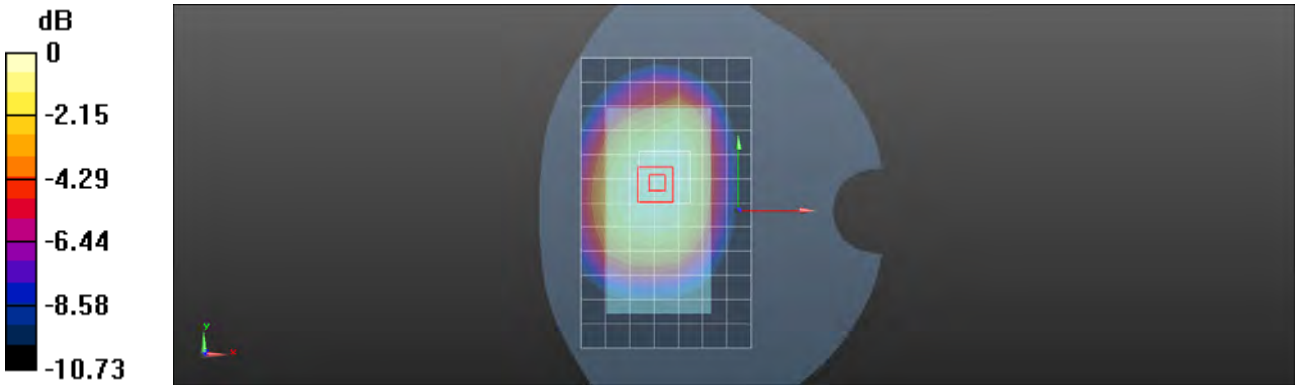
Body-worn_Front side_CH190

Communication System: GPRS (Class 11); Frequency: 836.6 MHz
Medium parameters used: f = 837 MHz; σ = 1.008 mho/m; ε_r = 54.693; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(9.11, 9.11, 9.11); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.806 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.494 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.906 mW/g
SAR(1 g) = 0.689 mW/g; SAR(10 g) = 0.511 mW/g



0 dB = 0.806 mW/g = -1.87 dB mW/g

Date: 2012/11/9

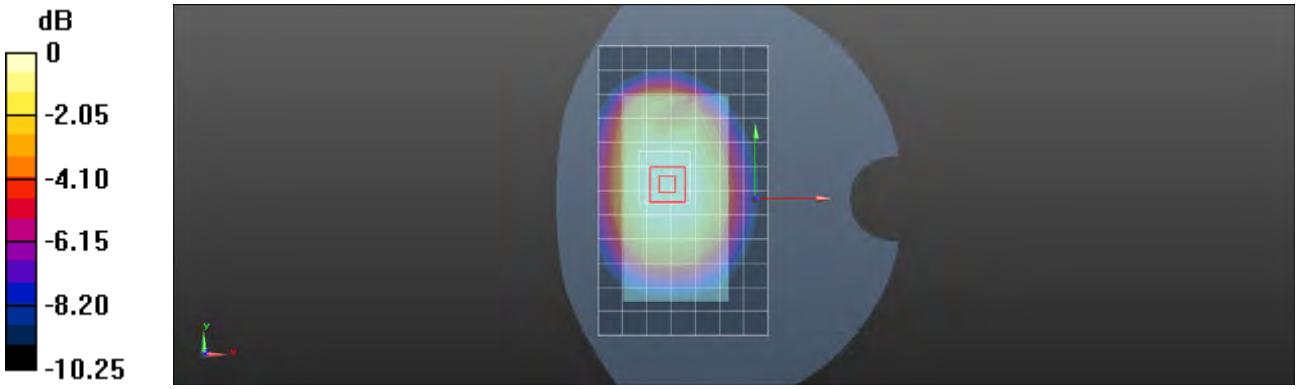
Body-worn_Back side_CH128

Communication System: GPRS (Class 11); Frequency: 824.2 MHz
Medium parameters used: f = 824.2 MHz; σ = 0.995 mho/m; ε_r = 54.805; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(9.11, 9.11, 9.11); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.829 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.961 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.912 mW/g
SAR(1 g) = 0.694 mW/g; SAR(10 g) = 0.515 mW/g
Maximum value of SAR (measured) = 0.813 mW/g



0 dB = 0.813 mW/g = -1.80 dB mW/g

Date: 2012/11/9

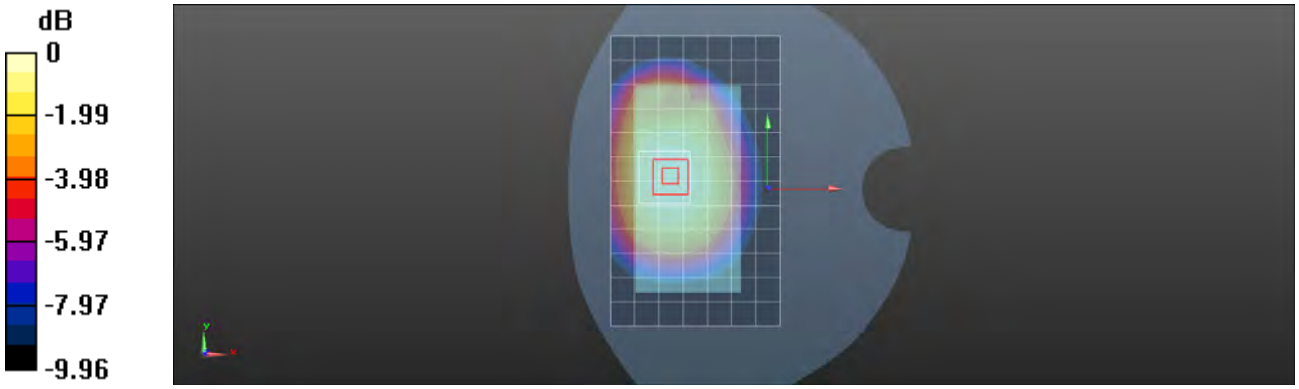
Body-worn_Back side_CH190

Communication System: GPRS (Class 11); Frequency: 836.6 MHz
Medium parameters used: f = 837 MHz; σ = 1.008 mho/m; ε_r = 54.693; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(9.11, 9.11, 9.11); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.806 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.658 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.928 mW/g
SAR(1 g) = 0.703 mW/g; SAR(10 g) = 0.520 mW/g
Maximum value of SAR (measured) = 0.823 mW/g



0 dB = 0.823 mW/g = -1.69 dB mW/g

Date: 2012/11/9

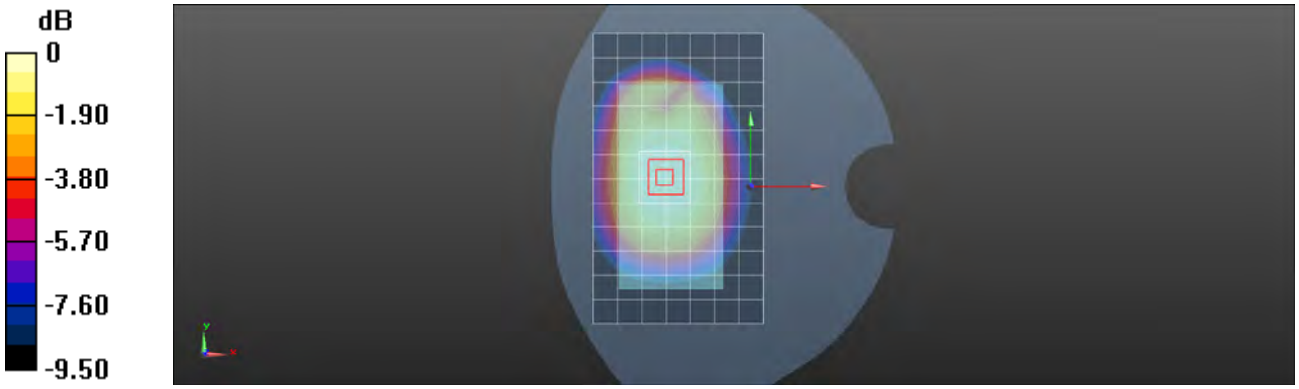
Body-worn_Back side_CH251

Communication System: GPRS (Class 11); Frequency: 848.8 MHz
Medium parameters used: f = 849 MHz; σ = 1.021 mho/m; ε_r = 54.556; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(9.11, 9.11, 9.11); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.995 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.057 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 1.109 mW/g
SAR(1 g) = 0.833 mW/g; SAR(10 g) = 0.617 mW/g
Maximum value of SAR (measured) = 0.985 mW/g



0 dB = 0.985 mW/g = -0.13 dB mW/g

Date: 2012/11/9

Body-worn_Back side_CH251_repeat SAR test at the highest SAR measurement

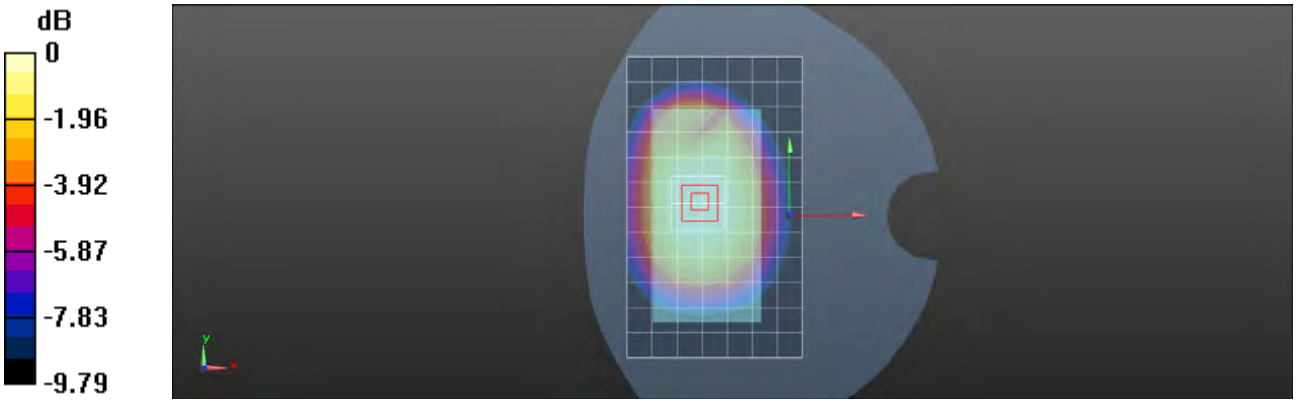
Communication System: GPRS (Class 11); Frequency: 848.8 MHz
Medium parameters used: f = 849 MHz; σ = 1.021 mho/m; ε_r = 54.556; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(9.11, 9.11, 9.11); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.3(988); SEMCAD X 14.6.7(6848)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.951 W/kg

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.111 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.818 W/kg; SAR(10 g) = 0.604 W/kg
Maximum value of SAR (measured) = 0.963 W/kg



0 dB = 0.963 W/kg = -0.21 dBW/kg

Date: 2012/11/9

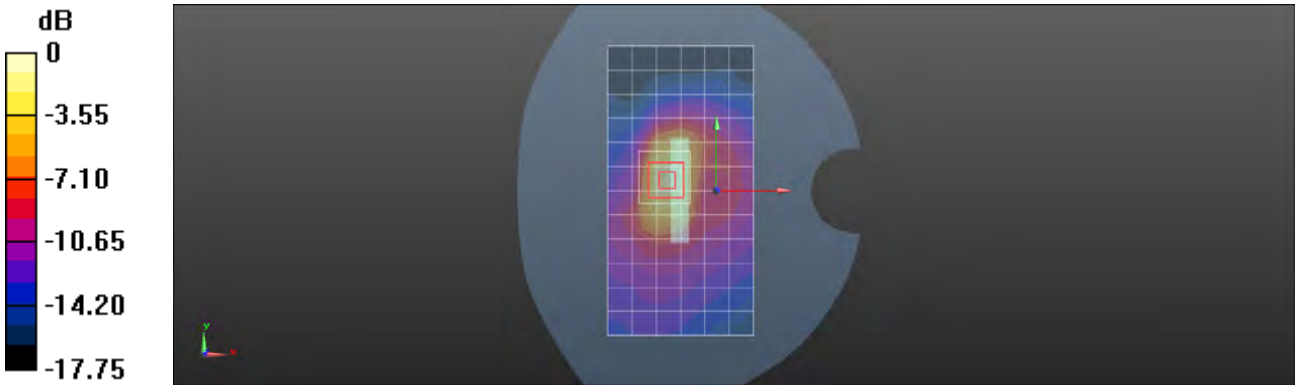
Body-worn_Bottom side_CH190

Communication System: GPRS (Class 11); Frequency: 836.6 MHz
Medium parameters used: f = 837 MHz; σ = 1.008 mho/m; ε_r = 54.693; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(9.11, 9.11, 9.11); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.130 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.805 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.253 mW/g
SAR(1 g) = 0.133 mW/g; SAR(10 g) = 0.069 mW/g
Maximum value of SAR (measured) = 0.187 mW/g



0 dB = 0.187 mW/g = -14.56 dB mW/g

Date: 2012/11/9

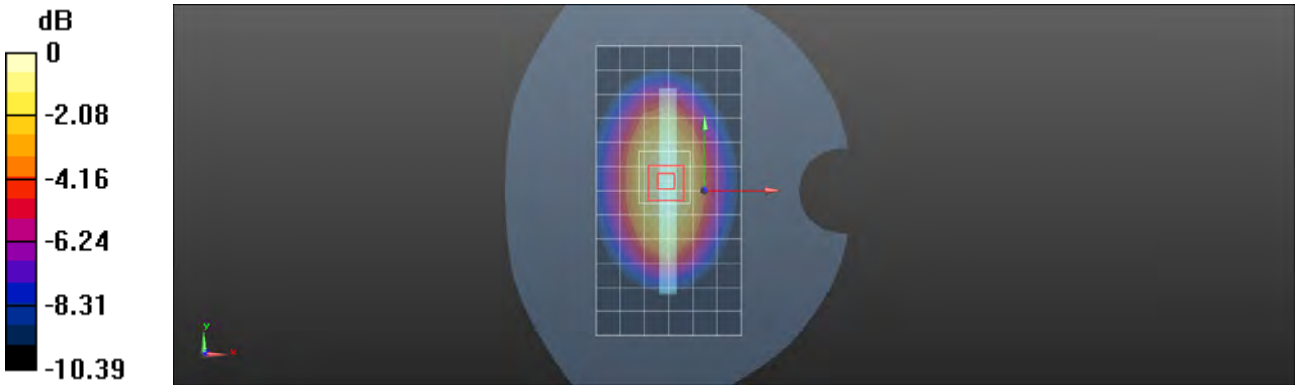
Body-worn_Right side_CH190

Communication System: GPRS (Class 11); Frequency: 836.6 MHz
Medium parameters used: f = 837 MHz; σ = 1.008 mho/m; ε_r = 54.693; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(9.11, 9.11, 9.11); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.452 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.905 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.535 mW/g
SAR(1 g) = 0.370 mW/g; SAR(10 g) = 0.252 mW/g
Maximum value of SAR (measured) = 0.457 mW/g



0 dB = 0.457 mW/g = -6.80 dB mW/g

Date: 2012/11/9

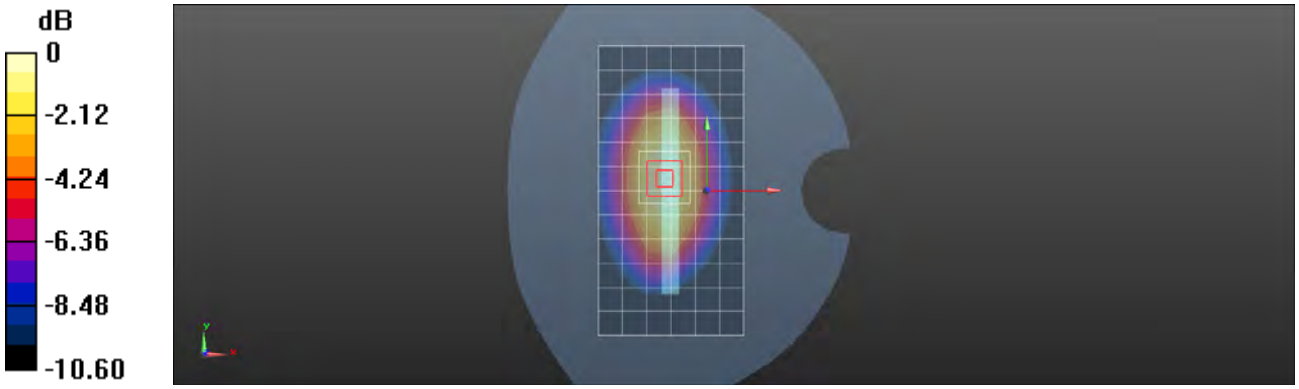
Body-worn_Left side_CH190

Communication System: GPRS (Class 11); Frequency: 836.6 MHz
Medium parameters used: f = 837 MHz; σ = 1.008 mho/m; ε_r = 54.693; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(9.11, 9.11, 9.11); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.475 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.600 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.593 mW/g
SAR(1 g) = 0.404 mW/g; SAR(10 g) = 0.271 mW/g
Maximum value of SAR (measured) = 0.506 mW/g



0 dB = 0.506 mW/g = -5.92 dB mW/g

Date: 2012/11/7

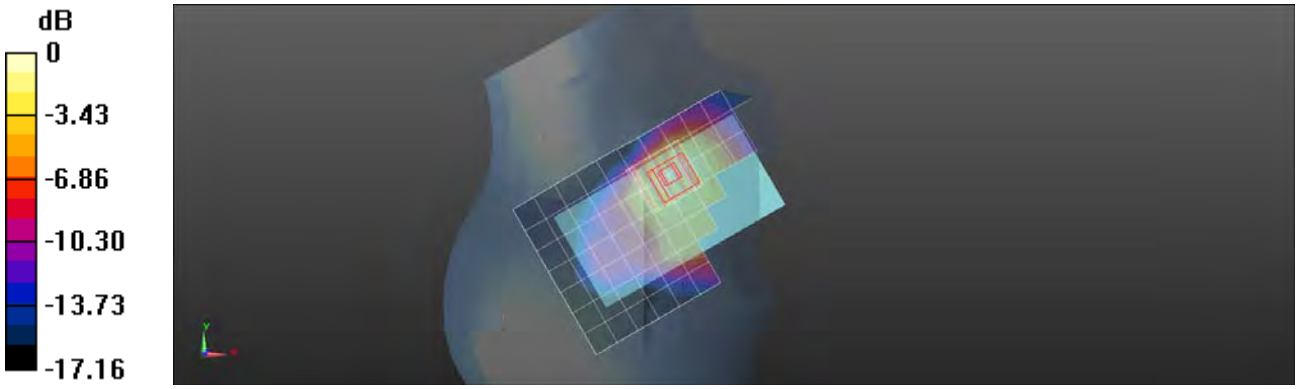
RE Cheek_CH661

Communication System: GSM; Frequency: 1880 MHz
Medium parameters used: f = 1880 MHz; σ = 1.354 mho/m; ε_r = 39.783; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.55, 7.55, 7.55); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.271 mW/g

Configuration/RE Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.668 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.367 mW/g
SAR(1 g) = 0.235 mW/g; SAR(10 g) = 0.142 mW/g
Maximum value of SAR (measured) = 0.304 mW/g



0 dB = 0.304 mW/g = -10.34 dB mW/g

Date: 2012/11/7

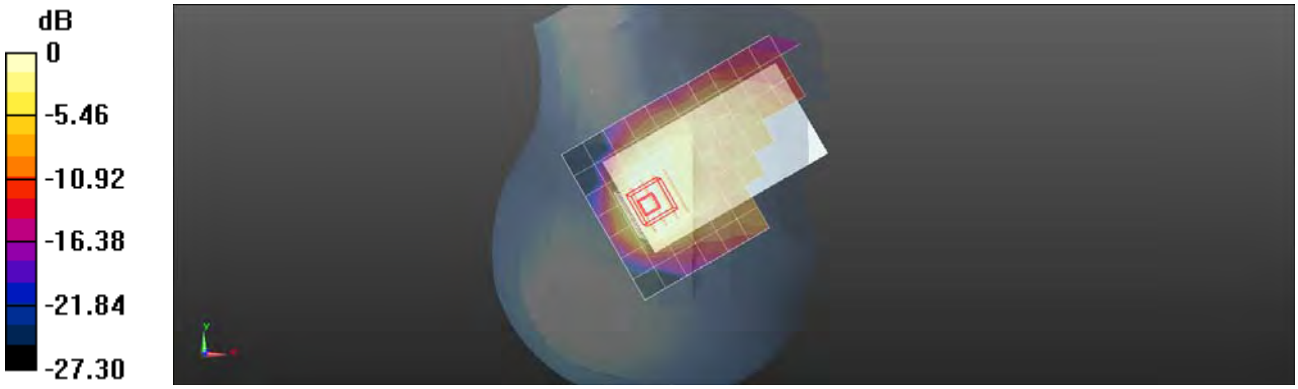
RE Tilt_CH661

Communication System: GSM; Frequency: 1880 MHz
Medium parameters used: f = 1880 MHz; σ = 1.354 mho/m; ε_r = 39.783; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.55, 7.55, 7.55); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.114 mW/g

Configuration/RE Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.678 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.140 mW/g
SAR(1 g) = 0.091 mW/g; SAR(10 g) = 0.054 mW/g
Maximum value of SAR (measured) = 0.117 mW/g



0 dB = 0.117 mW/g = -18.64 dB mW/g

Date: 2012/11/7

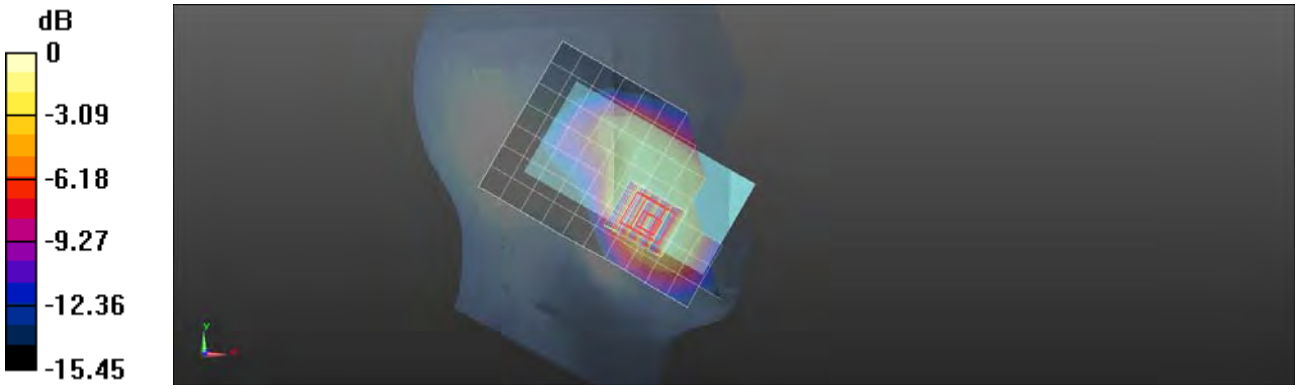
LE Cheek_CH512

Communication System: GSM; Frequency: 1850.2 MHz
Medium parameters used: f = 1850.2 MHz; σ = 1.337 mho/m; ε_r = 39.693; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.55, 7.55, 7.55); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.307 mW/g

Configuration/LE Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.732 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.373 mW/g
SAR(1 g) = 0.241 mW/g; SAR(10 g) = 0.151 mW/g
Maximum value of SAR (measured) = 0.306 mW/g



0 dB = 0.306 mW/g = -10.29 dB mW/g

Date: 2012/11/7

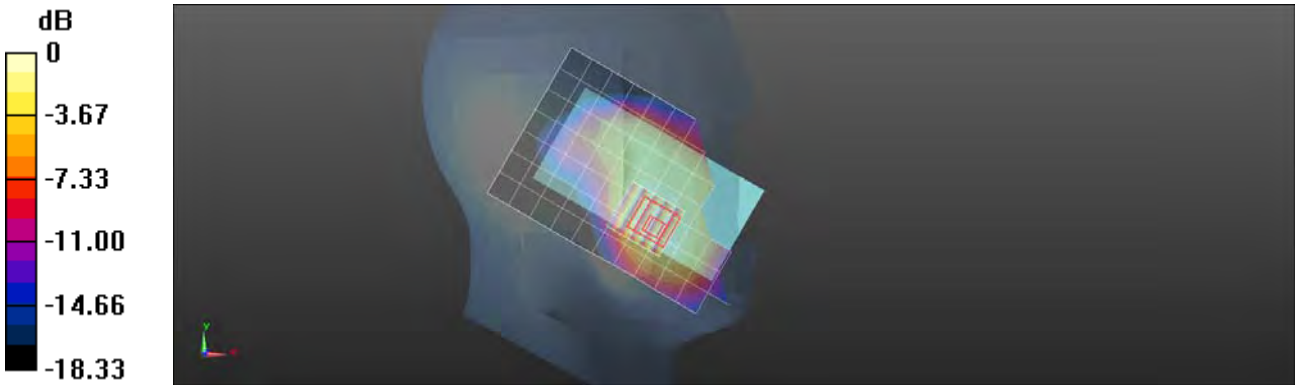
LE Cheek_CH661

Communication System: GSM; Frequency: 1880 MHz
Medium parameters used: f = 1880 MHz; σ = 1.354 mho/m; ε_r = 39.783; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.55, 7.55, 7.55); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.315 mW/g

Configuration/LE Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.977 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.391 mW/g
SAR(1 g) = 0.255 mW/g; SAR(10 g) = 0.160 mW/g
Maximum value of SAR (measured) = 0.320 mW/g



0 dB = 0.320 mW/g = -9.90 dB mW/g

Date: 2012/11/7

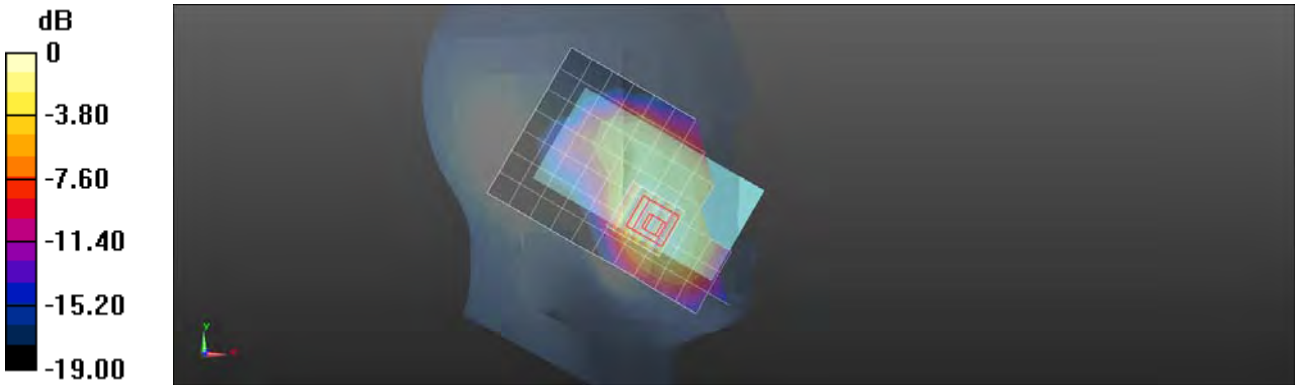
LE Cheek_CH810

Communication System: GSM; Frequency: 1909.8 MHz
Medium parameters used: f = 1910 MHz; σ = 1.37 mho/m; ε_r = 39.423; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.55, 7.55, 7.55); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.359 mW/g

Configuration/LE Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.085 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.443 mW/g
SAR(1 g) = 0.284 mW/g; SAR(10 g) = 0.177 mW/g
Maximum value of SAR (measured) = 0.363 mW/g



0 dB = 0.363 mW/g = -8.80 dB mW/g

Date: 2012/11/7

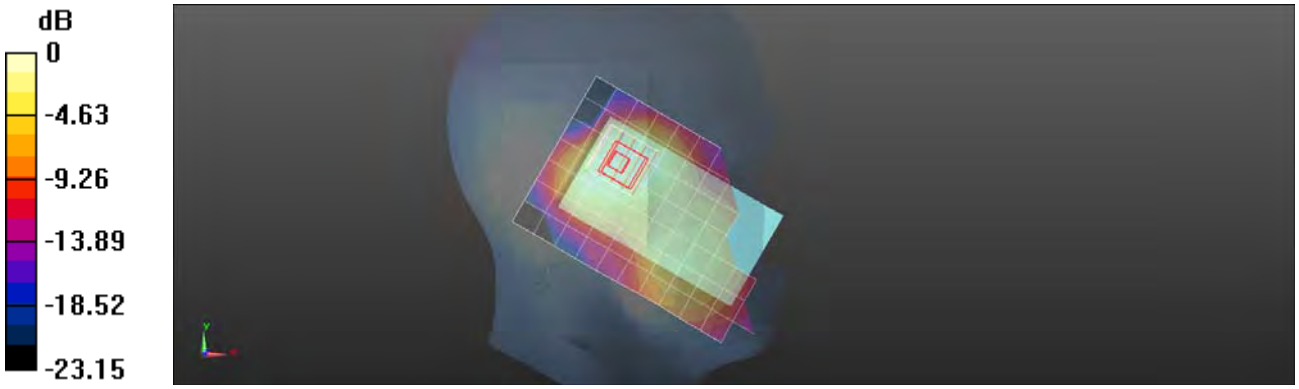
LE Tilt_CH661

Communication System: GSM; Frequency: 1880 MHz
Medium parameters used: f = 1880 MHz; σ = 1.354 mho/m; ε_r = 39.783; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.55, 7.55, 7.55); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Tilt/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.115 mW/g

Configuration/LE Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.731 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.145 mW/g
SAR(1 g) = 0.098 mW/g; SAR(10 g) = 0.062 mW/g
Maximum value of SAR (measured) = 0.124 mW/g



0 dB = 0.124 mW/g = -18.13 dB mW/g

Date: 2012/11/7

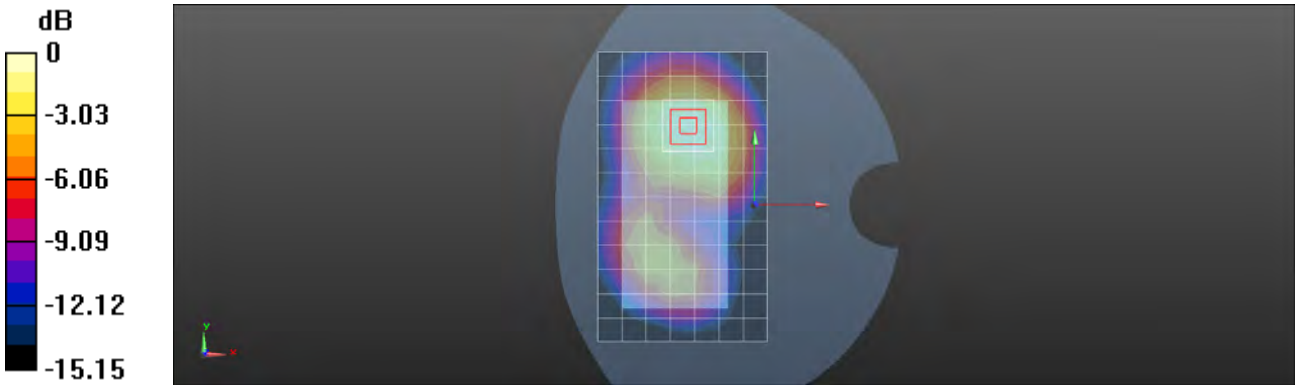
Speech mode_Front side_CH661_ repeated with headset (MH410C) _15mm

Communication System: GSM; Frequency: 1880 MHz
Medium parameters used: f = 1880 MHz; σ = 1.463 mho/m; ε_r = 52.57; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.315 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.240 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.384 mW/g
SAR(1 g) = 0.251 mW/g; SAR(10 g) = 0.160 mW/g
Maximum value of SAR (measured) = 0.321 mW/g



0 dB = 0.321 mW/g = -9.87 dB mW/g

Date: 2012/11/7

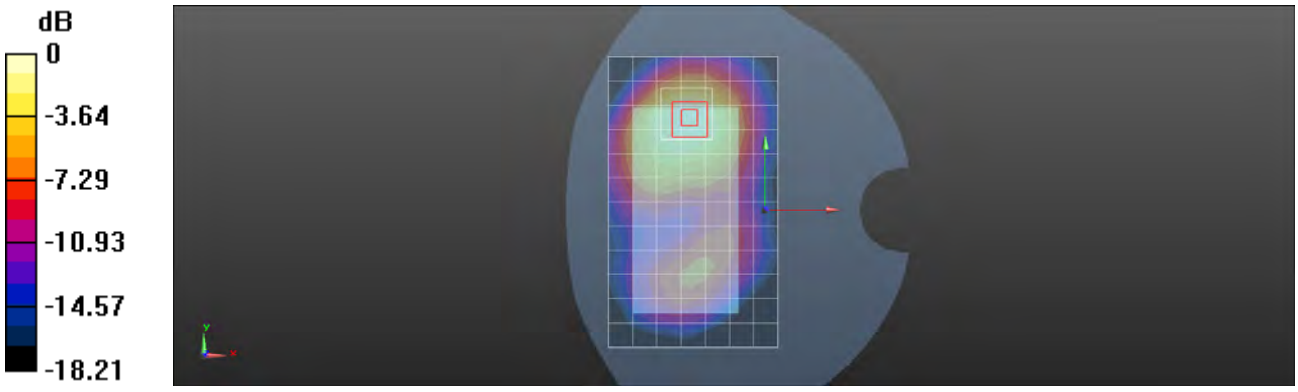
Speech mode_Back side_CH661_ repeated with headset (MH410C) _15mm

Communication System: GSM; Frequency: 1880 MHz
Medium parameters used: f = 1880 MHz; σ = 1.463 mho/m; ε_r = 52.57; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.352 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.765 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.493 mW/g
SAR(1 g) = 0.316 mW/g; SAR(10 g) = 0.193 mW/g
Maximum value of SAR (measured) = 0.406 mW/g



0 dB = 0.406 mW/g = -7.83 dB mW/g

Date: 2012/11/7

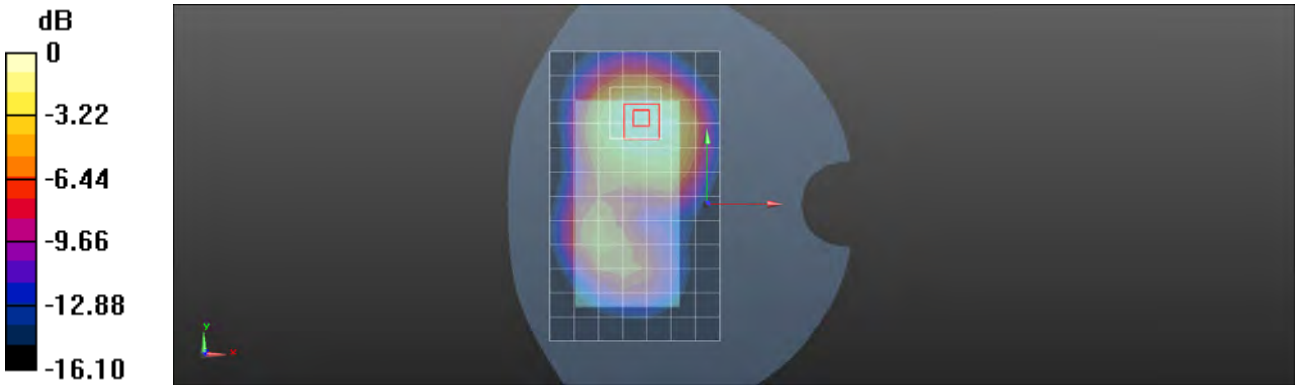
Body-worn_Front side_CH661

Communication System: GPRS (Class 11); Frequency: 1880 MHz
Medium parameters used: f = 1880 MHz; σ = 1.463 mho/m; ε_r = 52.57; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.633 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.539 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.786 mW/g
SAR(1 g) = 0.512 mW/g; SAR(10 g) = 0.328 mW/g
Maximum value of SAR (measured) = 0.645 mW/g



0 dB = 0.645 mW/g = -3.81 dB mW/g

Date: 2012/11/7

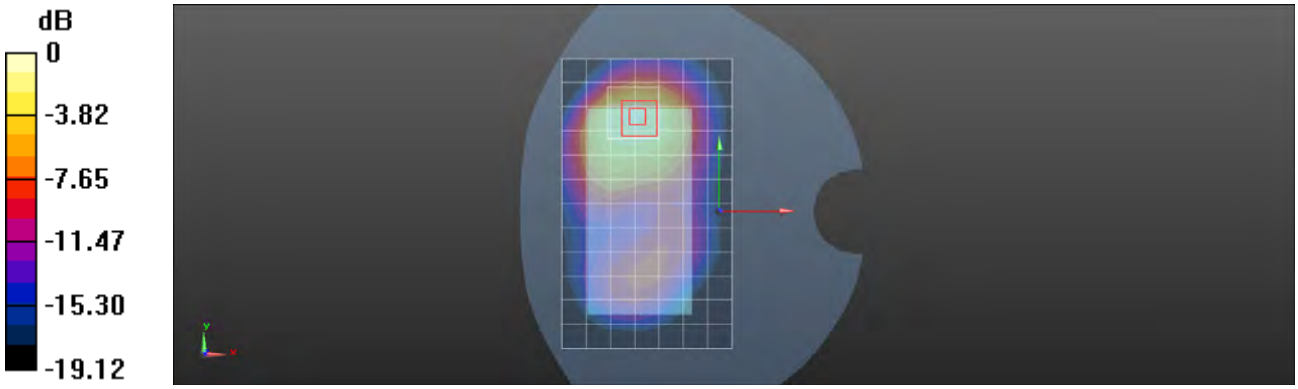
Body-worn_Back side_CH512

Communication System: GPRS (Class 11); Frequency: 1850.2 MHz
Medium parameters used: f = 1850.2 MHz; σ = 1.436 mho/m; ε_r = 52.693; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.941 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.719 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.295 mW/g
SAR(1 g) = 0.821 mW/g; SAR(10 g) = 0.486 mW/g
Maximum value of SAR (measured) = 1.06 mW/g



0 dB = 1.06 mW/g = 0.51 dB mW/g

Date: 2012/11/7

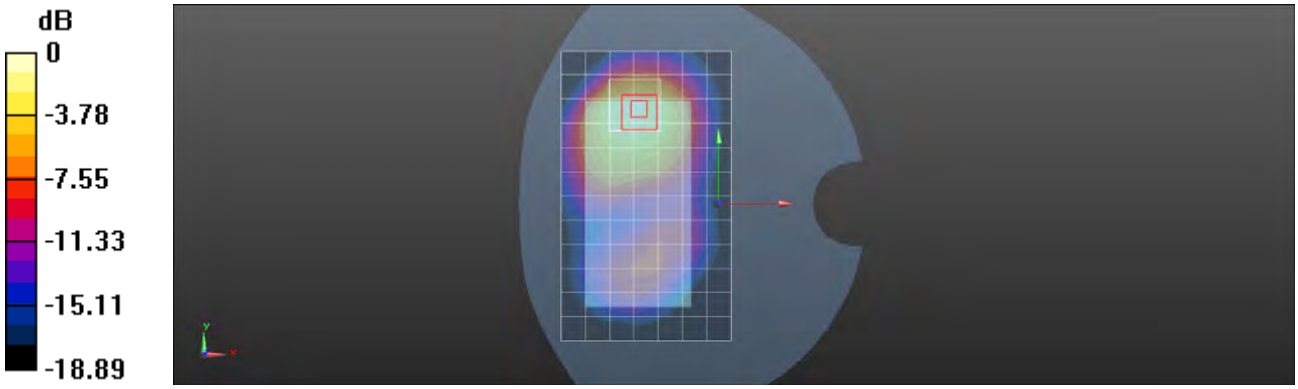
Body-worn_Back side_CH661

Communication System: GPRS (Class 11); Frequency: 1880 MHz
Medium parameters used: f = 1880 MHz; σ = 1.463 mho/m; ε_r = 52.57; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.01 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.424 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.401 mW/g
SAR(1 g) = 0.872 mW/g; SAR(10 g) = 0.513 mW/g
Maximum value of SAR (measured) = 1.14 mW/g



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

Date: 2012/11/7

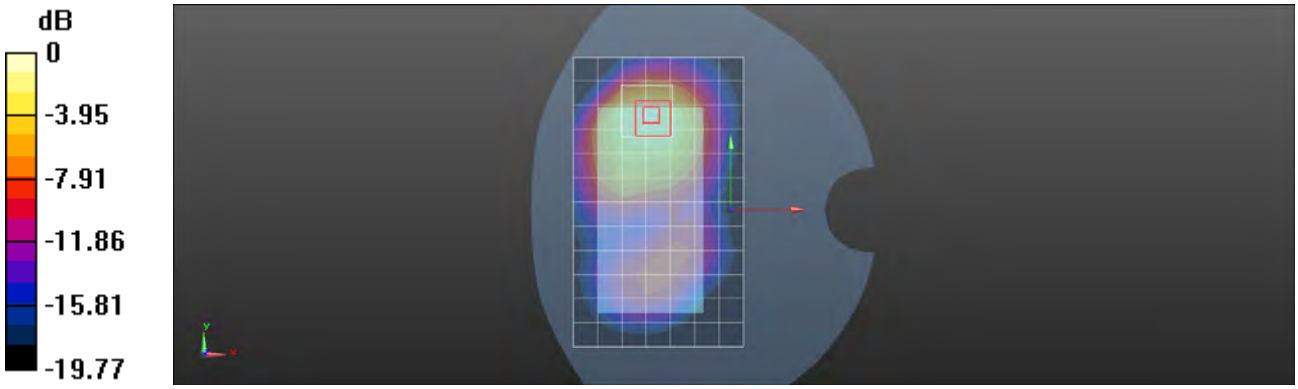
Body-worn_Back side_CH810

Communication System: GPRS (Class 11); Frequency: 1909.8 MHz
Medium parameters used: f = 1909.93 MHz; σ = 1.5 mho/m; ε_r = 52.427; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.04 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.085 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.484 mW/g
SAR(1 g) = 0.912 mW/g; SAR(10 g) = 0.534 mW/g
Maximum value of SAR (measured) = 1.19 mW/g



0 dB = 1.19 mW/g = 1.51 dB mW/g

Date: 2012/11/7

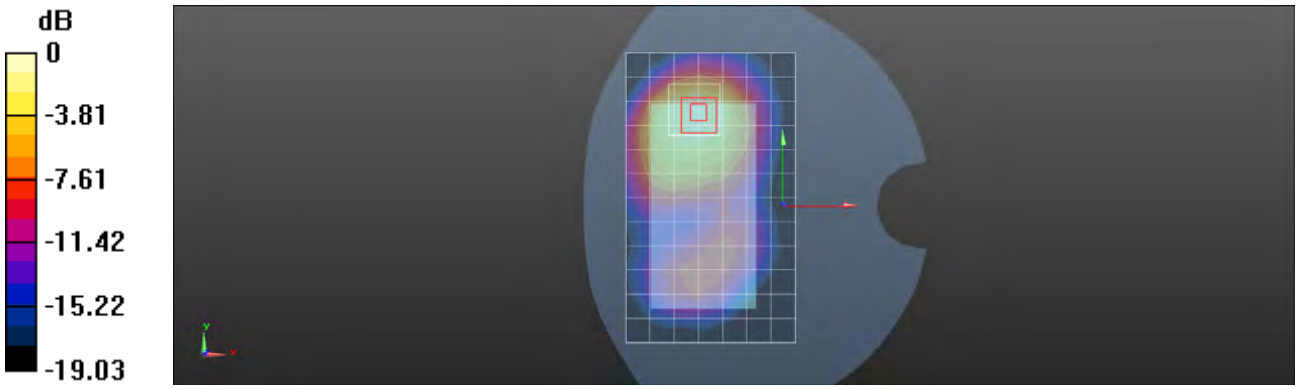
Body-worn_Back side_CH810_repeated with external Memory card inside

Communication System: GPRS (Class 11); Frequency: 1909.8 MHz
Medium parameters used: f = 1909.93 MHz; σ = 1.5 mho/m; ε_r = 52.427; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.925 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.322 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 1.297 mW/g
SAR(1 g) = 0.806 mW/g; SAR(10 g) = 0.478 mW/g
Maximum value of SAR (measured) = 1.06 mW/g



0 dB = 1.06 mW/g = 0.51 dB mW/g

Date: 2012/11/7

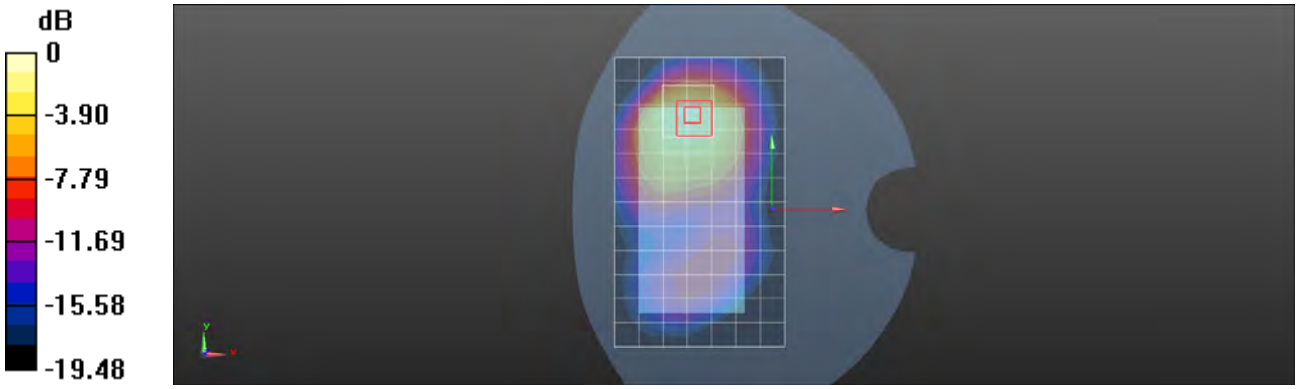
Body-worn_Back side_CH810_repeated with headset (MH410C)

Communication System: GPRS (Class 11); Frequency: 1909.8 MHz
Medium parameters used: f = 1909.93 MHz; σ = 1.5 mho/m; ε_r = 52.427; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

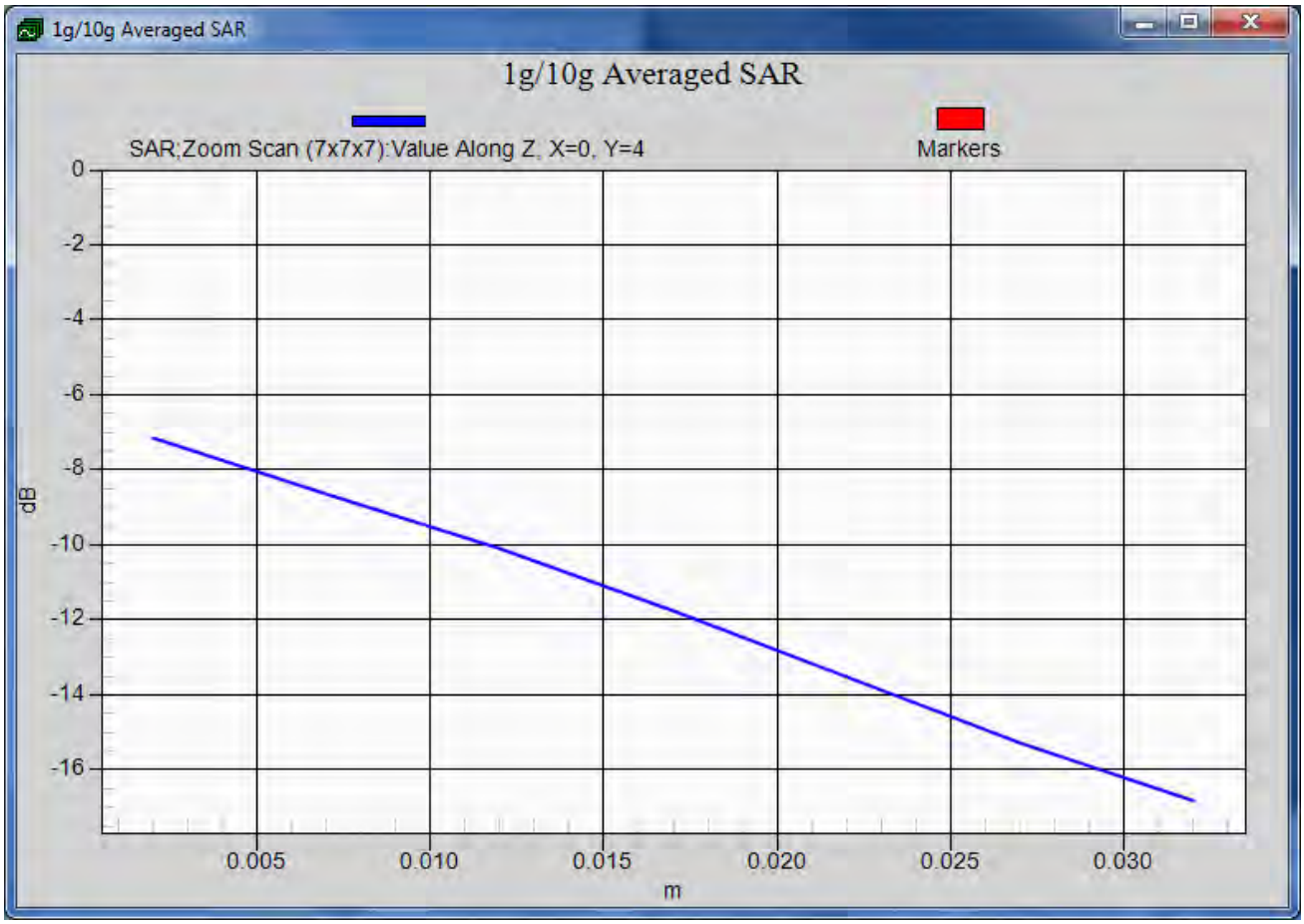
- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.08 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.055 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.535 mW/g
SAR(1 g) = 0.943 mW/g; SAR(10 g) = 0.548 mW/g
Maximum value of SAR (measured) = 1.23 mW/g



0 dB = 1.23 mW/g = 1.80 dB mW/g



Date: 2012/11/7

Body-worn_Back side_CH810_repeated with headset (MH410C) _repeat SAR test at the highest SAR measurement

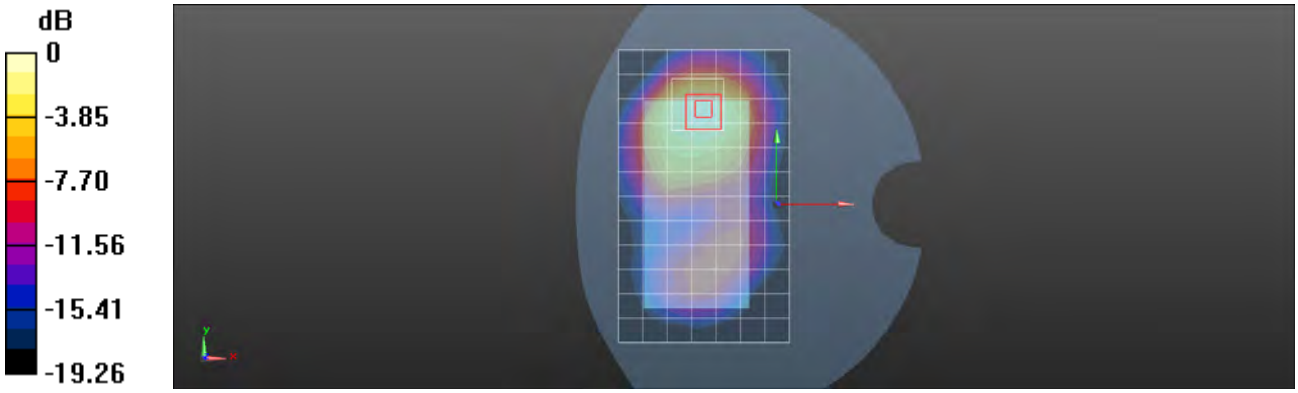
Communication System: GPRS (Class 11); Frequency: 1909.8 MHz
Medium parameters used: f = 1909.93 MHz; σ = 1.5 mho/m; ε_r = 52.427; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.09 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.023 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.509 mW/g

SAR(1 g) = 0.938 mW/g; SAR(10 g) = 0.541 mW/g
Maximum value of SAR (measured) = 1.20 mW/g



0 dB = 1.20 mW/g = 1.58 dB mW/g

Date: 2012/11/7

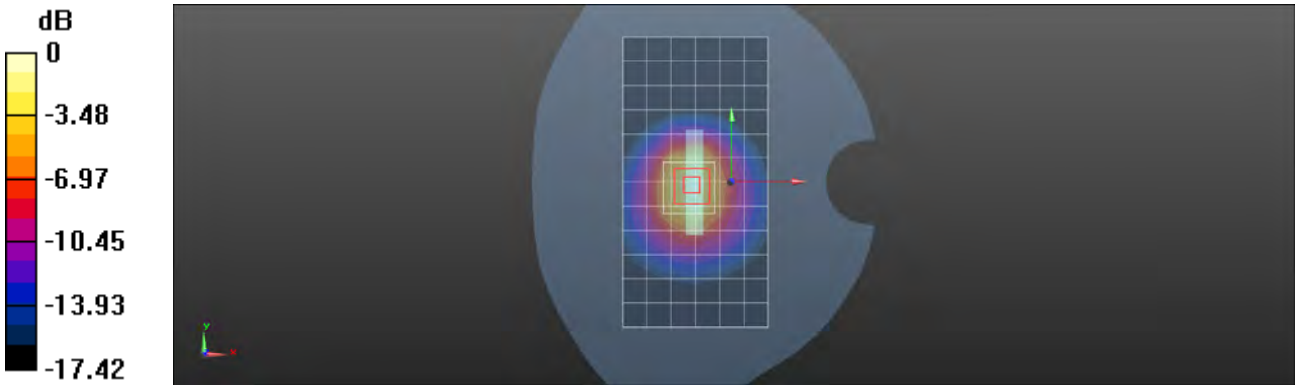
Body-worn_Bottom side_CH512

Communication System: GPRS (Class 11); Frequency: 1850.2 MHz
Medium parameters used: f = 1850.2 MHz; σ = 1.436 mho/m; ε_r = 52.693; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.09 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.966 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 1.467 mW/g
SAR(1 g) = 0.886 mW/g; SAR(10 g) = 0.496 mW/g
Maximum value of SAR (measured) = 1.19 mW/g



0 dB = 1.19 mW/g = 1.51 dB mW/g

Date: 2012/11/7

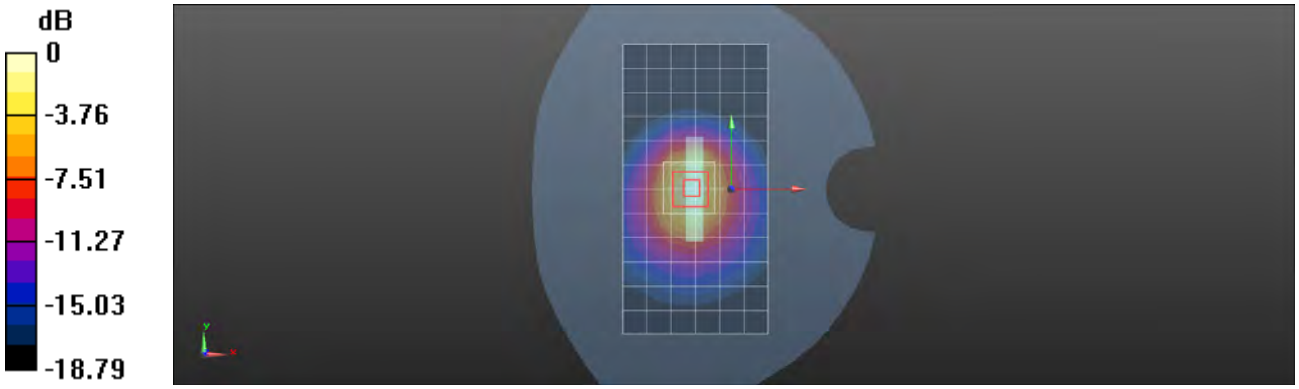
Body-worn_Bottom side_CH661

Communication System: GPRS (Class 11); Frequency: 1880 MHz
Medium parameters used: f = 1880 MHz; σ = 1.463 mho/m; ε_r = 52.57; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.09 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.100 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.368 mW/g
SAR(1 g) = 0.810 mW/g; SAR(10 g) = 0.448 mW/g
Maximum value of SAR (measured) = 1.10 mW/g



0 dB = 1.10 mW/g = 0.83 dB mW/g

Date: 2012/11/7

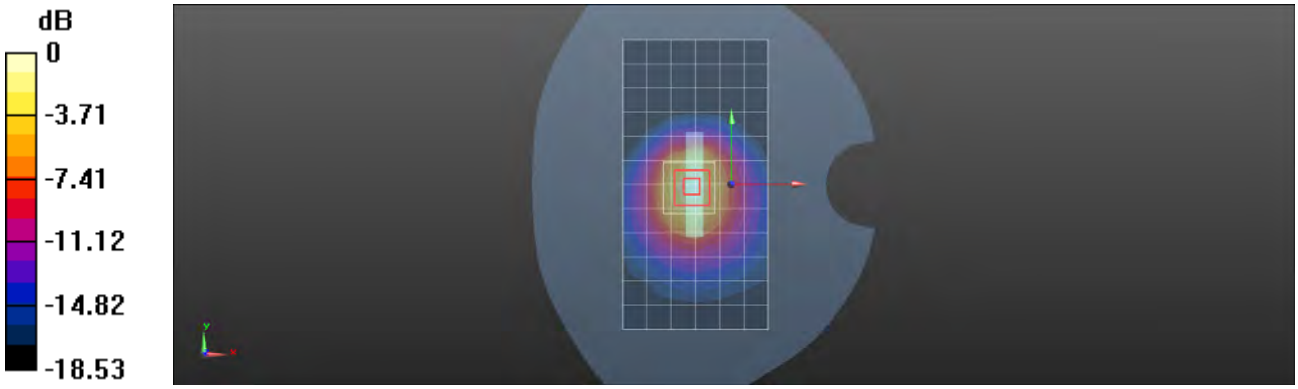
Body-worn_Bottom side_CH810

Communication System: GPRS (Class 11); Frequency: 1909.8 MHz
Medium parameters used: f = 1909.93 MHz; σ = 1.5 mho/m; ε_r = 52.427; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.12 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.928 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.409 mW/g
SAR(1 g) = 0.836 mW/g; SAR(10 g) = 0.462 mW/g
Maximum value of SAR (measured) = 1.13 mW/g



0 dB = 1.13 mW/g = 1.06 dB mW/g

Date: 2012/11/7

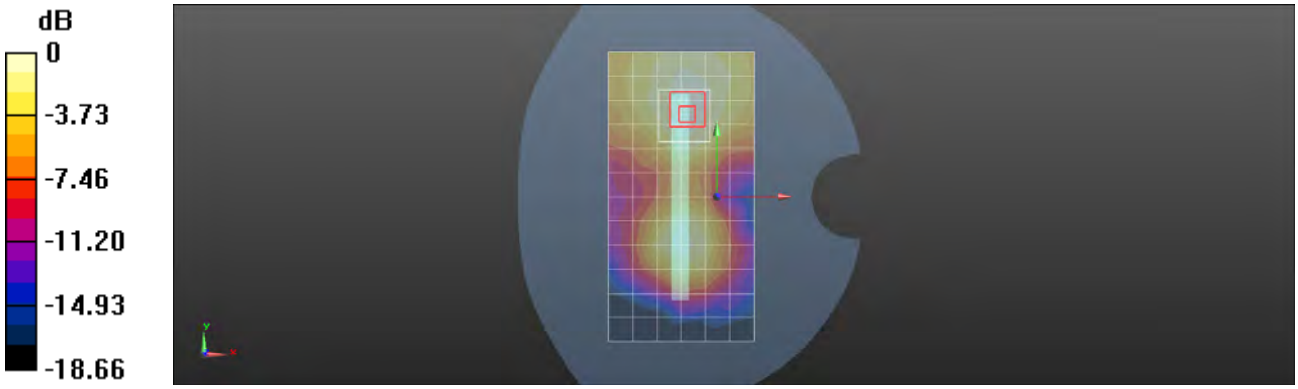
Body-worn_Right side_CH661

Communication System: GPRS (Class 11); Frequency: 1880 MHz
Medium parameters used: f = 1880 MHz; σ = 1.463 mho/m; ε_r = 52.57; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.0783 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.575 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.099 mW/g
SAR(1 g) = 0.062 mW/g; SAR(10 g) = 0.038 mW/g
Maximum value of SAR (measured) = 0.0815 mW/g



0 dB = 0.0815 mW/g = -21.78 dB mW/g

Date: 2012/11/7

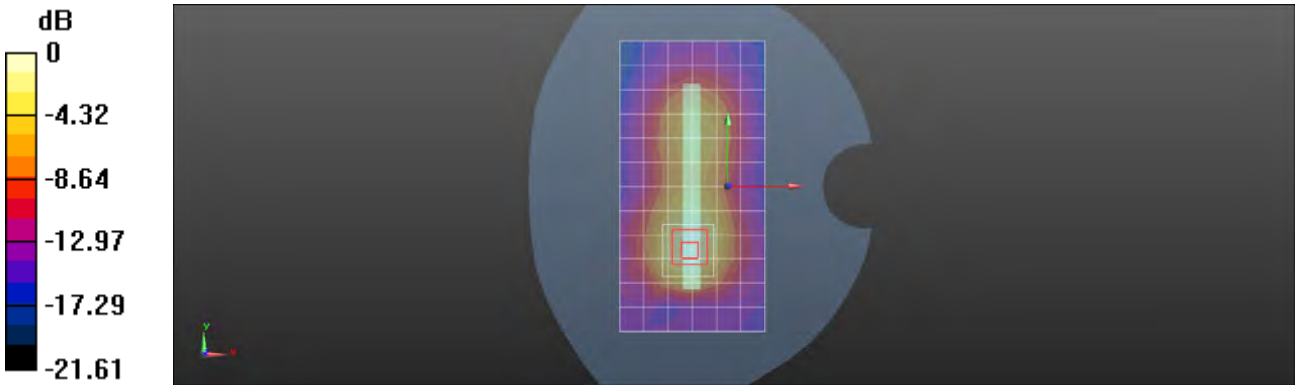
Body-worn_Left side_CH661

Communication System: GPRS (Class 11); Frequency: 1880 MHz
Medium parameters used: f = 1880 MHz; σ = 1.463 mho/m; ε_r = 52.57; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.290 mW/g

Configuration/Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.444 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.369 mW/g
SAR(1 g) = 0.226 mW/g; SAR(10 g) = 0.129 mW/g
Maximum value of SAR (measured) = 0.303 mW/g



0 dB = 0.303 mW/g = -10.37 dB mW/g

Date: 2012/11/14

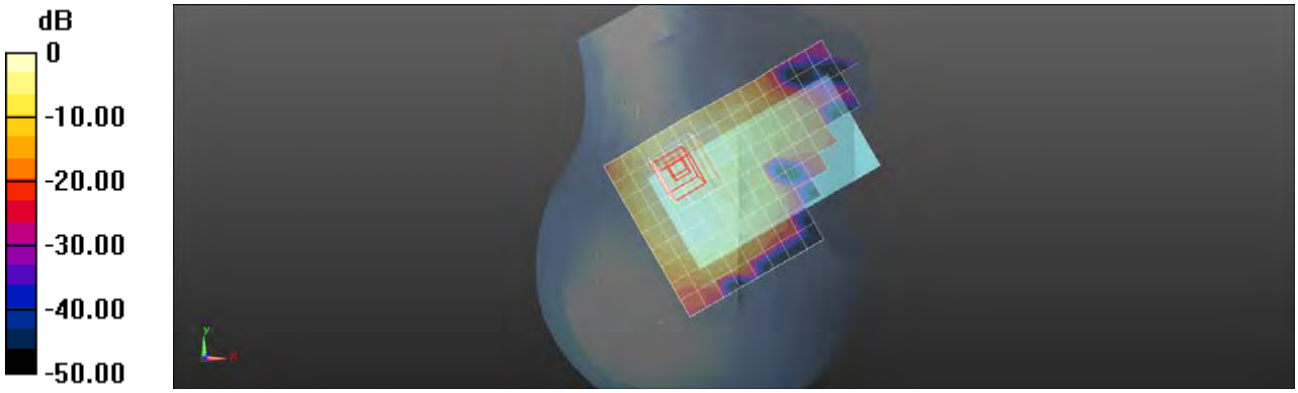
RE Cheek_WLAN802.11b_CH6

Communication System: WLAN 2.45G (FCC); Frequency: 2437 MHz
Medium parameters used: f = 2437 MHz; σ = 1.79 mho/m; ε_r = 39.883; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.78, 6.78, 6.78); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (10x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.382 mW/g

Configuration/RE Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.947 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.533 mW/g
SAR(1 g) = 0.277 mW/g; SAR(10 g) = 0.146 mW/g
Maximum value of SAR (measured) = 0.396 mW/g



0 dB = 0.396 mW/g = -8.05 dB mW/g

Date: 2012/11/14

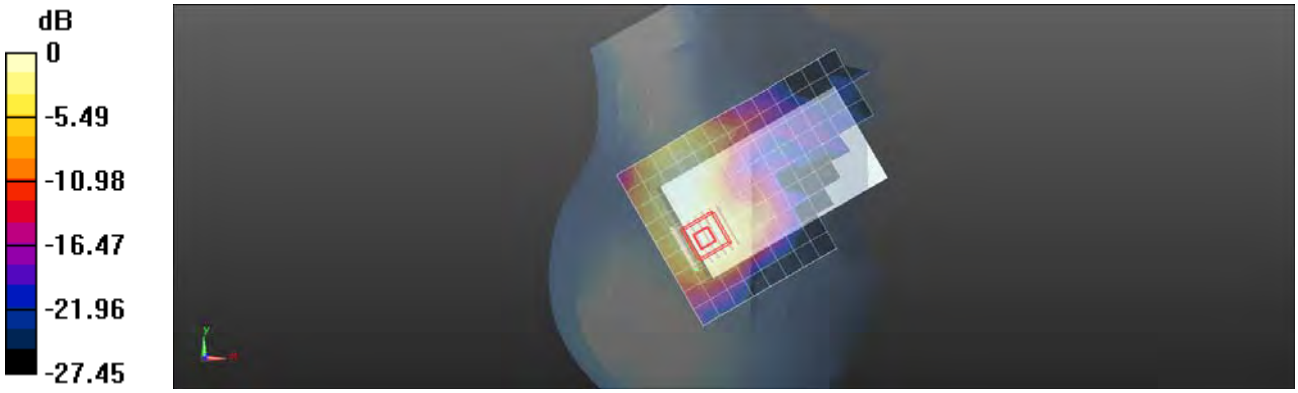
RE Tilt_WLAN802.11b_CH6

Communication System: WLAN 2.45G (FCC); Frequency: 2437 MHz
Medium parameters used: f = 2437 MHz; σ = 1.79 mho/m; ε_r = 39.883; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.78, 6.78, 6.78); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (10x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.228 mW/g

Configuration/RE Tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.910 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.306 mW/g
SAR(1 g) = 0.168 mW/g; SAR(10 g) = 0.087 mW/g
Maximum value of SAR (measured) = 0.237 mW/g



0 dB = 0.237 mW/g = -12.51 dB mW/g

Date: 2012/11/14

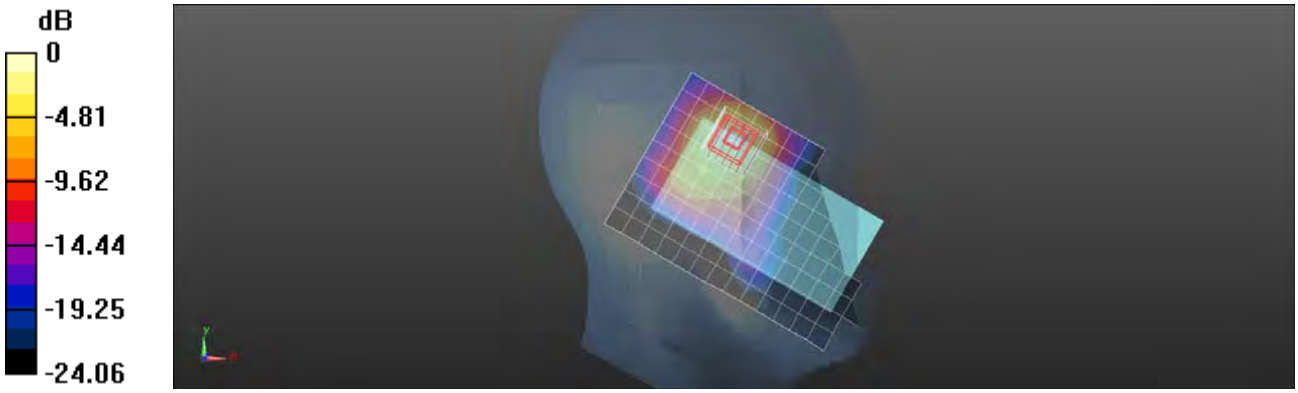
LE Cheek_WLAN802.11b_CH1

Communication System: WLAN 2.45G (FCC); Frequency: 2412 MHz
Medium parameters used: f = 2412 MHz; σ = 1.76 mho/m; ε_r = 39.944; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.78, 6.78, 6.78); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (10x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.648 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.114 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.042 mW/g
SAR(1 g) = 0.494 mW/g; SAR(10 g) = 0.231 mW/g
Maximum value of SAR (measured) = 0.760 mW/g



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

Date: 2012/11/14

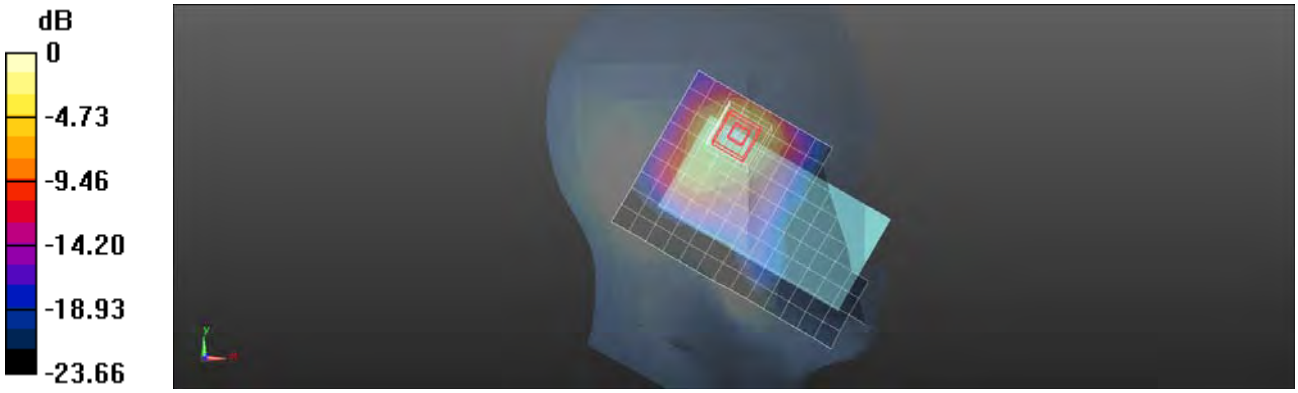
LE Cheek_WLAN802.11b_CH6

Communication System: WLAN 2.45G (FCC); Frequency: 2437 MHz
Medium parameters used: f = 2437 MHz; σ = 1.79 mho/m; ε_r = 39.883; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

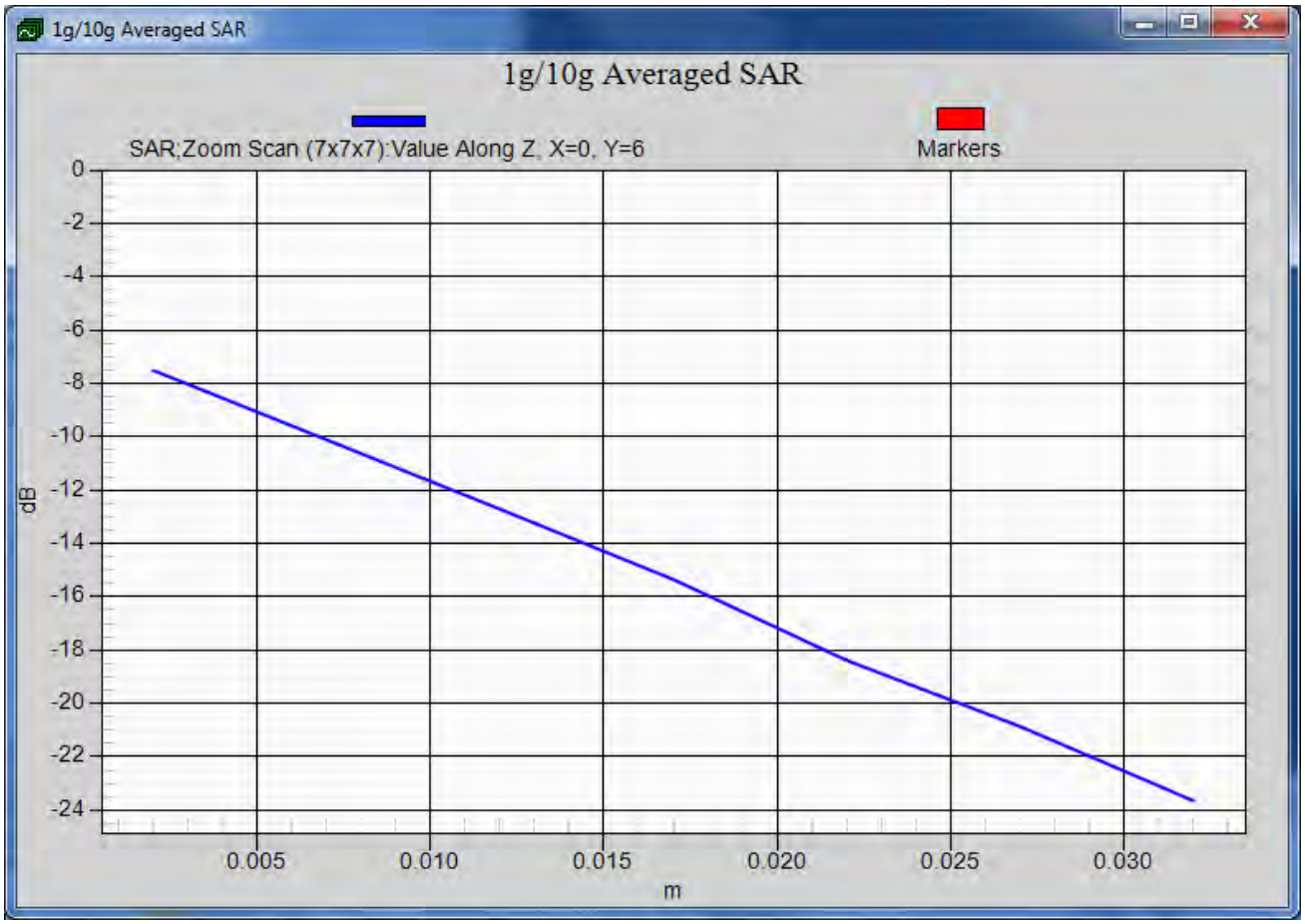
- Probe: EX3DV4 - SN3848; ConvF(6.78, 6.78, 6.78); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (10x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 1.02 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.441 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.546 mW/g
SAR(1 g) = 0.732 mW/g; SAR(10 g) = 0.343 mW/g
Maximum value of SAR (measured) = 1.13 mW/g



0 dB = 1.13 mW/g = 1.06 dB mW/g



Date: 2012/11/14

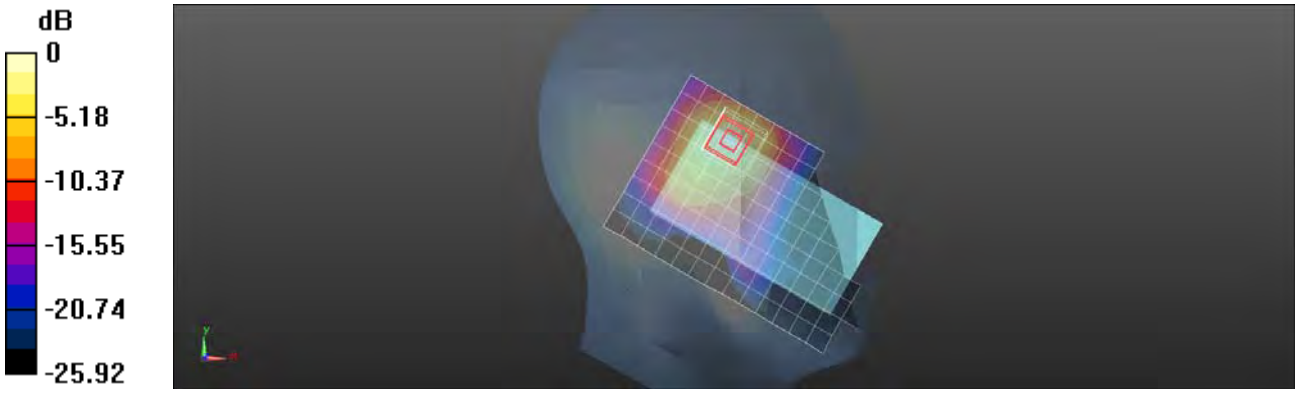
LE Cheek_WLAN802.11b_CH11

Communication System: WLAN 2.45G (FCC); Frequency: 2462 MHz
Medium parameters used: f = 2462 MHz; σ = 1.815 mho/m; ε_r = 39.801; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.78, 6.78, 6.78); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (10x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.927 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.459 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 1.501 mW/g
SAR(1 g) = 0.705 mW/g; SAR(10 g) = 0.332 mW/g
Maximum value of SAR (measured) = 1.09 mW/g



0 dB = 1.09 mW/g = 0.75 dB mW/g

Date: 2012/11/14

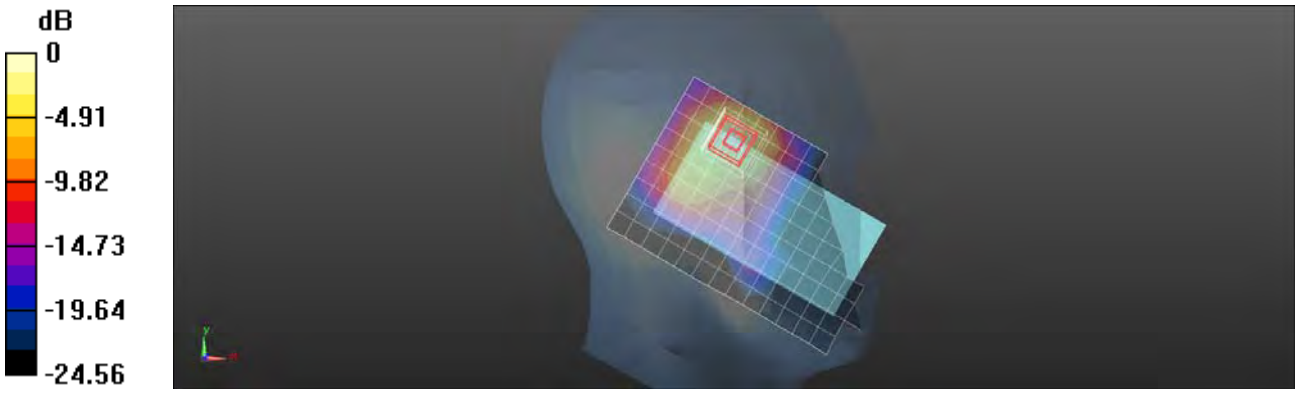
LE Cheek_WLAN802.11b_CH6_repeated with external Memory card inside

Communication System: WLAN 2.45G (FCC); Frequency: 2437 MHz
Medium parameters used: f = 2437 MHz; σ = 1.79 mho/m; ε_r = 39.883; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.78, 6.78, 6.78); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (10x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.886 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.732 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.358 mW/g
SAR(1 g) = 0.644 mW/g; SAR(10 g) = 0.303 mW/g
Maximum value of SAR (measured) = 0.992 mW/g



0 dB = 0.992 mW/g = -0.07 dB mW/g

Date: 2012/11/14

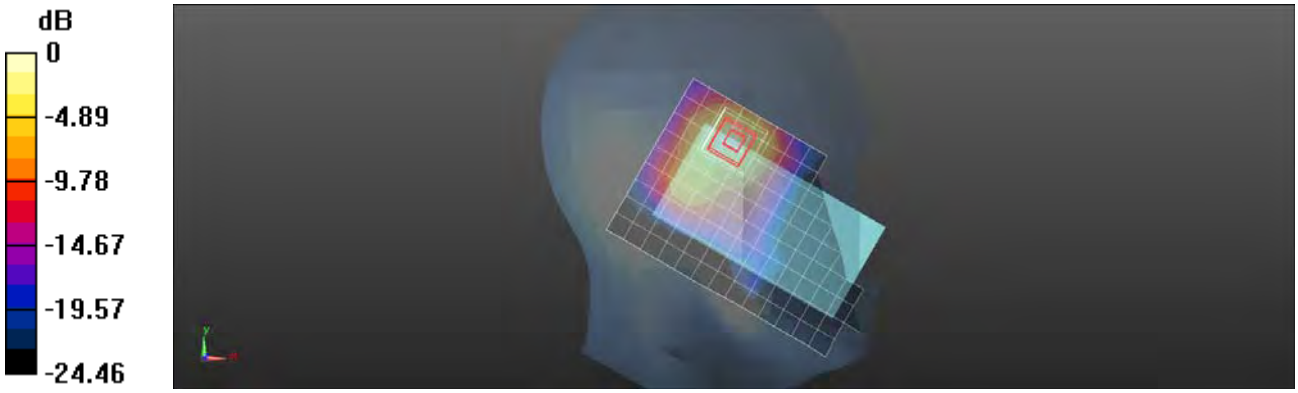
LE Cheek_WLAN802.11b_CH6_repeated with Bluetooth active

Communication System: WLAN 2.45G (FCC); Frequency: 2437 MHz
Medium parameters used: f = 2437 MHz; σ = 1.79 mho/m; ε_r = 39.883; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.78, 6.78, 6.78); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (10x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.866 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.522 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.370 mW/g
SAR(1 g) = 0.632 mW/g; SAR(10 g) = 0.297 mW/g
Maximum value of SAR (measured) = 0.989 mW/g



0 dB = 0.989 mW/g = -0.10 dB mW/g

Date: 2012/11/14

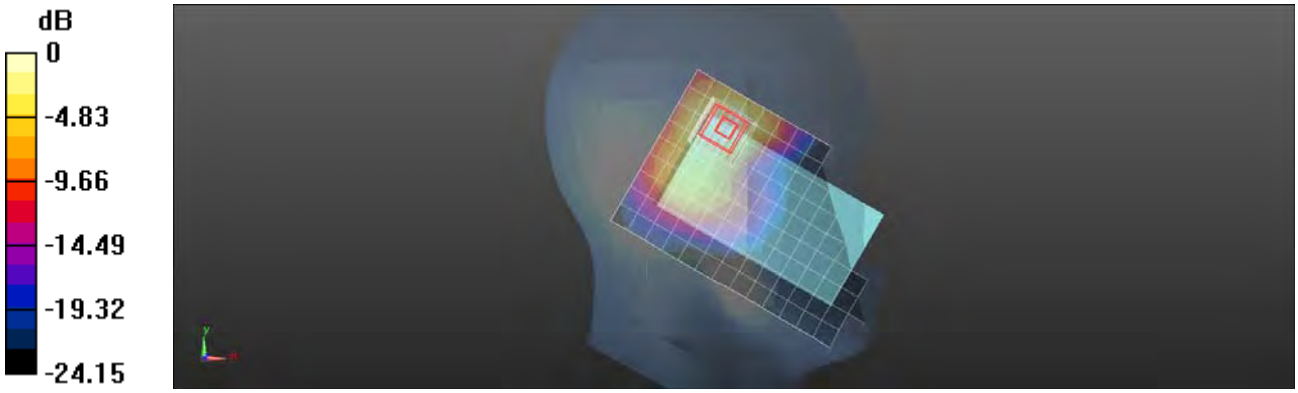
LE Tilt_WLAN802.11b_CH6

Communication System: WLAN 2.45G (FCC); Frequency: 2437 MHz
Medium parameters used: f = 2437 MHz; σ = 1.79 mho/m; ε_r = 39.883; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.78, 6.78, 6.78); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Tilt/Area Scan (10x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.447 mW/g

Configuration/LE Tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.173 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.598 mW/g
SAR(1 g) = 0.309 mW/g; SAR(10 g) = 0.162 mW/g
Maximum value of SAR (measured) = 0.435 mW/g



0 dB = 0.435 mW/g = -7.23 dB mW/g

Date: 2012/11/14

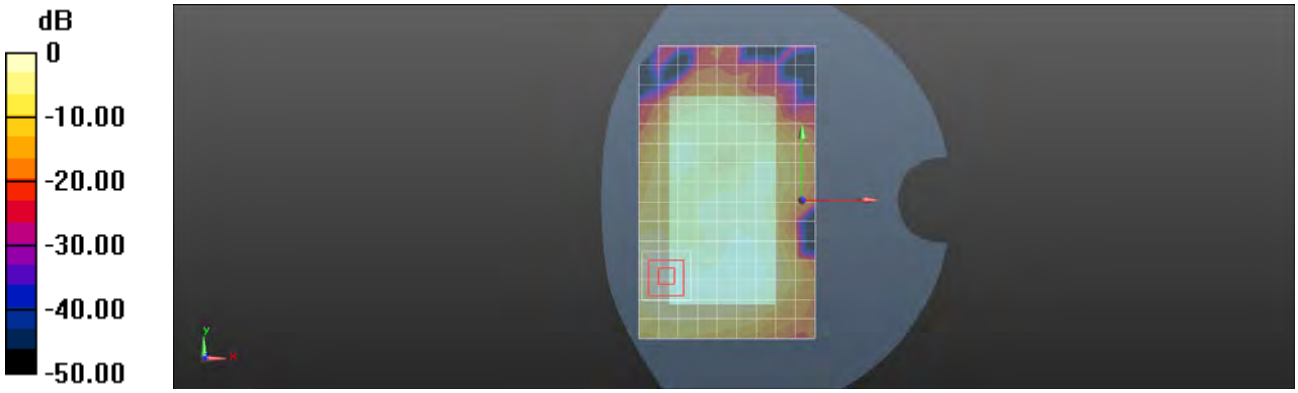
Body-worn_Front side_WLAN802.11b_CH6

Communication System: WLAN 2.45G (FCC); Frequency: 2437 MHz
Medium parameters used: f = 2437 MHz; σ = 1.935 mho/m; ε_r = 53.034; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.95, 6.95, 6.95); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (10x16x1): Measurement grid:
dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.131 mW/g

Configuration/Body-worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.255 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.198 mW/g
SAR(1 g) = 0.103 mW/g; SAR(10 g) = 0.053 mW/g
Maximum value of SAR (measured) = 0.150 mW/g



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

Date: 2012/11/14

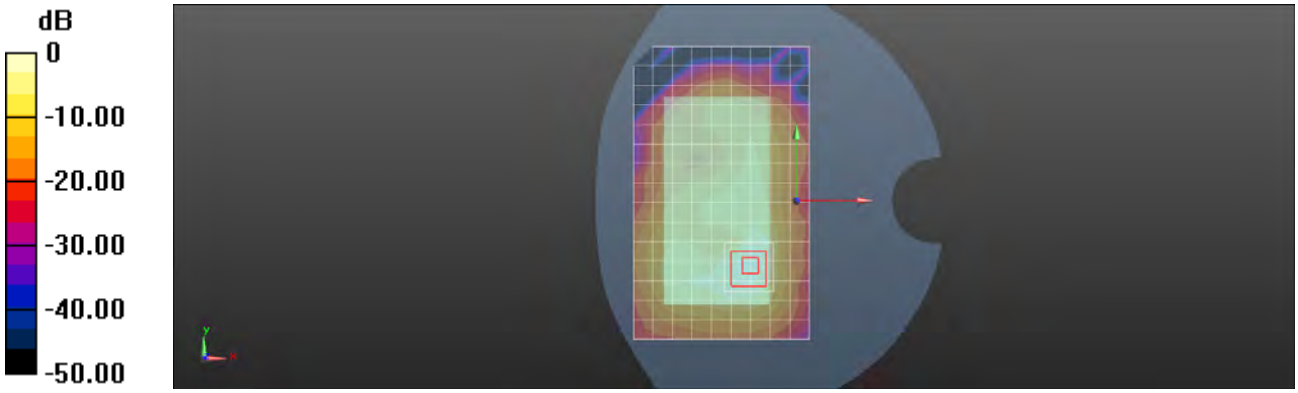
Body-worn_Back side_WLAN802.11b_CH1

Communication System: WLAN 2.45G (FCC); Frequency: 2412 MHz
Medium parameters used: f = 2412 MHz; σ = 1.894 mho/m; ε_r = 53.111; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.95, 6.95, 6.95); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (10x16x1): Measurement grid:
dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.458 mW/g

Configuration/Body-worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.892 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.629 mW/g
SAR(1 g) = 0.307 mW/g; SAR(10 g) = 0.140 mW/g
Maximum value of SAR (measured) = 0.460 mW/g



0 dB = 0.460 mW/g = -6.74 dB mW/g

Date: 2012/11/14

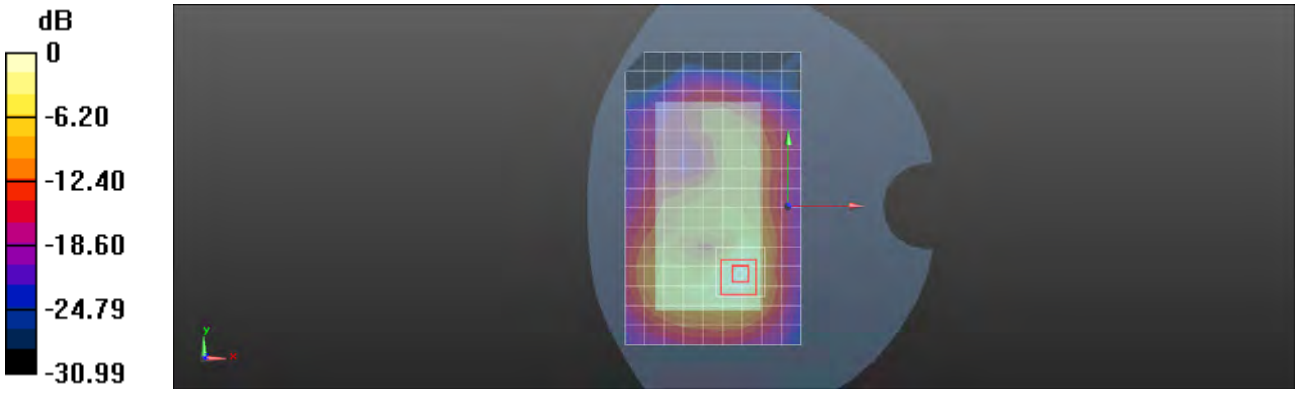
Body-worn_Back side_WLAN802.11b_CH6

Communication System: WLAN 2.45G (FCC); Frequency: 2437 MHz
Medium parameters used: f = 2437 MHz; σ = 1.935 mho/m; ε_r = 53.034; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.95, 6.95, 6.95); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (10x16x1): Measurement grid:
dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.697 mW/g

Configuration/Body-worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.086 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.990 mW/g
SAR(1 g) = 0.488 mW/g; SAR(10 g) = 0.226 mW/g
Maximum value of SAR (measured) = 0.742 mW/g



0 dB = 0.742 mW/g = -2.59 dB mW/g

Date: 2012/11/14

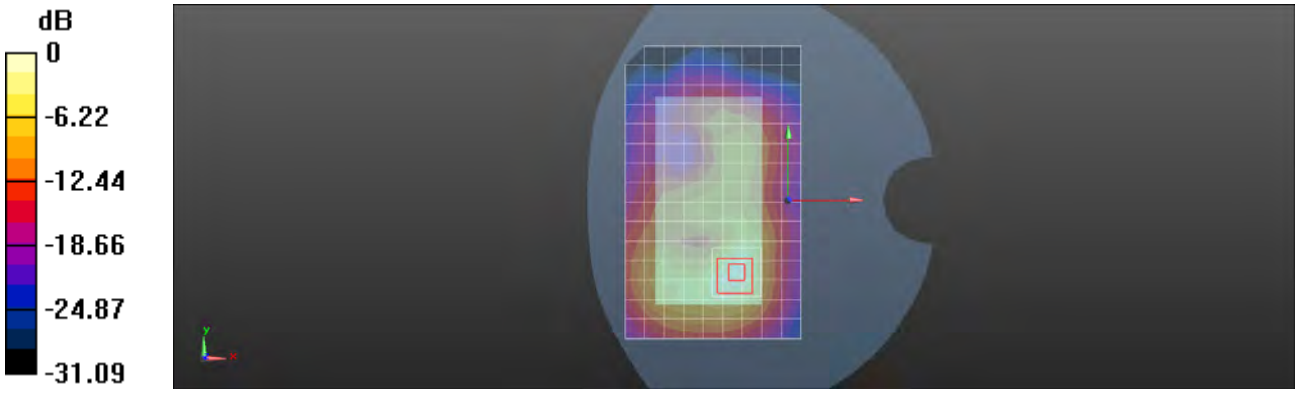
Body-worn_Back side_WLAN802.11b_CH11

Communication System: WLAN 2.45G (FCC); Frequency: 2462 MHz
Medium parameters used: f = 2462 MHz; σ = 1.973 mho/m; ε_r = 53.002; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

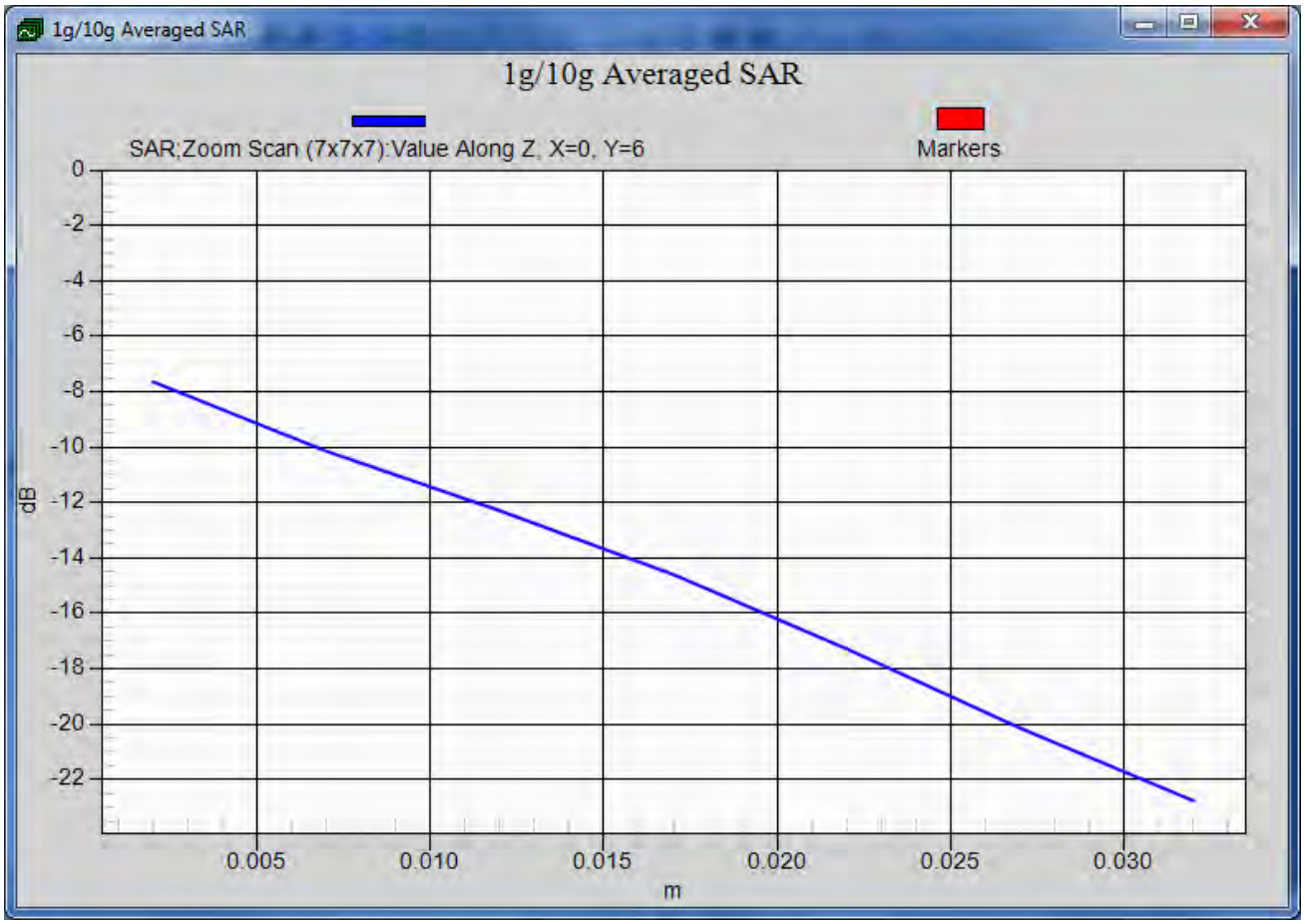
- Probe: EX3DV4 - SN3848; ConvF(6.95, 6.95, 6.95); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.925 mW/g

Configuration/Body-worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.537 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 1.580 mW/g
SAR(1 g) = 0.780 mW/g; SAR(10 g) = 0.365 mW/g
Maximum value of SAR (measured) = 1.18 mW/g



0 dB = 1.18 mW/g = 1.44 dB mW/g



Date: 2012/11/14

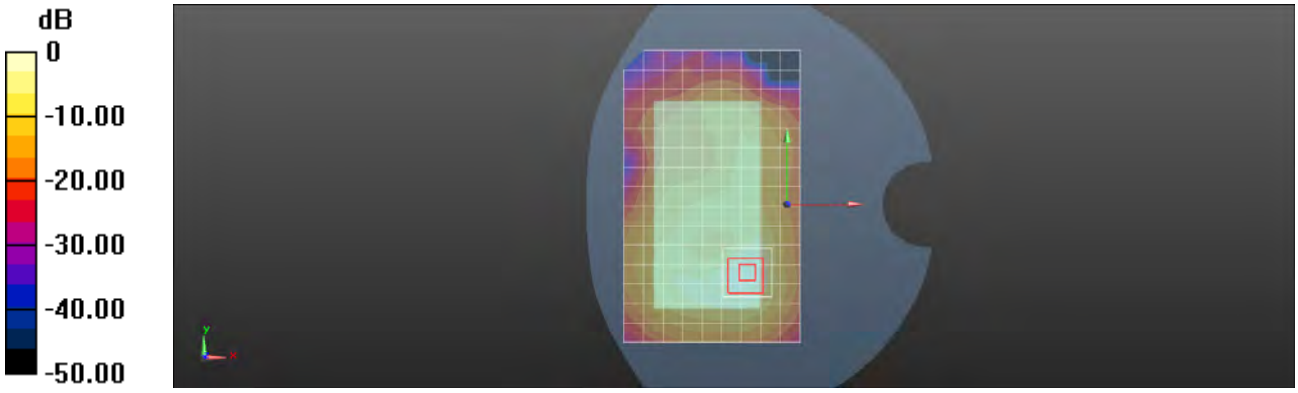
Body-worn_Back side_WLAN802.11b_CH11_repeated with external Memory card inside

Communication System: WLAN 2.45G (FCC); Frequency: 2462 MHz
Medium parameters used: f = 2462 MHz; σ = 1.973 mho/m; ε_r = 53.002; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.95, 6.95, 6.95); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.597 mW/g

Configuration/Body-worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.600 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 1.042 mW/g
SAR(1 g) = 0.506 mW/g; SAR(10 g) = 0.233 mW/g
Maximum value of SAR (measured) = 0.770 mW/g



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

Date: 2012/11/14

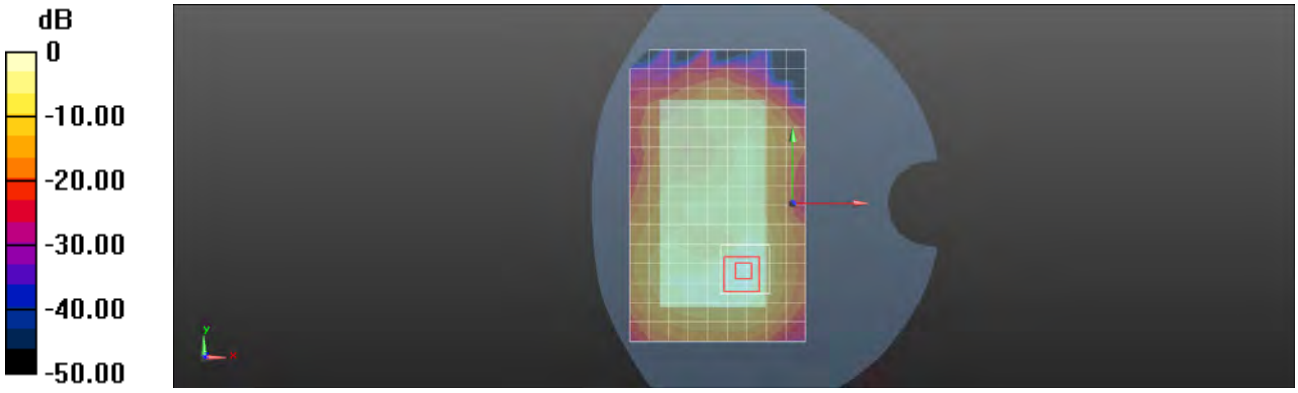
Body-worn_Back side_WLAN802.11b_CH11_repeated with Bluetooth active

Communication System: WLAN 2.45G (FCC); Frequency: 2462 MHz
Medium parameters used: f = 2462 MHz; σ = 1.973 mho/m; ε_r = 53.002; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.95, 6.95, 6.95); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.817 mW/g

Configuration/Body-worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.121 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.142 mW/g
SAR(1 g) = 0.559 mW/g; SAR(10 g) = 0.258 mW/g
Maximum value of SAR (measured) = 0.845 mW/g



0 dB = 0.845 mW/g = -1.46 dB mW/g

Date: 2012/11/14

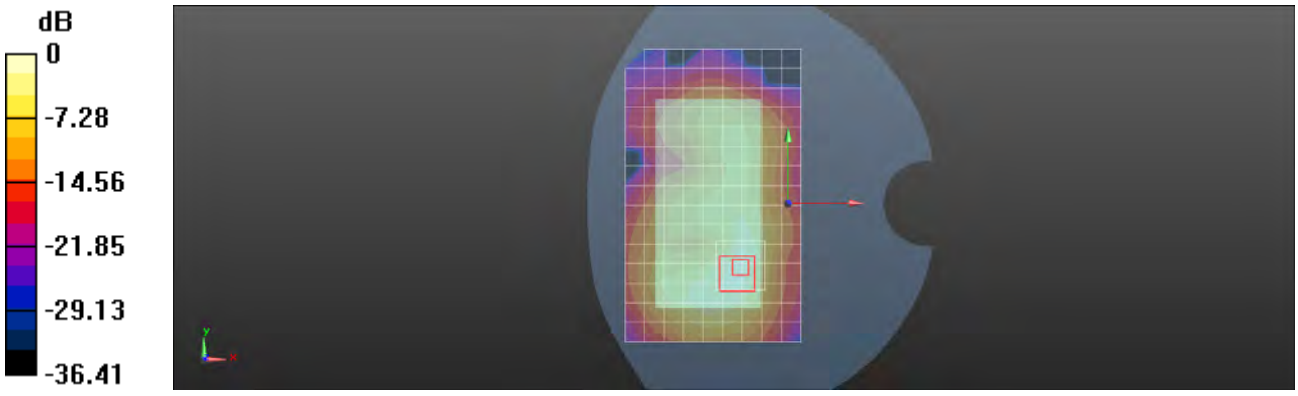
Body-worn_Back side_WLAN802.11b_CH11_repeated with headset (MH410C)

Communication System: WLAN 2.45G (FCC); Frequency: 2462 MHz
Medium parameters used: f = 2462 MHz; σ = 1.973 mho/m; ε_r = 53.002; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.95, 6.95, 6.95); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.602 mW/g

Configuration/Body-worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.050 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.831 mW/g
SAR(1 g) = 0.395 mW/g; SAR(10 g) = 0.184 mW/g
Maximum value of SAR (measured) = 0.610 mW/g



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

Date: 2012/11/14

Body-worn_Top side_WLAN802.11b_CH6

Communication System: WLAN 2.45G (FCC); Frequency: 2437 MHz
Medium parameters used: f = 2437 MHz; σ = 1.935 mho/m; ε_r = 53.034; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.95, 6.95, 6.95); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (10x16x1): Measurement grid:
dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.0684 mW/g

Configuration/Body-worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.273 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.089 mW/g
SAR(1 g) = 0.048 mW/g; SAR(10 g) = 0.026 mW/g
Maximum value of SAR (measured) = 0.0666 mW/g

0 dB = 0.0666 mW/g = -23.53 dB mW/g

Date: 2012/11/14

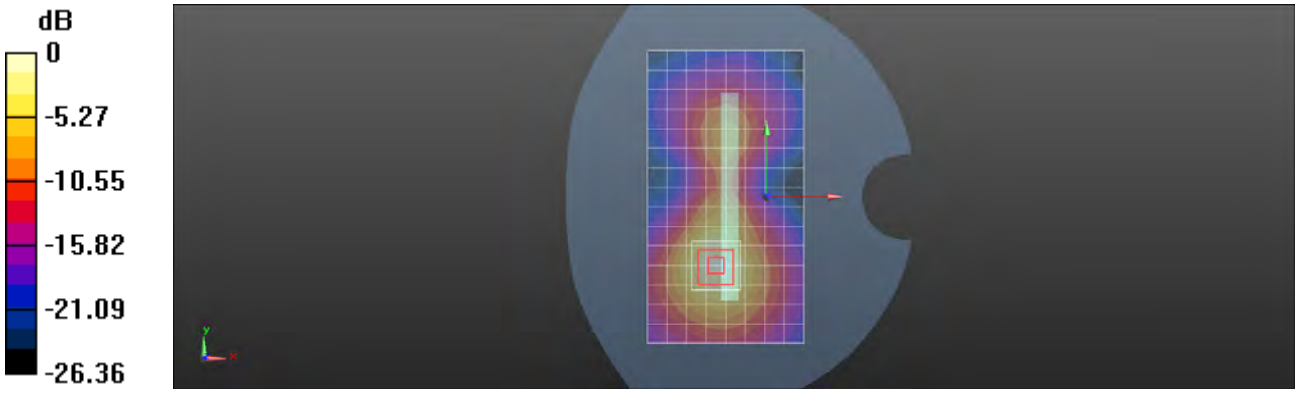
Body-worn_Right side_WLAN802.11b_CH6

Communication System: WLAN 2.45G (FCC); Frequency: 2437 MHz
Medium parameters used: f = 2437 MHz; σ = 1.935 mho/m; ε_r = 53.034; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.95, 6.95, 6.95); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (9x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.480 mW/g

Configuration/Body-worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.151 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.745 mW/g
SAR(1 g) = 0.388 mW/g; SAR(10 g) = 0.196 mW/g
Maximum value of SAR (measured) = 0.567 mW/g



0 dB = 0.567 mW/g = -4.93 dB mW/g

Date: 2012/11/21

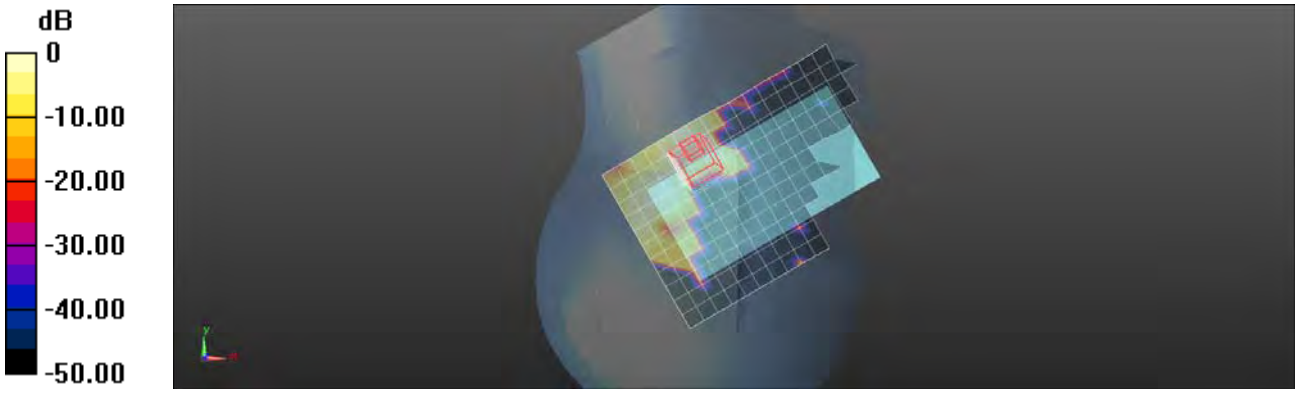
RE Cheek_WLAN802.11a 5.2G_CH44

Communication System: WLAN 5G (FCC); Frequency: 5220 MHz
Medium parameters used: f = 5220 MHz; σ = 4.499 mho/m; εr = 35.368; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0819 mW/g

Configuration/RE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.256 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 0.490 mW/g
SAR(1 g) = 0.041 mW/g; SAR(10 g) = 0.012 mW/g
Maximum value of SAR (measured) = 0.0926 mW/g



0 dB = 0.0926 mW/g = -20.67 dB mW/g

Date: 2012/11/21

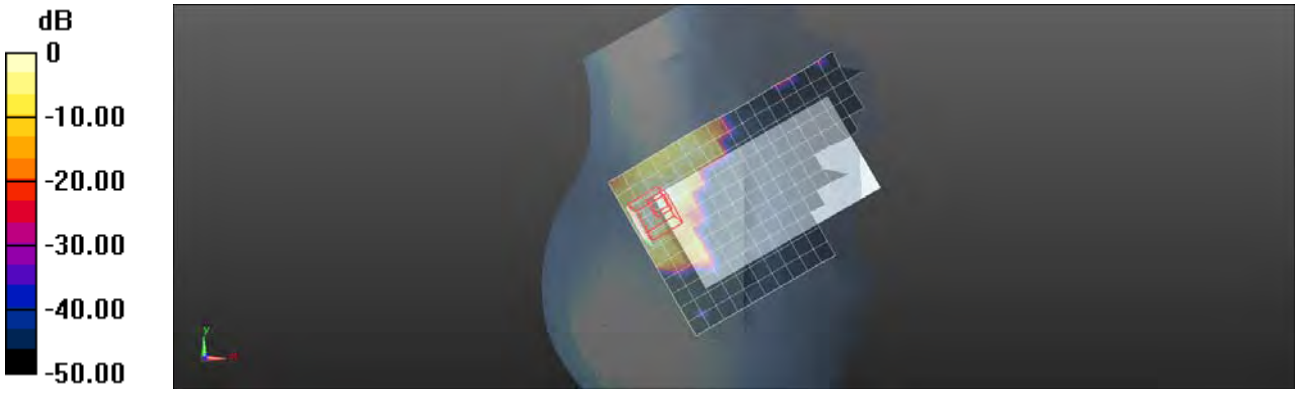
RE Tilt_WLAN802.11a 5.2G_CH44

Communication System: WLAN 5G (FCC); Frequency: 5220 MHz
Medium parameters used: f = 5220 MHz; σ = 4.499 mho/m; εr = 35.368; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0658 mW/g

Configuration/RE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.473 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.141 mW/g
SAR(1 g) = 0.027 mW/g; SAR(10 g) = 0.0087 mW/g
Maximum value of SAR (measured) = 0.0756 mW/g



0 dB = 0.0756 mW/g = -22.43 dB mW/g

Date: 2012/11/21

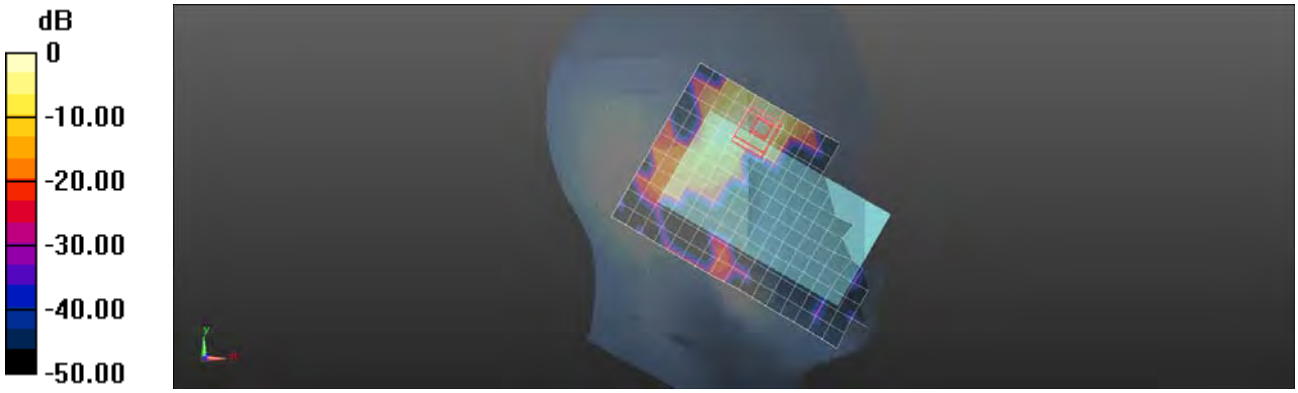
LE Cheek_WLAN802.11a 5.2G_CH36

Communication System: WLAN 5G (FCC); Frequency: 5180 MHz
Medium parameters used: f = 5180 MHz; σ = 4.455 mho/m; εr = 35.463; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.300 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.382 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.824 mW/g
SAR(1 g) = 0.206 mW/g; SAR(10 g) = 0.050 mW/g
Maximum value of SAR (measured) = 0.442 mW/g



0 dB = 0.442 mW/g = -7.09 dB mW/g

Date: 2012/11/21

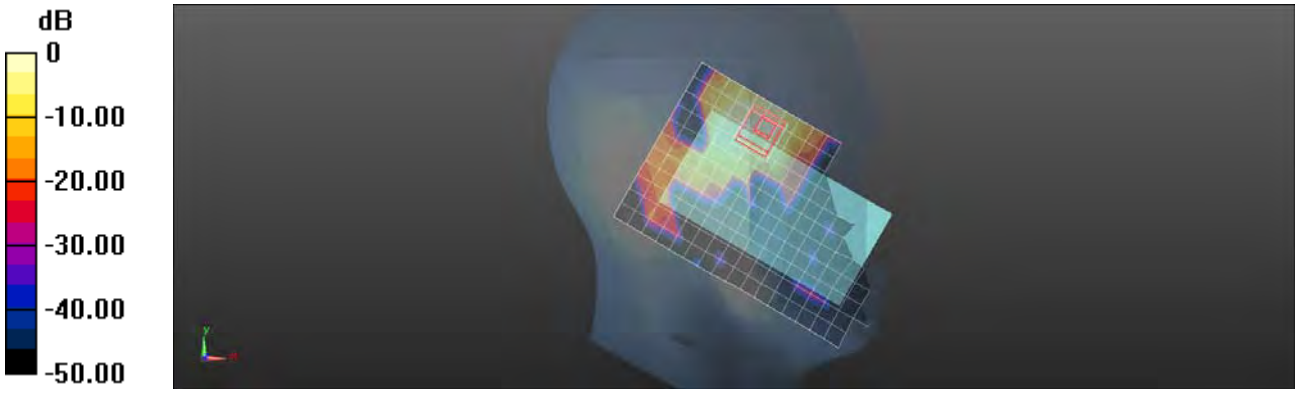
LE Cheek_WLAN802.11a 5.2G_CH44

Communication System: WLAN 5G (FCC); Frequency: 5220 MHz
Medium parameters used: f = 5220 MHz; σ = 4.499 mho/m; εr = 35.368; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.237 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.477 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.667 mW/g
SAR(1 g) = 0.180 mW/g; SAR(10 g) = 0.048 mW/g
Maximum value of SAR (measured) = 0.400 mW/g



0 dB = 0.400 mW/g = -7.96 dB mW/g

Date: 2012/11/21

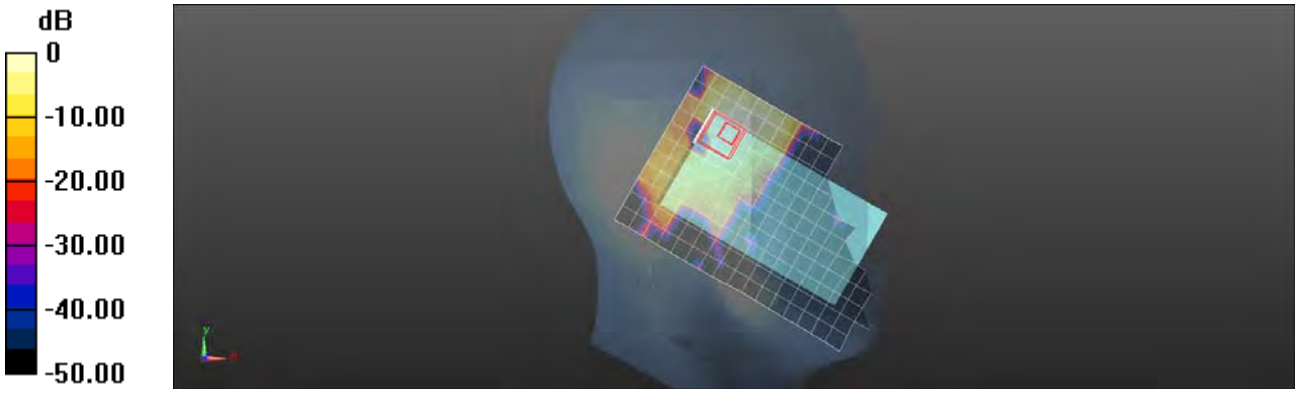
LE Tilt_WLAN802.11a 5.2G_CH44

Communication System: WLAN 5G (FCC); Frequency: 5220 MHz
Medium parameters used: f = 5220 MHz; σ = 4.499 mho/m; εr = 35.368; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.113 mW/g

Configuration/LE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.768 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 0.382 mW/g
SAR(1 g) = 0.063 mW/g; SAR(10 g) = 0.019 mW/g
Maximum value of SAR (measured) = 0.140 mW/g



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

Date: 2012/11/25

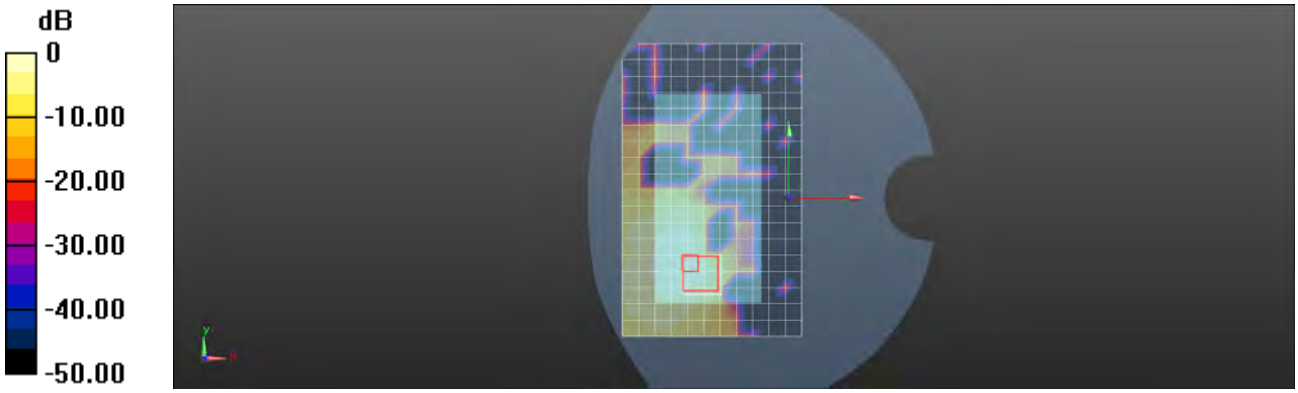
Body-worn_Front side_WLAN802.11a 5.2G_CH44

Communication System: WLAN 5G (FCC); Frequency: 5220 MHz
Medium parameters used: f = 5220 MHz; σ = 5.341 mho/m; ε_r = 48.462; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.101 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.562 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.181 mW/g
SAR(1 g) = 0.046 mW/g; SAR(10 g) = 0.012 mW/g
Maximum value of SAR (measured) = 0.105 mW/g



0 dB = 0.105 mW/g = -19.58 dB mW/g

Date: 2012/11/25

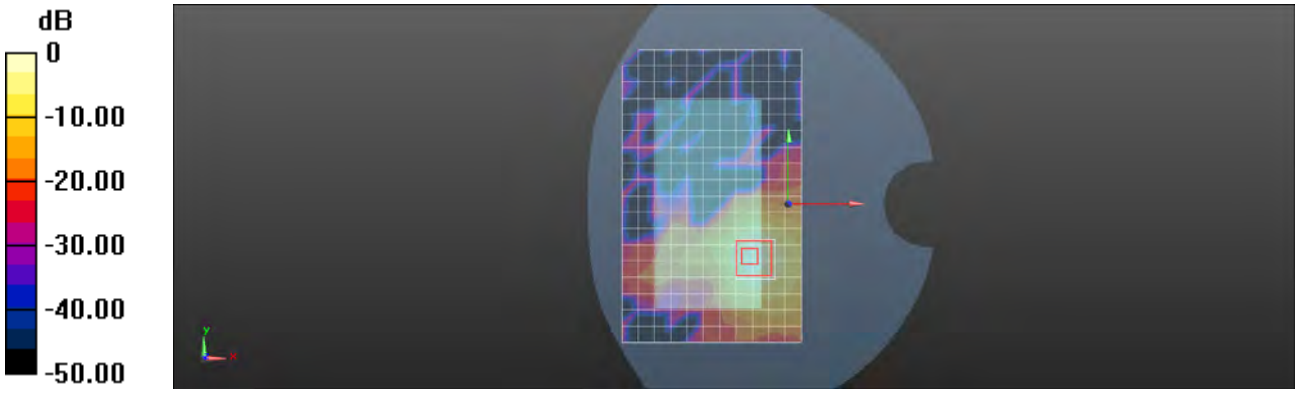
Body-worn_Back side_WLAN802.11a 5.2G_CH44

Communication System: WLAN 5G (FCC); Frequency: 5220 MHz
Medium parameters used: f = 5220 MHz; σ = 5.341 mho/m; ε_r = 48.462; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.903 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.376 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 1.926 mW/g
SAR(1 g) = 0.534 mW/g; SAR(10 g) = 0.181 mW/g
Maximum value of SAR (measured) = 0.997 mW/g



0 dB = 0.997 mW/g = -0.03 dB mW/g

Date: 2012/11/25

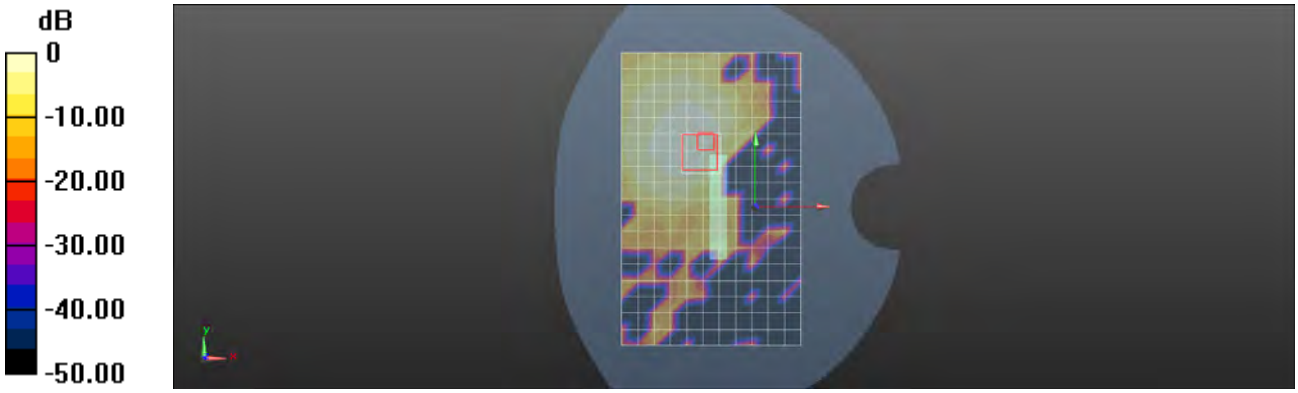
Body-worn_Top side_WLAN802.11a 5.2G_CH44

Communication System: WLAN 5G (FCC); Frequency: 5220 MHz
Medium parameters used: f = 5220 MHz; σ = 5.341 mho/m; ε_r = 48.462; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0538 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.369 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.372 mW/g
SAR(1 g) = 0.031 mW/g; SAR(10 g) = 0.011 mW/g
Maximum value of SAR (measured) = 0.0598 mW/g



0 dB = 0.0598 mW/g = -24.47 dB mW/g

Date: 2012/11/25

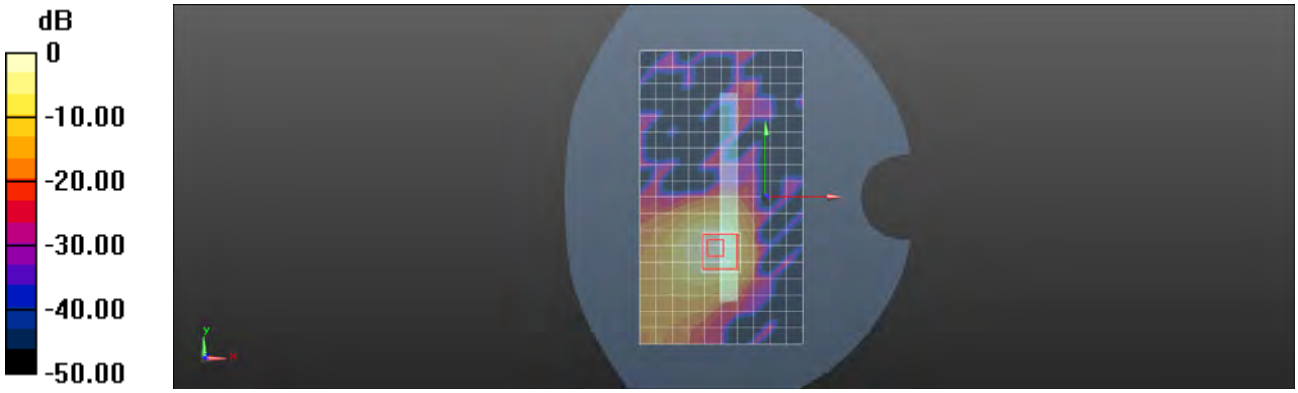
Body-worn_Right side_WLAN802.11a 5.2G_CH36

Communication System: WLAN 5G (FCC); Frequency: 5180 MHz
Medium parameters used: f = 5180 MHz; σ = 5.284 mho/m; ε_r = 48.558; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.771 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.223 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 1.713 mW/g
SAR(1 g) = 0.458 mW/g; SAR(10 g) = 0.139 mW/g
Maximum value of SAR (measured) = 0.863 mW/g



0 dB = 0.863 mW/g = -1.28 dB mW/g

Date: 2012/11/25

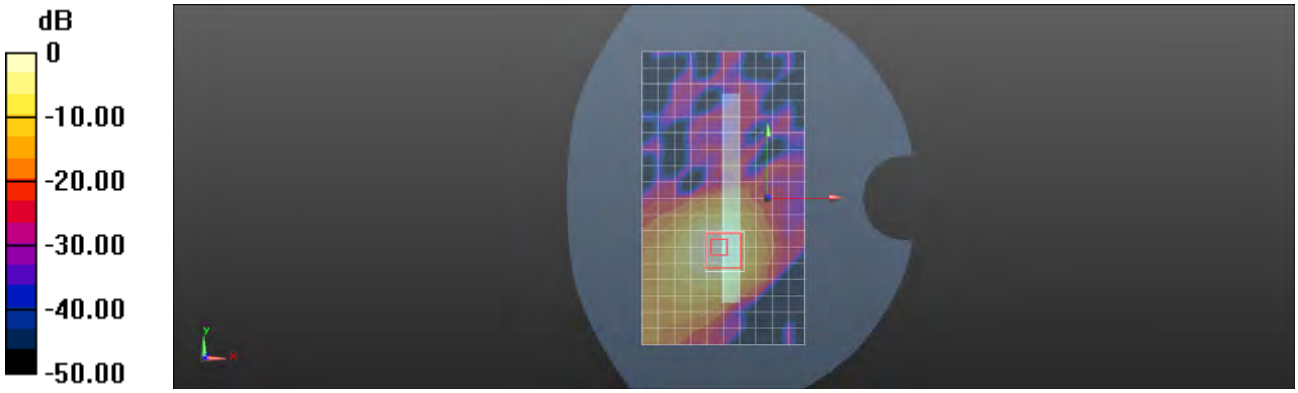
Body-worn_Right side_WLAN802.11a 5.2G_CH44

Communication System: WLAN 5G (FCC); Frequency: 5220 MHz
Medium parameters used: f = 5220 MHz; σ = 5.341 mho/m; ε_r = 48.462; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.01 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.038 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 2.022 mW/g
SAR(1 g) = 0.549 mW/g; SAR(10 g) = 0.175 mW/g
Maximum value of SAR (measured) = 1.03 mW/g



0 dB = 1.03 mW/g = 0.26 dB mW/g

Date: 2012/11/26

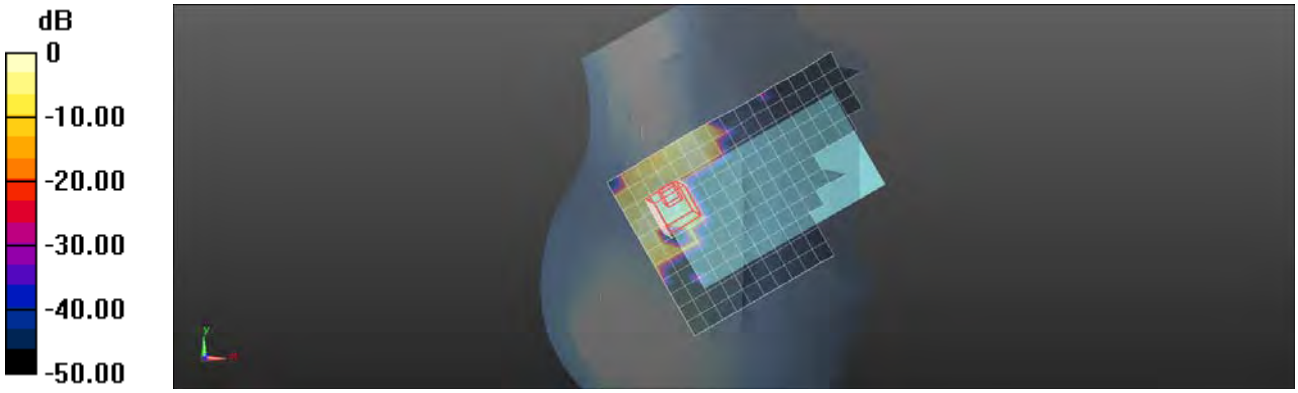
RE Cheek_WLAN802.11a 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 4.544 mho/m; εr = 35.281; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0643 mW/g

Configuration/RE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.504 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.633 mW/g
SAR(1 g) = 0.050 mW/g; SAR(10 g) = 0.013 mW/g
Maximum value of SAR (measured) = 0.0771 mW/g



0 dB = 0.0771 mW/g = -22.26 dB mW/g

Date: 2012/11/26

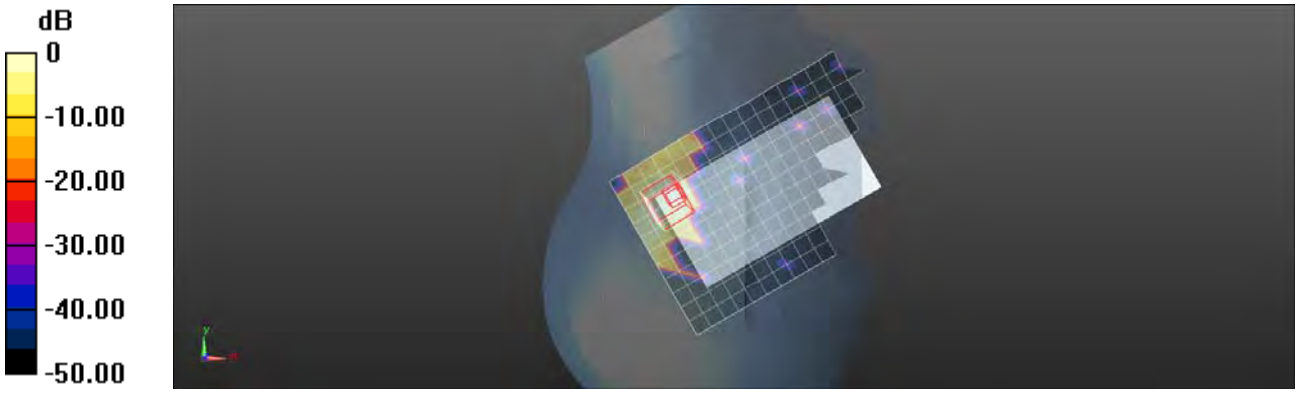
RE Tilt_WLAN802.11a 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 4.544 mho/m; εr = 35.281; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0401 mW/g

Configuration/RE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.098 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.453 mW/g
SAR(1 g) = 0.036 mW/g; SAR(10 g) = 0.010 mW/g
Maximum value of SAR (measured) = 0.0569 mW/g



0 dB = 0.0569 mW/g = -24.90 dB mW/g

Date: 2012/11/26

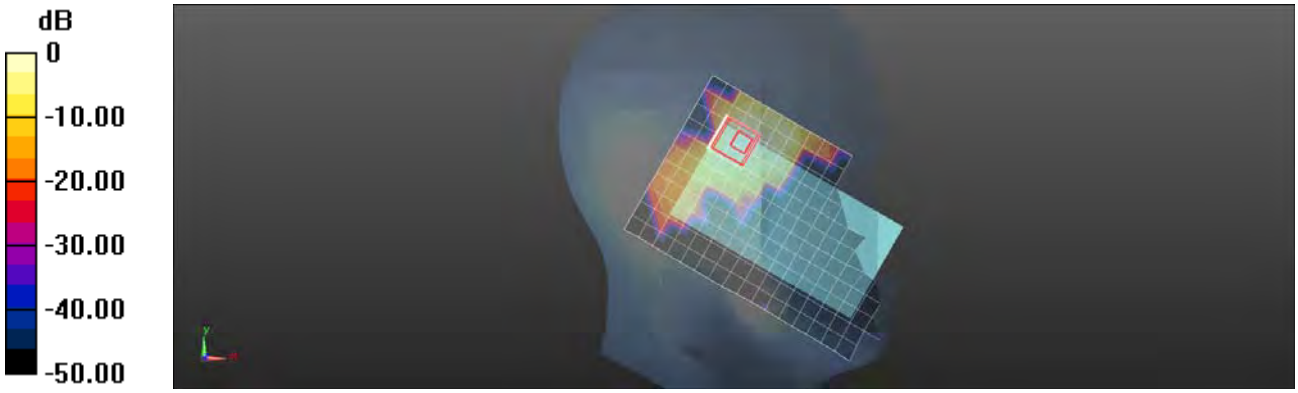
LE Cheek_WLAN802.11a 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 4.544 mho/m; εr = 35.281; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.274 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.288 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.654 mW/g
SAR(1 g) = 0.181 mW/g; SAR(10 g) = 0.054 mW/g
Maximum value of SAR (measured) = 0.367 mW/g



0 dB = 0.367 mW/g = -8.71 dB mW/g

Date: 2012/11/26

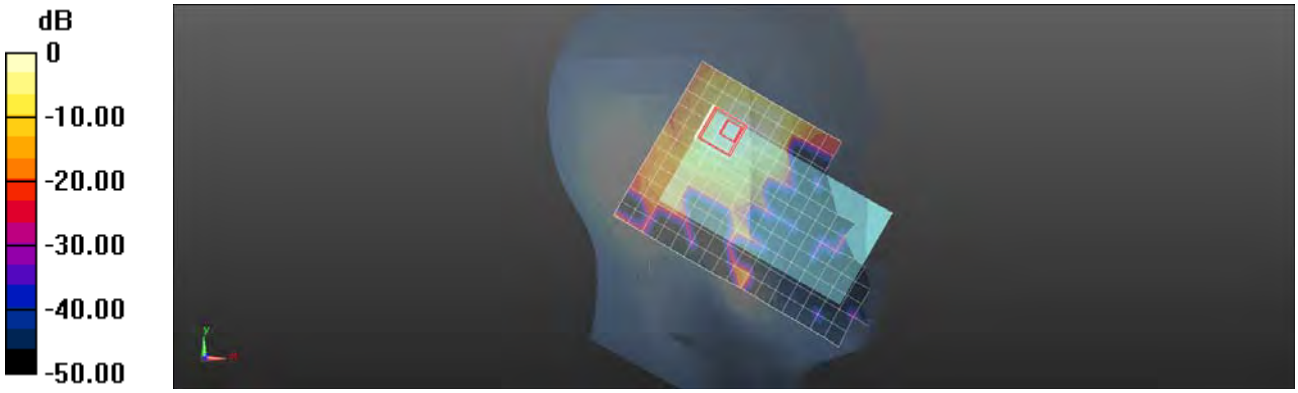
LE Cheek_WLAN802.11a 5.3G_CH64

Communication System: WLAN 5G (FCC); Frequency: 5320 MHz
Medium parameters used: f = 5320 MHz; σ = 4.609 mho/m; εr = 35.158; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.478 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 4.905 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.061 mW/g
SAR(1 g) = 0.302 mW/g; SAR(10 g) = 0.088 mW/g
Maximum value of SAR (measured) = 0.611 mW/g



0 dB = 0.611 mW/g = -4.28 dB mW/g

Date: 2012/11/26

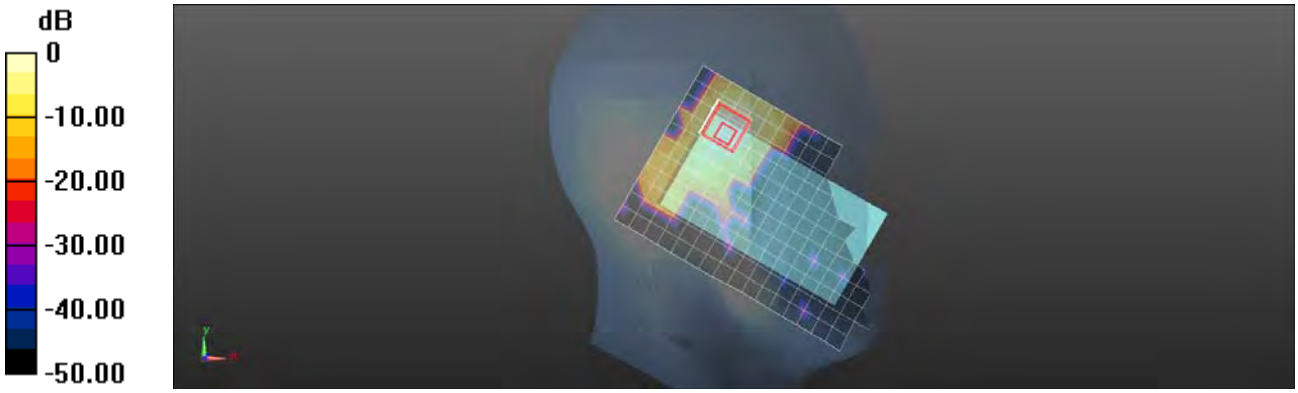
LE Tilt_WLAN802.11a 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 4.544 mho/m; εr = 35.281; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.153 mW/g

Configuration/LE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.458 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.339 mW/g
SAR(1 g) = 0.083 mW/g; SAR(10 g) = 0.025 mW/g
Maximum value of SAR (measured) = 0.169 mW/g



0 dB = 0.169 mW/g = -15.44 dB mW/g

Date: 2012/11/30

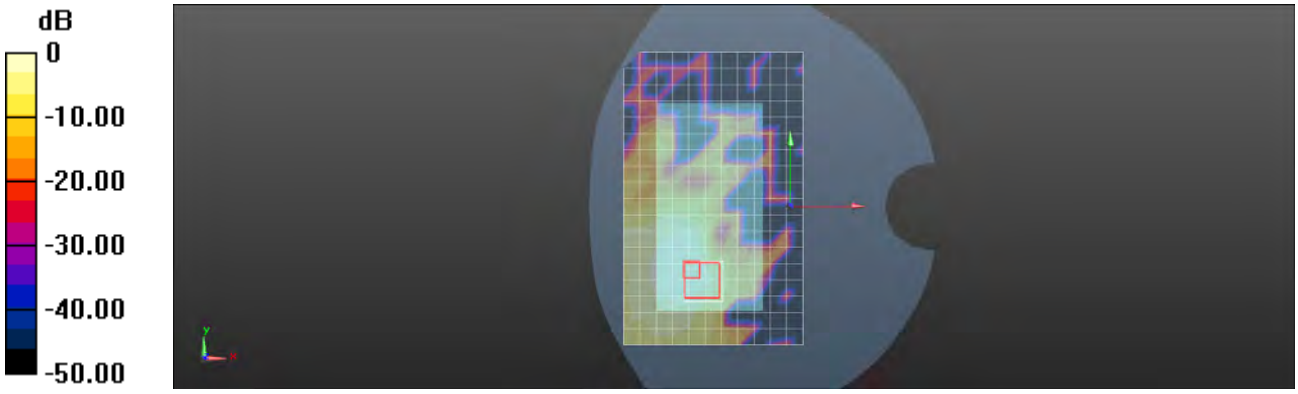
Body-worn_Front side_WLAN802.11a 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 5.397 mho/m; ε_r = 48.382; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.127 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.344 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.259 mW/g
SAR(1 g) = 0.061 mW/g; SAR(10 g) = 0.017 mW/g



0 dB = 0.127 mW/g = -17.92 dB mW/g

Date: 2012/11/30

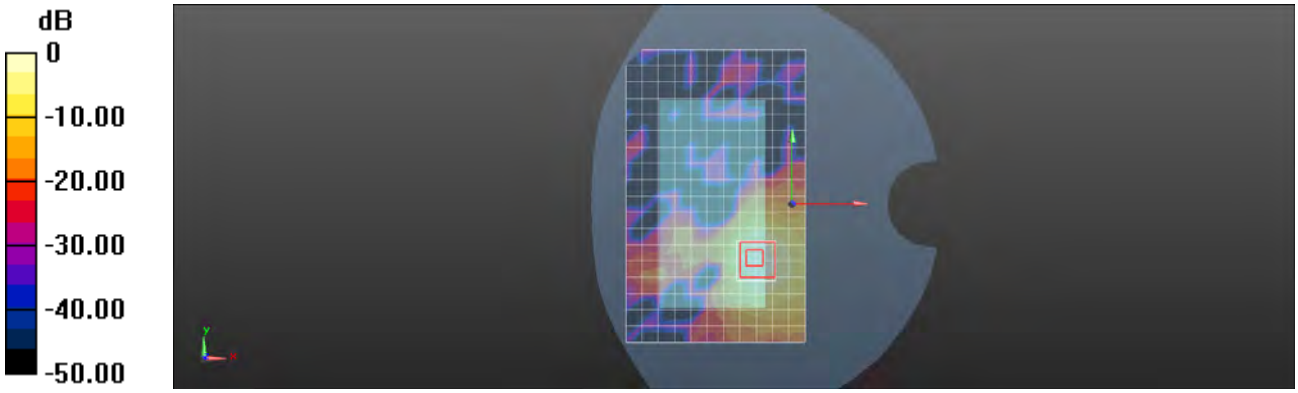
Body-worn_Back side_WLAN802.11a 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 5.397 mho/m; ε_r = 48.382; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.813 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.422 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 1.613 mW/g
SAR(1 g) = 0.432 mW/g; SAR(10 g) = 0.150 mW/g
Maximum value of SAR (measured) = 0.790 mW/g



0 dB = 0.790 mW/g = -2.05 dB mW/g

Date: 2012/11/30

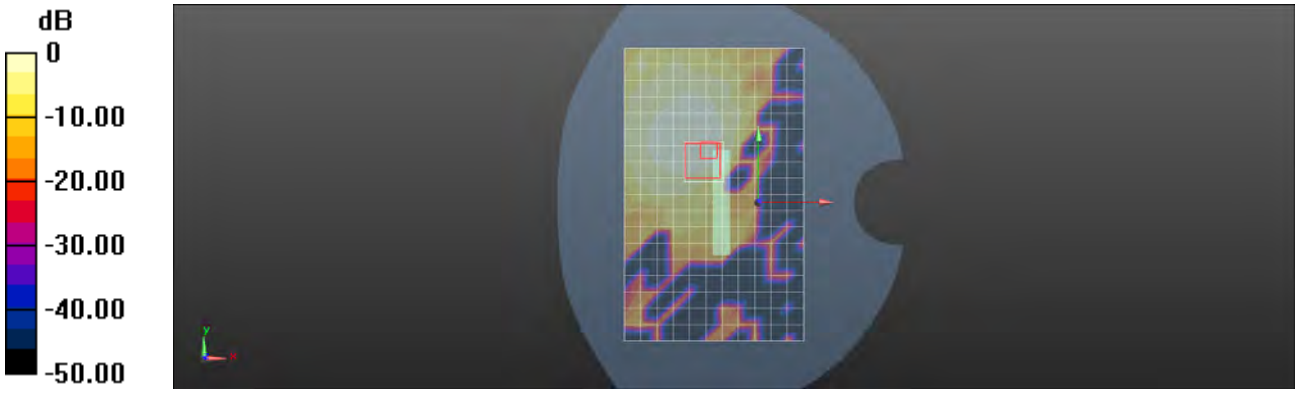
Body-worn_Top side_WLAN802.11a 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 5.397 mho/m; ε_r = 48.382; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0643 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.378 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.326 mW/g
SAR(1 g) = 0.028 mW/g; SAR(10 g) = 0.010 mW/g
Maximum value of SAR (measured) = 0.0693 mW/g



0 dB = 0.0693 mW/g = -23.19 dB mW/g

Date: 2012/11/30

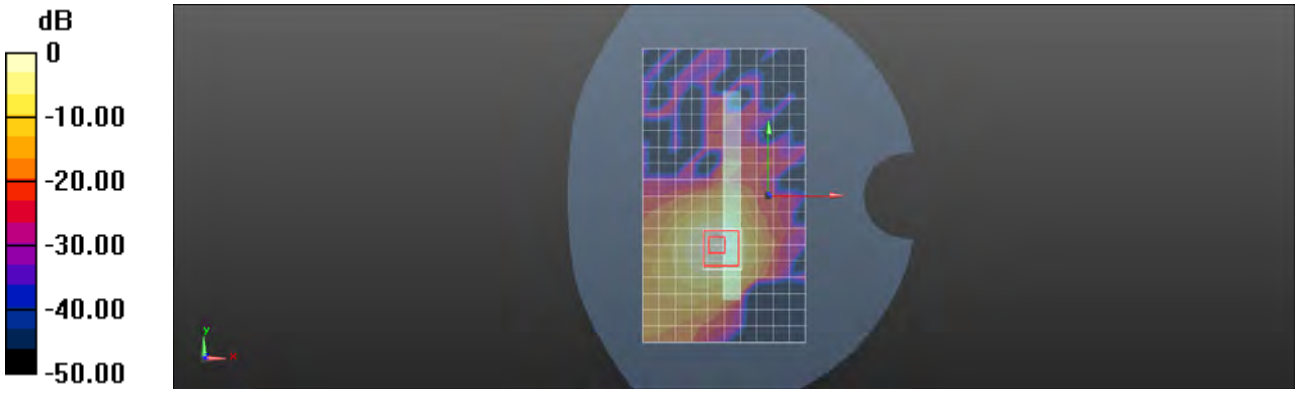
Body-worn_Right side_WLAN802.11a 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 5.397 mho/m; ε_r = 48.382; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.02 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.611 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 2.318 mW/g
SAR(1 g) = 0.624 mW/g; SAR(10 g) = 0.202 mW/g
Maximum value of SAR (measured) = 1.17 mW/g



0 dB = 1.17 mW/g = 1.36 dB mW/g

Date: 2012/11/30

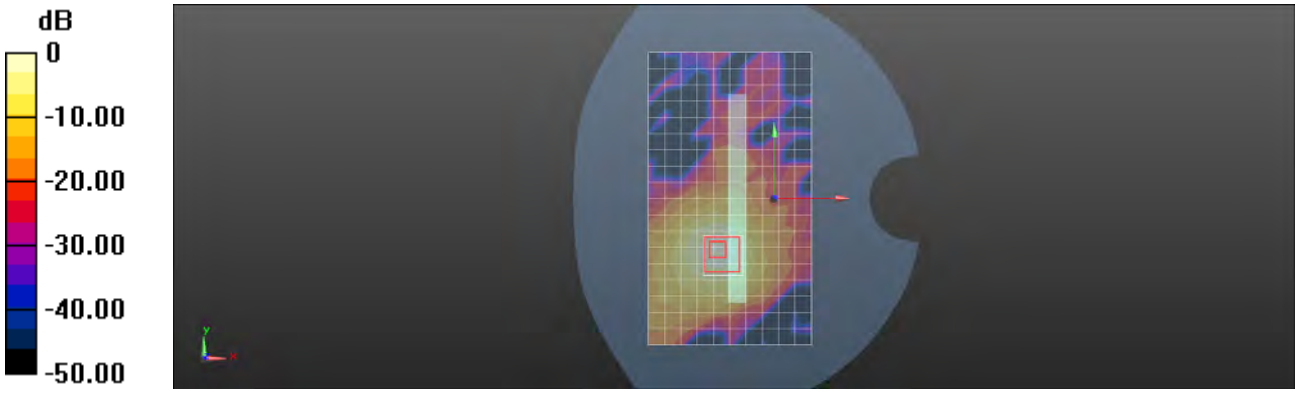
Body-worn_Right side_WLAN802.11a 5.3G_CH64

Communication System: WLAN 5G (FCC); Frequency: 5320 MHz
Medium parameters used: f = 5320 MHz; σ = 5.483 mho/m; ε_r = 48.26; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.802 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.479 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 1.713 mW/g
SAR(1 g) = 0.447 mW/g; SAR(10 g) = 0.148 mW/g
Maximum value of SAR (measured) = 0.854 mW/g



0 dB = 0.854 mW/g = -1.37 dB mW/g

Date: 2012/12/3

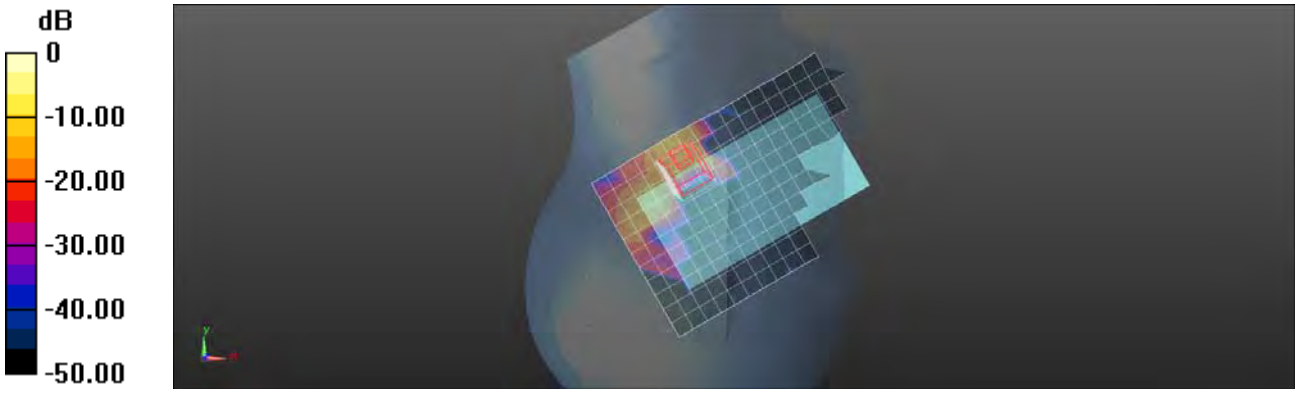
RE Cheek_WLAN802.11a 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 4.818 mho/m; εr = 34.784; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0202 mW/g

Configuration/RE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.989 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 0.202 mW/g
SAR(1 g) = 0.015 mW/g; SAR(10 g) = 0.00294 mW/g
Maximum value of SAR (measured) = 0.0262 mW/g



0 dB = 0.0262 mW/g = -31.63 dB mW/g

Date: 2012/12/3

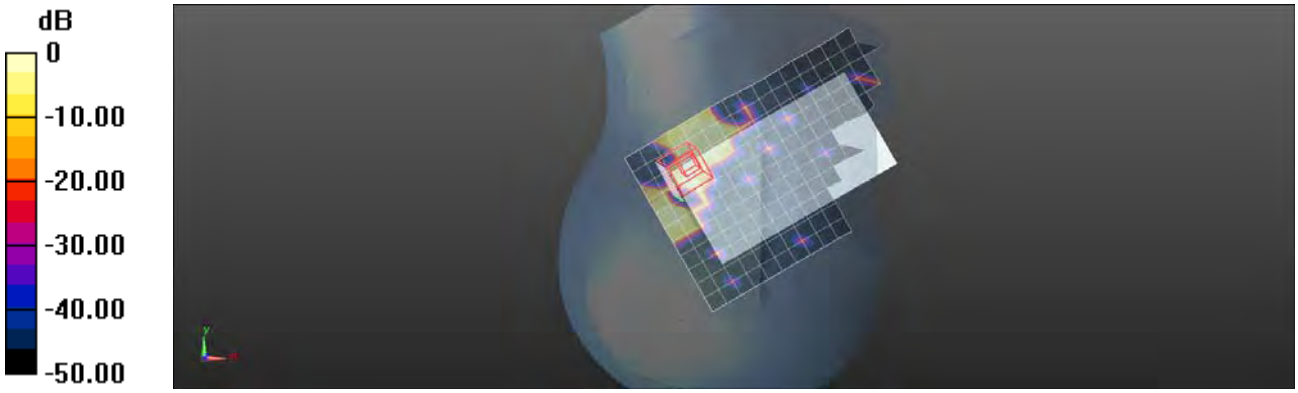
RE Tilt_WLAN802.11a 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 4.818 mho/m; εr = 34.784; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0277 mW/g

Configuration/RE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.918 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.254 mW/g
SAR(1 g) = 0.021 mW/g; SAR(10 g) = 0.00572 mW/g
Maximum value of SAR (measured) = 0.0324 mW/g



0 dB = 0.0324 mW/g = -29.79 dB mW/g

Date: 2012/12/3

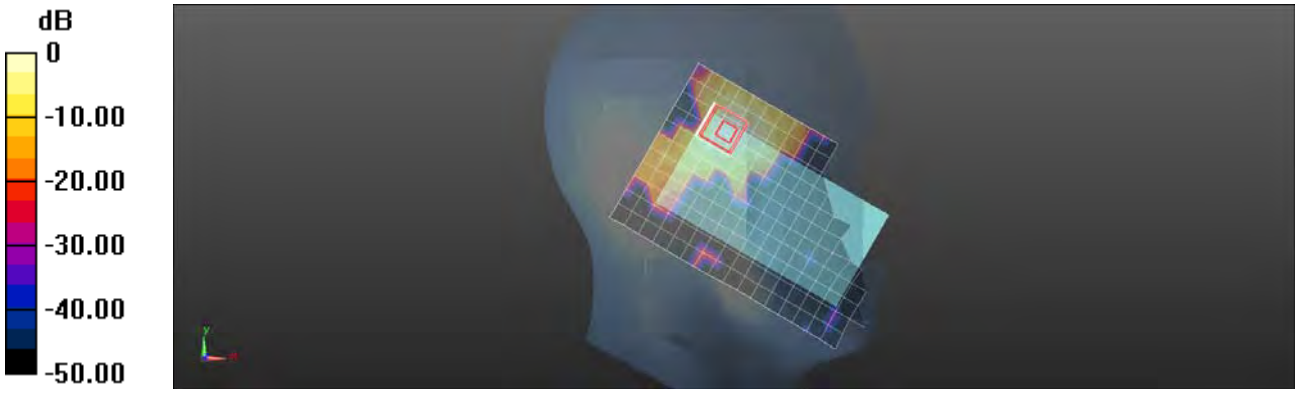
LE Cheek_WLAN802.11a 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 4.818 mho/m; εr = 34.784; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.140 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.066 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.361 mW/g
SAR(1 g) = 0.090 mW/g; SAR(10 g) = 0.027 mW/g
Maximum value of SAR (measured) = 0.188 mW/g



0 dB = 0.188 mW/g = -14.52 dB mW/g

Date: 2012/12/3

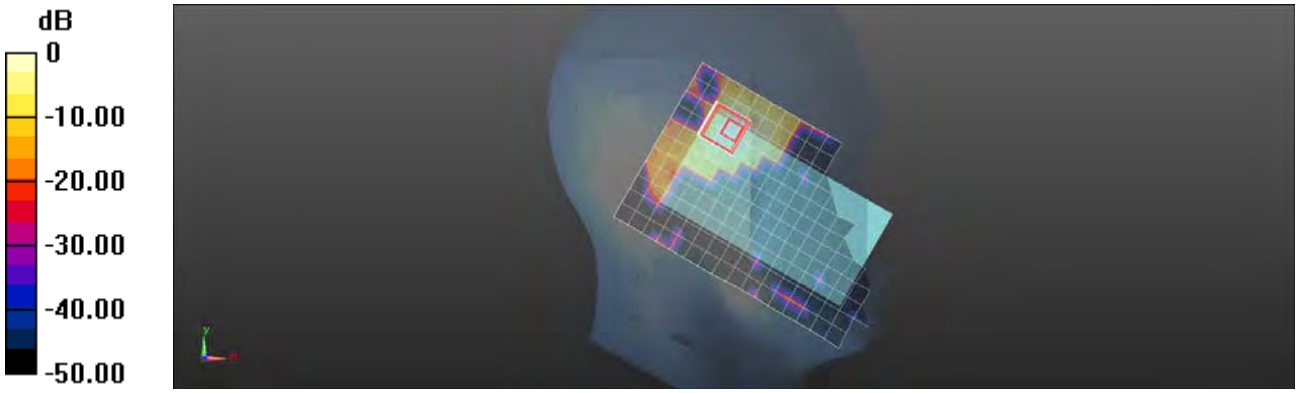
LE Cheek_WLAN802.11a 5.5G_CH116

Communication System: WLAN 5G (FCC); Frequency: 5580 MHz
Medium parameters used: f = 5580 MHz; σ = 4.902 mho/m; εr = 34.603; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0986 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.790 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.274 mW/g
SAR(1 g) = 0.064 mW/g; SAR(10 g) = 0.017 mW/g
Maximum value of SAR (measured) = 0.139 mW/g



0 dB = 0.139 mW/g = -17.14 dB mW/g

Date: 2012/12/3

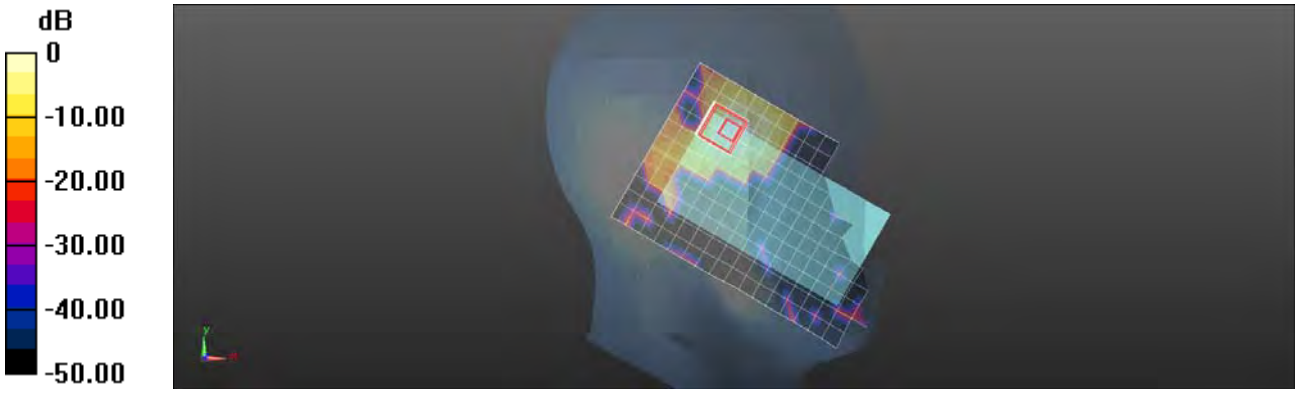
LE Cheek_WLAN802.11a 5.5G_CH120

Communication System: WLAN 5G (FCC); Frequency: 5600 MHz
Medium parameters used: f = 5600 MHz; σ = 4.92 mho/m; εr = 34.573; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.120 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.056 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.320 mW/g
SAR(1 g) = 0.077 mW/g; SAR(10 g) = 0.021 mW/g
Maximum value of SAR (measured) = 0.167 mW/g



0 dB = 0.167 mW/g = -15.55 dB mW/g

Date: 2012/12/3

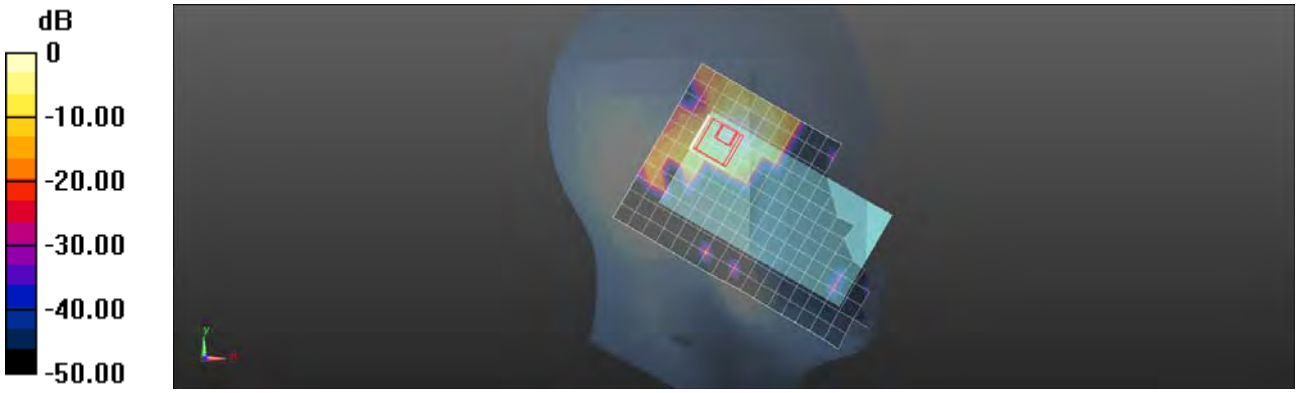
LE Cheek_WLAN802.11a 5.5G_CH132

Communication System: WLAN 5G (FCC); Frequency: 5660 MHz
Medium parameters used: f = 5660 MHz; σ = 4.989 mho/m; εr = 34.438; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.109 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.747 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.278 mW/g
SAR(1 g) = 0.061 mW/g; SAR(10 g) = 0.015 mW/g
Maximum value of SAR (measured) = 0.147 mW/g



0 dB = 0.147 mW/g = -16.65 dB mW/g

Date: 2012/12/3

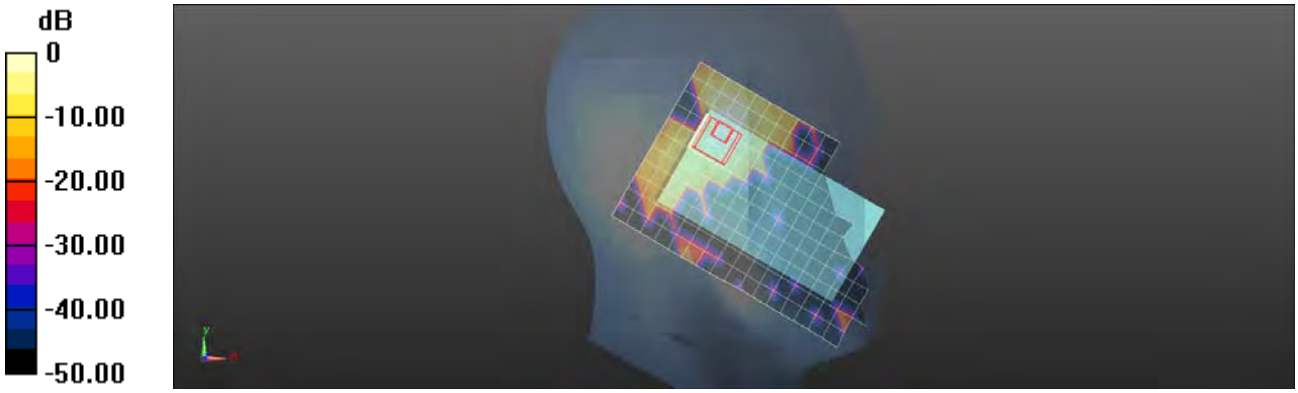
LE Tilt_WLAN802.11a 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 4.818 mho/m; εr = 34.784; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0916 mW/g

Configuration/LE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.323 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.258 mW/g
SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.013 mW/g
Maximum value of SAR (measured) = 0.0999 mW/g



0 dB = 0.0999 mW/g = -20.01 dB mW/g

Date: 2012/12/10

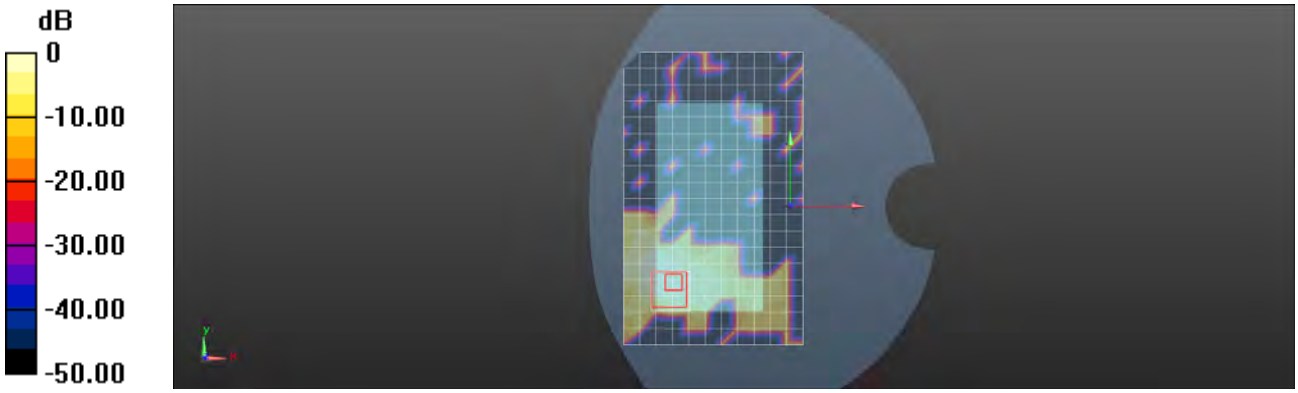
Body-worn_Front side_WLAN802.11a 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 5.741 mho/m; ε_r = 47.906; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0344 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.452 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.267 mW/g
SAR(1 g) = 0.020 mW/g; SAR(10 g) = 0.00483 mW/g
Maximum value of SAR (measured) = 0.0318 mW/g



0 dB = 0.0318 mW/g = -29.95 dB mW/g

Date: 2012/12/10

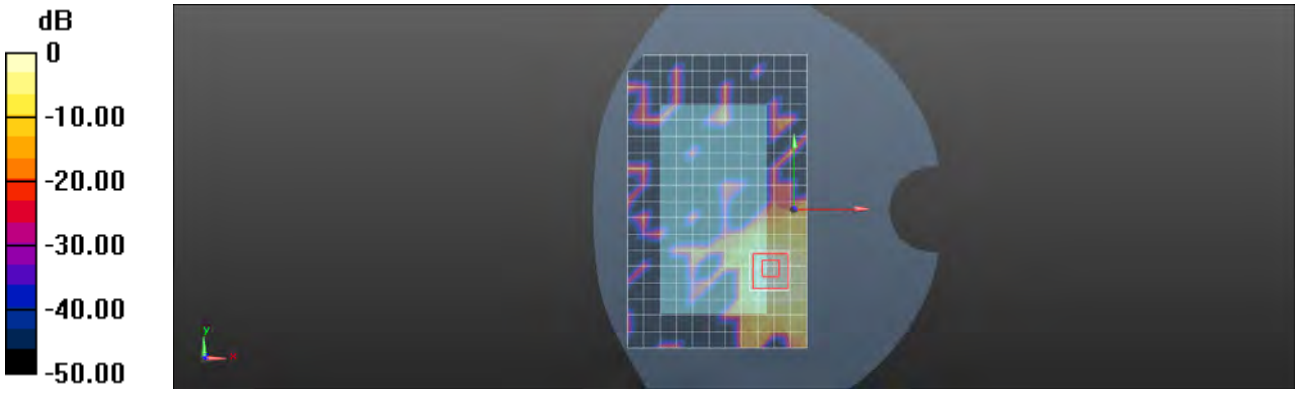
Body-worn_Back side_WLAN802.11a 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 5.741 mho/m; ε_r = 47.906; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.120 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.335 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.239 mW/g
SAR(1 g) = 0.057 mW/g; SAR(10 g) = 0.020 mW/g
Maximum value of SAR (measured) = 0.137 mW/g



0 dB = 0.137 mW/g = -17.27 dB mW/g

Date: 2012/12/10

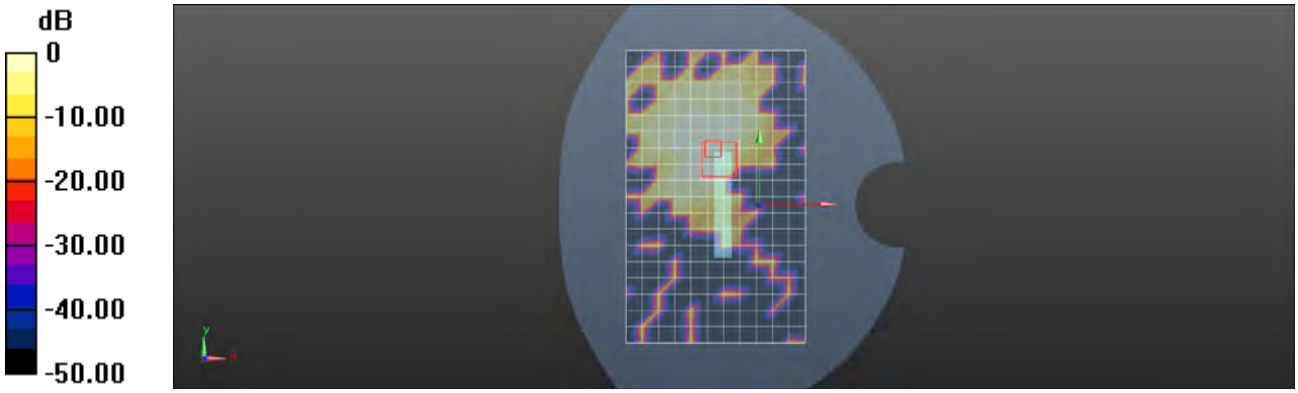
Body-worn_Top side_WLAN802.11a 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 5.741 mho/m; ε_r = 47.906; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0272 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.435 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.195 mW/g
SAR(1 g) = 0.017 mW/g; SAR(10 g) = 0.00415 mW/g
Maximum value of SAR (measured) = 0.0258 mW/g



0 dB = 0.0258 mW/g = -31.77 dB mW/g

Date: 2012/12/10

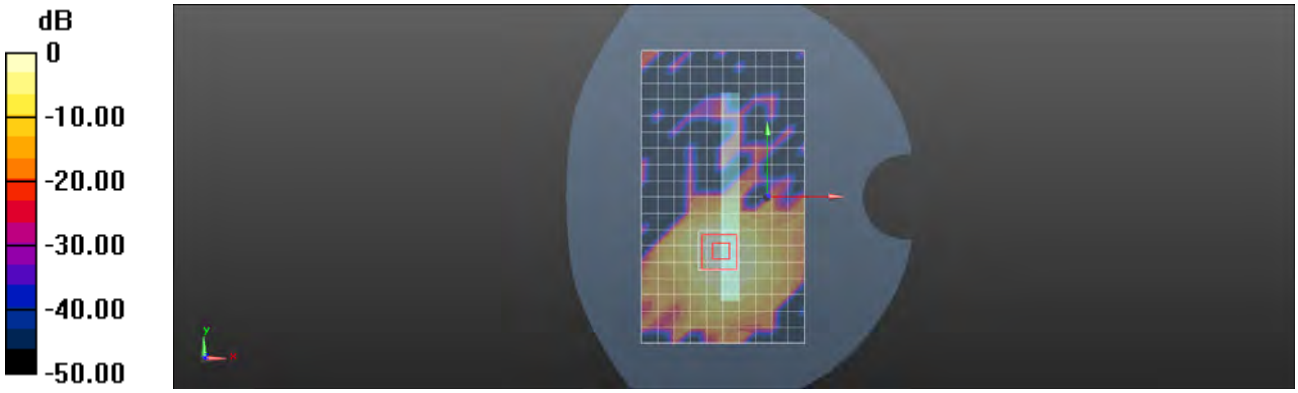
Body-worn_Right side_WLAN802.11a 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 5.741 mho/m; ε_r = 47.906; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.207 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.566 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.552 mW/g
SAR(1 g) = 0.098 mW/g; SAR(10 g) = 0.034 mW/g
Maximum value of SAR (measured) = 0.211 mW/g



0 dB = 0.211 mW/g = -13.51 dB mW/g

Date: 2012/12/10

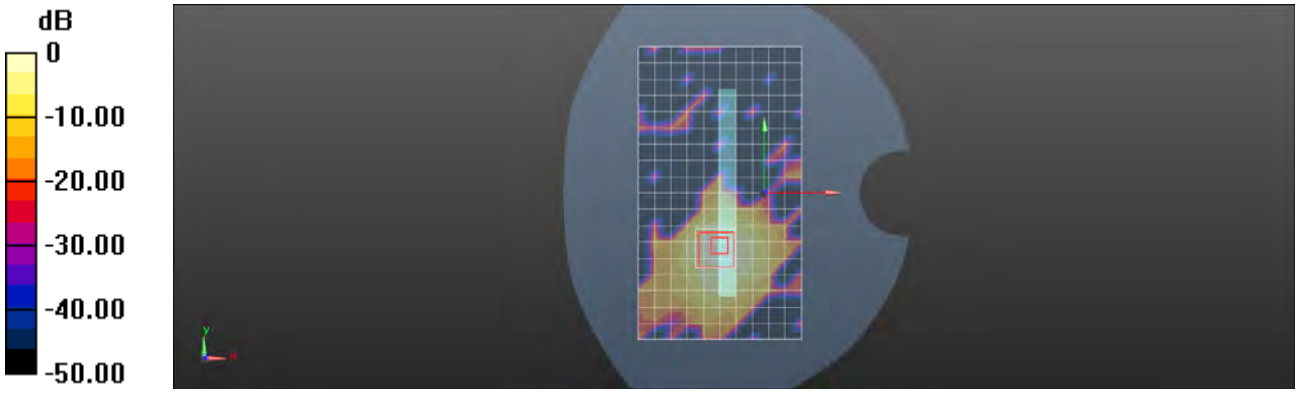
Body-worn_Right side_WLAN802.11a 5.5G_CH116

Communication System: WLAN 5G (FCC); Frequency: 5580 MHz
Medium parameters used: f = 5580 MHz; σ = 5.858 mho/m; ε_r = 47.725; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.126 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.756 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.351 mW/g
SAR(1 g) = 0.063 mW/g; SAR(10 g) = 0.021 mW/g
Maximum value of SAR (measured) = 0.139 mW/g



0 dB = 0.139 mW/g = -17.14 dB mW/g

Date: 2012/12/10

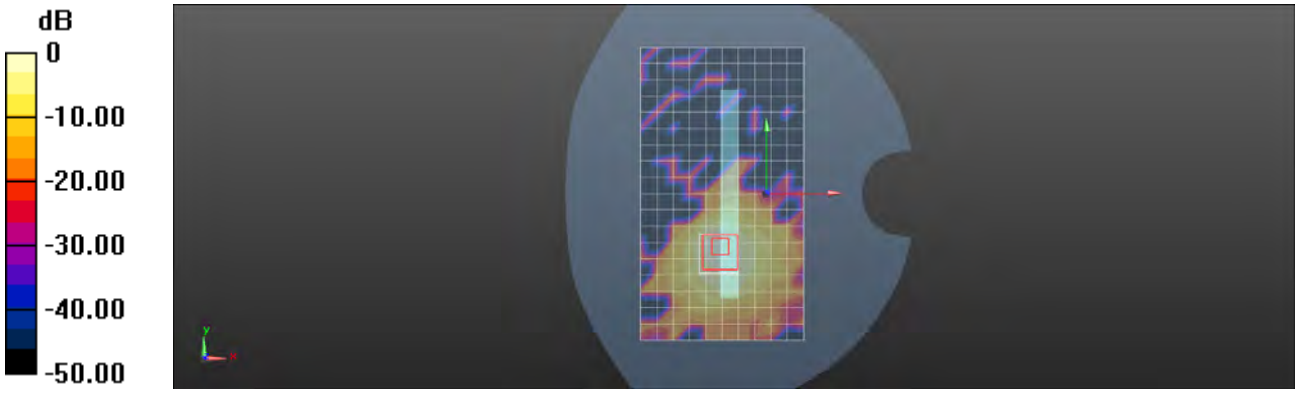
Body-worn_Right side_WLAN802.11a 5.5G_CH120

Communication System: WLAN 5G (FCC); Frequency: 5600 MHz
Medium parameters used: f = 5600 MHz; σ = 5.886 mho/m; ε_r = 47.703; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.163 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.629 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.668 mW/g
SAR(1 g) = 0.078 mW/g; SAR(10 g) = 0.026 mW/g
Maximum value of SAR (measured) = 0.170 mW/g



0 dB = 0.170 mW/g = -15.39 dB mW/g

Date: 2012/12/10

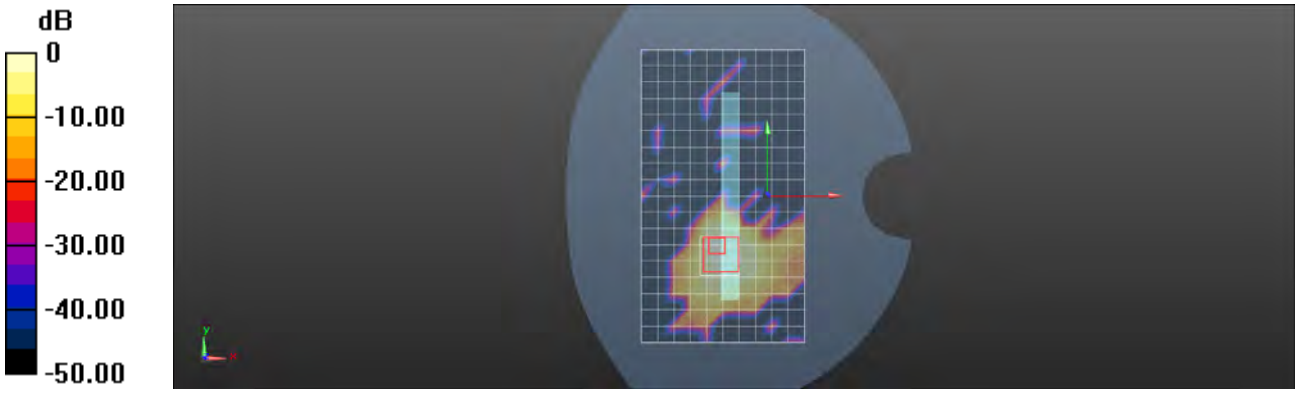
Body-worn_Right side_WLAN802.11a 5.5G_CH132

Communication System: WLAN 5G (FCC); Frequency: 5660 MHz
Medium parameters used: f = 5660 MHz; σ = 5.967 mho/m; ε_r = 47.579; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.103 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.447 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.504 mW/g
SAR(1 g) = 0.049 mW/g; SAR(10 g) = 0.018 mW/g
Maximum value of SAR (measured) = 0.115 mW/g



0 dB = 0.115 mW/g = -18.79 dB mW/g

Date: 2012/12/11

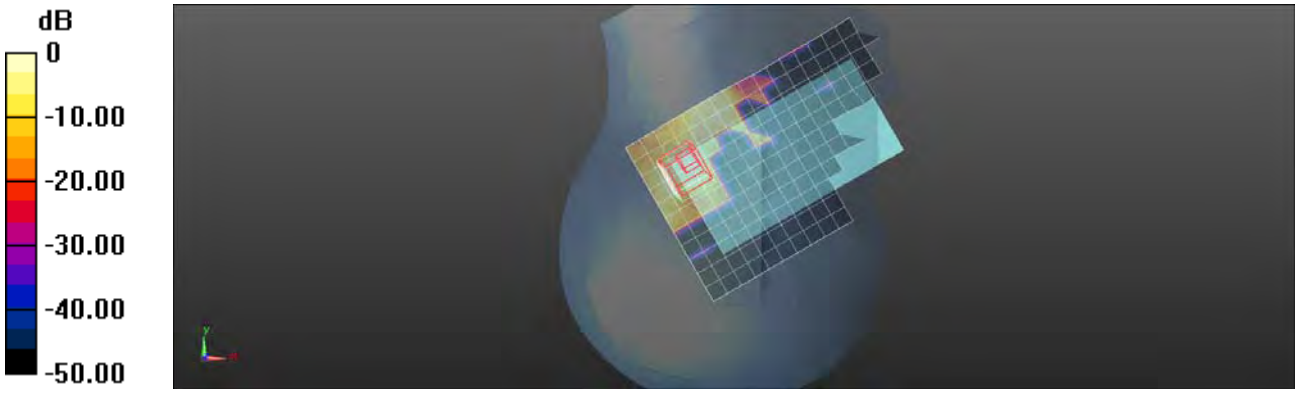
RE Cheek_WLAN802.11a 5.8G_CH149

Communication System: WLAN 5G (FCC); Frequency: 5745 MHz
Medium parameters used: f = 5745 MHz; σ = 5.083 mho/m; εr = 34.274; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0201 mW/g

Configuration/RE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.785 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.101 mW/g
SAR(1 g) = 0.00481 mW/g; SAR(10 g) = 0.000587 mW/g
Maximum value of SAR (measured) = 0.0197 mW/g



0 dB = 0.0197 mW/g = -34.11 dB mW/g

Date: 2012/12/11

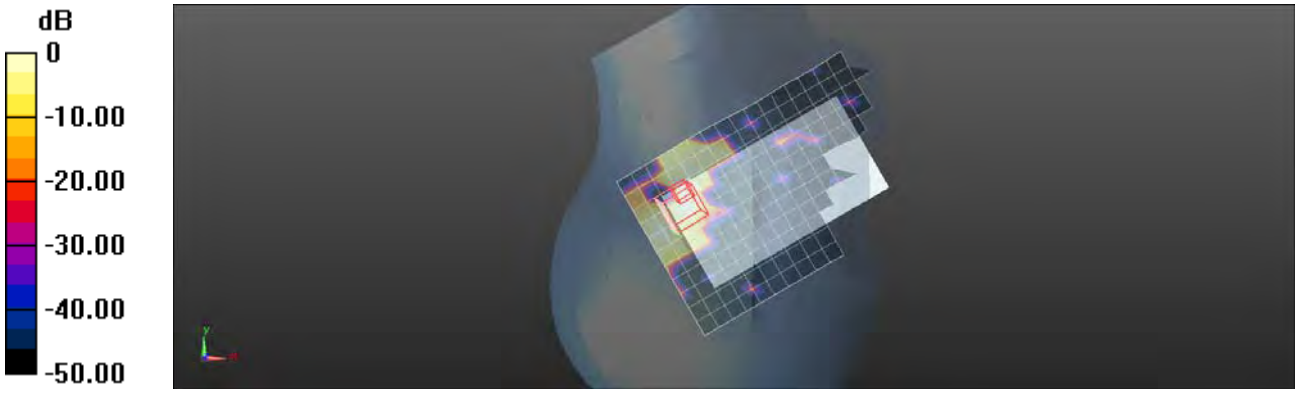
RE Tilt_WLAN802.11a 5.8G_CH149

Communication System: WLAN 5G (FCC); Frequency: 5745 MHz
Medium parameters used: f = 5745 MHz; σ = 5.083 mho/m; εr = 34.274; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0174 mW/g

Configuration/RE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.741 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.041 mW/g
SAR(1 g) = 0.000673 mW/g; SAR(10 g) = 0.000121 mW/g
Maximum value of SAR (measured) = 0.0172 mW/g



0 dB = 0.0172 mW/g = -35.29 dB mW/g

Date: 2012/12/11

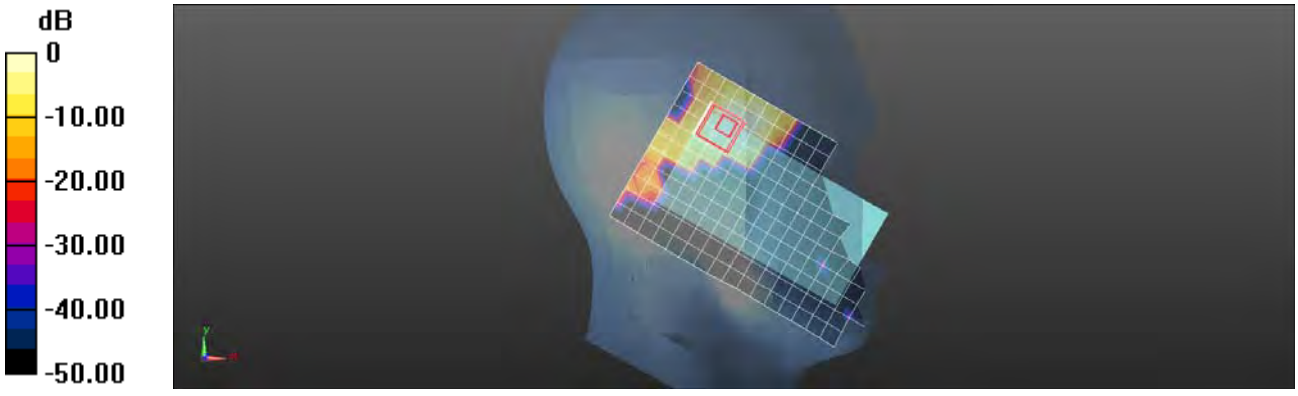
LE Cheek_WLAN802.11a 5.8G_CH149

Communication System: WLAN 5G (FCC); Frequency: 5745 MHz
Medium parameters used: f = 5745 MHz; σ = 5.083 mho/m; εr = 34.274; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.115 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.769 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.228 mW/g
SAR(1 g) = 0.054 mW/g; SAR(10 g) = 0.016 mW/g



0 dB = 0.115 mW/g = -18.79 dB mW/g

Date: 2012/12/11

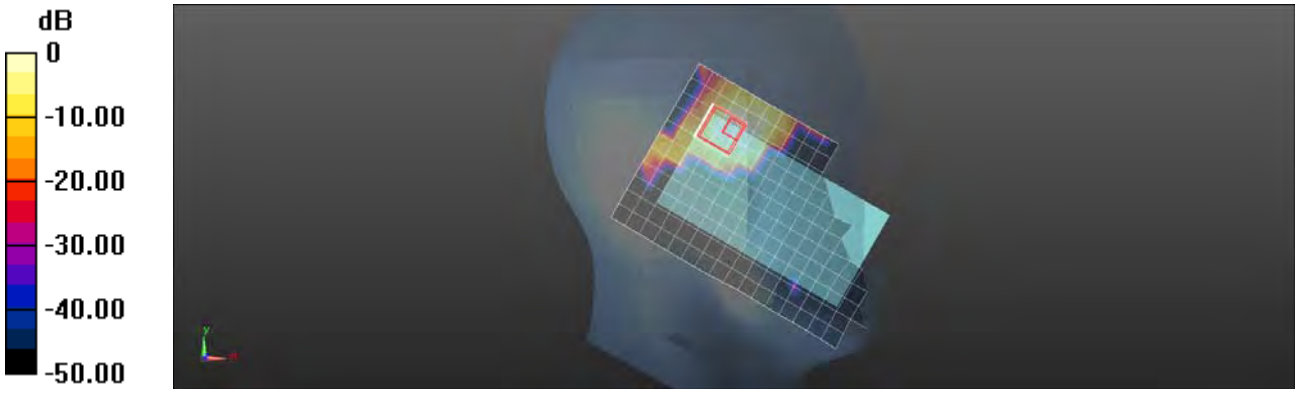
LE Cheek_WLAN802.11a 5.8G_CH153

Communication System: WLAN 5G (FCC); Frequency: 5765 MHz
Medium parameters used: f = 5765 MHz; σ = 5.118 mho/m; εr = 34.226; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.114 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.778 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.224 mW/g
SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.011 mW/g
Maximum value of SAR (measured) = 0.107 mW/g



0 dB = 0.107 mW/g = -19.41 dB mW/g

Date: 2012/12/11

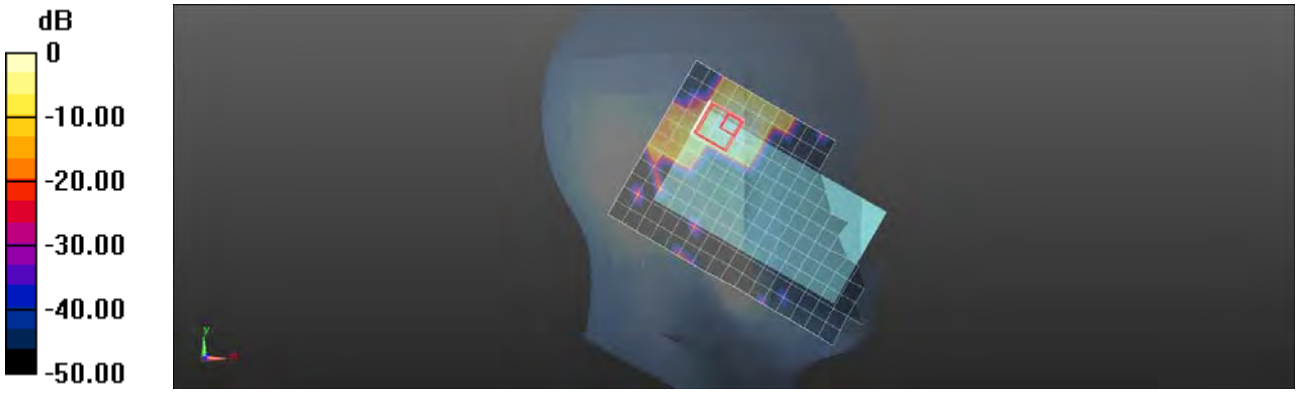
LE Cheek_WLAN802.11a 5.8G_CH161

Communication System: WLAN 5G (FCC); Frequency: 5805 MHz
Medium parameters used: f = 5805 MHz; σ = 5.151 mho/m; εr = 34.148; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.101 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.936 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.248 mW/g
SAR(1 g) = 0.044 mW/g; SAR(10 g) = 0.012 mW/g
Maximum value of SAR (measured) = 0.116 mW/g



0 dB = 0.116 mW/g = -18.71 dB mW/g

Date: 2012/12/11

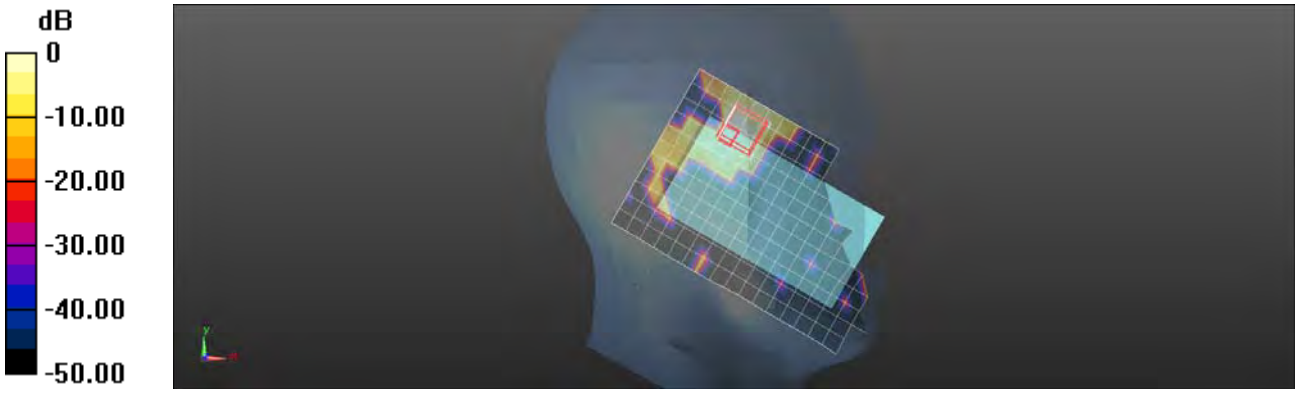
LE Tilt_WLAN802.11a 5.8G_CH149

Communication System: WLAN 5G (FCC); Frequency: 5745 MHz
Medium parameters used: f = 5745 MHz; σ = 5.083 mho/m; εr = 34.274; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0399 mW/g

Configuration/LE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.665 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.245 mW/g
SAR(1 g) = 0.023 mW/g; SAR(10 g) = 0.00705 mW/g
Maximum value of SAR (measured) = 0.0467 mW/g



0 dB = 0.0467 mW/g = -26.61 dB mW/g

Date: 2012/12/12

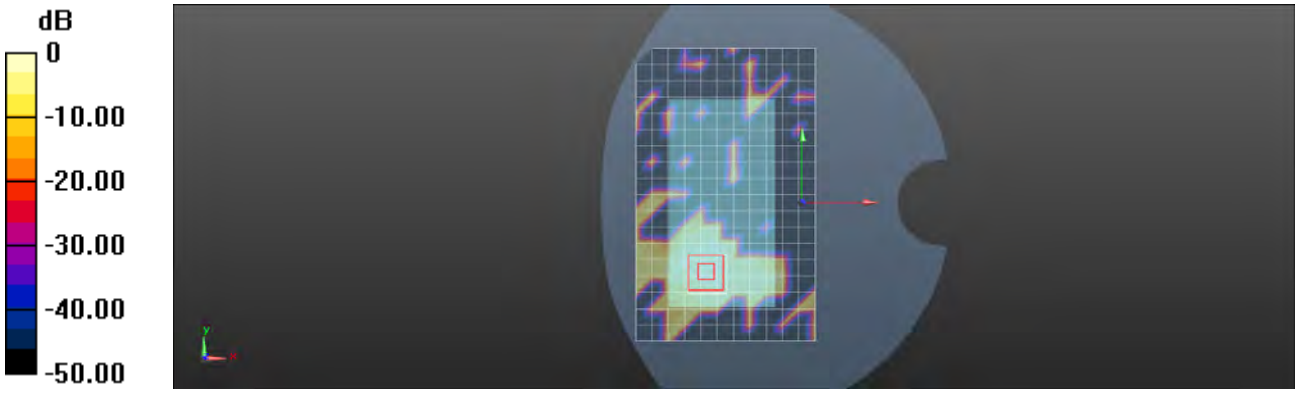
Body-worn_Front side_WLAN802.11a 5.8G_CH149

Communication System: WLAN 5G (FCC); Frequency: 5745 MHz
Medium parameters used: f = 5745 MHz; σ = 6.092 mho/m; ε_r = 47.437; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid: dx=10mm, dy=10mm.
Maximum value of SAR (measured) = 0.0216 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.637 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.156 mW/g
SAR(1 g) = 0.013 mW/g; SAR(10 g) = 0.00341 mW/g
Maximum value of SAR (measured) = 0.0198 mW/g



0 dB = 0.0198 mW/g = -34.07 dB mW/g

Date: 2012/12/12

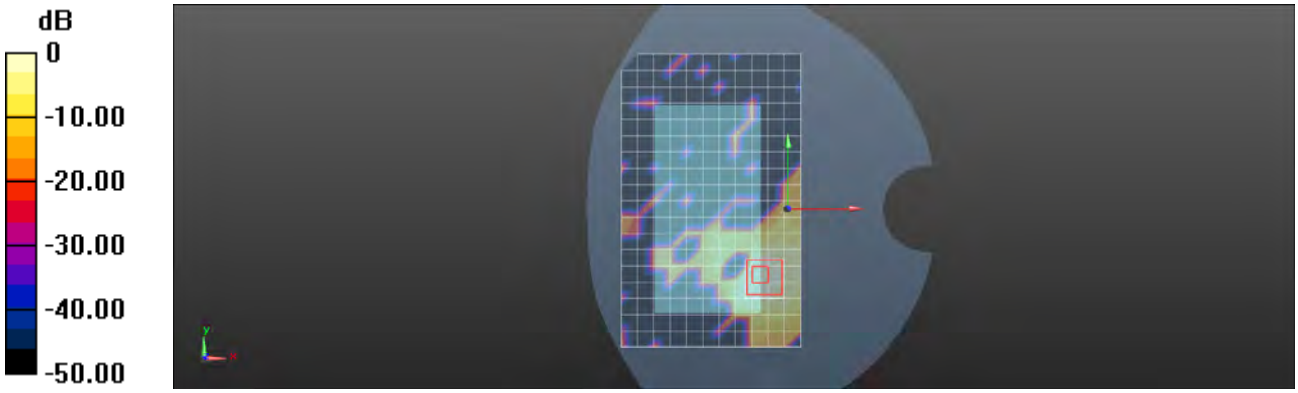
Body-worn_Back side_WLAN802.11a 5.8G_CH149

Communication System: WLAN 5G (FCC); Frequency: 5745 MHz
Medium parameters used: f = 5745 MHz; σ = 6.092 mho/m; ε_r = 47.437; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0591 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.689 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.514 mW/g
SAR(1 g) = 0.045 mW/g; SAR(10 g) = 0.016 mW/g
Maximum value of SAR (measured) = 0.0620 mW/g



0 dB = 0.0620 mW/g = -24.15 dB mW/g

Date: 2012/12/12

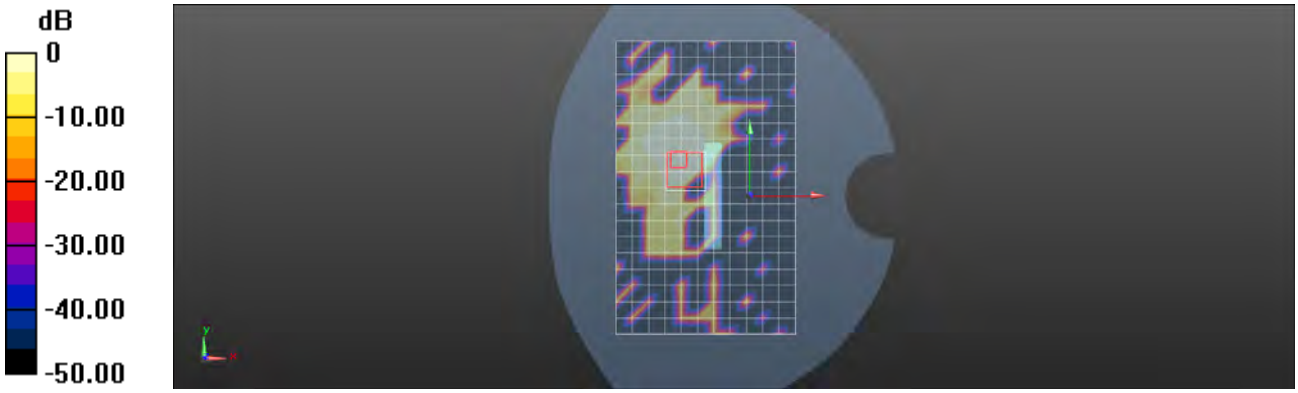
Body-worn_Top side_WLAN802.11a 5.8G_CH149

Communication System: WLAN 5G (FCC); Frequency: 5745 MHz
Medium parameters used: f = 5745 MHz; σ = 6.092 mho/m; ε_r = 47.437; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0180 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.785 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.128 mW/g
SAR(1 g) = 0.00611 mW/g; SAR(10 g) = 0.000732 mW/g
Maximum value of SAR (measured) = 0.0188 mW/g



0 dB = 0.0188 mW/g = -34.52 dB mW/g

Date: 2012/12/12

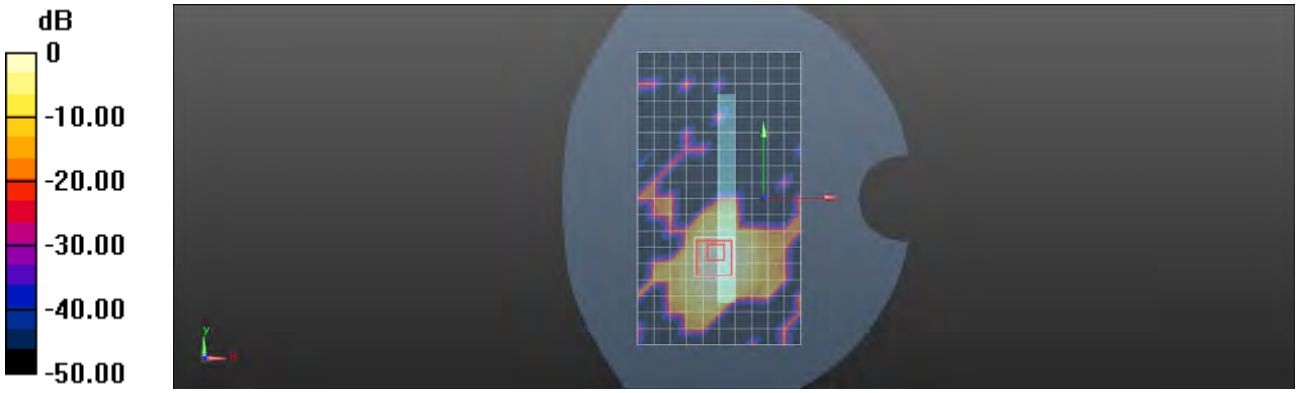
Body-worn_Right side_WLAN802.11a 5.8G_CH149

Communication System: WLAN 5G (FCC); Frequency: 5745 MHz
Medium parameters used: f = 5745 MHz; σ = 6.092 mho/m; ε_r = 47.437; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.111 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.745 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.340 mW/g
SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.017 mW/g
Maximum value of SAR (measured) = 0.113 mW/g



0 dB = 0.113 mW/g = -18.94 dB mW/g

Date: 2012/12/12

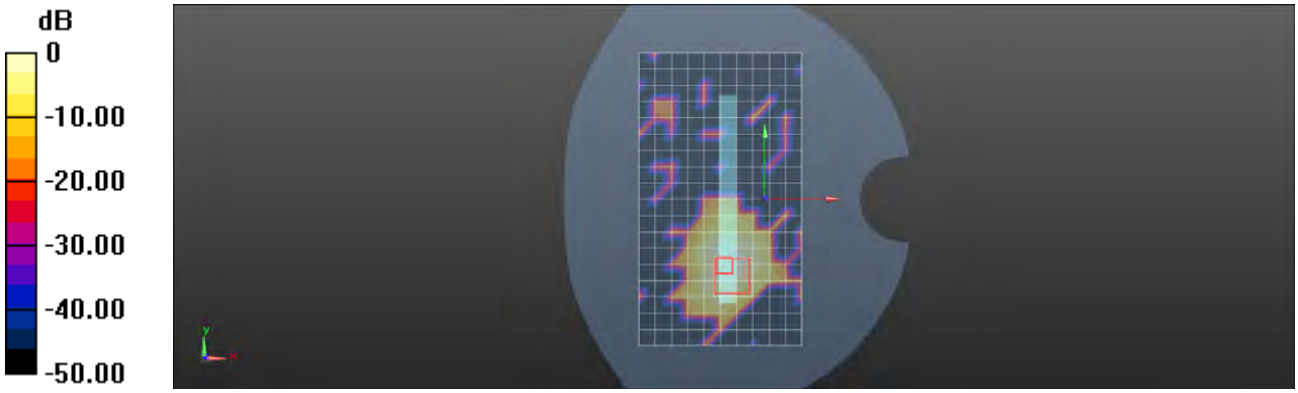
Body-worn_Right side_WLAN802.11a 5.8G_CH153

Communication System: WLAN 5G (FCC); Frequency: 5765 MHz
Medium parameters used: f = 5765 MHz; σ = 6.122 mho/m; ε_r = 47.378; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0765 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.654 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.341 mW/g
SAR(1 g) = 0.034 mW/g; SAR(10 g) = 0.012 mW/g
Maximum value of SAR (measured) = 0.0866 mW/g



0 dB = 0.0866 mW/g = -21.25 dB mW/g

Date: 2012/12/12

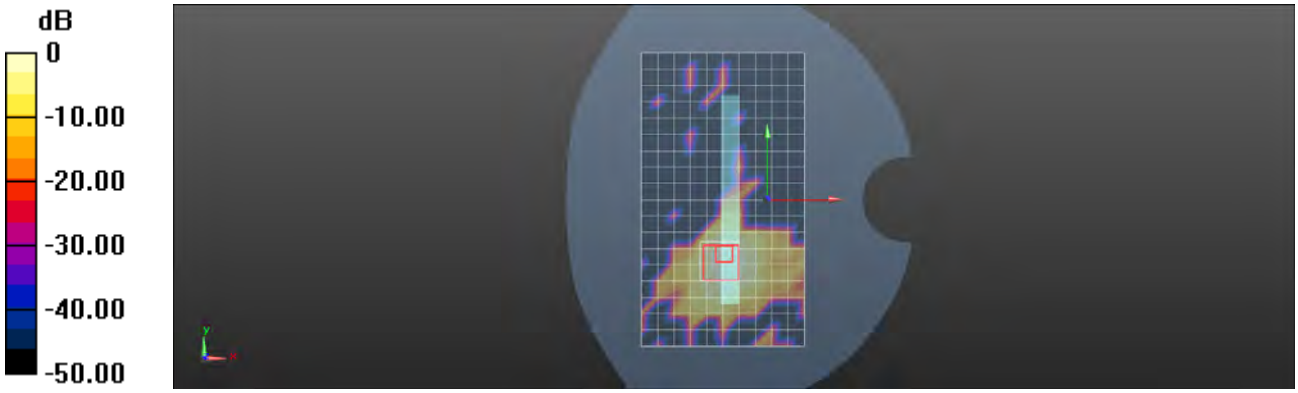
Body-worn_Right side_WLAN802.11a 5.8G_CH161

Communication System: WLAN 5G (FCC); Frequency: 5805 MHz
Medium parameters used: f = 5805 MHz; σ = 6.186 mho/m; ε_r = 47.301; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0942 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.687 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.393 mW/g
SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.017 mW/g
Maximum value of SAR (measured) = 0.110 mW/g



0 dB = 0.110 mW/g = -19.17 dB mW/g

Date: 2012/11/21

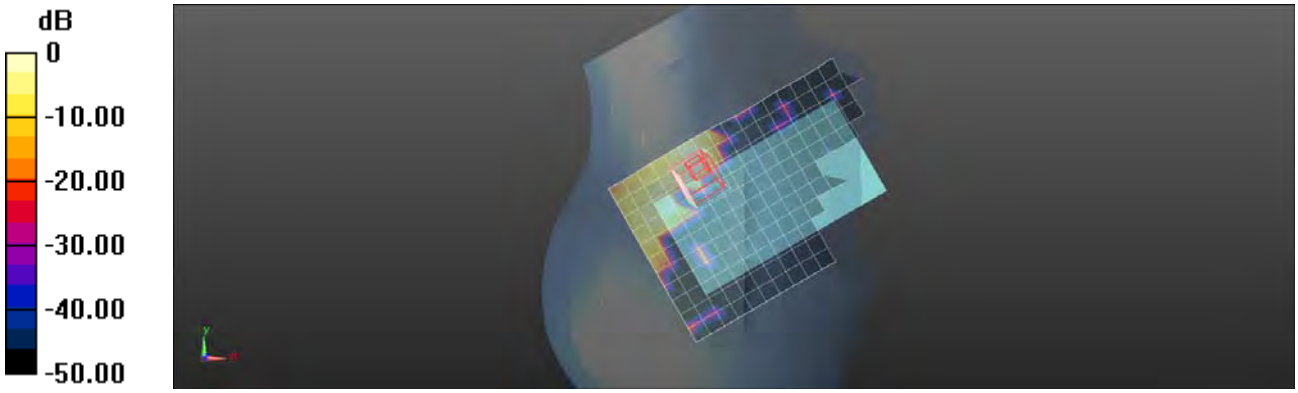
RE Cheek_WLAN802.11n(20M) 5.2G_CH36

Communication System: WLAN 5G (FCC); Frequency: 5180 MHz
Medium parameters used: f = 5180 MHz; σ = 4.455 mho/m; εr = 35.463; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0722 mW/g

Configuration/RE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.184 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.231 mW/g
SAR(1 g) = 0.037 mW/g; SAR(10 g) = 0.00983 mW/g
Maximum value of SAR (measured) = 0.0919 mW/g



0 dB = 0.0919 mW/g = -20.73 dB mW/g

Date: 2012/11/21

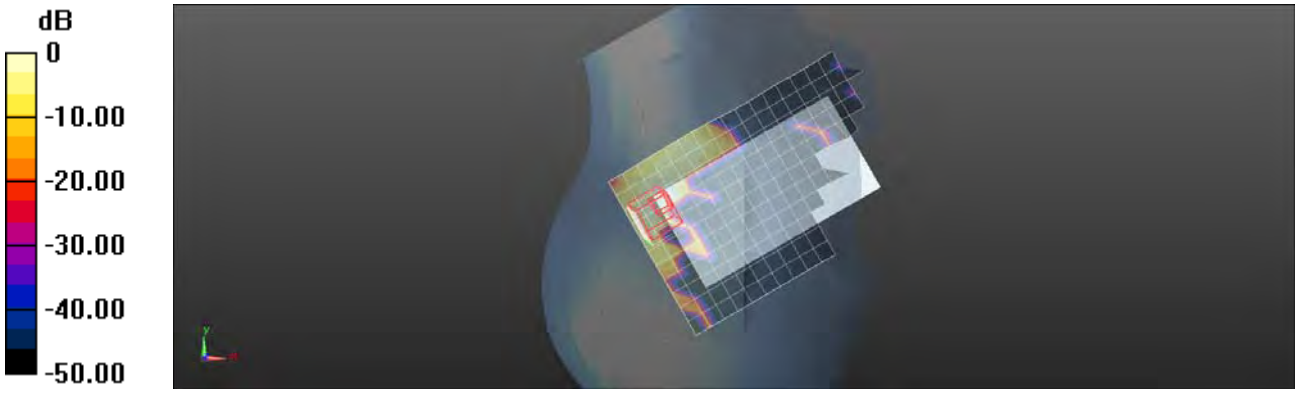
RE Tilt_WLAN802.11n(20M) 5.2G_CH36

Communication System: WLAN 5G (FCC); Frequency: 5180 MHz
Medium parameters used: f = 5180 MHz; σ = 4.455 mho/m; εr = 35.463; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0435 mW/g

Configuration/RE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.026 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.188 mW/g
SAR(1 g) = 0.021 mW/g; SAR(10 g) = 0.0052 mW/g
Maximum value of SAR (measured) = 0.0553 mW/g



0 dB = 0.0553 mW/g = -25.15 dB mW/g

Date: 2012/11/21

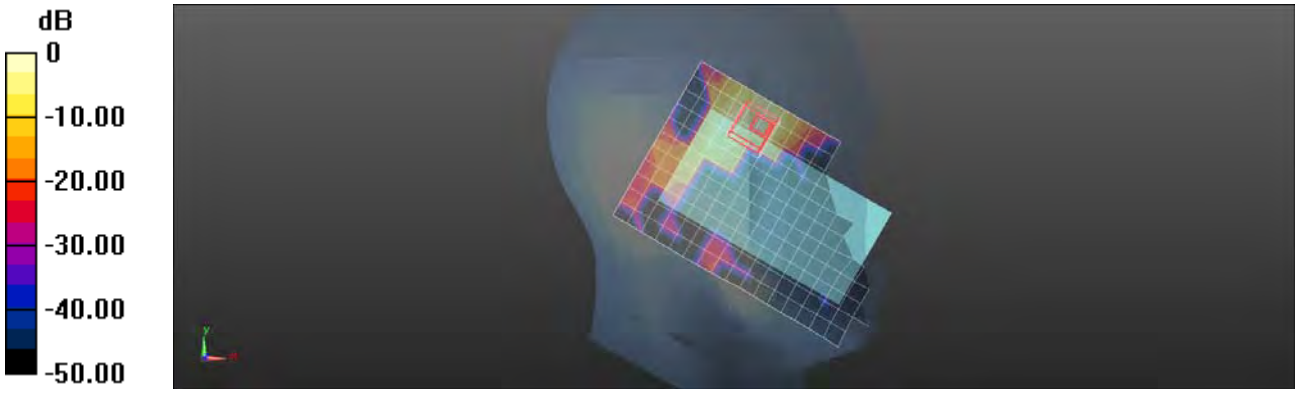
LE Cheek_WLAN802.11n(20M) 5.2G_CH36

Communication System: WLAN 5G (FCC); Frequency: 5180 MHz
Medium parameters used: f = 5180 MHz; σ = 4.455 mho/m; εr = 35.463; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.312 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.490 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 2.436 mW/g
SAR(1 g) = 0.212 mW/g; SAR(10 g) = 0.053 mW/g
Maximum value of SAR (measured) = 0.468 mW/g



0 dB = 0.468 mW/g = -6.60 dB mW/g

Date: 2012/11/21

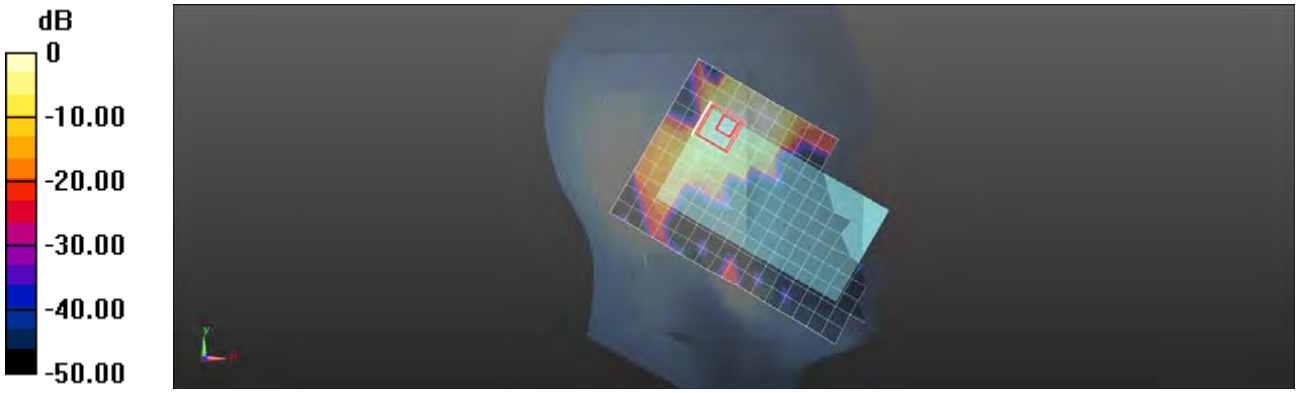
LE Cheek_WLAN802.11n(20M) 5.2G_CH48

Communication System: WLAN 5G (FCC); Frequency: 5240 MHz
Medium parameters used: f = 5240 MHz; σ = 4.52 mho/m; εr = 35.329; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.250 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.010 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.525 mW/g
SAR(1 g) = 0.142 mW/g; SAR(10 g) = 0.041 mW/g
Maximum value of SAR (measured) = 0.301 mW/g



0 dB = 0.301 mW/g = -10.43 dB mW/g

Date: 2012/11/21

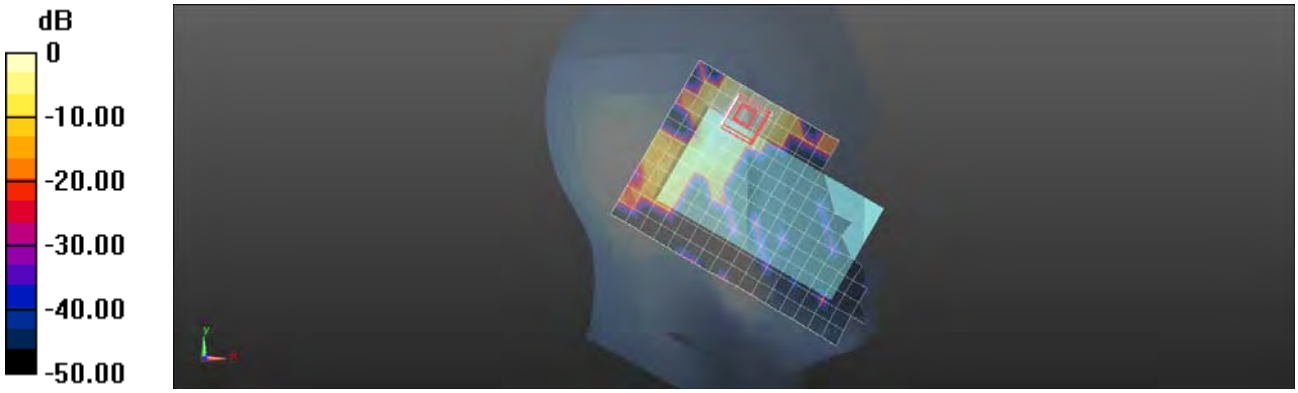
LE Tilt_WLAN802.11n(20M) 5.2G_CH36

Communication System: WLAN 5G (FCC); Frequency: 5180 MHz
Medium parameters used: f = 5180 MHz; σ = 4.455 mho/m; εr = 35.463; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0786 mW/g

Configuration/LE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.424 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.176 mW/g
SAR(1 g) = 0.041 mW/g; SAR(10 g) = 0.015 mW/g
Maximum value of SAR (measured) = 0.0942 mW/g



0 dB = 0.0942 mW/g = -20.52 dB mW/g

Date: 2012/11/25

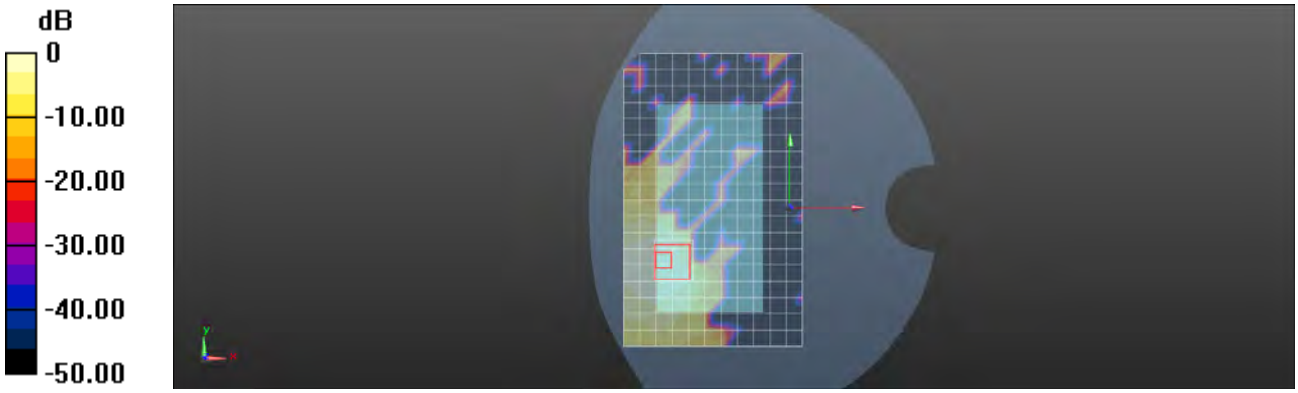
Body-worn_Front side_WLAN802.11n(20M) 5.2G_CH36

Communication System: WLAN 5G (FCC); Frequency: 5180 MHz
Medium parameters used: f = 5180 MHz; σ = 5.284 mho/m; ε_r = 48.558; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0645 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.317 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.132 mW/g
SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.011 mW/g
Maximum value of SAR (measured) = 0.0661 mW/g



0 dB = 0.0661 mW/g = -23.60 dB mW/g

Date: 2012/11/25

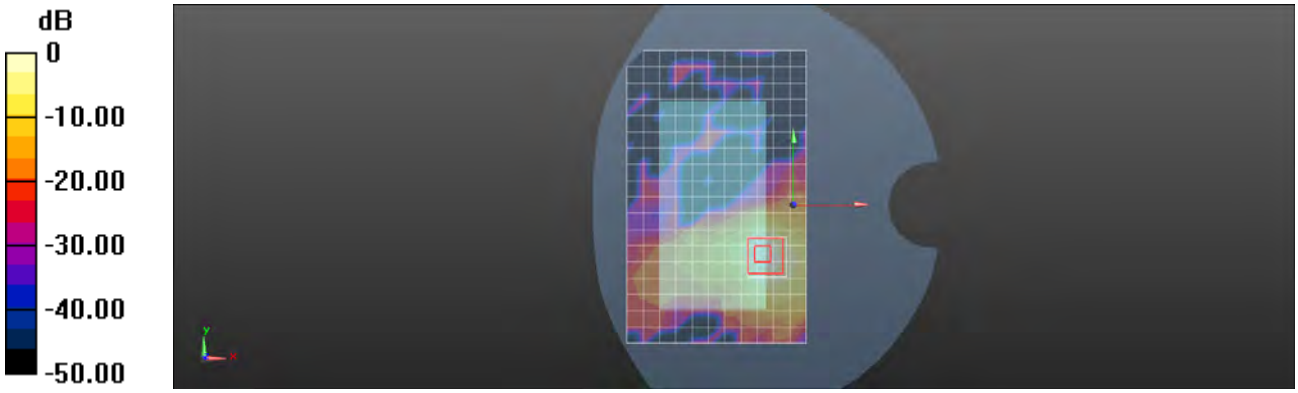
Body-worn_Back side_WLAN802.11n(20M) 5.2G_CH36

Communication System: WLAN 5G (FCC); Frequency: 5180 MHz
Medium parameters used: f = 5180 MHz; σ = 5.284 mho/m; ε_r = 48.558; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.525 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.620 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.333 mW/g
SAR(1 g) = 0.354 mW/g; SAR(10 g) = 0.115 mW/g
Maximum value of SAR (measured) = 0.668 mW/g



0 dB = 0.668 mW/g = -3.50 dB mW/g

Date: 2012/11/25

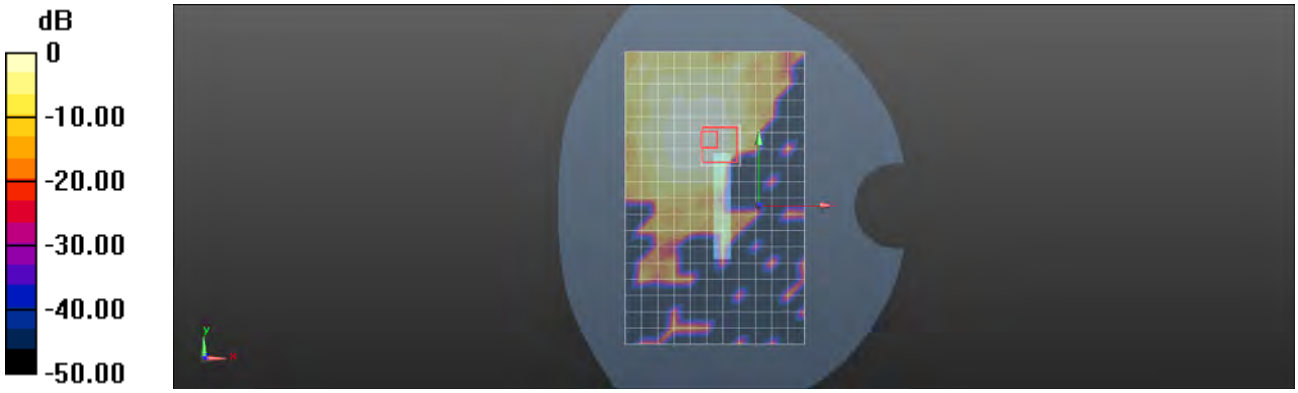
Body-worn_Top side_WLAN802.11n(20M) 5.2G_CH36

Communication System: WLAN 5G (FCC); Frequency: 5180 MHz
Medium parameters used: f = 5180 MHz; σ = 5.284 mho/m; ε_r = 48.558; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0400 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.220 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.308 mW/g
SAR(1 g) = 0.027 mW/g; SAR(10 g) = 0.00603 mW/g
Maximum value of SAR (measured) = 0.0425 mW/g



0 dB = 0.0425 mW/g = -27.43 dB mW/g

Date: 2012/11/25

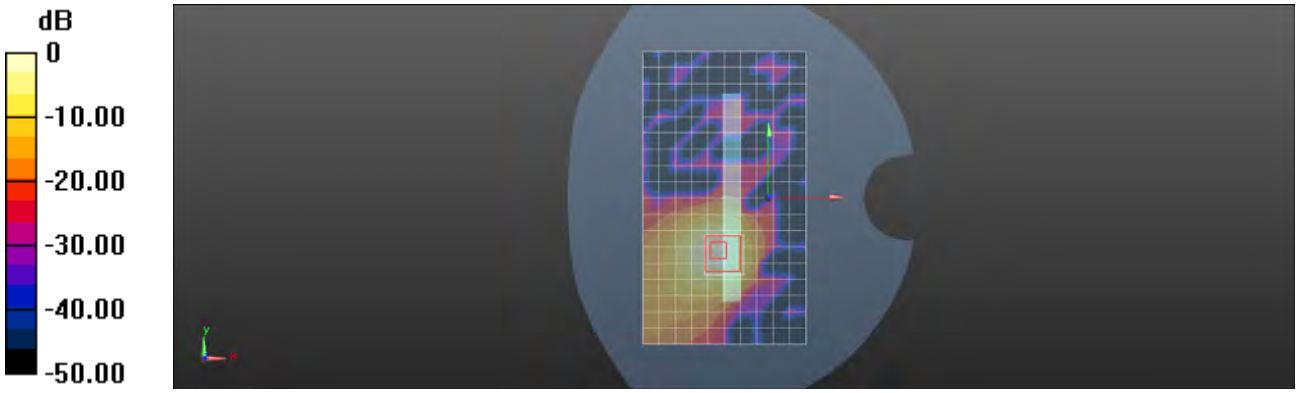
Body-worn_Right side_WLAN802.11n(20M) 5.2G_CH36

Communication System: WLAN 5G (FCC); Frequency: 5180 MHz
Medium parameters used: f = 5180 MHz; σ = 5.284 mho/m; ε_r = 48.558; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.738 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.987 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 1.662 mW/g
SAR(1 g) = 0.452 mW/g; SAR(10 g) = 0.137 mW/g
Maximum value of SAR (measured) = 0.854 mW/g



0 dB = 0.854 mW/g = -1.37 dB mW/g

Date: 2012/11/25

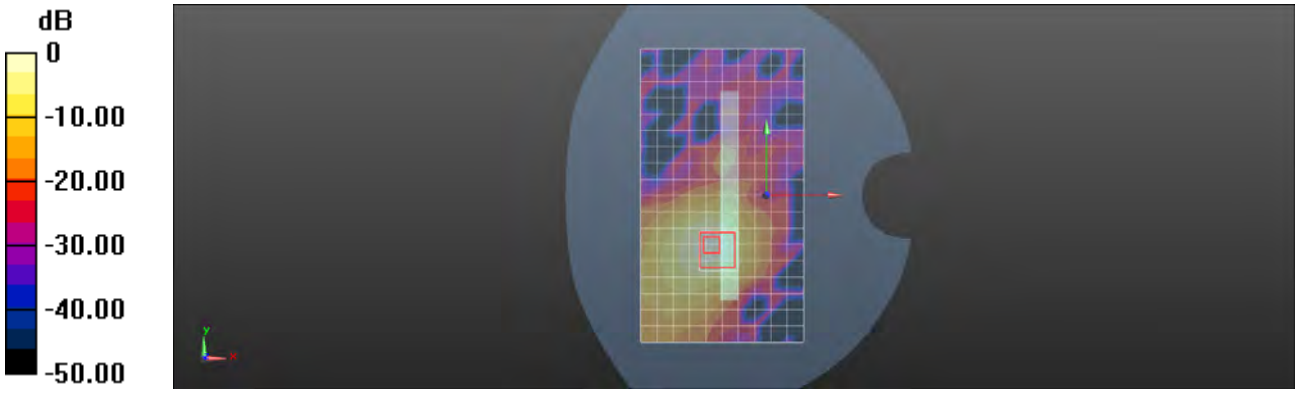
Body-worn_Right side_WLAN802.11n(20M) 5.2G_CH48

Communication System: WLAN 5G (FCC); Frequency: 5240 MHz
Medium parameters used: f = 5240 MHz; σ = 5.368 mho/m; ε_r = 48.426; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.782 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.240 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 1.719 mW/g
SAR(1 g) = 0.465 mW/g; SAR(10 g) = 0.147 mW/g
Maximum value of SAR (measured) = 0.883 mW/g



0 dB = 0.883 mW/g = -1.08 dB mW/g

Date: 2012/11/26

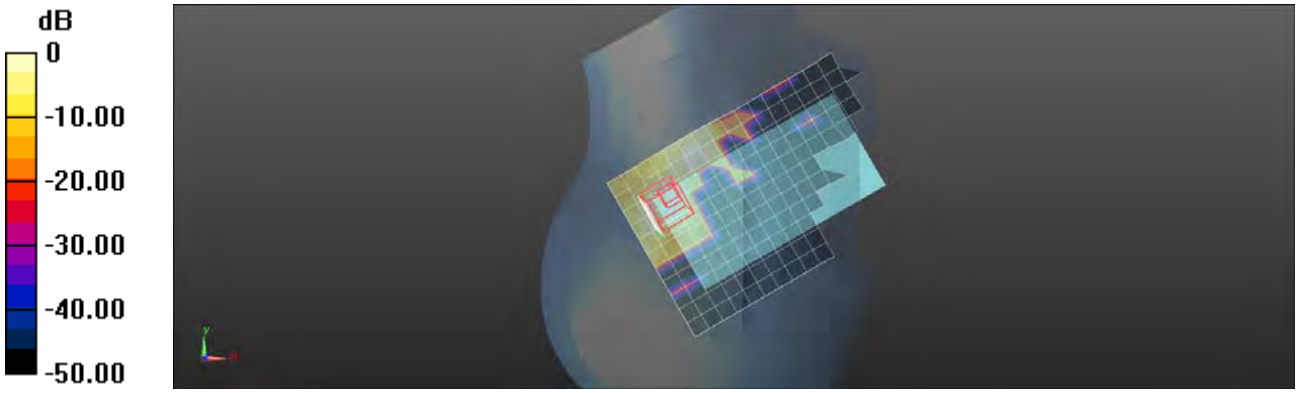
RE Cheek_WLAN802.11n(20M) 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 4.544 mho/m; εr = 35.281; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.114 mW/g

Configuration/RE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.805 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.277 mW/g
SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.015 mW/g
Maximum value of SAR (measured) = 0.116 mW/g



0 dB = 0.116 mW/g = -18.71 dB mW/g

Date: 2012/11/26

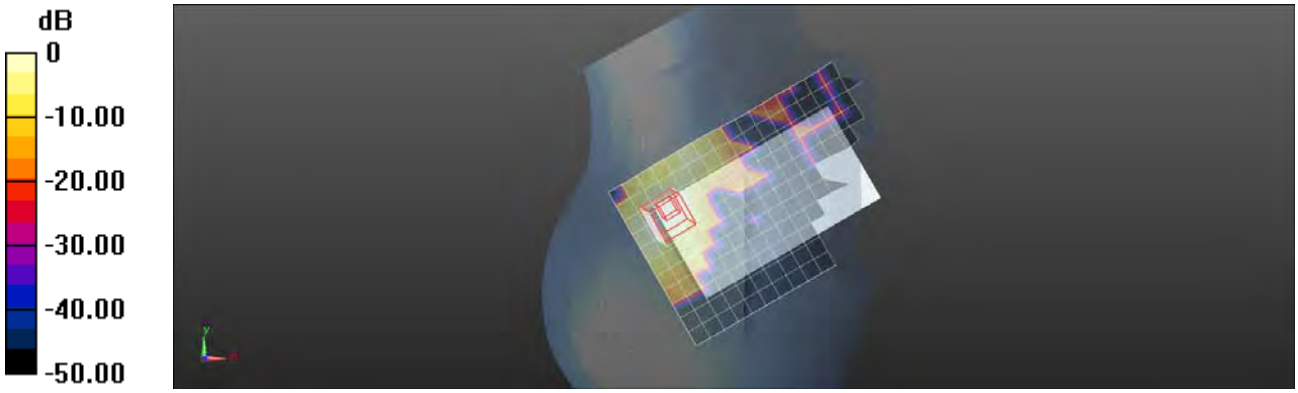
RE Tilt_WLAN802.11n(20M) 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 4.544 mho/m; εr = 35.281; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0939 mW/g

Configuration/RE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.046 V/m; Power Drift =0.08 dB
Peak SAR (extrapolated) = 0.214 mW/g
SAR(1 g) = 0.038 mW/g; SAR(10 g) = 0.014 mW/g
Maximum value of SAR (measured) = 0.0983 mW/g



0 dB = 0.0983 mW/g = -20.15 dB mW/g

Date: 2012/11/26

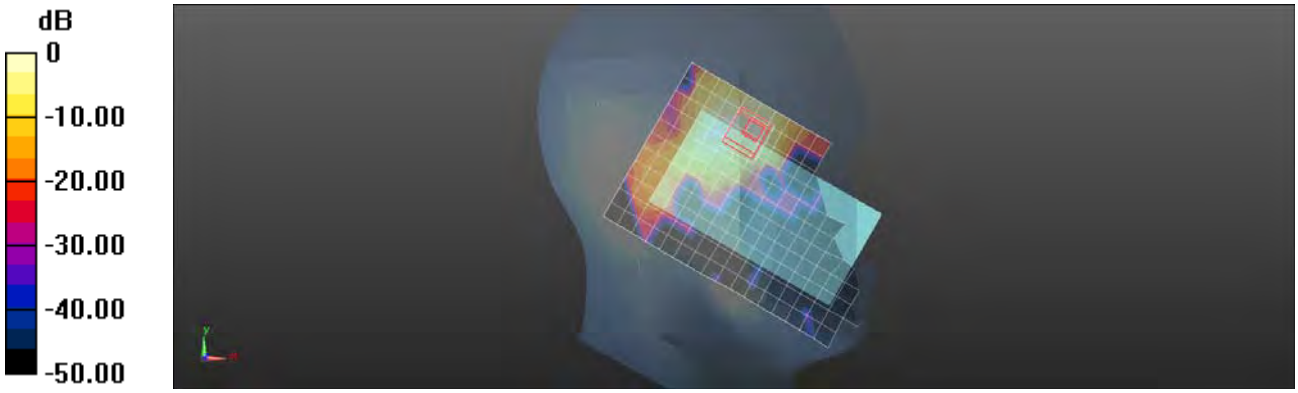
LE Cheek_WLAN802.11n(20M) 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 4.544 mho/m; εr = 35.281; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.327 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.159 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.763 mW/g
SAR(1 g) = 0.195 mW/g; SAR(10 g) = 0.057 mW/g
Maximum value of SAR (measured) = 0.404 mW/g



0 dB = 0.404 mW/g = -7.87 dB mW/g

Date: 2012/11/26

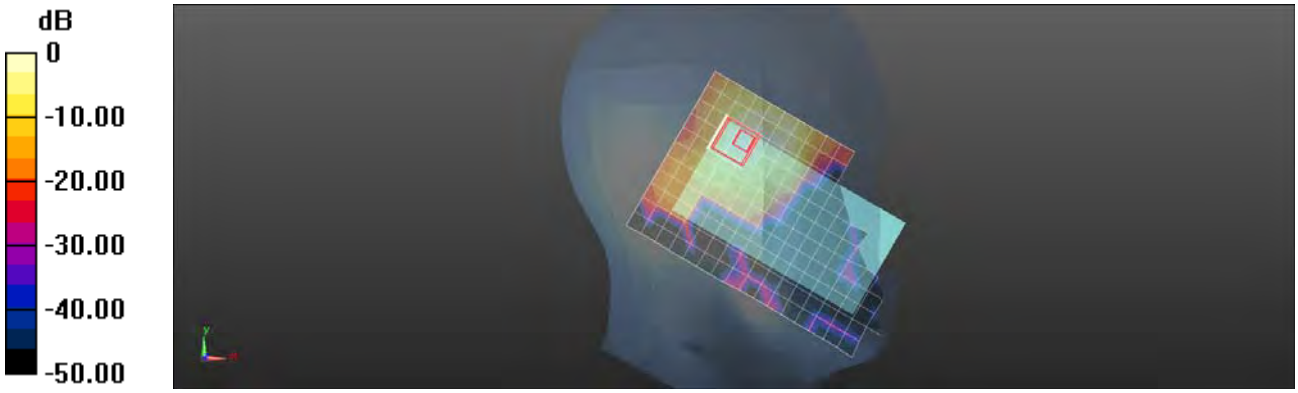
LE Cheek_WLAN802.11n(20M) 5.3G_CH64

Communication System: WLAN 5G (FCC); Frequency: 5320 MHz
Medium parameters used: f = 5320 MHz; σ = 4.609 mho/m; εr = 35.158; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.450 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.747 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.963 mW/g
SAR(1 g) = 0.272 mW/g; SAR(10 g) = 0.078 mW/g
Maximum value of SAR (measured) = 0.549 mW/g



0 dB = 0.549 mW/g = -5.21 dB mW/g

Date: 2012/11/26

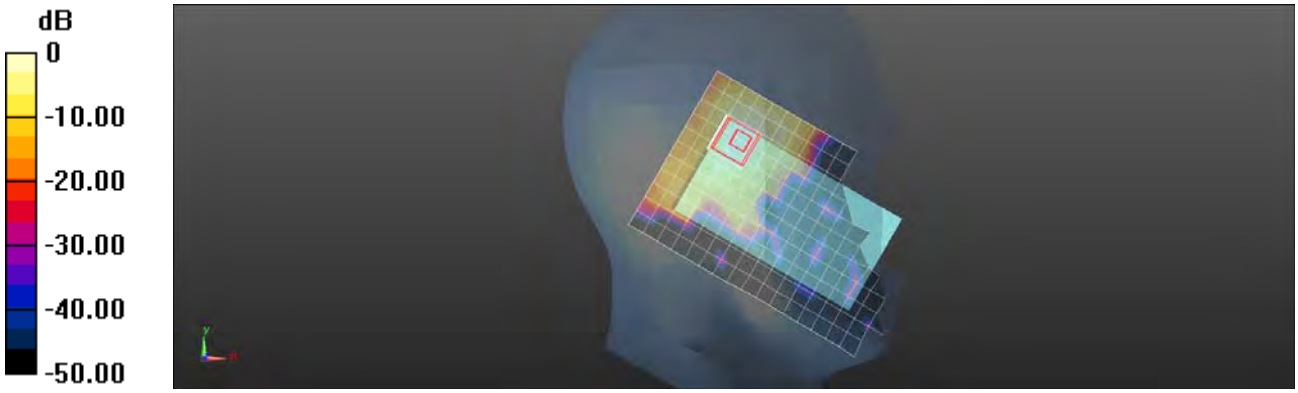
LE Tilt_WLAN802.11n(20M) 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 4.544 mho/m; εr = 35.281; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.172 mW/g

Configuration/LE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.654 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.375 mW/g
SAR(1 g) = 0.102 mW/g; SAR(10 g) = 0.031 mW/g.
Maximum value of SAR (measured) = 0.214 mW/g



0 dB = 0.214 mW/g = -13.39 dB mW/g

Date: 2012/11/30

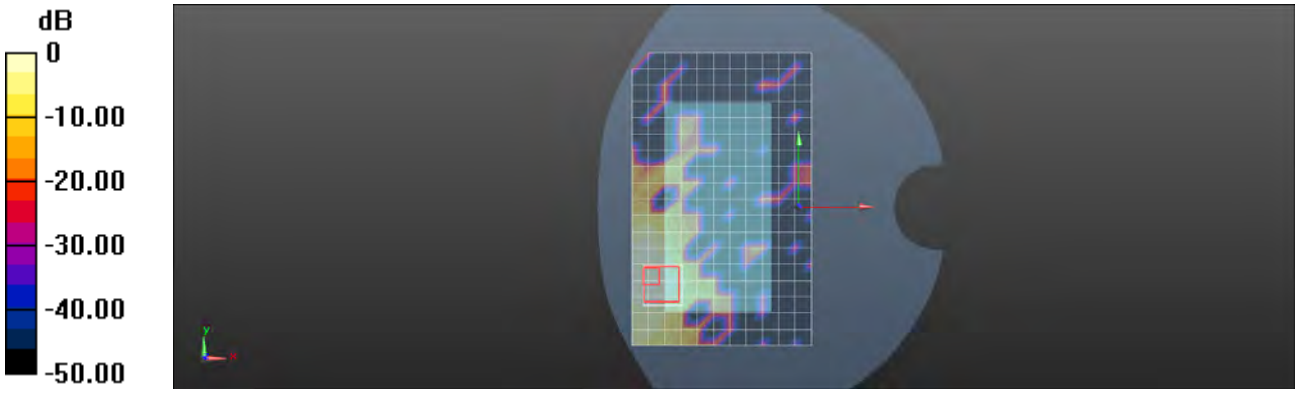
Body-worn_Front side_WLAN802.11n(20M) 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 5.397 mho/m; ε_r = 48.382; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0872 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.353 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.310 mW/g
SAR(1 g) = 0.042 mW/g; SAR(10 g) = 0.014 mW/g
Maximum value of SAR (measured) = 0.0904 mW/g



0 dB = 0.0904 mW/g = -20.88 dB mW/g

Date: 2012/11/30

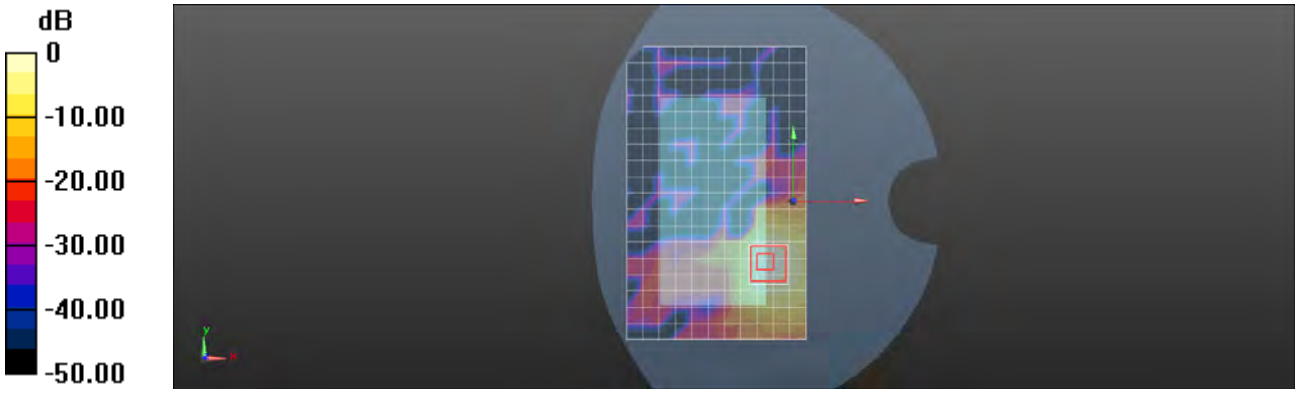
Body-worn_Back side_WLAN802.11n(20M) 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 5.397 mho/m; ε_r = 48.382; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.682 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.834 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.575 mW/g
SAR(1 g) = 0.438 mW/g; SAR(10 g) = 0.151 mW/g
Maximum value of SAR (measured) = 0.803 mW/g



0 dB = 0.803 mW/g = -1.91 dB mW/g

Date: 2012/11/30

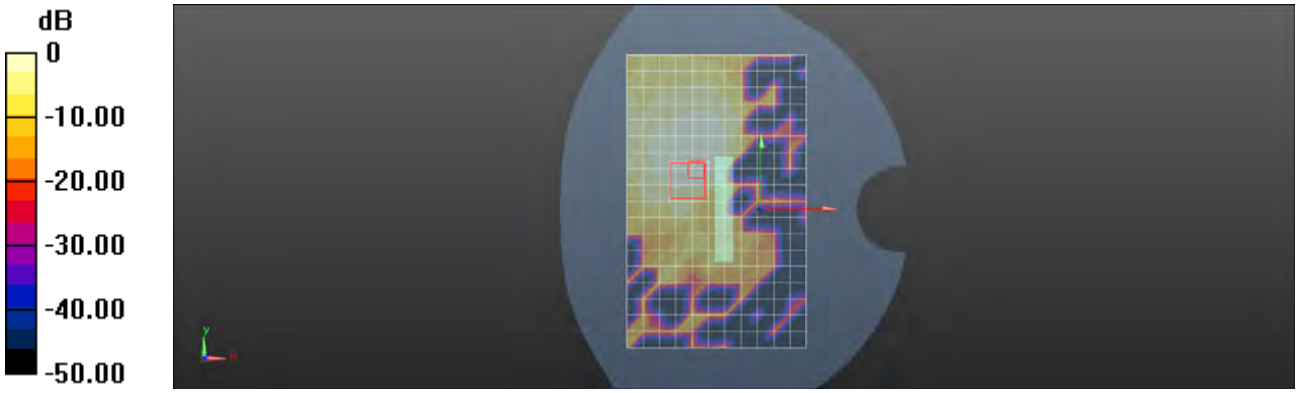
Body-worn_Top side_WLAN802.11n(20M) 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 5.397 mho/m; ε_r = 48.382; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0484 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.334 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.287 mW/g
SAR(1 g) = 0.025 mW/g; SAR(10 g) = 0.00746 mW/g
Maximum value of SAR (measured) = 0.0508 mW/g



0 dB = 0.0508 mW/g = -25.88 dB mW/g

Date: 2012/11/30

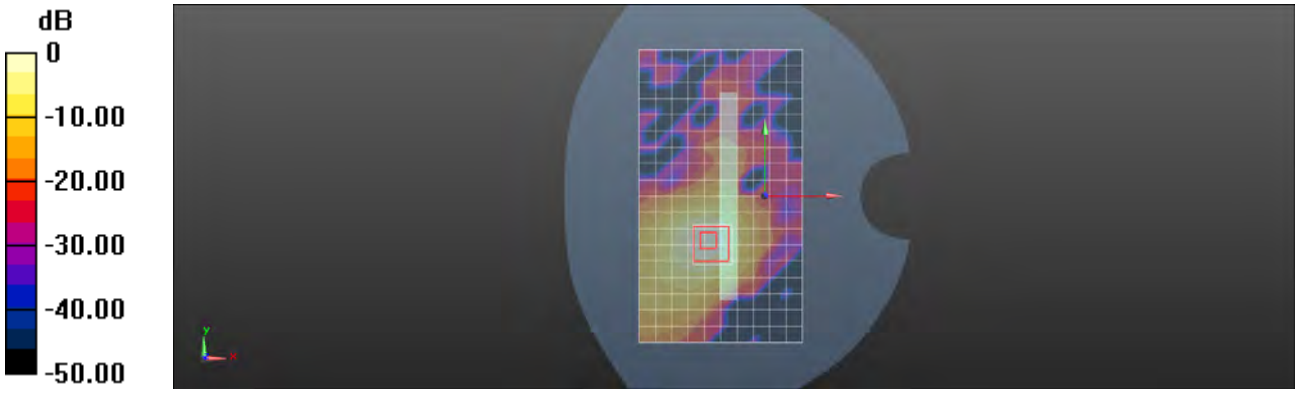
Body-worn_Right side_WLAN802.11n(20M) 5.3G_CH52

Communication System: WLAN 5G (FCC); Frequency: 5260 MHz
Medium parameters used: f = 5260 MHz; σ = 5.397 mho/m; ε_r = 48.382; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.833 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.731 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.776 mW/g
SAR(1 g) = 0.469 mW/g; SAR(10 g) = 0.157 mW/g
Maximum value of SAR (measured) = 0.873 mW/g



0 dB = 0.873 mW/g = -1.18 dB mW/g

Date: 2012/11/30

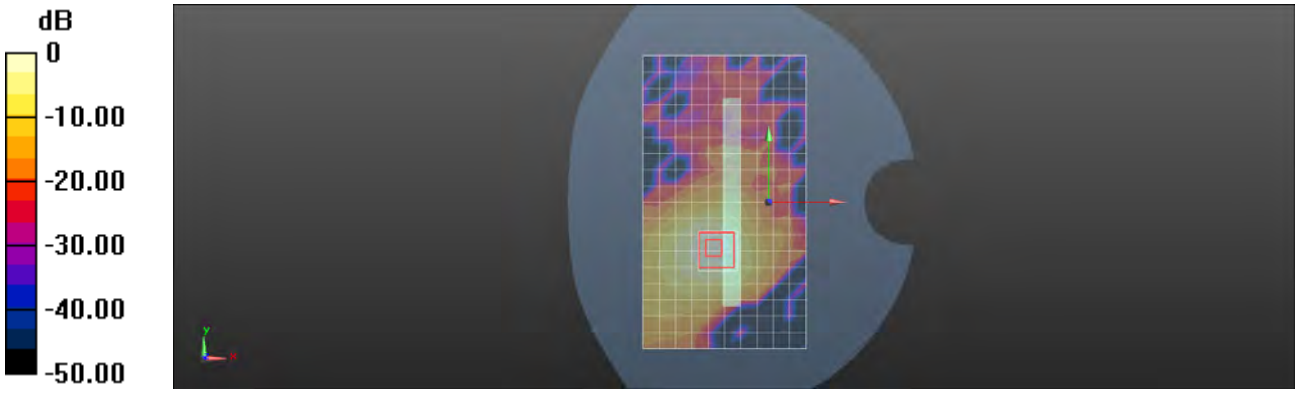
Body-worn_Right side_WLAN802.11n(20M) 5.3G_CH64

Communication System: WLAN 5G (FCC); Frequency: 5320 MHz
Medium parameters used: f = 5320 MHz; σ = 5.483 mho/m; ε_r = 48.26; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.624 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.433 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.354 mW/g
SAR(1 g) = 0.356 mW/g; SAR(10 g) = 0.124 mW/g
Maximum value of SAR (measured) = 0.649 mW/g



0 dB = 0.649 mW/g = -3.76 dB mW/g

Date: 2012/12/3

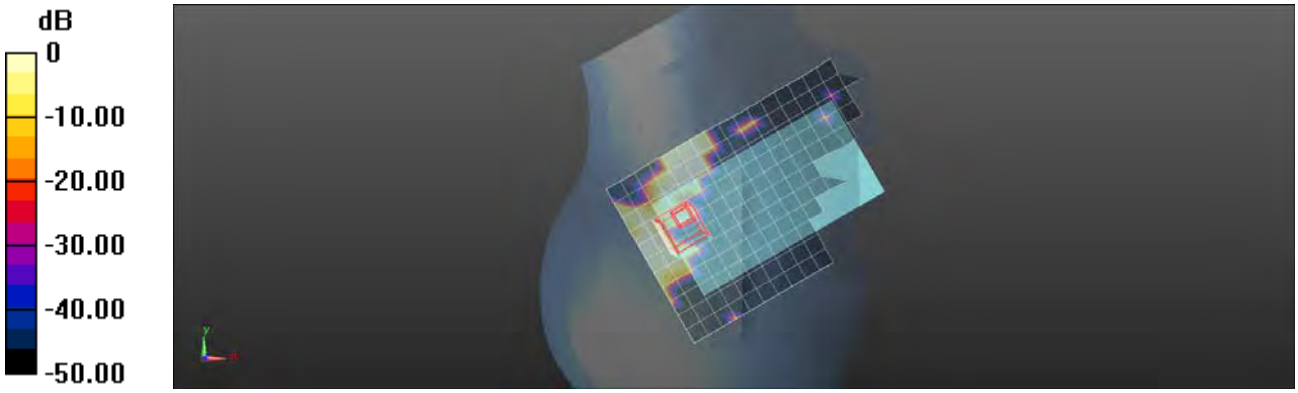
RE Cheek_WLAN802.11n(20M) 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 4.818 mho/m; εr = 34.784; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0217 mW/g

Configuration/RE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.461 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.073 mW/g
SAR(1 g) = 0.00348 mW/g; SAR(10 g) = 0.000395 mW/g
Maximum value of SAR (measured) = 0.0159 mW/g



0 dB = 0.0159 mW/g = -35.97 dB mW/g

Date: 2012/12/3

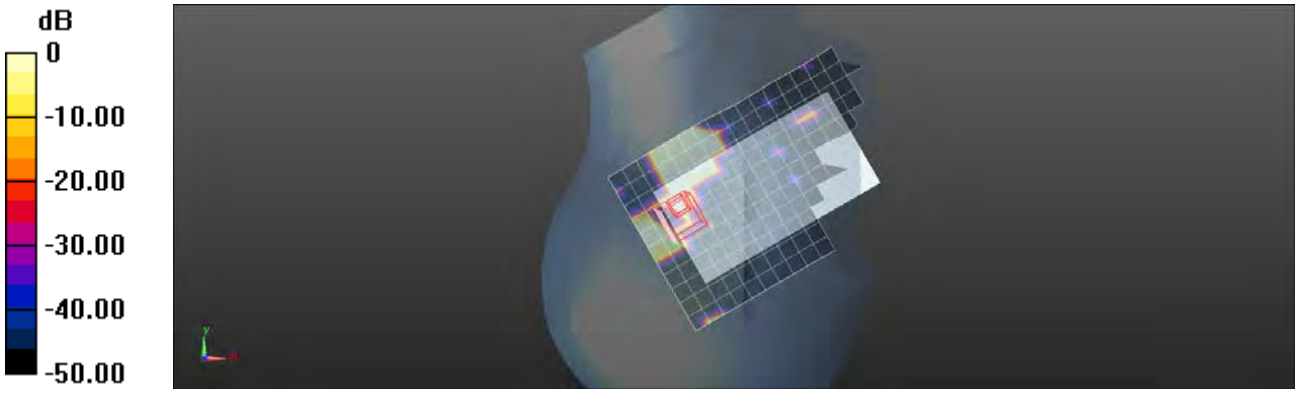
RE Tilt_WLAN802.11n(20M) 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 4.818 mho/m; εr = 34.784; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0233 mW/g

Configuration/RE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.736 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.174 mW/g
SAR(1 g) = 0.00949 mW/g; SAR(10 g) = 0.00111 mW/g
Maximum value of SAR (measured) = 0.0225 mW/g



0 dB = 0.0225 mW/g = -32.96 dB mW/g

Date: 2012/12/3

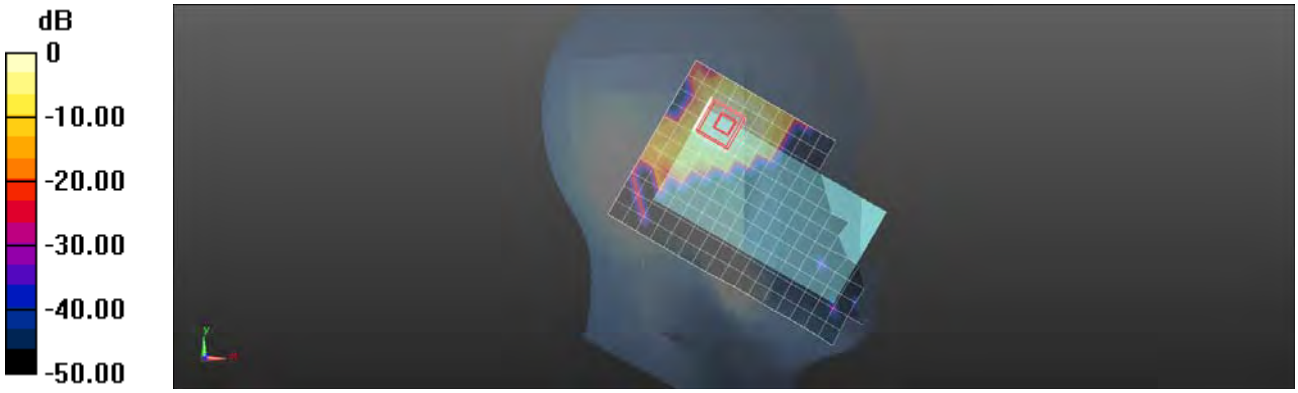
LE Cheek_WLAN802.11n(20M) 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 4.818 mho/m; εr = 34.784; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.158 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.581 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.383 mW/g
SAR(1 g) = 0.092 mW/g; SAR(10 g) = 0.028 mW/g
Maximum value of SAR (measured) = 0.187 mW/g



0 dB = 0.187 mW/g = -14.56 dB mW/g

Date: 2012/12/3

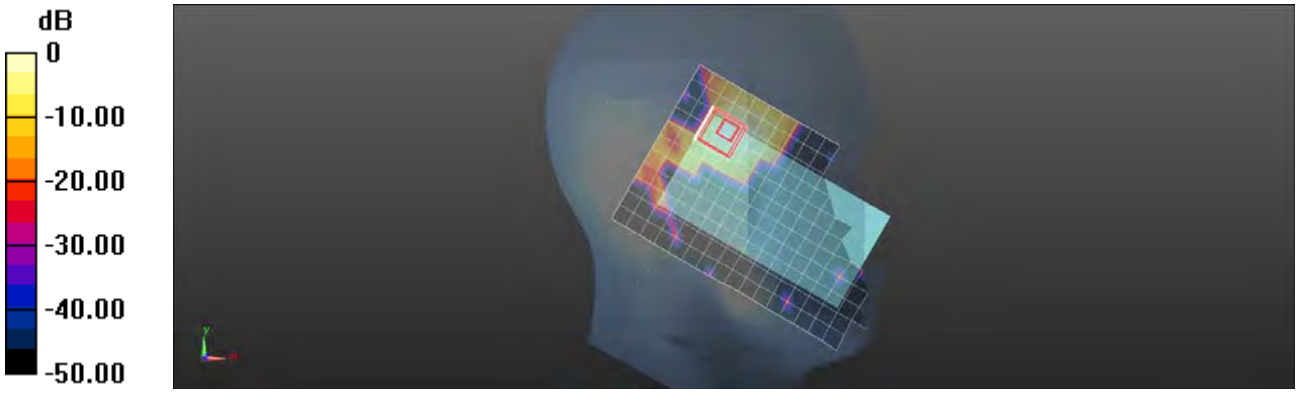
LE Cheek_WLAN802.11n(20M) 5.5G_CH116

Communication System: WLAN 5G (FCC); Frequency: 5580 MHz
Medium parameters used: f = 5580 MHz; σ = 4.902 mho/m; εr = 34.603; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.110 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.525 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.281 mW/g
SAR(1 g) = 0.060 mW/g; SAR(10 g) = 0.017 mW/g
Maximum value of SAR (measured) = 0.132 mW/g



0 dB = 0.132 mW/g = -17.59 dB mW/g

Date: 2012/12/3

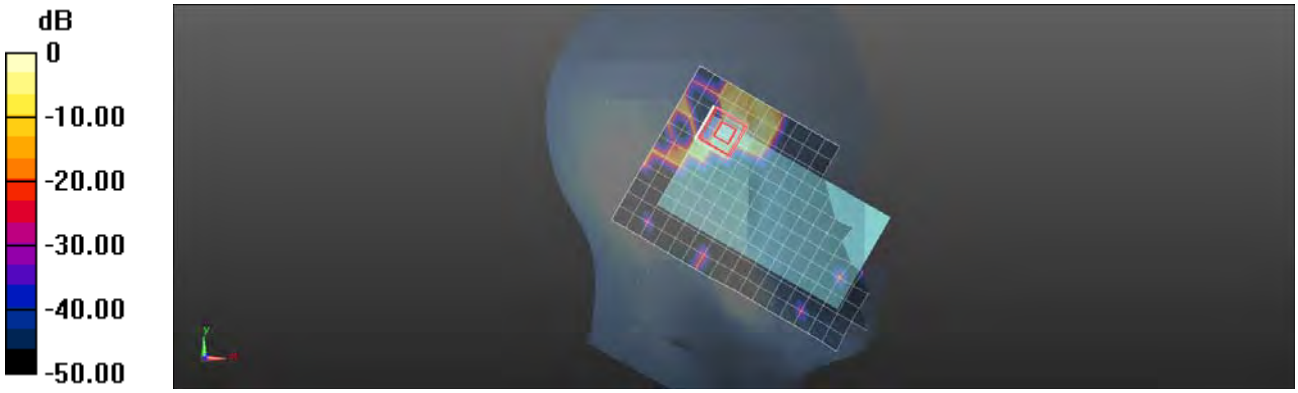
LE Cheek_WLAN802.11n(20M) 5.5G_CH140

Communication System: WLAN 5G (FCC); Frequency: 5700 MHz
Medium parameters used: f = 5700 MHz; σ = 5.033 mho/m; εr = 34.363; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0417 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.592 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.189 mW/g
SAR(1 g) = 0.022 mW/g; SAR(10 g) = 0.00539 mW/g
Maximum value of SAR (measured) = 0.0505 mW/g



0 dB = 0.0505 mW/g = -25.93 dB mW/g

Date: 2012/12/3

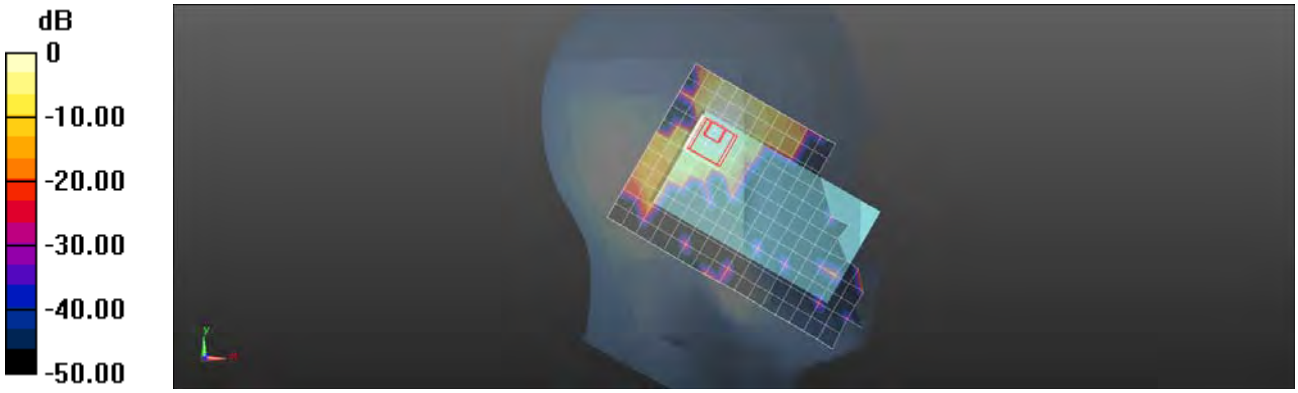
LE Tilt_WLAN802.11n(20M) 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 4.818 mho/m; εr = 34.784; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0910 mW/g

Configuration/LE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.209 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.297 mW/g
SAR(1 g) = 0.041 mW/g; SAR(10 g) = 0.011 mW/g
Maximum value of SAR (measured) = 0.0902 mW/g



0 dB = 0.0902 mW/g = -20.90 dB mW/g

Date: 2012/12/10

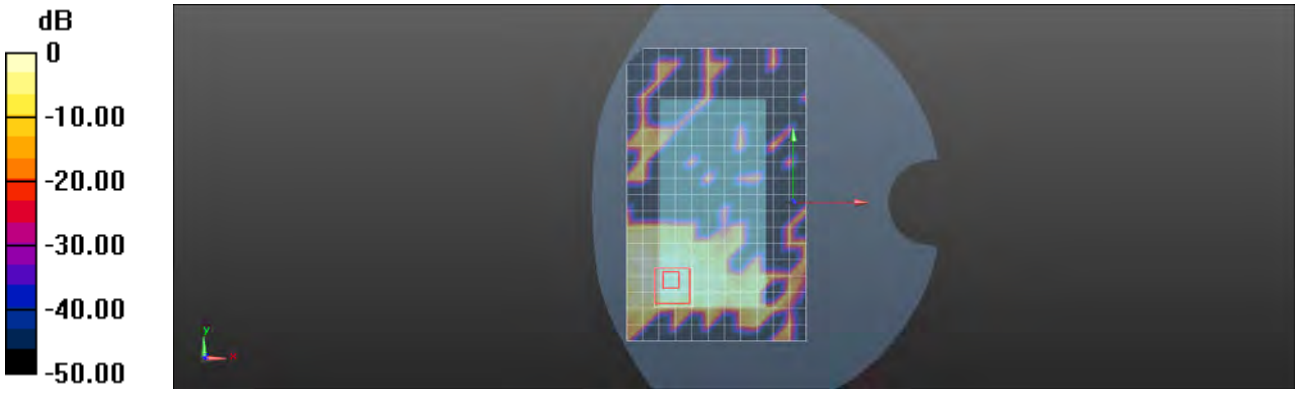
Body-worn_Front side_WLAN802.11n(20M) 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 5.741 mho/m; ε_r = 47.906; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0316 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.817 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.258 mW/g
SAR(1 g) = 0.021 mW/g; SAR(10 g) = 0.00529 mW/g
Maximum value of SAR (measured) = 0.0341 mW/g



0 dB = 0.0341 mW/g = -29.34 dB mW/g

Date: 2012/12/10

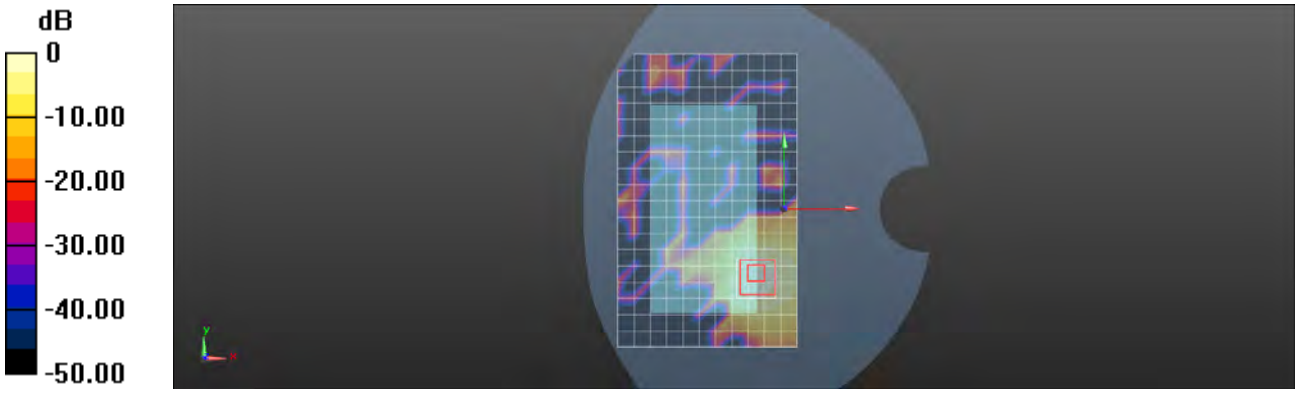
Body-worn_Back side_WLAN802.11n(20M) 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 5.741 mho/m; ε_r = 47.906; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.143 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.617 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.365 mW/g
SAR(1 g) = 0.087 mW/g; SAR(10 g) = 0.028 mW/g
Maximum value of SAR (measured) = 0.180 mW/g



0 dB = 0.180 mW/g = -14.89 dB mW/g

Date: 2012/12/10

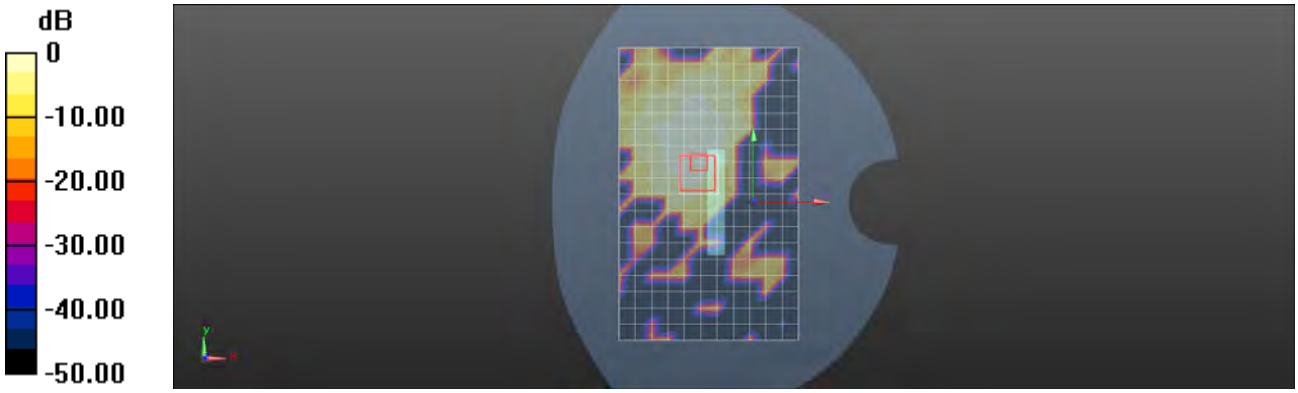
Body-worn_Top side_WLAN802.11n(20M) 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 5.741 mho/m; ε_r = 47.906; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0264 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.567 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.175 mW/g
SAR(1 g) = 0.014 mW/g; SAR(10 g) = 0.00389 mW/g
Maximum value of SAR (measured) = 0.0260 mW/g



0 dB = 0.0260 mW/g = -31.70 dB mW/g

Date: 2012/12/10

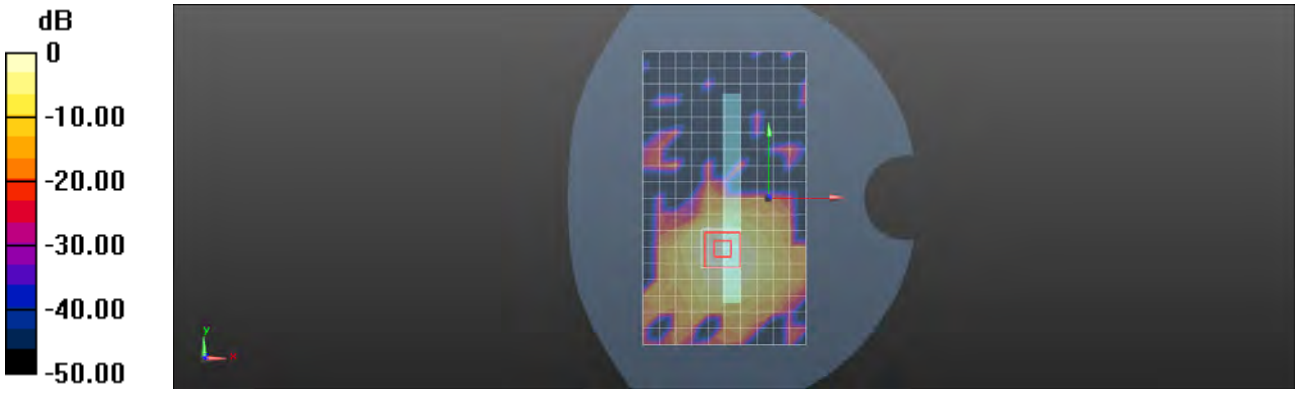
Body-worn_Right side_WLAN802.11n(20M) 5.5G_CH100

Communication System: WLAN 5G (FCC); Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 5.741 mho/m; ε_r = 47.906; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.208 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.748 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.412 mW/g
SAR(1 g) = 0.102 mW/g; SAR(10 g) = 0.036 mW/g
Maximum value of SAR (measured) = 0.225 mW/g



0 dB = 0.225 mW/g = -12.96 dB mW/g

Date: 2012/12/10

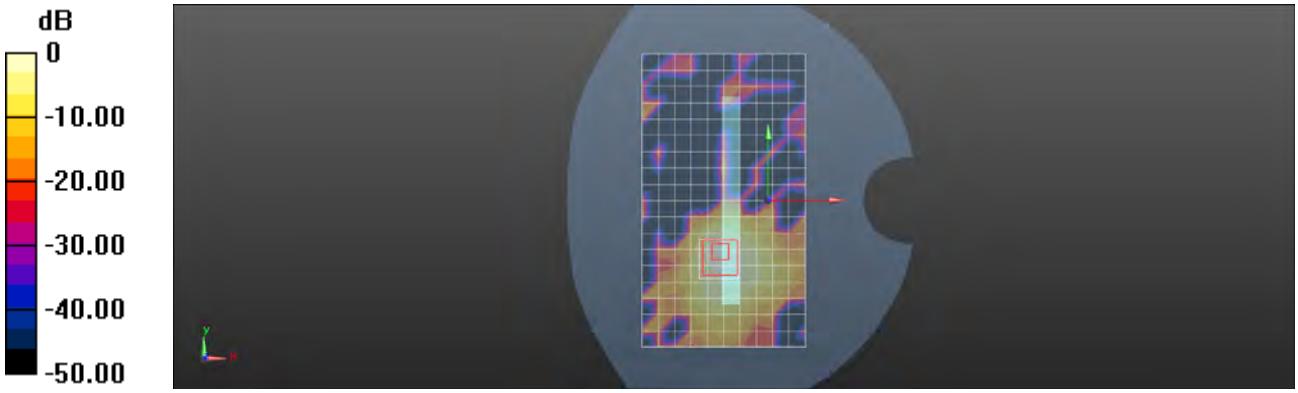
Body-worn_Right side_WLAN802.11n(20M) 5.5G_CH116

Communication System: WLAN 5G (FCC); Frequency: 5580 MHz
Medium parameters used: f = 5580 MHz; σ = 5.858 mho/m; ε_r = 47.725; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.127 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.236 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.721 mW/g
SAR(1 g) = 0.071 mW/g; SAR(10 g) = 0.024 mW/g
Maximum value of SAR (measured) = 0.139 mW/g



0 dB = 0.139 mW/g = -17.14 dB mW/g

Date: 2012/12/10

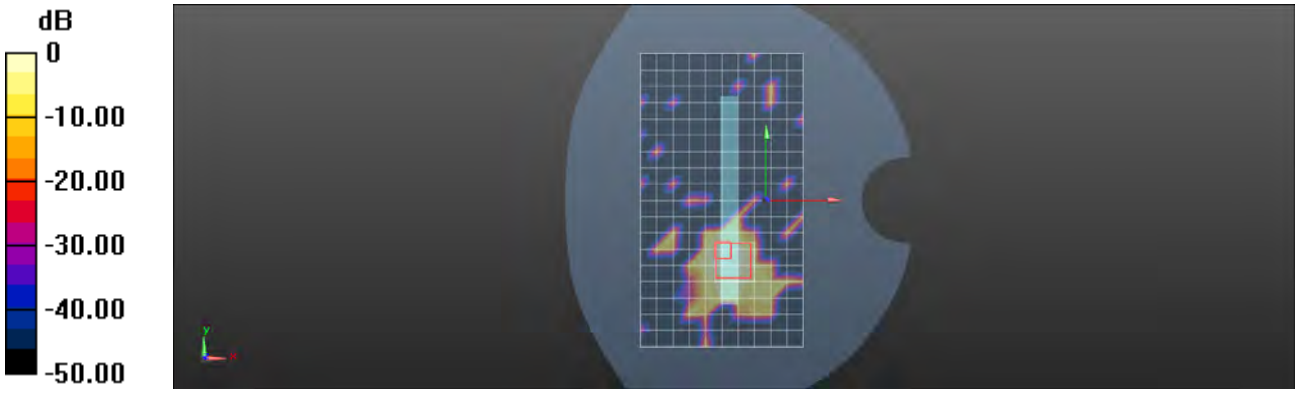
Body-worn_Right side_WLAN802.11n(20M) 5.5G_CH140

Communication System: WLAN 5G (FCC); Frequency: 5700 MHz
Medium parameters used: f = 5700 MHz; σ = 6.032 mho/m; ε_r = 47.506; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0273 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.685 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.258 mW/g
SAR(1 g) = 0.023 mW/g; SAR(10 g) = 0.00727 mW/g
Maximum value of SAR (measured) = 0.0356 mW/g



0 dB = 0.0356 mW/g = -28.97 dB mW/g

Date: 2012/12/11

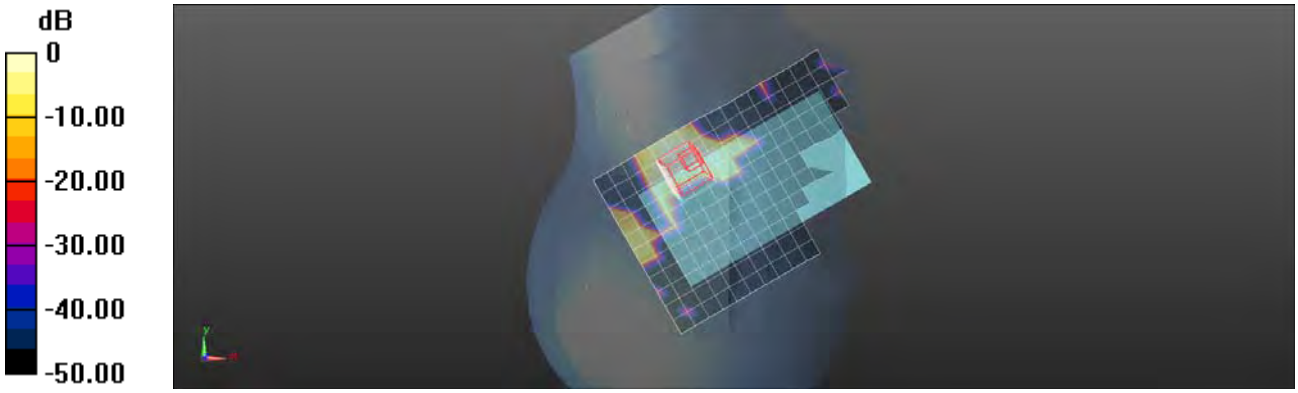
RE Cheek_WLAN802.11n(20M) 5.8G_CH165

Communication System: WLAN 5G (FCC); Frequency: 5825 MHz
Medium parameters used: f = 5825 MHz; σ = 5.176 mho/m; ε_r = 34.103; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0495 mW/g

Configuration/RE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.365 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.459 mW/g
SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.011 mW/g
Maximum value of SAR (measured) = 0.0560 mW/g



0 dB = 0.0560 mW/g = -25.04 dB mW/g

Date: 2012/12/11

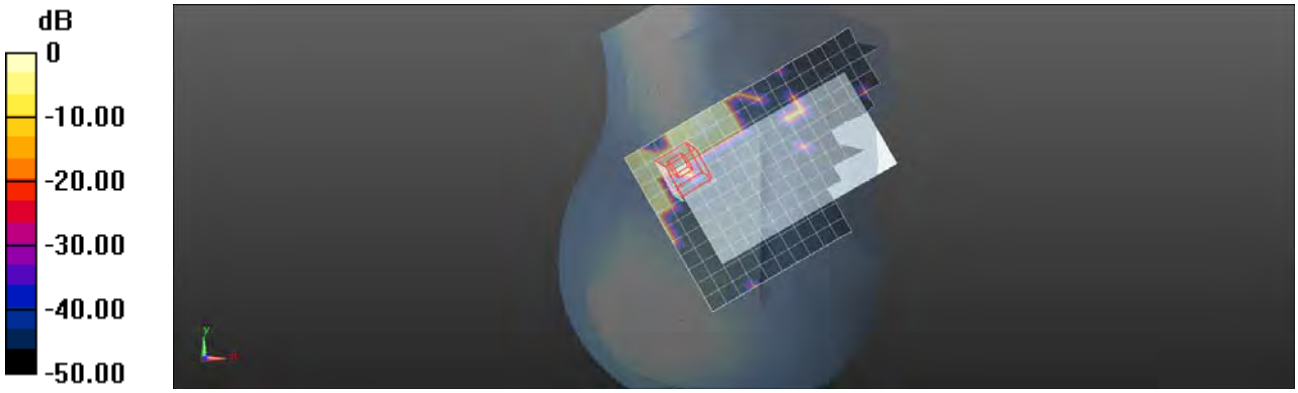
RE Tilt_WLAN802.11n(20M) 5.8G_CH165

Communication System: WLAN 5G (FCC); Frequency: 5825 MHz
Medium parameters used: f = 5825 MHz; σ = 5.176 mho/m; ε_r = 34.103; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0178 mW/g

Configuration/RE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.333 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.235 mW/g
SAR(1 g) = 0.018 mW/g; SAR(10 g) = 0.00323 mW/g
Maximum value of SAR (measured) = 0.0269 mW/g



0 dB = 0.0269 mW/g = -31.40 dB mW/g

Date: 2012/12/11

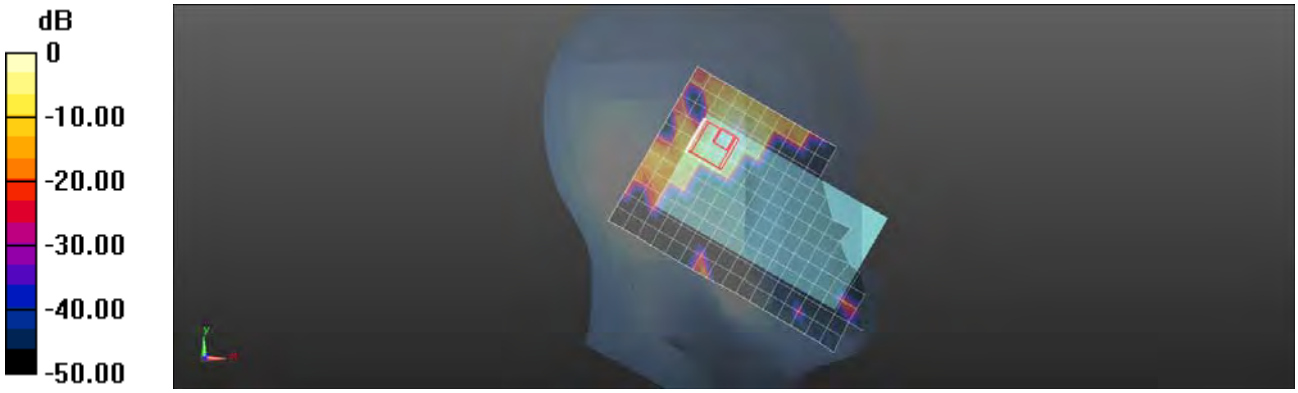
LE Cheek_WLAN802.11n(20M) 5.8G_CH149

Communication System: WLAN 5G (FCC); Frequency: 5745 MHz
Medium parameters used: f = 5745 MHz; σ = 5.083 mho/m; εr = 34.274; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0936 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.456 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.233 mW/g
SAR(1 g) = 0.049 mW/g; SAR(10 g) = 0.010 mW/g
Maximum value of SAR (measured) = 0.111 mW/g



0 dB = 0.111 mW/g = -19.09 dB mW/g

Date: 2012/12/11

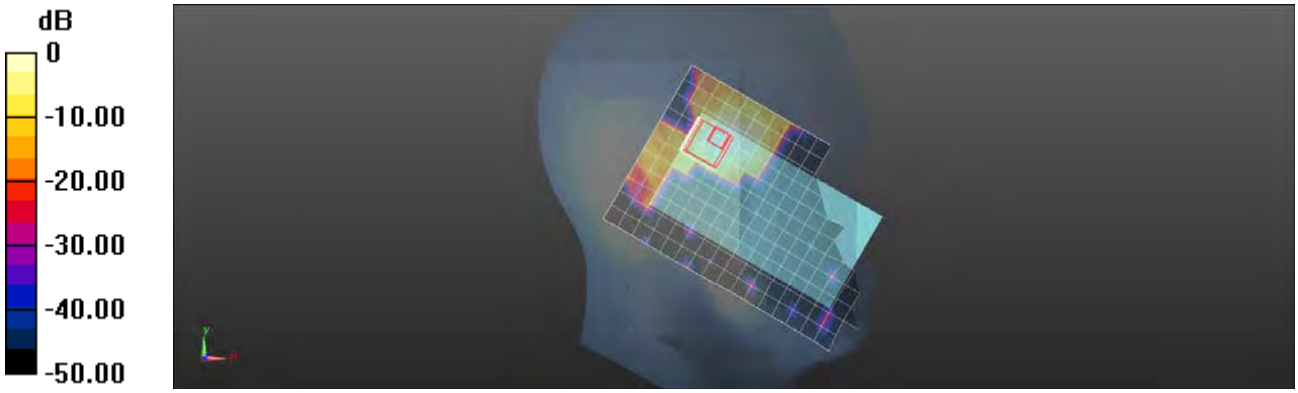
LE Cheek_WLAN802.11n(20M) 5.8G_CH157

Communication System: WLAN 5G (FCC); Frequency: 5785 MHz
Medium parameters used: f = 5785 MHz; σ = 5.132 mho/m; εr = 34.186; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.103 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.730 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.256 mW/g
SAR(1 g) = 0.054 mW/g; SAR(10 g) = 0.013 mW/g
Maximum value of SAR (measured) = 0.122 mW/g



0 dB = 0.122 mW/g = -18.27 dB mW/g

Date: 2012/12/11

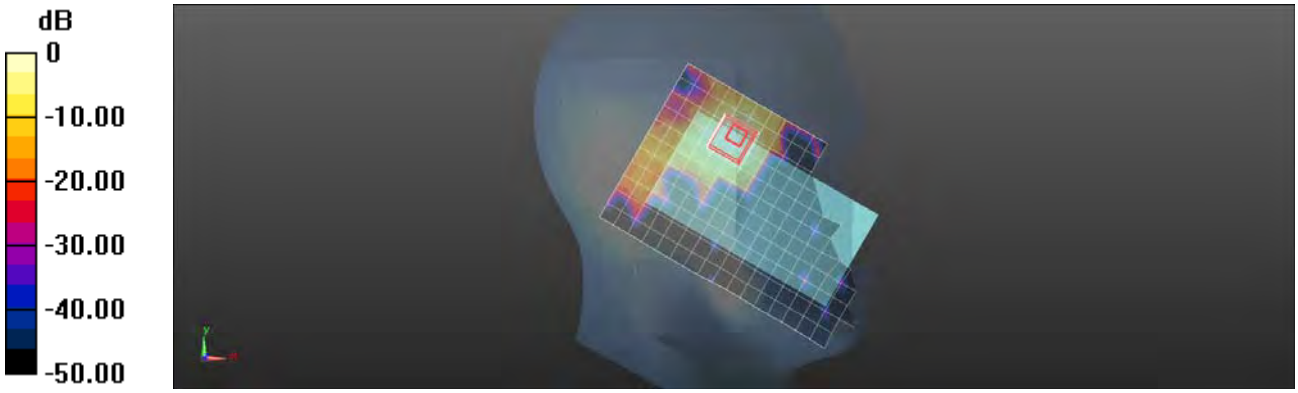
LE Cheek_WLAN802.11n(20M) 5.8G_CH165

Communication System: WLAN 5G (FCC); Frequency: 5825 MHz
Medium parameters used: f = 5825 MHz; σ = 5.176 mho/m; ε_r = 34.103; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.179 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.487 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.435 mW/g
SAR(1 g) = 0.092 mW/g; SAR(10 g) = 0.030 mW/g
Maximum value of SAR (measured) = 0.203 mW/g



0 dB = 0.203 mW/g = -13.85 dB mW/g

Date: 2012/12/11

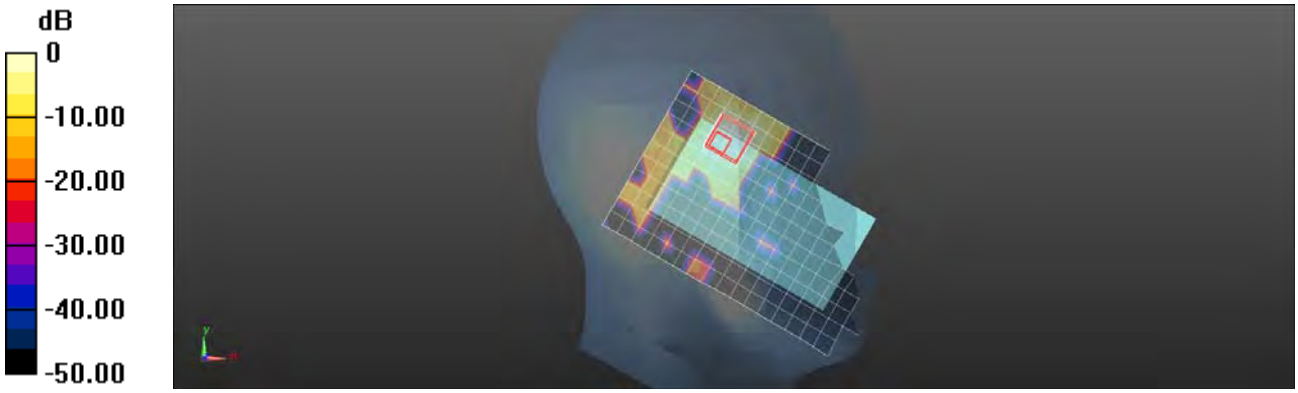
LE Tilt_WLAN802.11n(20M) 5.8G_CH165

Communication System: WLAN 5G (FCC); Frequency: 5825 MHz
Medium parameters used: f = 5825 MHz; σ = 5.176 mho/m; ε_r = 34.103; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0367 mW/g

Configuration/LE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.309 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.342 mW/g
SAR(1 g) = 0.027 mW/g; SAR(10 g) = 0.00851 mW/g
Maximum value of SAR (measured) = 0.0422 mW/g



0 dB = 0.0422 mW/g = -27.49 dB mW/g

Date: 2012/12/12

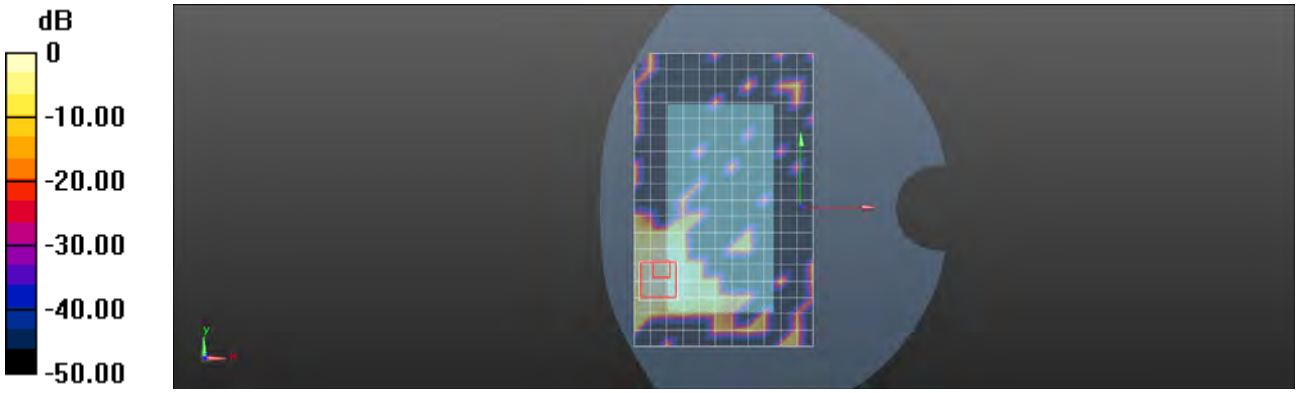
Body-worn_Front side_WLAN802.11n(20M) 5.8G_CH165

Communication System: WLAN 5G (FCC); Frequency: 5825 MHz
Medium parameters used: f = 5825 MHz; σ = 6.218 mho/m; ε_r = 47.277; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0160 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.128 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.137 mW/g
SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.00225 mW/g
Maximum value of SAR (measured) = 0.0161 mW/g



0 dB = 0.0161 mW/g = -35.86 dB mW/g

Date: 2012/12/12

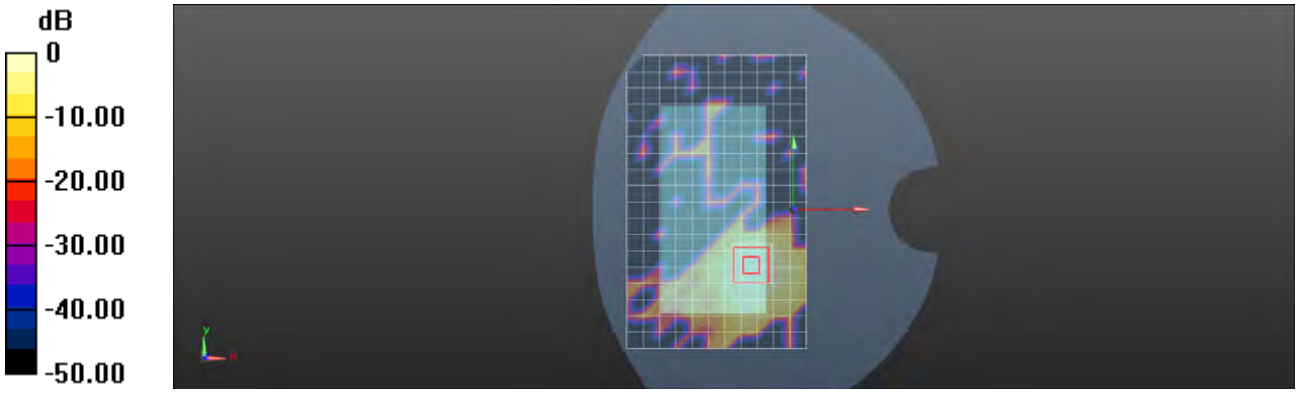
Body-worn_Back side_WLAN802.11n(20M) 5.8G_CH149

Communication System: WLAN 5G (FCC); Frequency: 5745 MHz
Medium parameters used: f = 5745 MHz; σ = 6.092 mho/m; ε_r = 47.437; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0827 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.207 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.199 mW/g
SAR(1 g) = 0.041 mW/g; SAR(10 g) = 0.014 mW/g
Maximum value of SAR (measured) = 0.0881 mW/g



0 dB = 0.0881 mW/g = -21.10 dB mW/g

Date: 2012/12/12

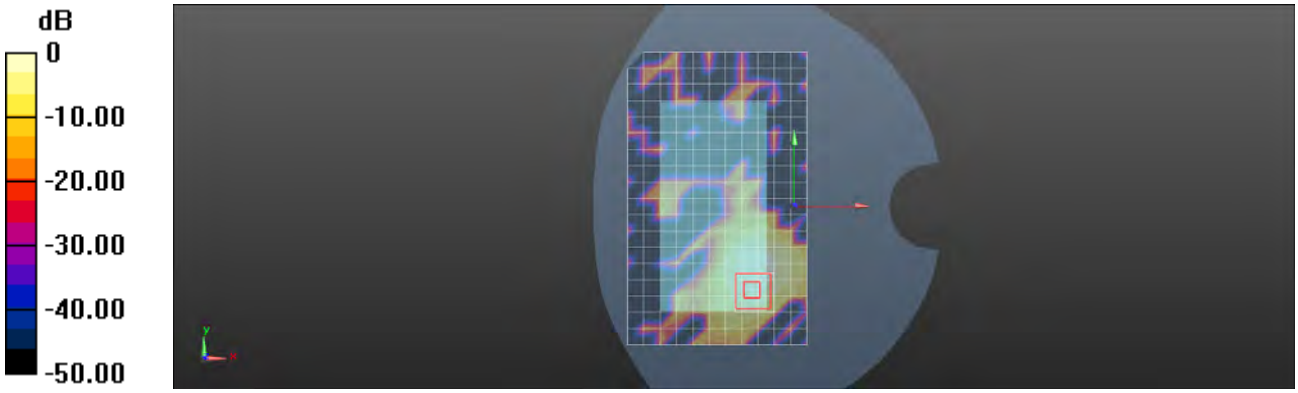
Body-worn_Back side_WLAN802.11n(20M) 5.8G_CH157

Communication System: WLAN 5G (FCC); Frequency: 5785 MHz
Medium parameters used: f = 5785 MHz; σ = 6.156 mho/m; ε_r = 47.334; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0823 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.611 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.388 mW/g
SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.011 mW/g
Maximum value of SAR (measured) = 0.0859 mW/g



0 dB = 0.0859 mW/g = -21.32 dB mW/g

Date: 2012/12/12

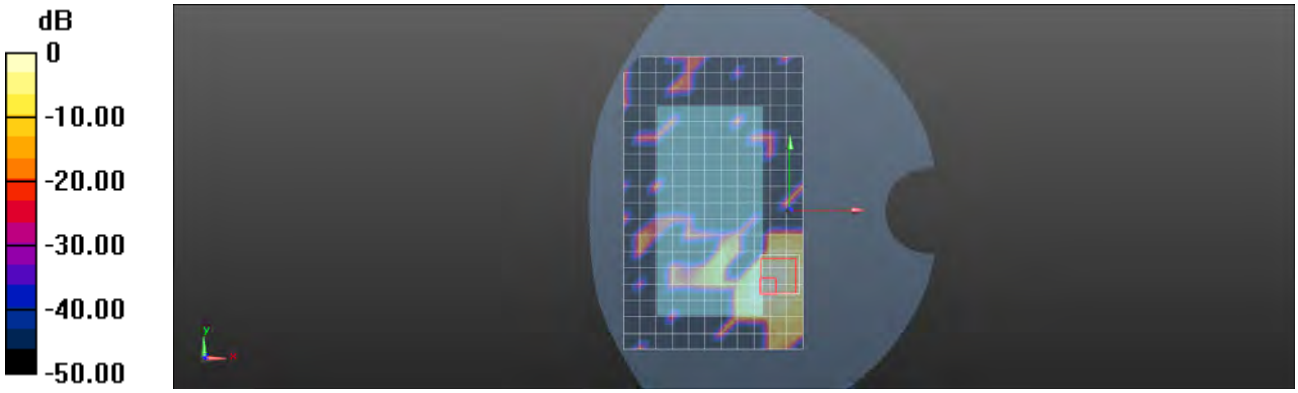
Body-worn_Back side_WLAN802.11n(20M) 5.8G_CH165

Communication System: WLAN 5G (FCC); Frequency: 5825 MHz
Medium parameters used: f = 5825 MHz; σ = 6.218 mho/m; ε_r = 47.277; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0540 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.496 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 0.488 mW/g
SAR(1 g) = 0.042 mW/g; SAR(10 g) = 0.013 mW/g
Maximum value of SAR (measured) = 0.0654 mW/g



0 dB = 0.0654 mW/g = -23.69 dB mW/g

Date: 2012/12/12

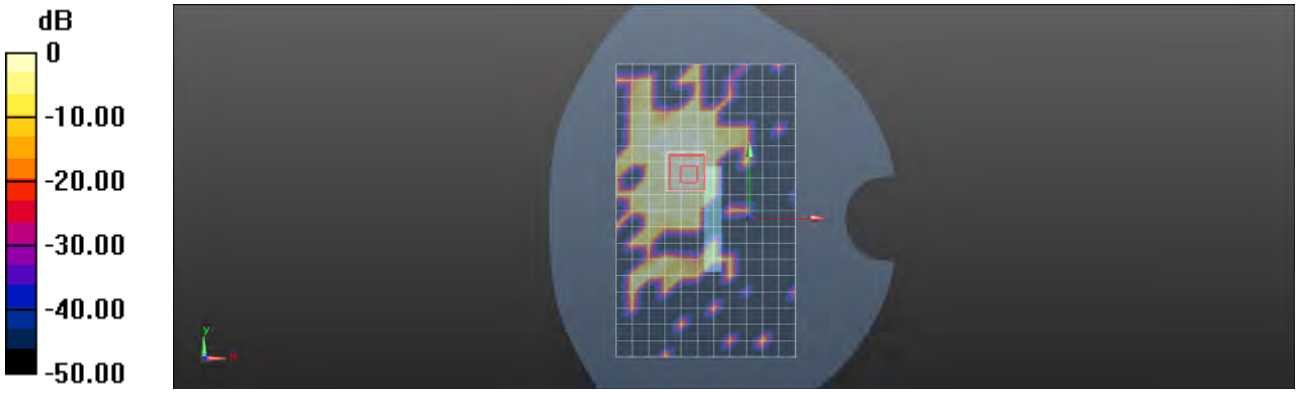
Body-worn_Top side_ WLAN802.11n(20M)5.8G_CH165

Communication System: WLAN 5G (FCC); Frequency: 5825 MHz
Medium parameters used: f = 5825 MHz; σ = 6.218 mho/m; ε_r = 47.277; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0196 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.204 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.068 mW/g
SAR(1 g) = 0.00292 mW/g; SAR(10 g) = 0.000429 mW/g
Maximum value of SAR (measured) = 0.0191 mW/g



0 dB = 0.0191 mW/g = -34.38 dB mW/g

Date: 2012/12/12

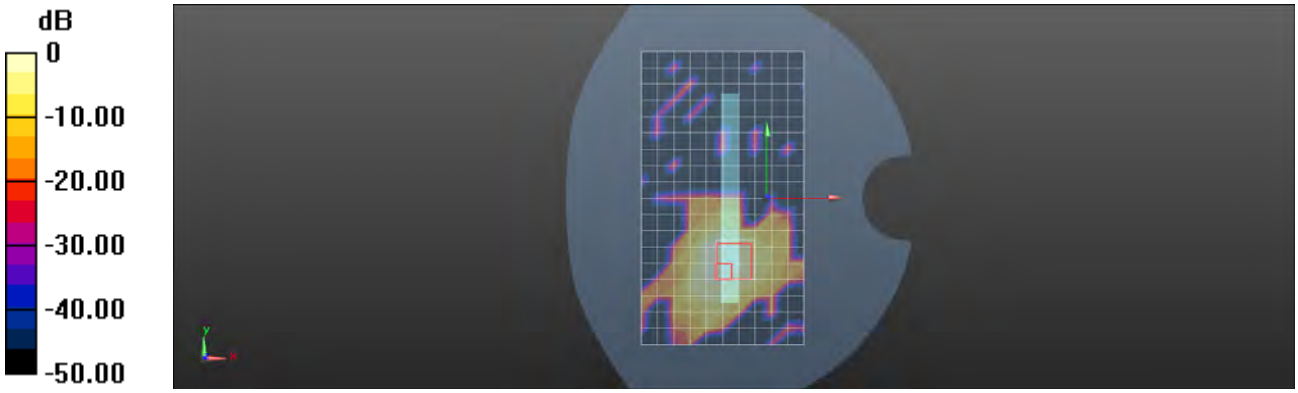
Body-worn_Right side_WLAN802.11n(20M) 5.8G_CH165

Communication System: WLAN 5G (FCC); Frequency: 5825 MHz
Medium parameters used: f = 5825 MHz; σ = 6.218 mho/m; ε_r = 47.277; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0904 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.611 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.429 mW/g
SAR(1 g) = 0.038 mW/g; SAR(10 g) = 0.013 mW/g
Maximum value of SAR (measured) = 0.0938 mW/g



0 dB = 0.0938 mW/g = -20.56 dB mW/g

Date: 2012/11/21

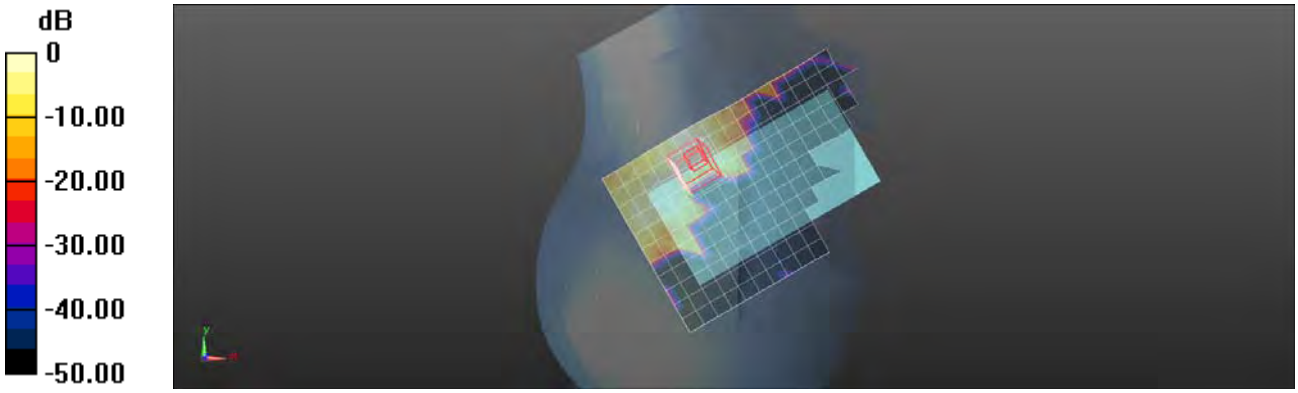
RE Cheek_WLAN802.11n(40M) 5.2G_CH46

Communication System: WLAN 5G (FCC); Frequency: 5230 MHz
Medium parameters used: f = 5230 MHz; σ = 4.51 mho/m; εr = 35.349; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0990 mW/g

Configuration/RE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.607 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.514 mW/g
SAR(1 g) = 0.043 mW/g; SAR(10 g) = 0.015 mW/g.
Maximum value of SAR (measured) = 0.110 mW/g



0 dB = 0.110 mW/g = -19.17 dB mW/g

Date: 2012/11/21

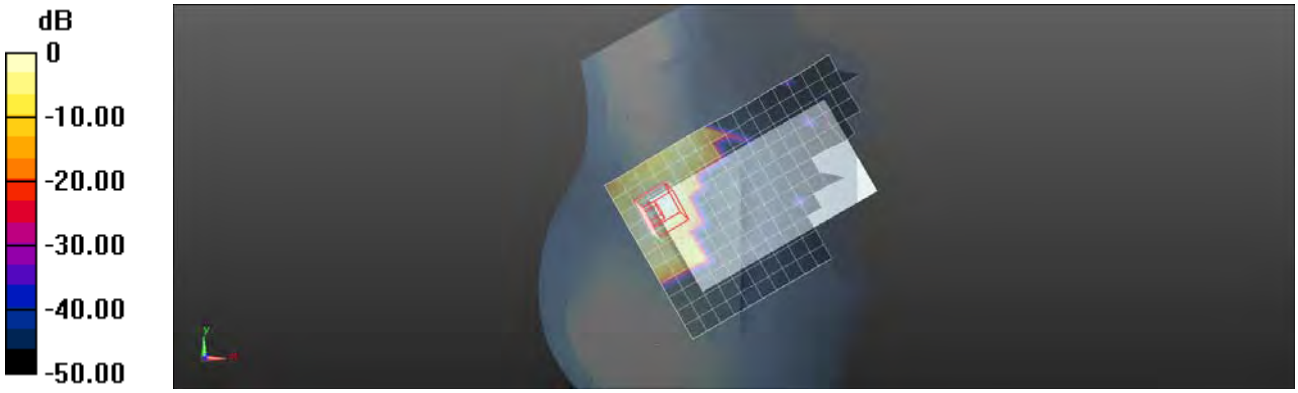
RE Tilt_WLAN802.11n(40M) 5.2G_CH46

Communication System: WLAN 5G (FCC); Frequency: 5230 MHz
Medium parameters used: f = 5230 MHz; σ = 4.51 mho/m; εr = 35.349; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0794 mW/g

Configuration/RE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.833 V/m; Power Drift =0.13 dB
Peak SAR (extrapolated) = 0.216 mW/g
SAR(1 g) = 0.034 mW/g; SAR(10 g) = 0.012 mW/g
Maximum value of SAR (measured) = 0.0847 mW/g



0 dB = 0.0847 mW/g = -21.44 dB mW/g

Date: 2012/11/21

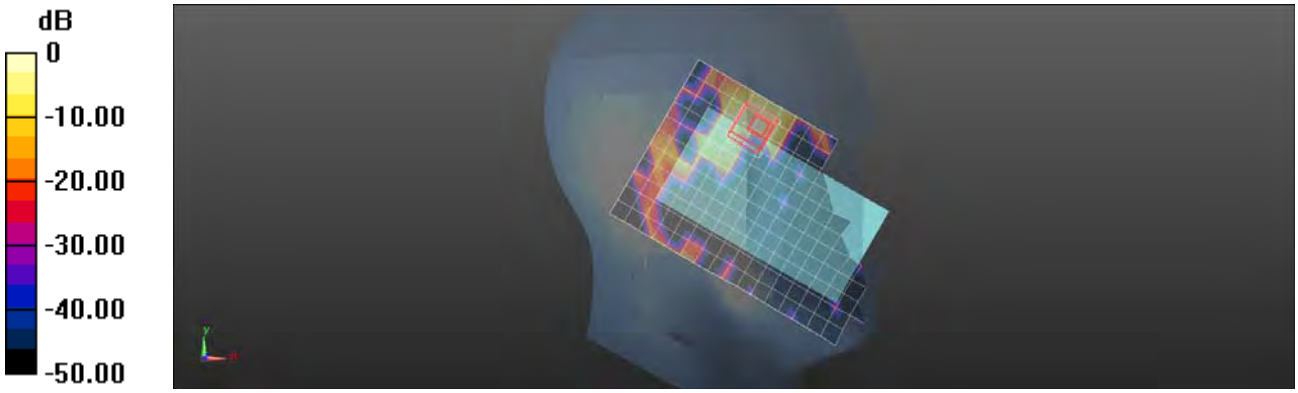
LE Cheek_WLAN802.11n(40M) 5.2G_CH38

Communication System: WLAN 5G (FCC); Frequency: 5190 MHz
Medium parameters used: f = 5190 MHz; σ = 4.464 mho/m; εr = 35.443; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.103 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.887 V/m; Power Drift =0.12 dB
Peak SAR (extrapolated) = 0.311 mW/g
SAR(1 g) = 0.057 mW/g; SAR(10 g) = 0.014 mW/g
Maximum value of SAR (measured) = 0.143 mW/g



0 dB = 0.143 mW/g = -16.89 dB mW/g

Date: 2012/11/21

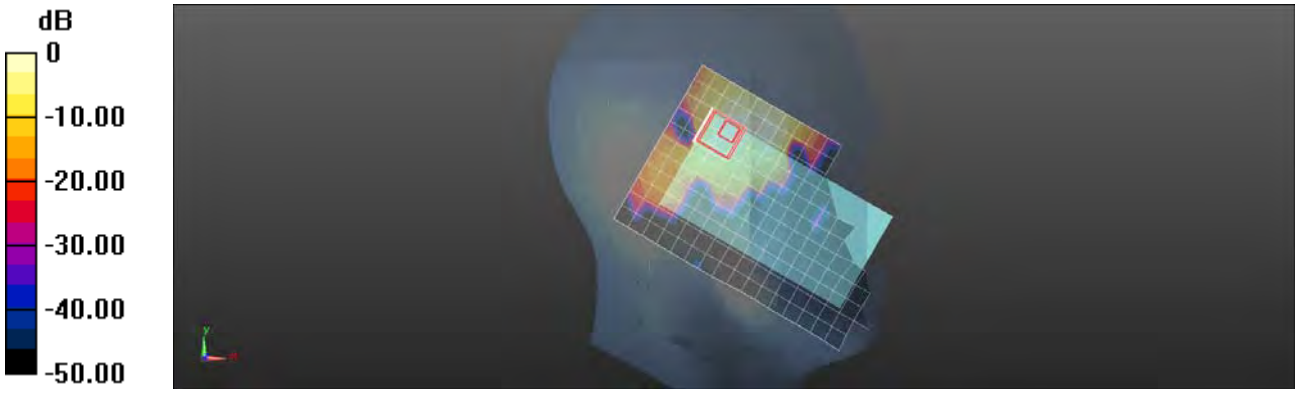
LE Cheek_WLAN802.11n(40M) 5.2G_CH46

Communication System: WLAN 5G (FCC); Frequency: 5230 MHz
Medium parameters used: f = 5230 MHz; σ = 4.51 mho/m; εr = 35.349; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.317 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.121 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.677 mW/g
SAR(1 g) = 0.188 mW/g; SAR(10 g) = 0.054 mW/g
Maximum value of SAR (measured) = 0.392 mW/g



0 dB = 0.392 mW/g = -8.13 dB mW/g

Date: 2012/11/21

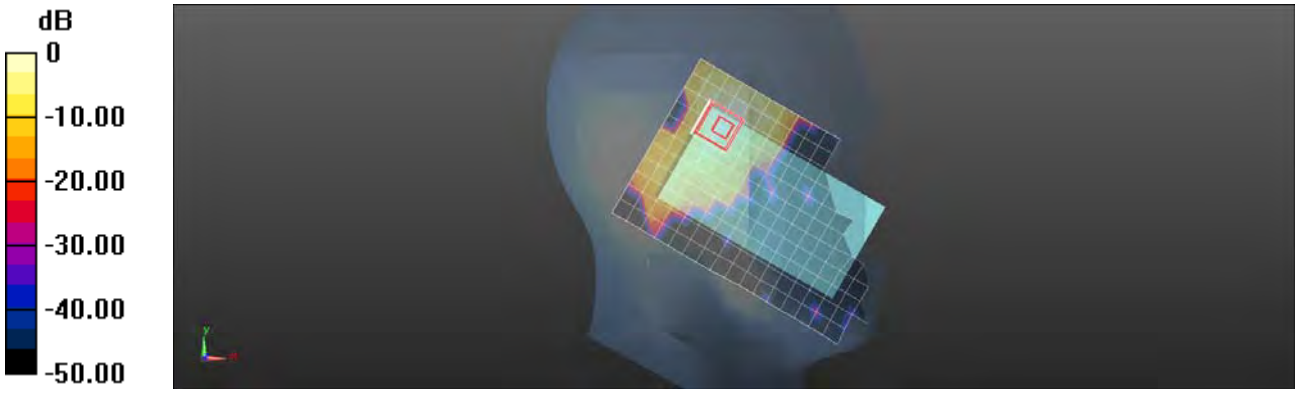
LE Tilt_WLAN802.11n(40M) 5.2G_CH46

Communication System: WLAN 5G (FCC); Frequency: 5230 MHz
Medium parameters used: f = 5230 MHz; σ = 4.51 mho/m; εr = 35.349; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.181 mW/g

Configuration/LE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.775 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.422 mW/g
SAR(1 g) = 0.098 mW/g; SAR(10 g) = 0.030 mW/g
Maximum value of SAR (measured) = 0.208 mW/g



0 dB = 0.208 mW/g = -13.64 dB mW/g

Date: 2012/11/25

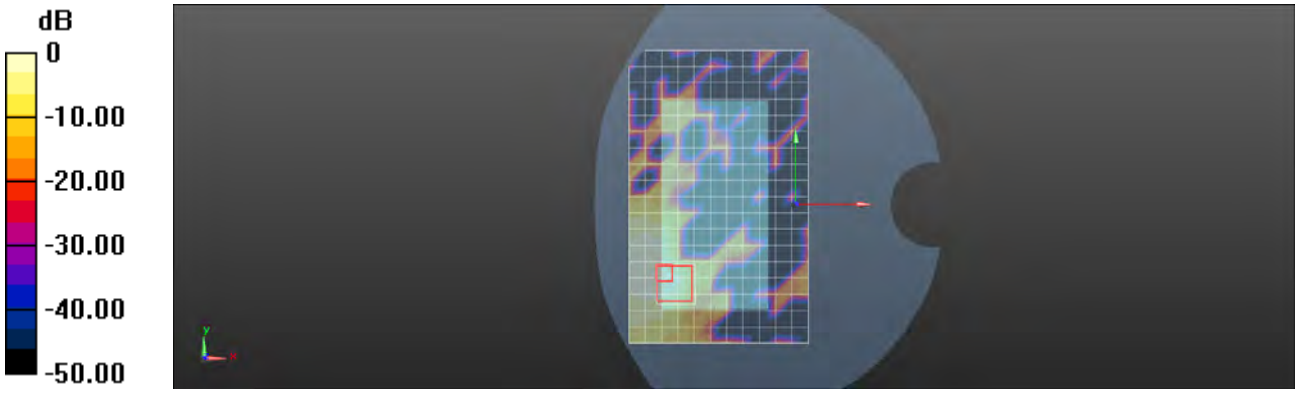
Body-worn_Front side_WLAN802.11n(40M) 5.2G_CH46

Communication System: WLAN 5G (FCC); Frequency: 5230 MHz
Medium parameters used: f = 5230 MHz; σ = 5.355 mho/m; ε_r = 48.447; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0941 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.597 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.208 mW/g
SAR(1 g) = 0.044 mW/g; SAR(10 g) = 0.011 mW/g
Maximum value of SAR (measured) = 0.0982 mW/g



0 dB = 0.0982 mW/g = -20.16 dB mW/g

Date: 2012/11/25

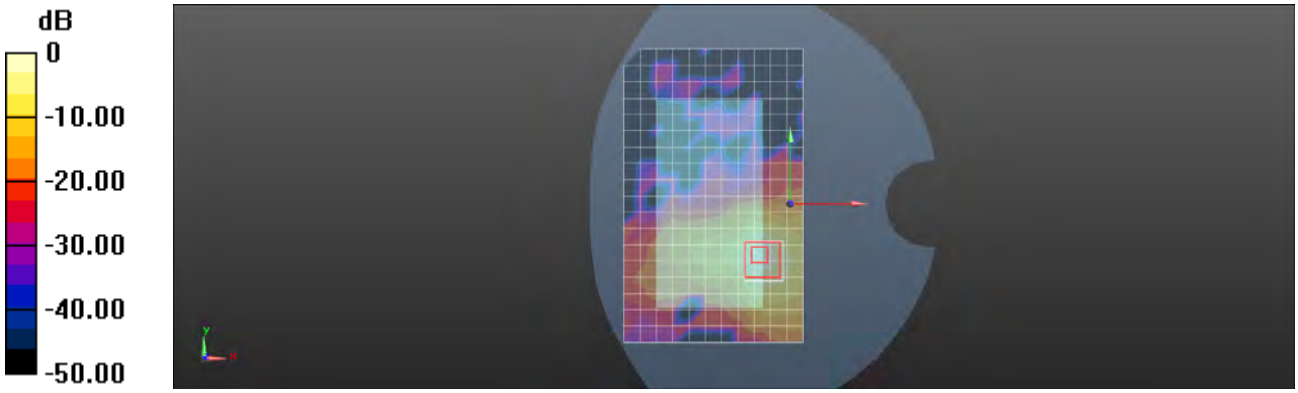
Body-worn_Back side_WLAN802.11n(40M) 5.2G_CH46

Communication System: WLAN 5G (FCC); Frequency: 5230 MHz
Medium parameters used: f = 5230 MHz; σ = 5.355 mho/m; ε_r = 48.447; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.848 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.316 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.986 mW/g
SAR(1 g) = 0.518 mW/g; SAR(10 g) = 0.168 mW/g
Maximum value of SAR (measured) = 1.01 mW/g



0 dB = 1.01 mW/g = 0.09 dB mW/g

Date: 2012/11/25

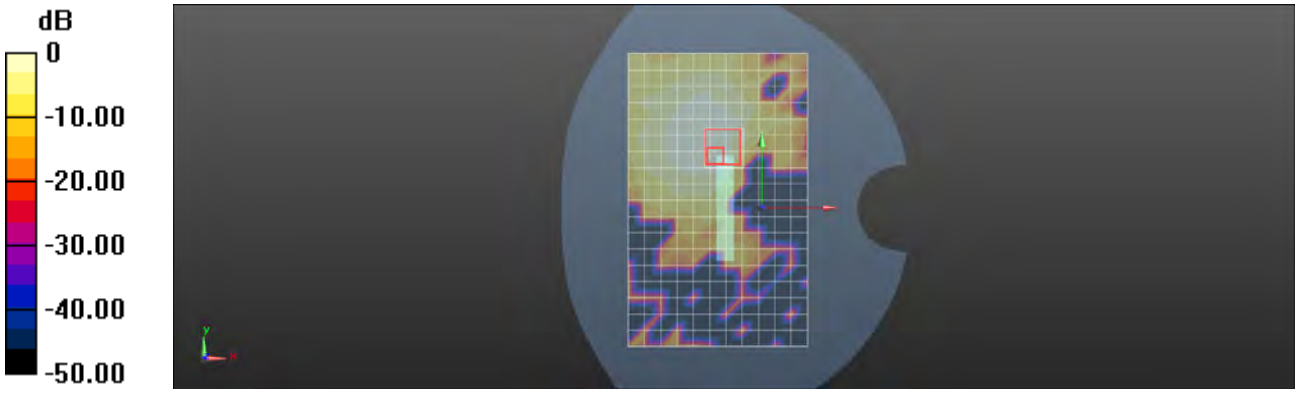
Body-worn_Top side_WLAN802.11n(40M) 5.2G_CH46

Communication System: WLAN 5G (FCC); Frequency: 5230 MHz
Medium parameters used: f = 5230 MHz; σ = 5.355 mho/m; ε_r = 48.447; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0629 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.097 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.325 mW/g
SAR(1 g) = 0.029 mW/g; SAR(10 g) = 0.012 mW/g
Maximum value of SAR (measured) = 0.0671 mW/g



0 dB = 0.0671 mW/g = -23.47 dB mW/g

Date: 2012/11/25

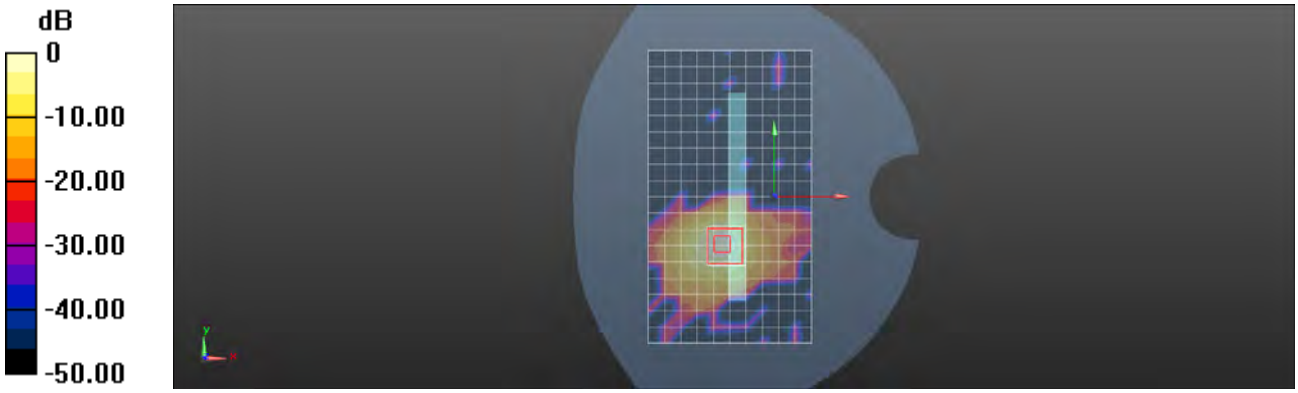
Body-worn_Right side_WLAN802.11n(40M) 5.2G_CH38

Communication System: WLAN 5G (FCC); Frequency: 5190 MHz
Medium parameters used: f = 5190 MHz; σ = 5.297 mho/m; ε_r = 48.539; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.305 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.887 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.691 mW/g
SAR(1 g) = 0.178 mW/g; SAR(10 g) = 0.047 mW/g
Maximum value of SAR (measured) = 0.363 mW/g



0 dB = 0.363 mW/g = -8.80 dB mW/g

Date: 2012/11/25

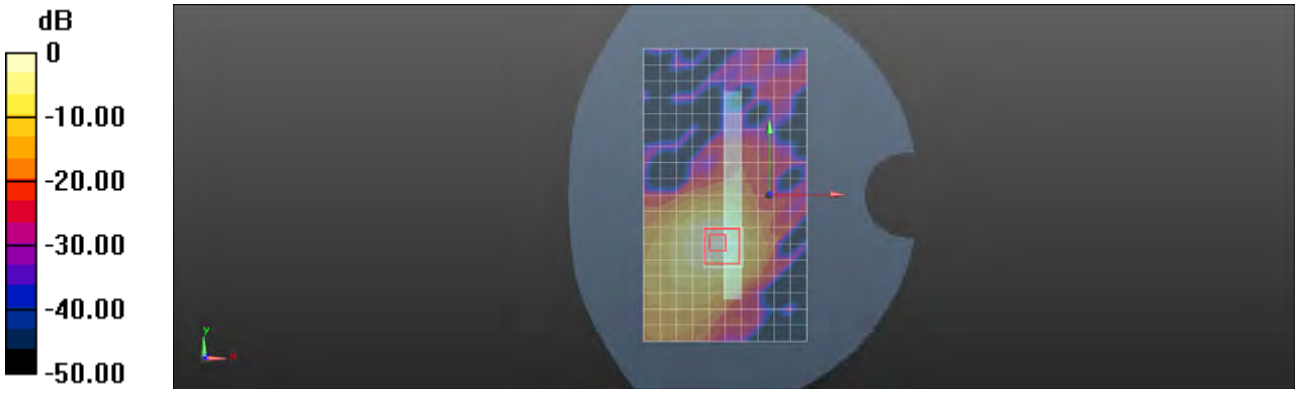
Body-worn_Right side_WLAN802.11n(40M) 5.2G_CH46

Communication System: WLAN 5G (FCC); Frequency: 5230 MHz
Medium parameters used: f = 5230 MHz; σ = 5.355 mho/m; ε_r = 48.447; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.870 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.492 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 2.049 mW/g
SAR(1 g) = 0.548 mW/g; SAR(10 g) = 0.174 mW/g
Maximum value of SAR (measured) = 1.04 mW/g



0 dB = 1.04 mW/g = 0.34 dB mW/g

Date: 2012/11/26

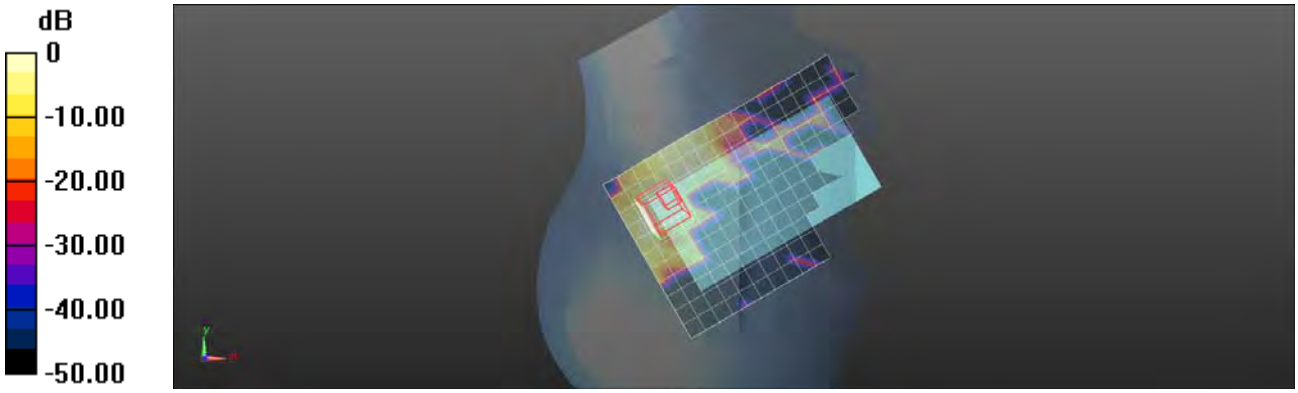
RE Cheek_WLAN802.11n(40M) 5.3G_CH54

Communication System: WLAN 5G (FCC); Frequency: 5270 MHz
Medium parameters used: f = 5270 MHz; σ = 4.556 mho/m; εr = 35.264; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.103 mW/g

Configuration/RE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.265 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.236 mW/g
SAR(1 g) = 0.041 mW/g; SAR(10 g) = 0.013 mW/g
Maximum value of SAR (measured) = 0.113 mW/g



0 dB = 0.113 mW/g = -18.94 dB mW/g

Date: 2012/11/26

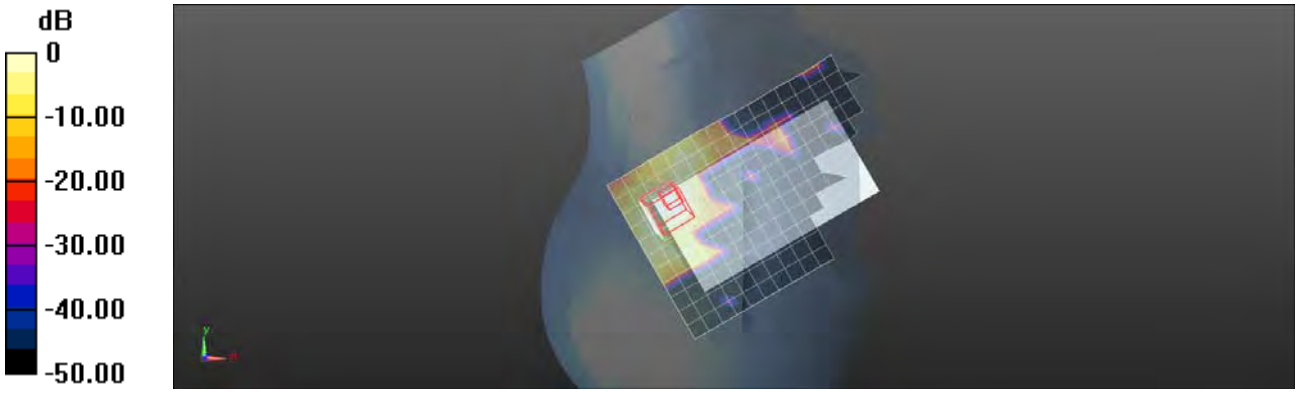
RE Tilt_WLAN802.11n(40M) 5.3G_CH54

Communication System: WLAN 5G (FCC); Frequency: 5270 MHz
Medium parameters used: f = 5270 MHz; σ = 4.556 mho/m; εr = 35.264; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0779 mW/g

Configuration/RE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.049 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.231 mW/g
SAR(1 g) = 0.032 mW/g; SAR(10 g) = 0.012 mW/g
Maximum value of SAR (measured) = 0.0846 mW/g



0 dB = 0.0846 mW/g = -21.45 dB mW/g

Date: 2012/11/26

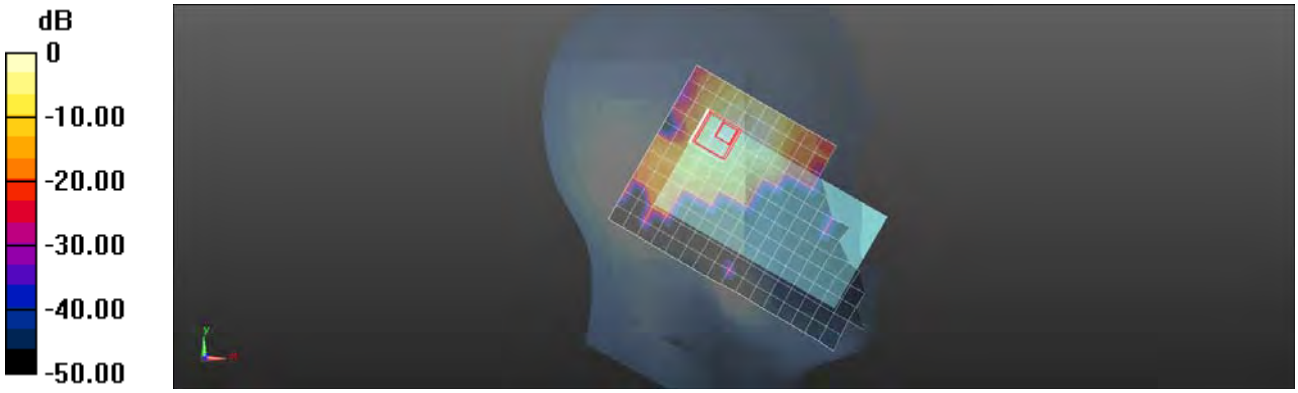
LE Cheek_WLAN802.11n(40M) 5.3G_CH54

Communication System: WLAN 5G (FCC); Frequency: 5270 MHz
Medium parameters used: f = 5270 MHz; σ = 4.556 mho/m; εr = 35.264; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.300 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.040 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.658 mW/g
SAR(1 g) = 0.182 mW/g; SAR(10 g) = 0.052 mW/g
Maximum value of SAR (measured) = 0.379 mW/g



0 dB = 0.379 mW/g = -8.43 dB mW/g

Date: 2012/11/26

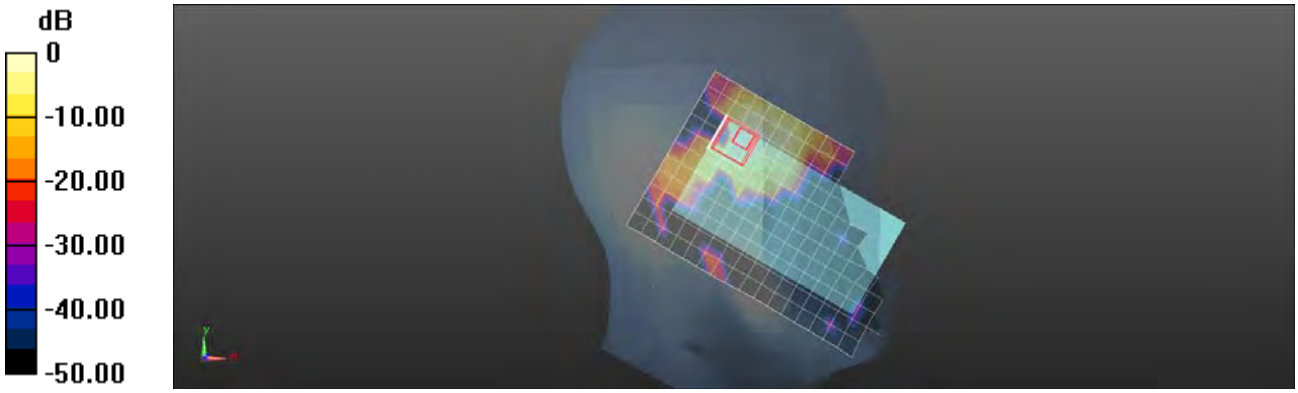
LE Cheek_WLAN802.11n(40M) 5.3G_CH62

Communication System: WLAN 5G (FCC); Frequency: 5310 MHz
Medium parameters used: f = 5310 MHz; σ = 4.597 mho/m; εr = 35.186; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.141 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.032 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.363 mW/g
SAR(1 g) = 0.098 mW/g; SAR(10 g) = 0.027 mW/g
Maximum value of SAR (measured) = 0.208 mW/g



0 dB = 0.208 mW/g = -13.64 dB mW/g

Date: 2012/11/26

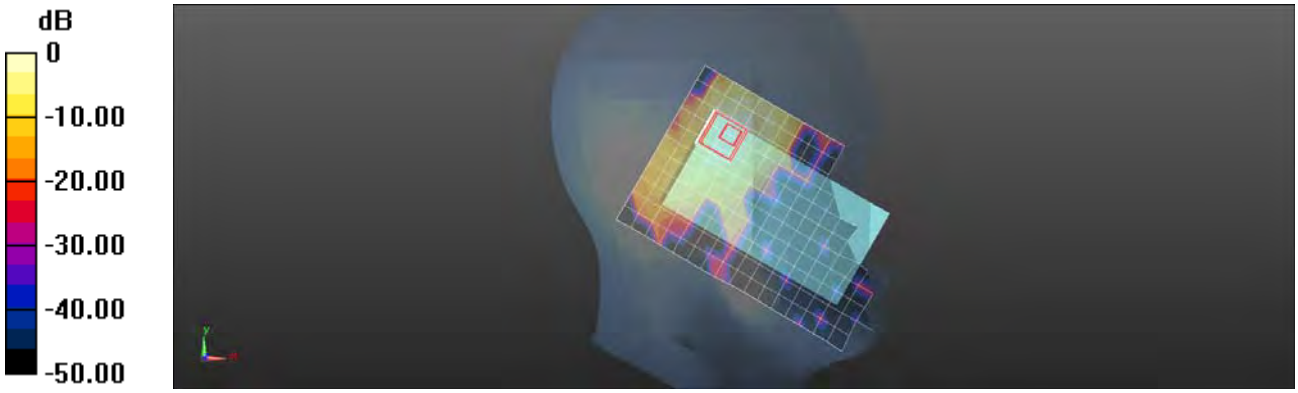
LE Tilt_WLAN802.11n(40M) 5.3G_CH54

Communication System: WLAN 5G (FCC); Frequency: 5270 MHz
Medium parameters used: f = 5270 MHz; σ = 4.556 mho/m; εr = 35.264; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.99, 4.99, 4.99); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.147 mW/g

Configuration/LE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.372 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.350 mW/g
SAR(1 g) = 0.095 mW/g; SAR(10 g) = 0.029 mW/g
Maximum value of SAR (measured) = 0.199 mW/g



0 dB = 0.199 mW/g = -14.02 dB mW/g

Date: 2012/11/30

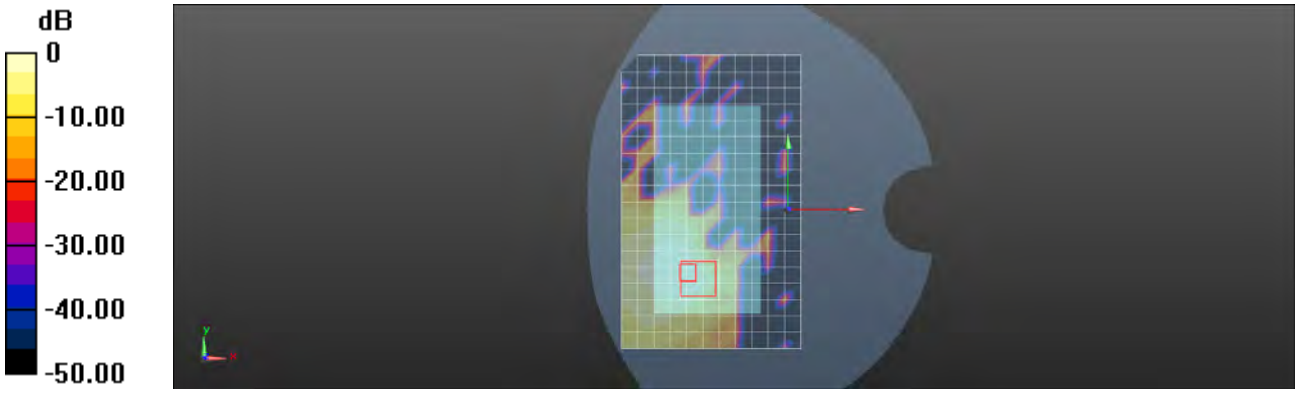
Body-worn_Front side_WLAN802.11n(40M) 5.3G_CH54

Communication System: WLAN 5G (FCC); Frequency: 5270 MHz
Medium parameters used: f = 5270 MHz; σ = 5.413 mho/m; ε_r = 48.363; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0774 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.365 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.361 mW/g
SAR(1 g) = 0.035 mW/g; SAR(10 g) = 0.011 mW/g
Maximum value of SAR (measured) = 0.0881 mW/g



0 dB = 0.0881 mW/g = -21.10 dB mW/g

Date: 2012/11/30

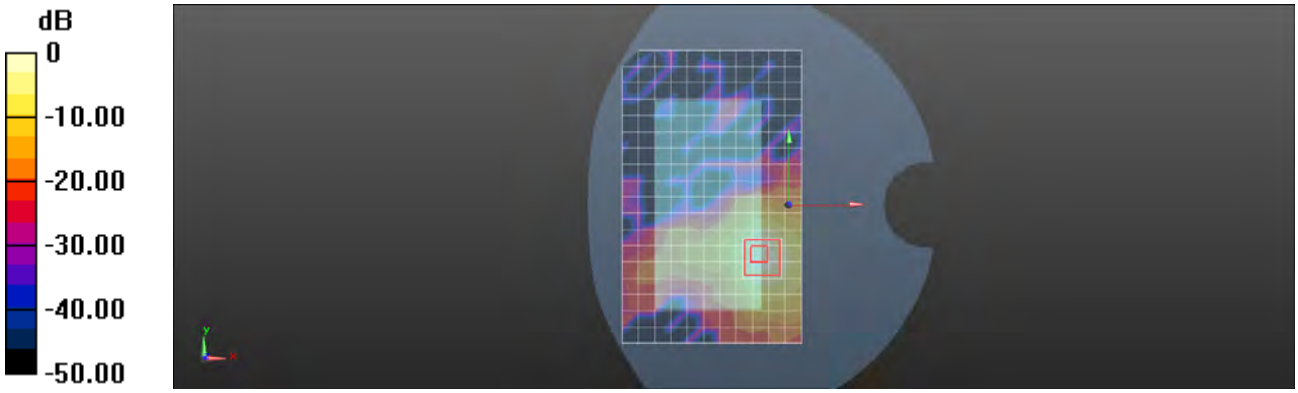
Body-worn_Back side_WLAN802.11n(40M) 5.3G_CH54

Communication System: WLAN 5G (FCC); Frequency: 5270 MHz
Medium parameters used: f = 5270 MHz; σ = 5.413 mho/m; ε_r = 48.363; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.776 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.216 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 2.087 mW/g
SAR(1 g) = 0.541 mW/g; SAR(10 g) = 0.176 mW/g
Maximum value of SAR (measured) = 1.03 mW/g



0 dB = 1.03 mW/g = 0.26 dB mW/g

Date: 2012/11/30

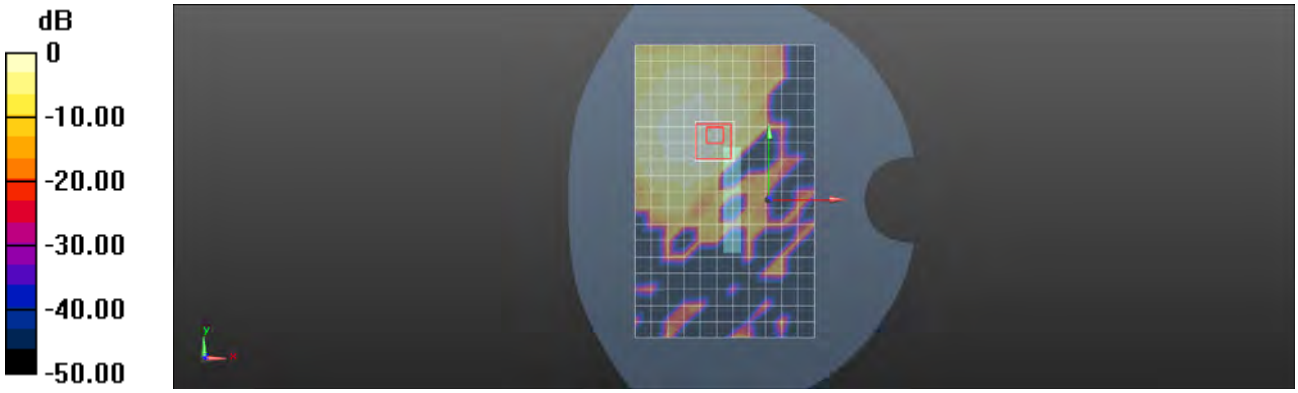
Body-worn_Top side_WLAN802.11n(40M) 5.3G_CH54

Communication System: WLAN 5G (FCC); Frequency: 5270 MHz
Medium parameters used: f = 5270 MHz; σ = 5.413 mho/m; ε_r = 48.363; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0513 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.378 V/m; Power Drift =0.01 dB
Peak SAR (extrapolated) = 0.413 mW/g
SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.013 mW/g
Maximum value of SAR (measured) = 0.0619 mW/g



0 dB = 0.0619 mW/g = -24.17 dB mW/g

Date: 2012/11/30

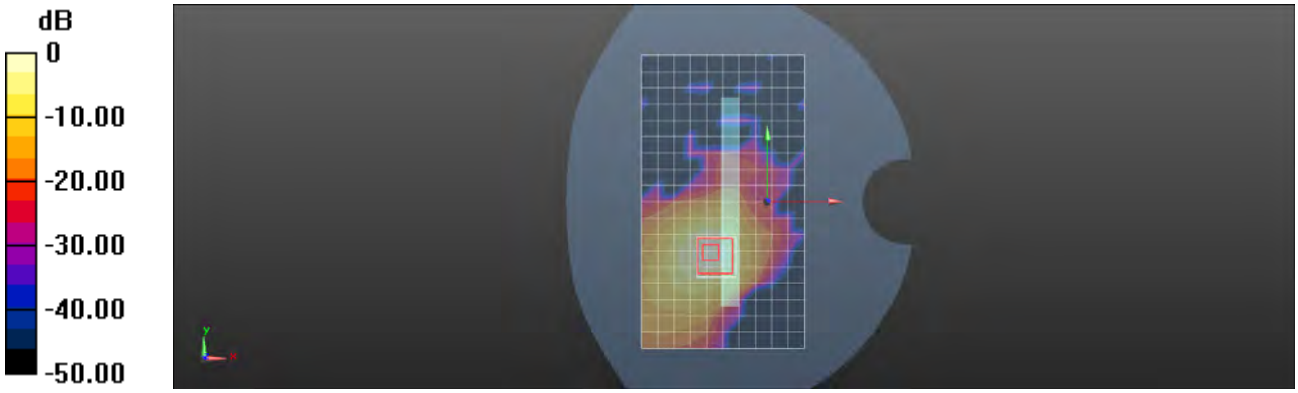
Body-worn_Right side_WLAN802.11n(40M) 5.3G_CH54

Communication System: WLAN 5G (FCC); Frequency: 5270 MHz
Medium parameters used: f = 5270 MHz; σ = 5.413 mho/m; ε_r = 48.363; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.07 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.029 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 2.261 mW/g
SAR(1 g) = 0.602 mW/g; SAR(10 g) = 0.193 mW/g
Maximum value of SAR (measured) = 1.14 mW/g



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

Date: 2012/11/30

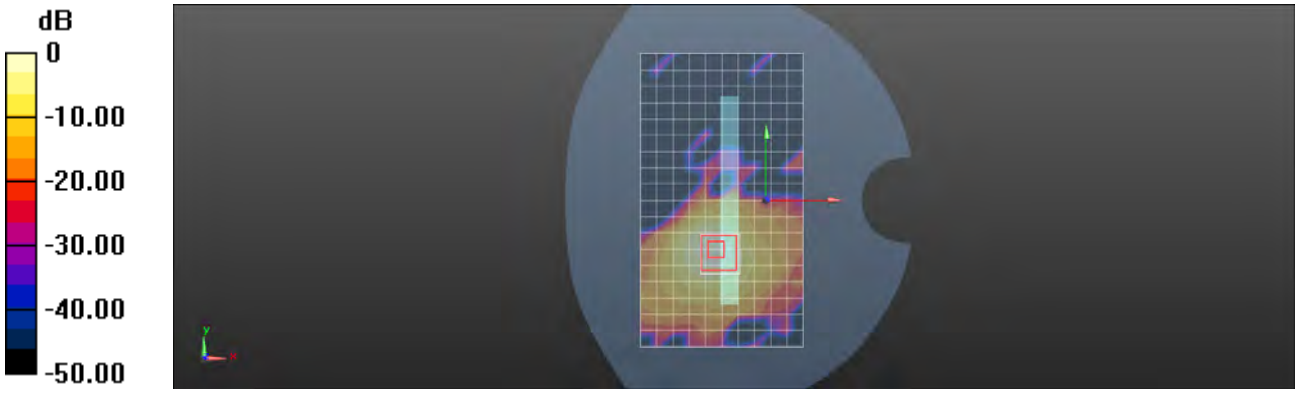
Body-worn_Right side_WLAN802.11n(40M) 5.3G_CH62

Communication System: WLAN 5G (FCC); Frequency: 5310 MHz
Medium parameters used: f = 5310 MHz; σ = 5.468 mho/m; ε_r = 48.284; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.17, 4.17, 4.17); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.369 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.500 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.864 mW/g
SAR(1 g) = 0.213 mW/g; SAR(10 g) = 0.069 mW/g
Maximum value of SAR (measured) = 0.416 mW/g



0 dB = 0.416 mW/g = -7.62 dB mW/g

Date: 2012/12/3

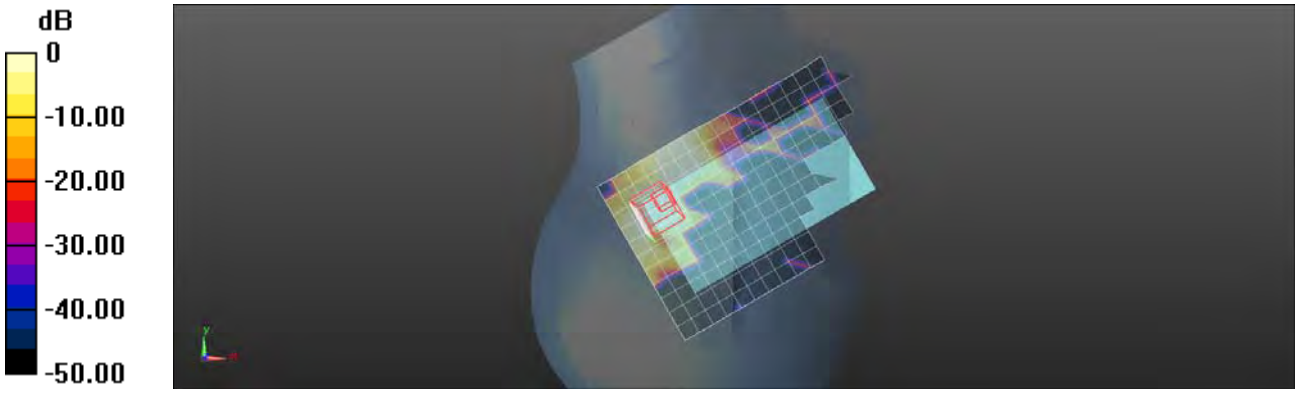
RE Cheek_WLAN802.11n(40M) 5.5G_CH134

Communication System: WLAN 5G (FCC); Frequency: 5670 MHz
Medium parameters used: f = 5670 MHz; σ = 5.002 mho/m; ε_r = 34.417; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0291 mW/g

Configuration/RE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.413 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.169 mW/g
SAR(1 g) = 0.00927 mW/g; SAR(10 g) = 0.000935 mW/g
Maximum value of SAR (measured) = 0.0235 mW/g



0 dB = 0.0235 mW/g = -32.58 dB mW/g

Date: 2012/12/3

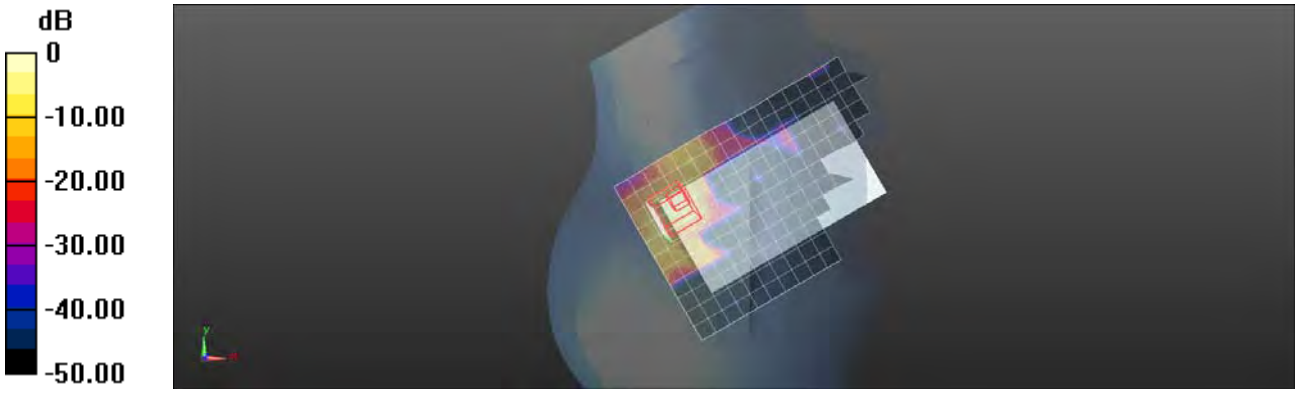
RE Tilt_WLAN802.11n(40M) 5.5G_CH134

Communication System: WLAN 5G (FCC); Frequency: 5670 MHz
Medium parameters used: f = 5670 MHz; σ = 5.002 mho/m; ε_r = 34.417; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0199 mW/g

Configuration/RE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.672 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.176 mW/g
SAR(1 g) = 0.015 mW/g; SAR(10 g) = 0.00159 mW/g
Maximum value of SAR (measured) = 0.0275 mW/g



0 dB = 0.0275 mW/g = -31.21 dB mW/g

Date: 2012/12/3

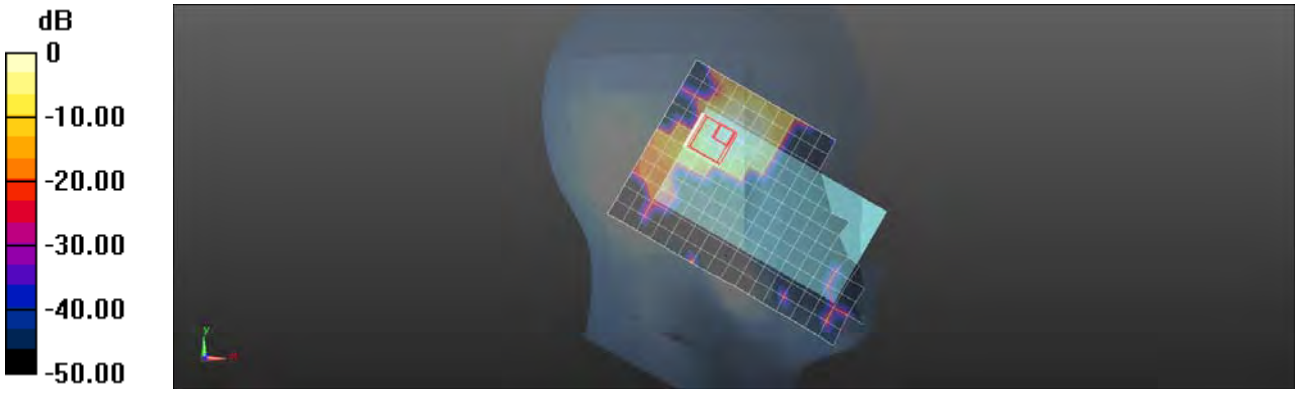
LE Cheek_WLAN802.11n(40M) 5.5G_CH102

Communication System: WLAN 5G (FCC); Frequency: 5510 MHz
Medium parameters used: f = 5510 MHz; σ = 4.825 mho/m; εr = 34.759; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.116 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.603 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.245 mW/g
SAR(1 g) = 0.061 mW/g; SAR(10 g) = 0.013 mW/g
Maximum value of SAR (measured) = 0.125 mW/g



0 dB = 0.125 mW/g = -18.06 dB mW/g

Date: 2012/12/3

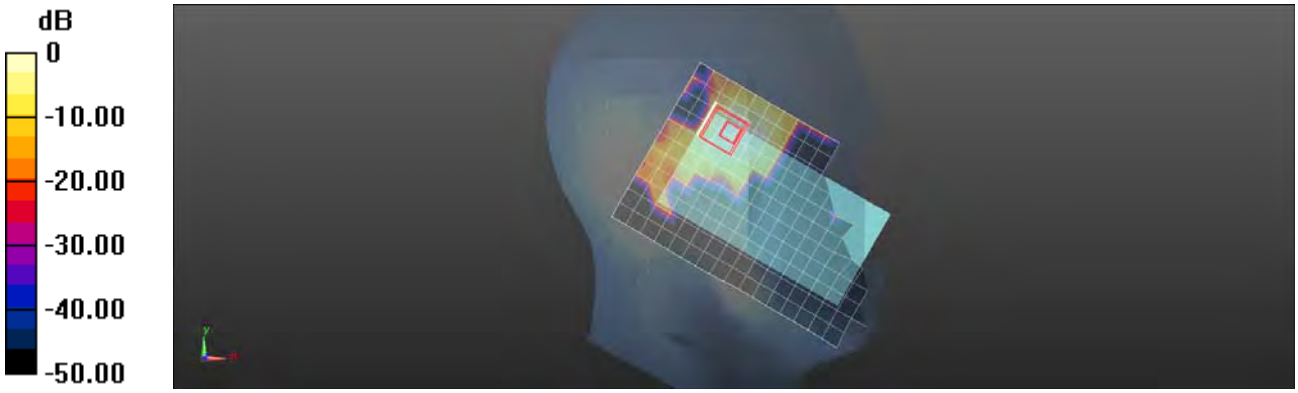
LE Cheek_WLAN802.11n(40M) 5.5G_CH118

Communication System: WLAN 5G (FCC); Frequency: 5590 MHz
Medium parameters used: f = 5590 MHz; σ = 4.911 mho/m; ε_r = 34.588; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.137 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.473 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.300 mW/g
SAR(1 g) = 0.072 mW/g; SAR(10 g) = 0.021 mW/g
Maximum value of SAR (measured) = 0.151 mW/g



0 dB = 0.151 mW/g = -16.42 dB mW/g

Date: 2012/12/3

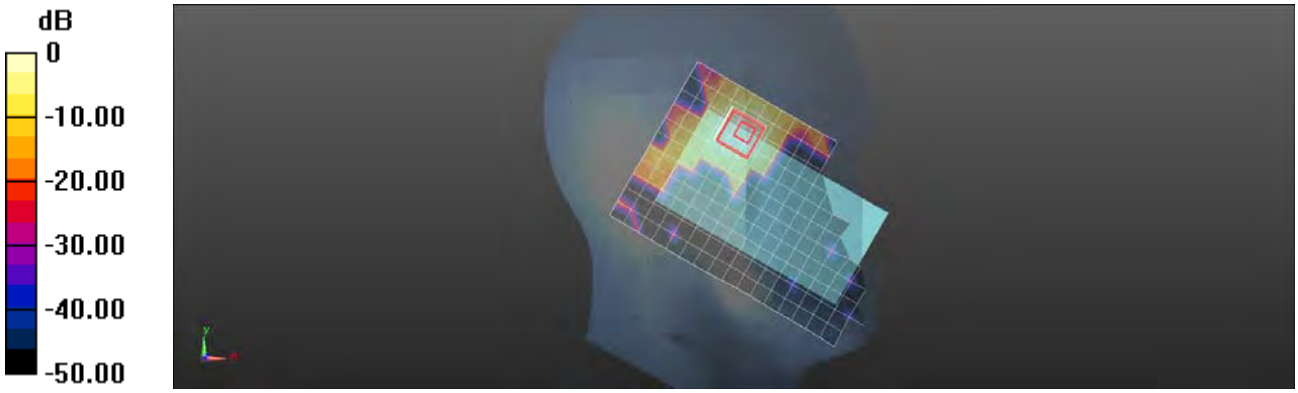
LE Cheek_WLAN802.11n(40M) 5.5G_CH134

Communication System: WLAN 5G (FCC); Frequency: 5670 MHz
Medium parameters used: f = 5670 MHz; σ = 5.002 mho/m; ε_r = 34.417; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.121 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.464 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.333 mW/g
SAR(1 g) = 0.056 mW/g; SAR(10 g) = 0.019 mW/g
Maximum value of SAR (measured) = 0.119 mW/g



0 dB = 0.119 mW/g = -18.49 dB mW/g

Date: 2012/12/3

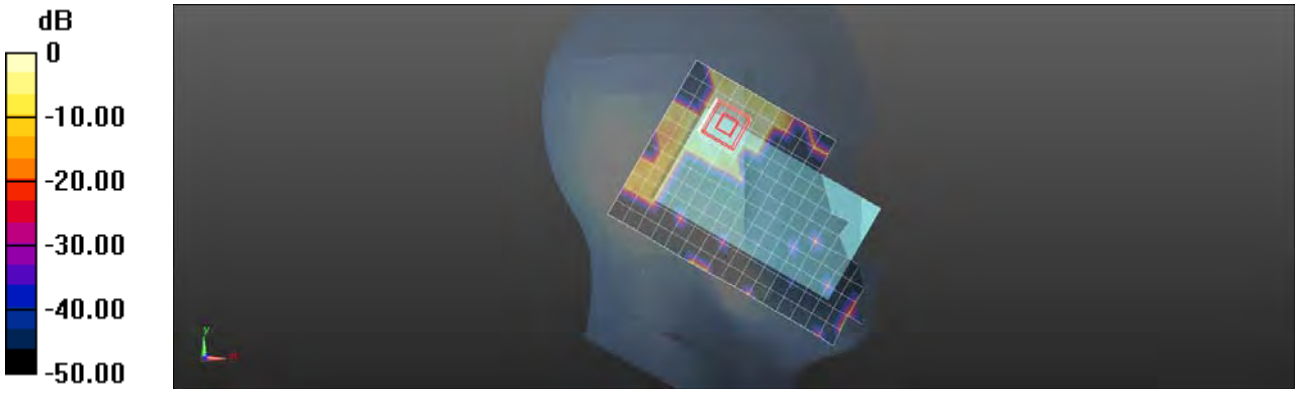
LE Tilt_WLAN802.11n(40M) 5.5G_CH134

Communication System: WLAN 5G (FCC); Frequency: 5670 MHz
Medium parameters used: f = 5670 MHz; σ = 5.317 mho/m; ε_r = 34.417; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0295 mW/g

Configuration/LE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.251 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.268 mW/g
SAR(1 g) = 0.021 mW/g; SAR(10 g) = 0.00487 mW/g
Maximum value of SAR (measured) = 0.0308 mW/g



0 dB = 0.0308 mW/g = -30.23 dB mW/g

Date: 2012/12/10

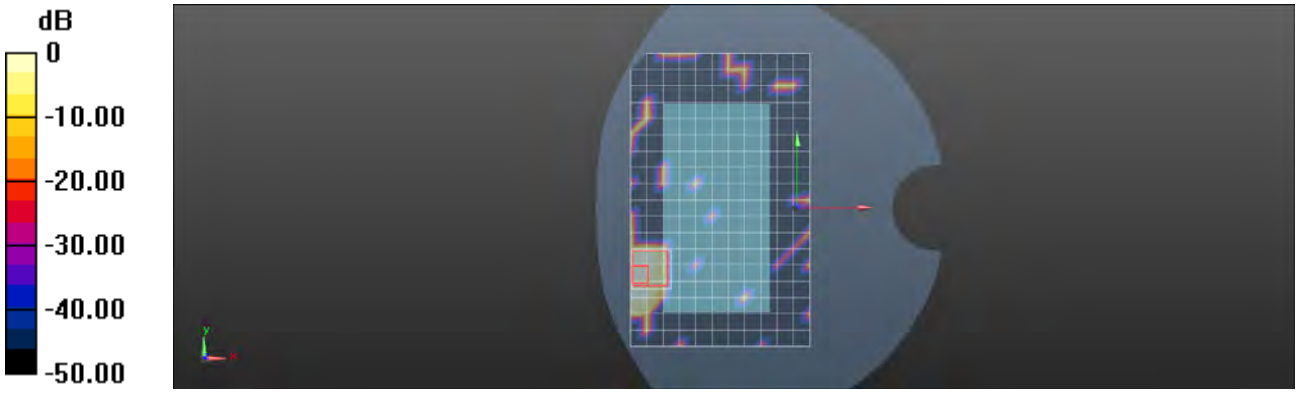
Body-worn_Front side_WLAN802.11n(40M) 5.5G_CH134

Communication System: WLAN 5G (FCC); Frequency: 5670 MHz
Medium parameters used: f = 5670 MHz; σ = 5.985 mho/m; ε_r = 47.551; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0156 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.332 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.037 mW/g
SAR(1 g) = 0.00147 mW/g; SAR(10 g) = 0.000266 mW/g
Maximum value of SAR (measured) = 0.0149 mW/g



0 dB = 0.0149 mW/g = -36.54 dB mW/g

Date: 2012/12/10

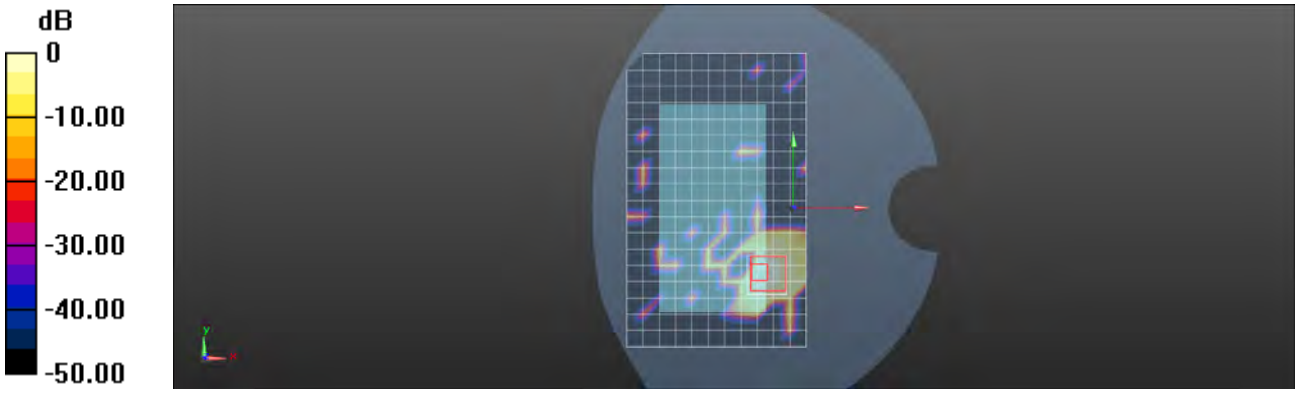
Body-worn_Back side_WLAN802.11n(40M) 5.5G_CH134

Communication System: WLAN 5G (FCC); Frequency: 5670 MHz
Medium parameters used: f = 5670 MHz; σ = 5.985 mho/m; ε_r = 47.551; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0233 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.345 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.186 mW/g
SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.0021 mW/g
Maximum value of SAR (measured) = 0.0292 mW/g



0 dB = 0.0292 mW/g = -30.69 dB mW/g

Date: 2012/12/10

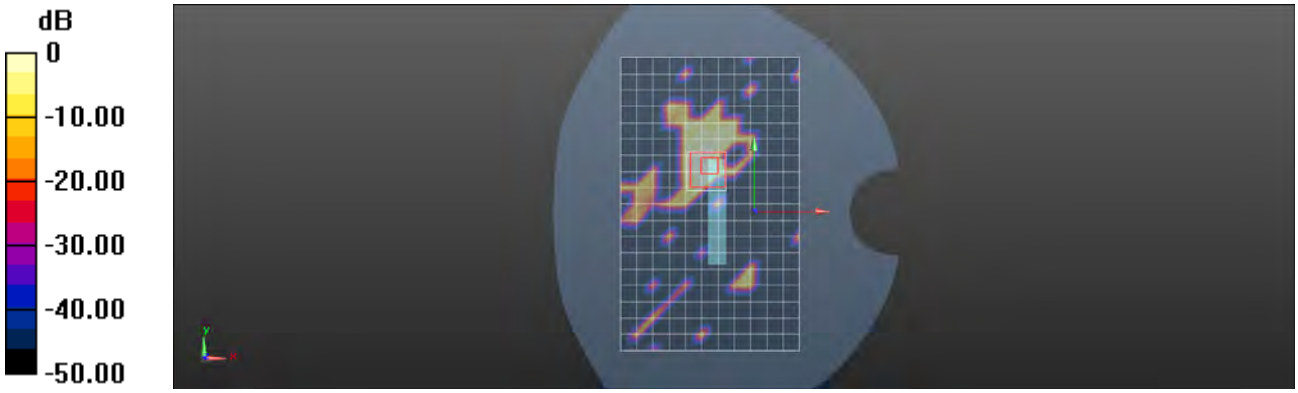
Body-worn_Top side_WLAN802.11n(40M) 5.5G_CH134

Communication System: WLAN 5G (FCC); Frequency: 5670 MHz
Medium parameters used: f = 5670 MHz; σ = 5.985 mho/m; ε_r = 47.551; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0184 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.412 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.136 mW/g
SAR(1 g) = 0.00751 mW/g; SAR(10 g) = 0.00134 mW/g
Maximum value of SAR (measured) = 0.0181 mW/g



0 dB = 0.0181 mW/g = -34.85 dB mW/g

Date: 2012/12/10

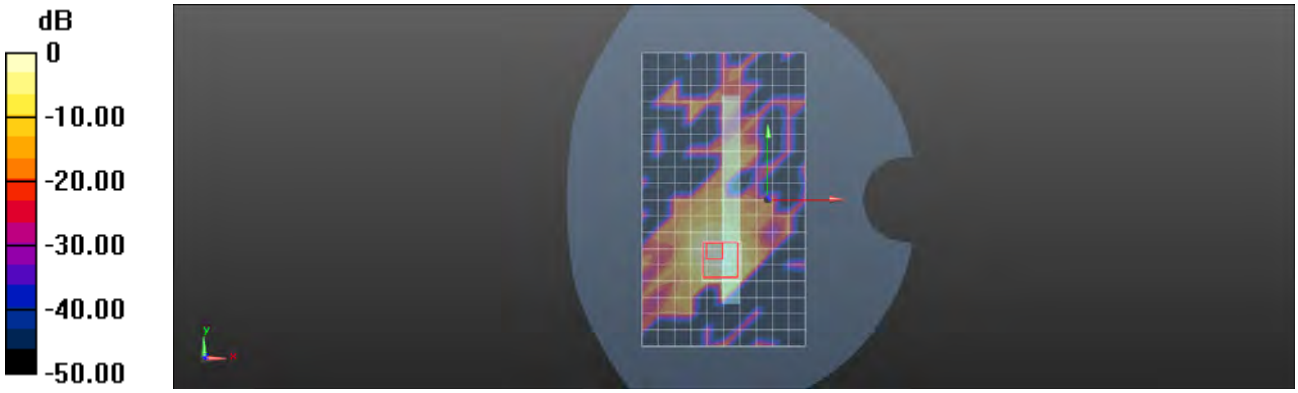
Body-worn_Right side_WLAN802.11n(40M) 5.5G_CH102

Communication System: WLAN 5G (FCC); Frequency: 5510 MHz
Medium parameters used: f = 5510 MHz; σ = 5.755 mho/m; ε_r = 47.886; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.113 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.657 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.330 mW/g
SAR(1 g) = 0.066 mW/g; SAR(10 g) = 0.020 mW/g
Maximum value of SAR (measured) = 0.148 mW/g



0 dB = 0.148 mW/g = -16.59 dB mW/g

Date: 2012/12/10

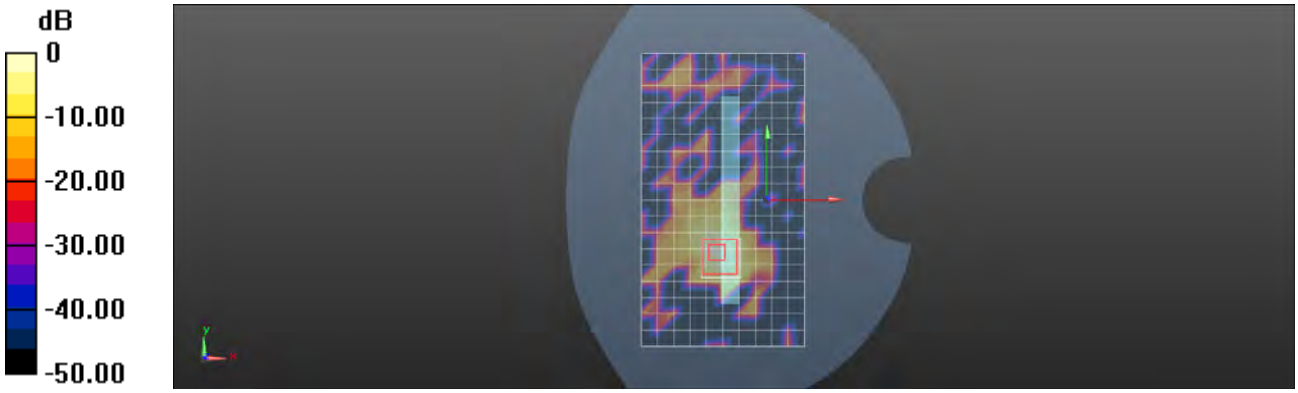
Body-worn_Right side_WLAN802.11n(40M) 5.5G_CH118

Communication System: WLAN 5G (FCC); Frequency: 5590 MHz
Medium parameters used: f = 5590 MHz; σ = 5.873 mho/m; ε_r = 47.715; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0797 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.368 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.286 mW/g
SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.015 mW/g
Maximum value of SAR (measured) = 0.125 mW/g



0 dB = 0.125 mW/g = -18.06 dB mW/g

Date: 2012/12/10

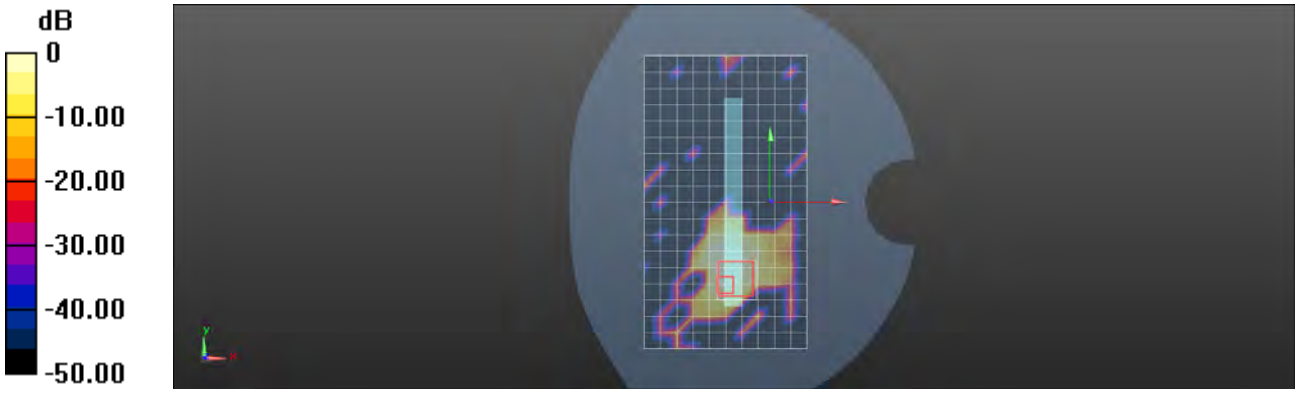
Body-worn_Right side_WLAN802.11n(40M) 5.5G_CH134

Communication System: WLAN 5G (FCC); Frequency: 5670 MHz
Medium parameters used: f = 5670 MHz; σ = 5.985 mho/m; ε_r = 47.551; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0614 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.655 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.331 mW/g
SAR(1 g) = 0.028 mW/g; SAR(10 g) = 0.00992 mW/g
Maximum value of SAR (measured) = 0.0695 mW/g



0 dB = 0.0695 mW/g = -23.16 dB mW/g

Date: 2012/12/11

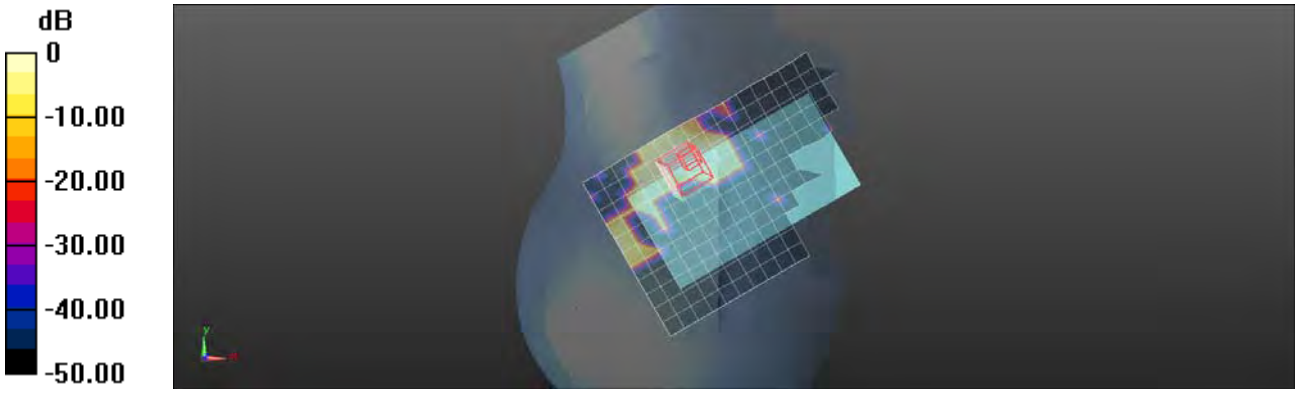
RE Cheek_WLAN802.11n(40M) 5.8G_CH151

Communication System: WLAN 5G (FCC); Frequency: 5755 MHz
Medium parameters used: f = 5755 MHz; σ = 5.095 mho/m; ε_r = 34.249; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0501 mW/g

Configuration/RE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.261 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.498 mW/g
SAR(1 g) = 0.042 mW/g; SAR(10 g) = 0.011 mW/g
Maximum value of SAR (measured) = 0.0595 mW/g



0 dB = 0.0595 mW/g = -24.51 dB mW/g

Date: 2012/12/11

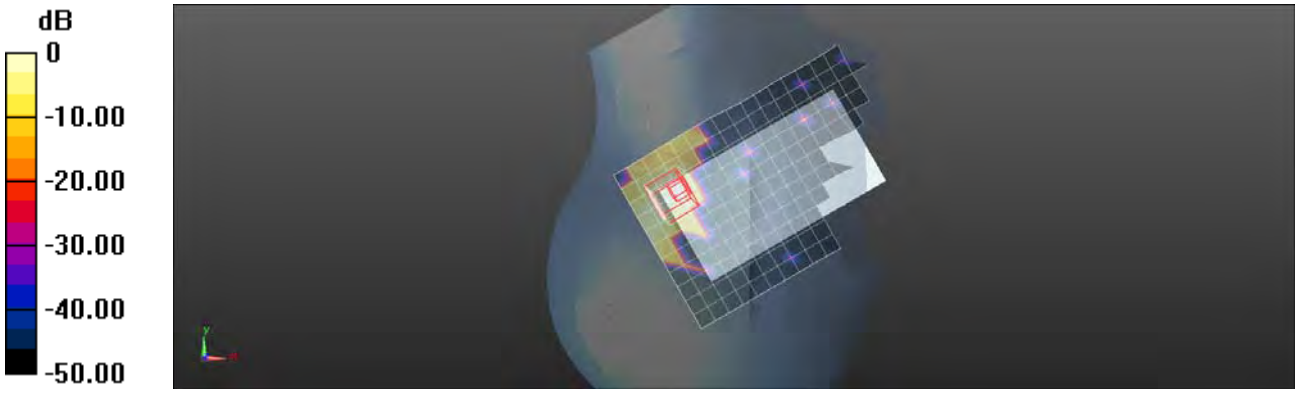
RE Tilt_WLAN802.11n(40M) 5.8G_CH151

Communication System: WLAN 5G (FCC); Frequency: 5755 MHz
Medium parameters used: f = 5755 MHz; σ = 5.095 mho/m; ε_r = 34.249; ρ = 1000 kg/m^3
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/RE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0187 mW/g

Configuration/RE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.234 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.187 mW/g
SAR(1 g) = 0.014 mW/g; SAR(10 g) = 0.00161 mW/g.
Maximum value of SAR (measured) = 0.0238 mW/g



0 dB = 0.0238 mW/g = -32.47 dB mW/g

Date: 2012/12/11

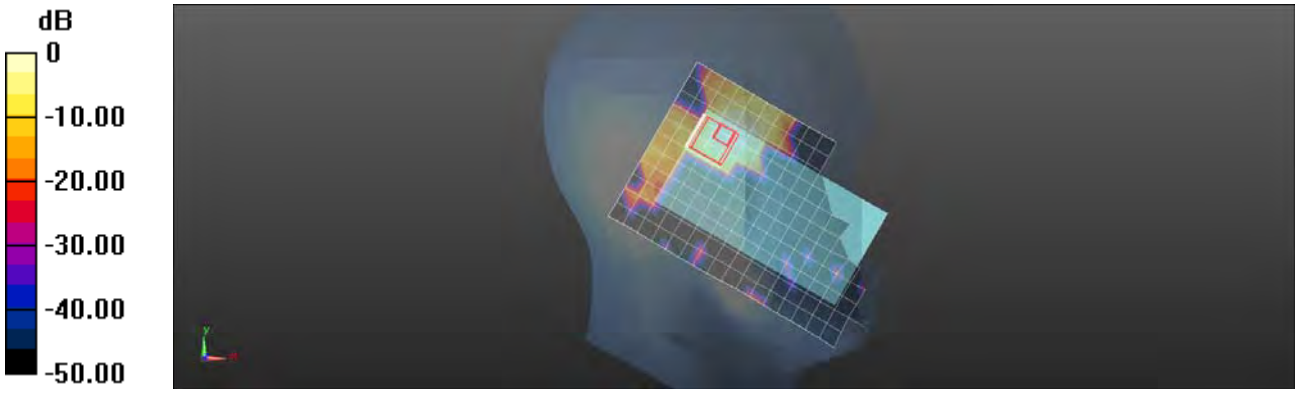
LE Cheek_WLAN802.11n(40M) 5.8G_CH151

Communication System: WLAN 5G (FCC); Frequency: 5755 MHz
Medium parameters used: f = 5755 MHz; σ = 5.095 mho/m; εr = 34.249; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0898 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.308 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 0.213 mW/g
SAR(1 g) = 0.046 mW/g; SAR(10 g) = 0.00943 mW/g
Maximum value of SAR (measured) = 0.105 mW/g



0 dB = 0.105 mW/g = -19.58 dB mW/g

Date: 2012/12/11

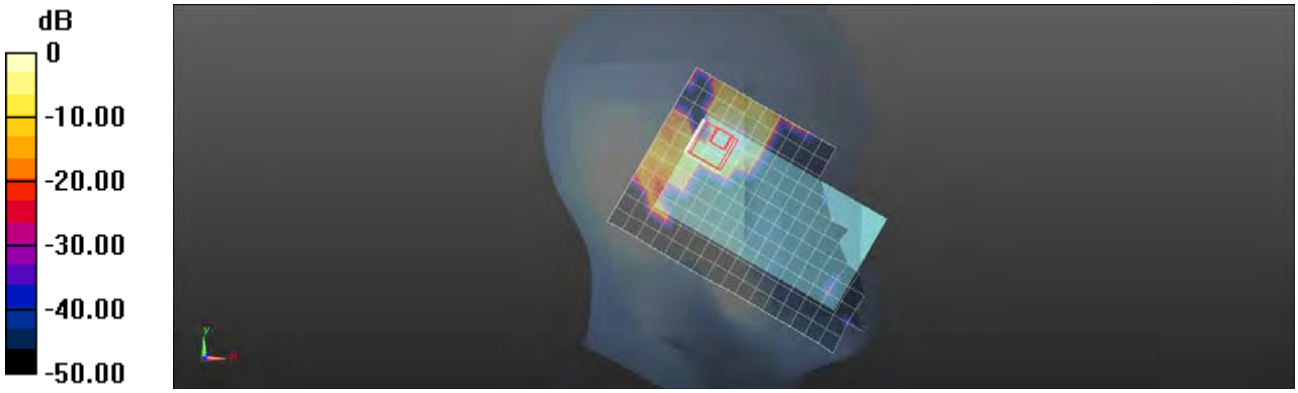
LE Cheek_WLAN802.11n(40M) 5.8G_CH159

Communication System: WLAN 5G (FCC); Frequency: 5795 MHz
Medium parameters used: f = 5795 MHz; σ = 5.142 mho/m; εr = 34.169; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Cheek/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0890 mW/g

Configuration/LE Cheek/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.523 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.276 mW/g
SAR(1 g) = 0.048 mW/g; SAR(10 g) = 0.01 mW/g
Maximum value of SAR (measured) = 0.111 mW/g



0 dB = 0.111 mW/g = -19.09 dB mW/g

Date: 2012/12/11

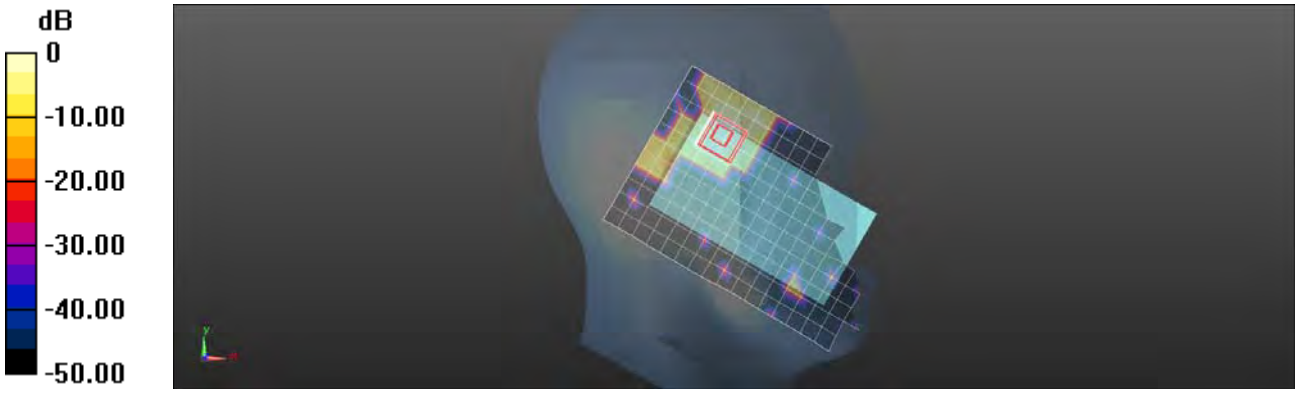
LE Tilt_WLAN802.11n(40M) 5.8G_CH151

Communication System: WLAN 5G (FCC); Frequency: 5755 MHz
Medium parameters used: f = 5755 MHz; σ = 5.095 mho/m; εr = 34.249; ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/LE Tilt/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0291 mW/g

Configuration/LE Tilt/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.345 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.258 mW/g
SAR(1 g) = 0.018 mW/g; SAR(10 g) = 0.00436 mW/g
Maximum value of SAR (measured) = 0.0342 mW/g



0 dB = 0.0342 mW/g = -29.32 dB mW/g

Date: 2012/12/12

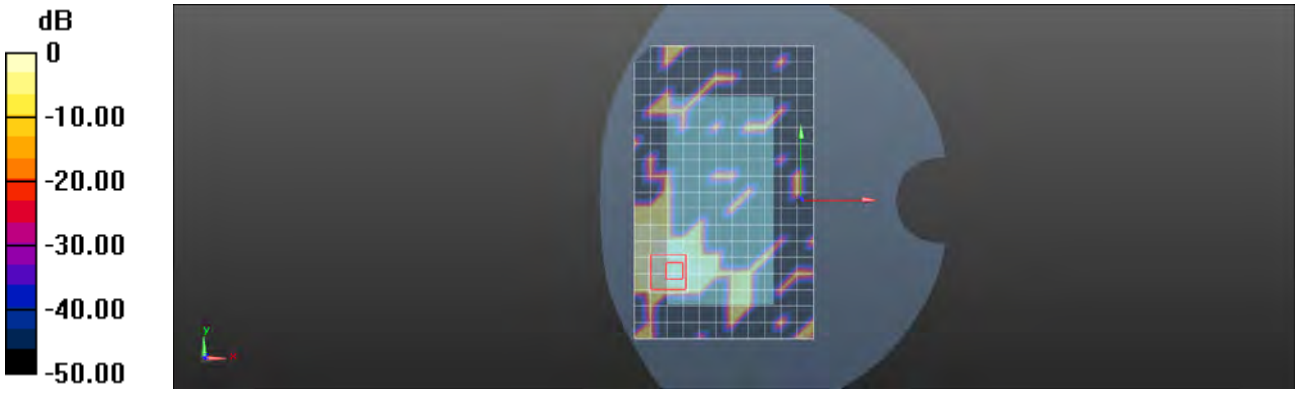
Body-worn_Front side_WLAN802.11n(40M) 5.8G_CH151

Communication System: WLAN 5G (FCC); Frequency: 5755 MHz
Medium parameters used: f = 5755 MHz; σ = 6.106 mho/m; ε_r = 47.407; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0150 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.512 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.123 mW/g
SAR(1 g) = 0.00836 mW/g; SAR(10 g) = 0.00167 mW/g
Maximum value of SAR (measured) = 0.0178 mW/g



0 dB = 0.0178 mW/g = -34.99 dB mW/g

Date: 2012/12/12

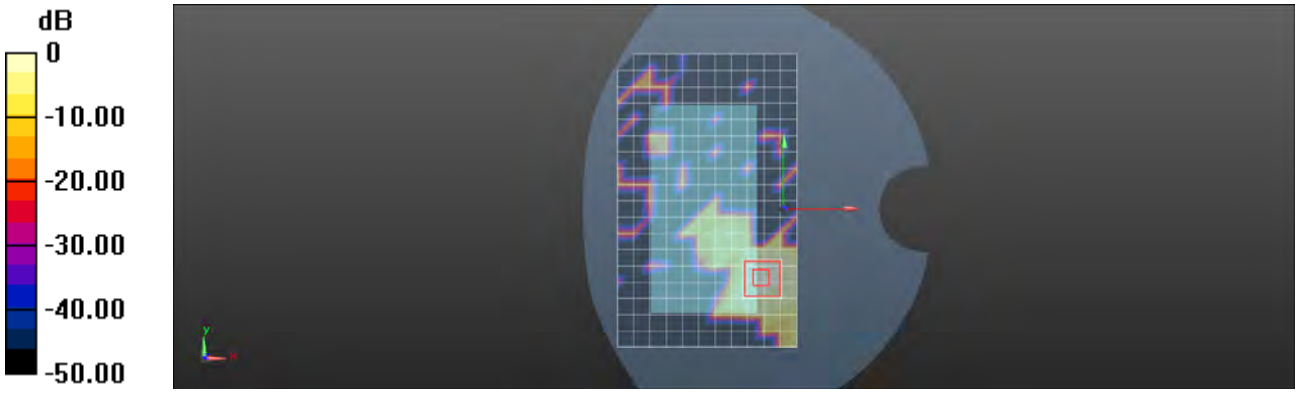
Body-worn_Back side_WLAN802.11n(40M) 5.8G_CH151

Communication System: WLAN 5G (FCC); Frequency: 5755 MHz
Medium parameters used: f = 5755 MHz; σ = 6.106 mho/m; ε_r = 47.407; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0510 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.615 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.514 mW/g
SAR(1 g) = 0.043 mW/g; SAR(10 g) = 0.015 mW/g
Maximum value of SAR (measured) = 0.0637 mW/g



0 dB = 0.0637 mW/g = -23.92 dB mW/g

Date: 2012/12/12

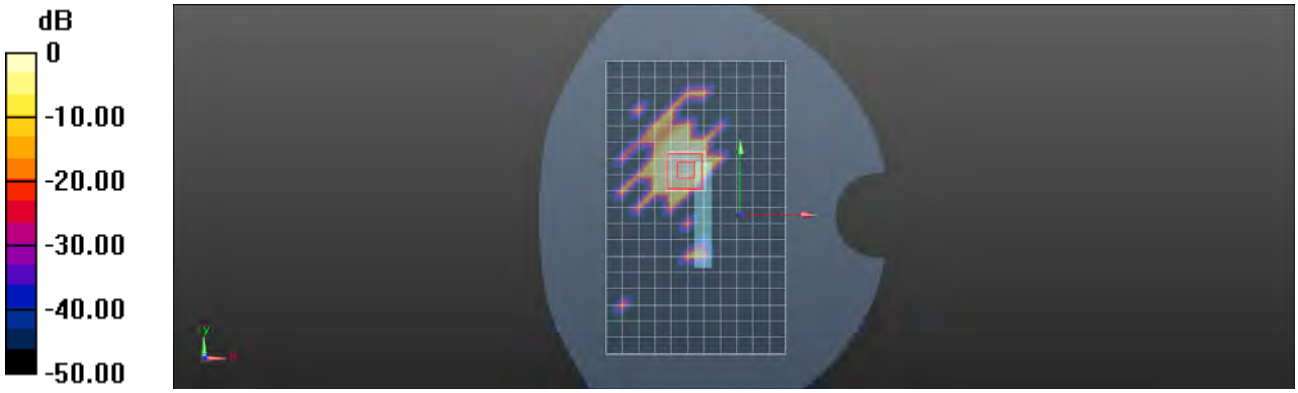
Body-worn_Top side_WLAN802.11n(40M) 5.8G_CH151

Communication System: WLAN 5G (FCC); Frequency: 5755 MHz
Medium parameters used: f = 5755 MHz; σ = 6.106 mho/m; ε_r = 47.407; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (12x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0274 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.222 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.240 mW/g
SAR(1 g) = 0.017 mW/g; SAR(10 g) = 0.00348 mW/g
Maximum value of SAR (measured) = 0.0295 mW/g



0 dB = 0.0295 mW/g = -30.60 dB mW/g

Date: 2012/12/12

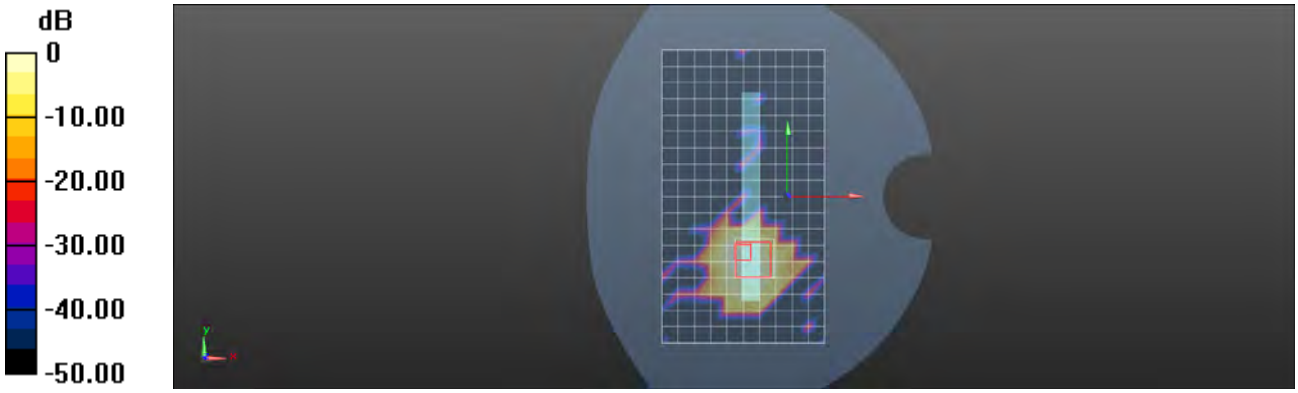
Body-worn_Right side_WLAN802.11n(40M) 5.8G_CH151

Communication System: WLAN 5G (FCC); Frequency: 5755 MHz
Medium parameters used: f = 5755 MHz; σ = 6.106 mho/m; ε_r = 47.407; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0917 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.544 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.339 mW/g
SAR(1 g) = 0.043 mW/g; SAR(10 g) = 0.014 mW/g
Maximum value of SAR (measured) = 0.102 mW/g



0 dB = 0.102 mW/g = -19.83 dB mW/g

Date: 2012/12/12

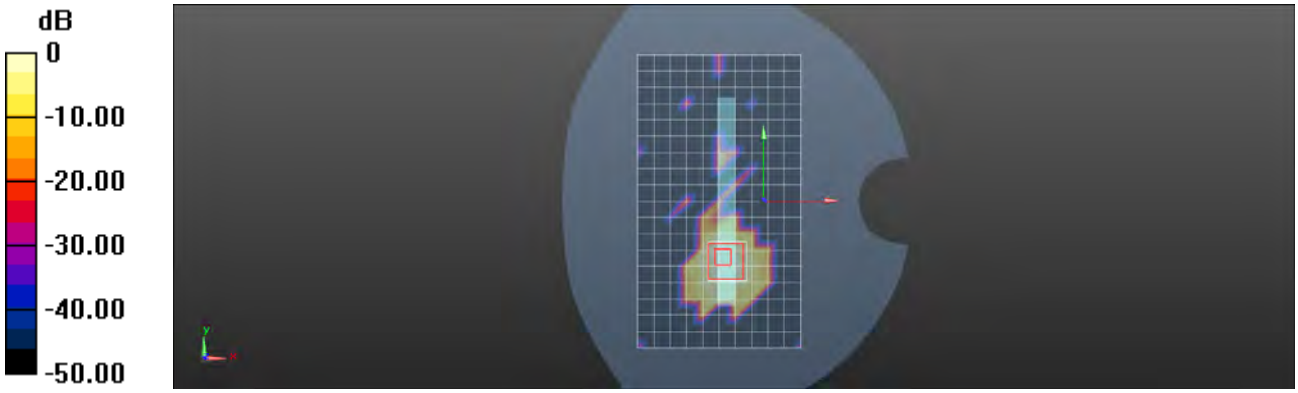
Body-worn_Right side_WLAN802.11n(40M) 5.8G_CH159

Communication System: WLAN 5G (FCC); Frequency: 5795 MHz
Medium parameters used: f = 5795 MHz; σ = 6.171 mho/m; ε_r = 47.318; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Body-worn/Area Scan (11x19x1): Measurement grid:
dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0836 mW/g

Configuration/Body-worn/Zoom Scan (7x7x12)/Cube 0: Measurement grid:
dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.798 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.249 mW/g
SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.015 mW/g
Maximum value of SAR (measured) = 0.0975 mW/g



0 dB = 0.0975 mW/g = -20.22 dB mW/g

5. System Verification

Date: 2012/11/9

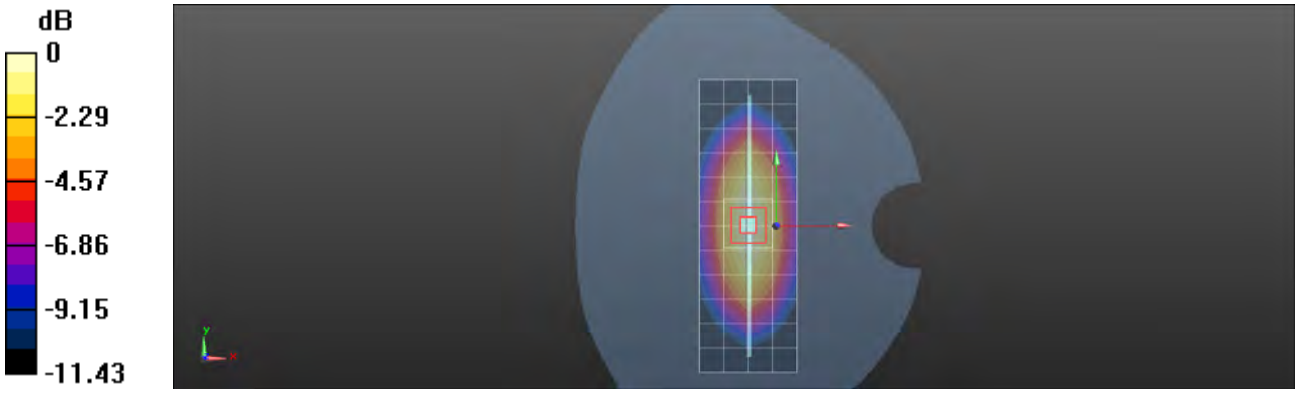
Dipole_835 MHz (Head)

Communication System: CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.885 mho/m; ε_r = 41.069; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(8.9, 8.9, 8.9); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Head Tissue/Pin=250mW, d=15mm/Area Scan (5x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.79 mW/g

Dipole Calibration for Head Tissue/Pin=250mW, d=15mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.810 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.225 mW/g
SAR(1 g) = 2.21 mW/g; SAR(10 g) = 1.45 mW/g
Maximum value of SAR (measured) = 2.71 mW/g



0 dB = 2.71 mW/g = 8.66 dB mW/g

Date: 2012/11/9

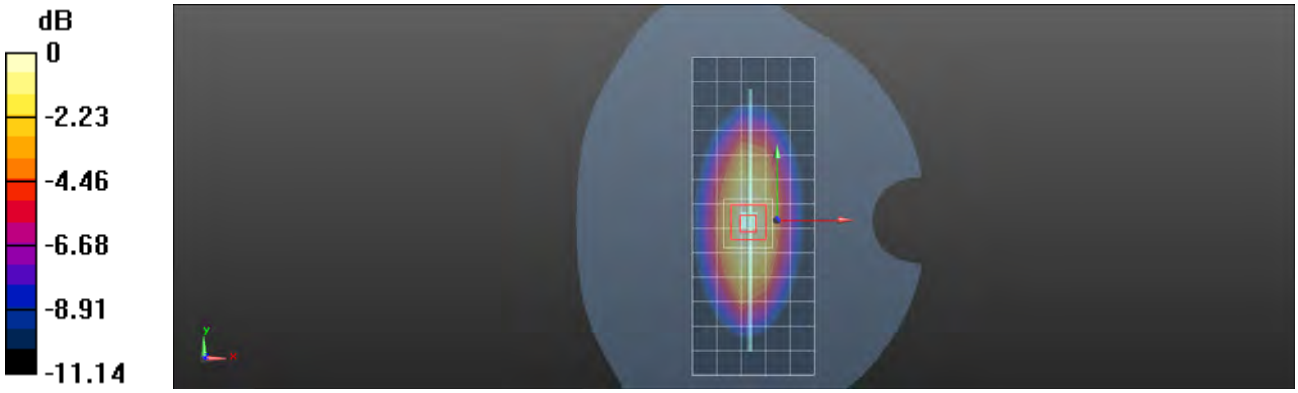
Dipole_835 MHz (Body)

Communication System: CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 1.006 mho/m; ε_r = 54.714; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(9.11, 9.11, 9.11); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Body Tissue/Pin=250mW, d=15mm/Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.87 mW/g

Dipole Calibration for Body Tissue/Pin=250mW, d=15mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.411 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 3.721 mW/g
SAR(1 g) = 2.42 mW/g; SAR(10 g) = 1.56 mW/g
Maximum value of SAR (measured) = 3.12 mW/g



0 dB = 3.12 mW/g = 9.88 dB mW/g

Date: 2012/11/7

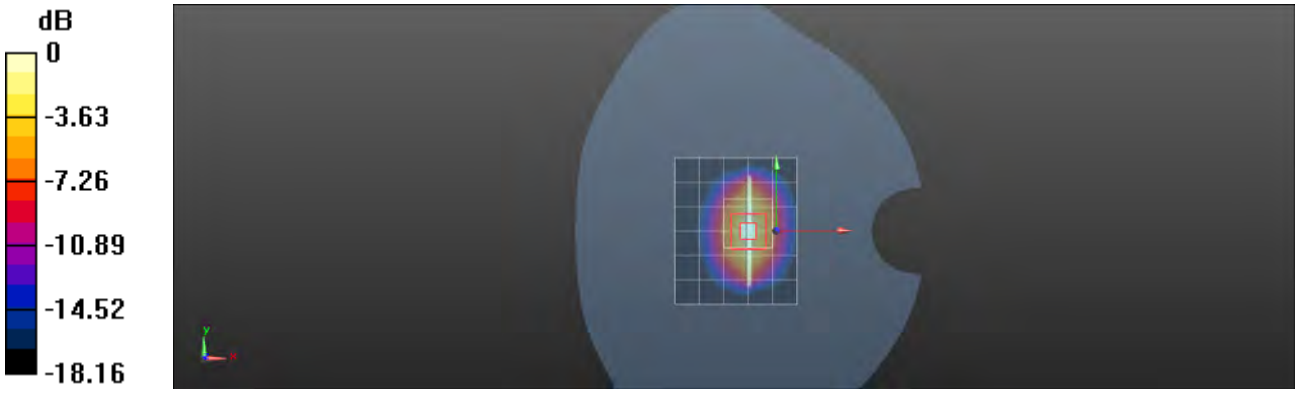
Dipole_1900 MHz (Head)

Communication System: CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.362 mho/m; ε_r = 39.56; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.55, 7.55, 7.55); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Pin=250mW, d=10mm/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 13.9 mW/g

Configuration/Pin=250mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 104.1 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 17.228 mW/g
SAR(1 g) = 9.76 mW/g; SAR(10 g) = 5.14 mW/g
Maximum value of SAR (measured) = 14.2 mW/g



0 dB = 14.2 mW/g = 23.05 dB mW/g

Date: 2012/11/7

Dipole_1900 MHz (Body)

Communication System: CW; Frequency: 1900 MHz

Medium parameters used: f = 1900 MHz; σ = 1.487 mho/m; ε_r = 52.461; ρ = 1000 kg/m^3

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(7.28, 7.28, 7.28); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/d=10mm, Pin=250mW, dist=2mm/Area Scan (5x7x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 13.5 mW/g

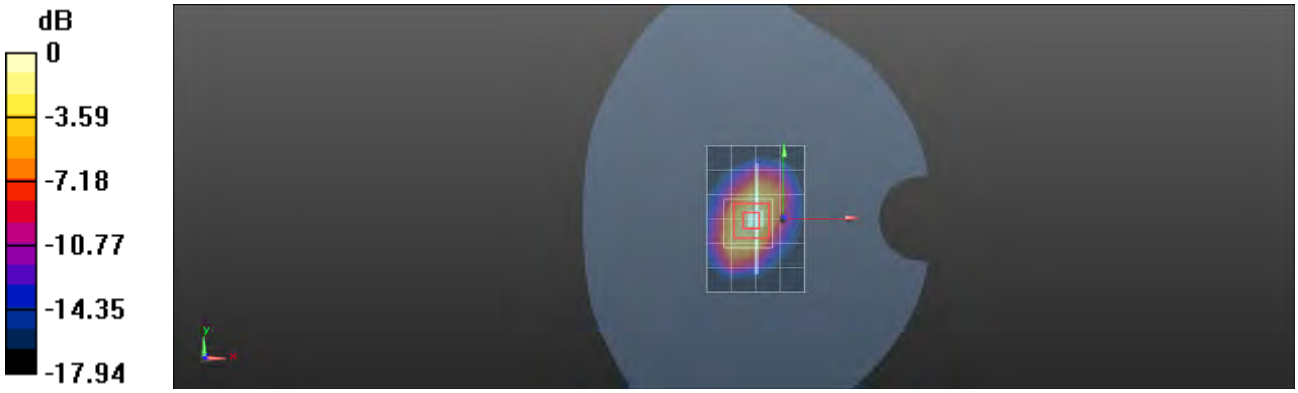
Configuration/d=10mm, Pin=250mW, dist=2mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 97.001 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 17.778 mW/g

SAR(1 g) = 9.86 mW/g; SAR(10 g) = 5.18 mW/g

Maximum value of SAR (measured) = 14.0 mW/g



0 dB = 14.0 mW/g = 22.92 dB mW/g

Date: 2012/11/14

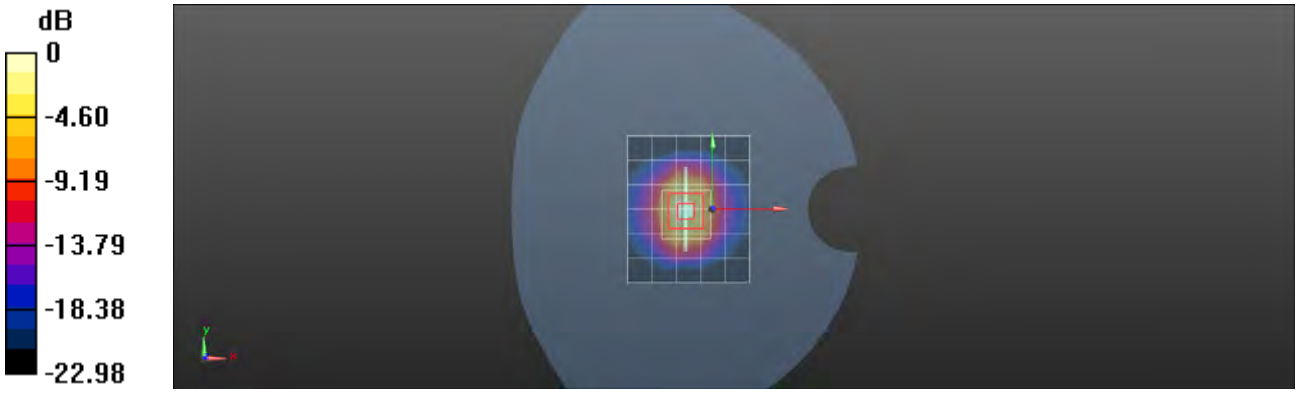
Dipole_2450 MHz (Head)

Communication System: CW; Frequency: 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.804 mho/m; ε_r = 39.847; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.78, 6.78, 6.78); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Head Tissue/Pin=250mW, d=10mm/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 14.7 mW/g

Dipole Calibration for Head Tissue/Pin=250mW, d=10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 105.1 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 26.724 mW/g
SAR(1 g) = 12.6 mW/g; SAR(10 g) = 5.81 mW/g
Maximum value of SAR (measured) = 19.5 mW/g



0 dB = 19.5 mW/g = 25.80 dB mW/g

Date: 2012/11/14

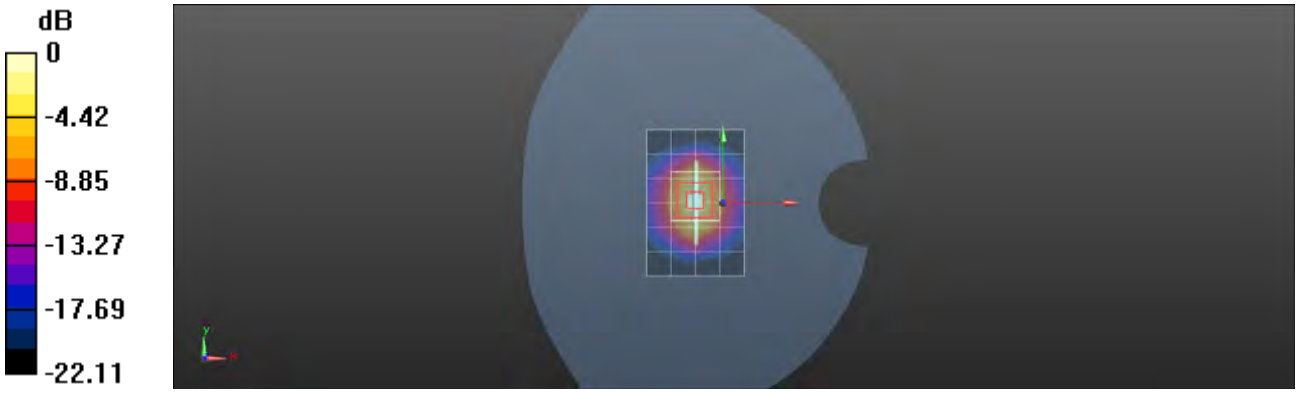
Dipole_2450 MHz (Body)

Communication System: CW; Frequency: 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.956 mho/m; ε_r = 53.021; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(6.95, 6.95, 6.95); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Body Tissue/Pin=250mW, d=10mm/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 20.1 mW/g

Dipole Calibration for Body Tissue/Pin=250mW, d=10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 102.4 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 27.421 mW/g
SAR(1 g) = 13.2 mW/g; SAR(10 g) = 6.18 mW/g
Maximum value of SAR (measured) = 19.9 mW/g



0 dB = 19.9 mW/g = 25.98 dB mW/g

Date: 2012/11/21

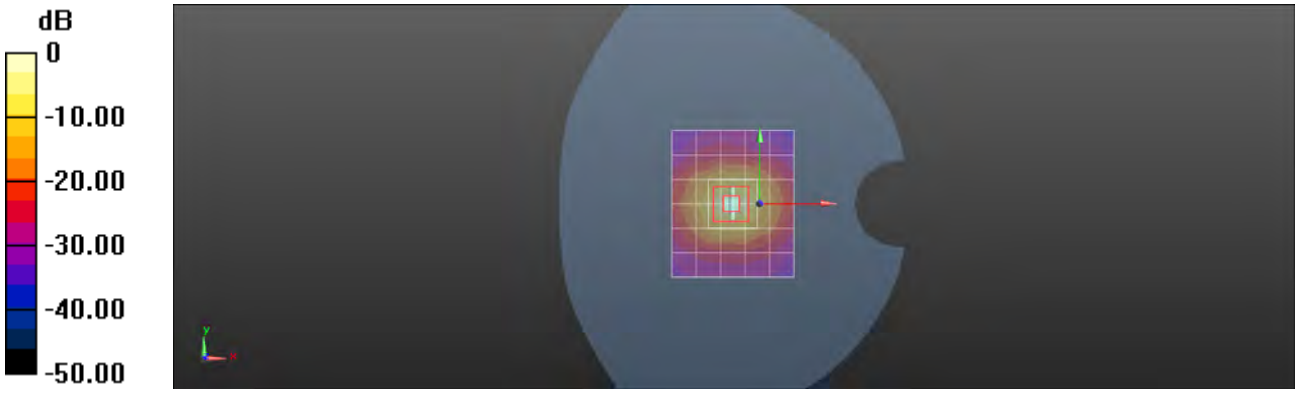
Dipole 5.2GHz (Head)

Communication System: CW; Frequency: 5200 MHz
Medium parameters used: f = 5200 MHz; σ = 4.473 mho/m; ε_r = 35.423; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Head Tissue/Pin=100mW, d=10mm/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 10.7 mW/g

Dipole Calibration for Head Tissue/Pin=100mW, d=10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 64.082 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 33.925 mW/g
SAR(1 g) = 8.01 mW/g; SAR(10 g) = 2.28 mW/g
Maximum value of SAR (measured) = 16.6 mW/g



0 dB = 16.6 mW/g = 24.40 dB mW/g

Date: 2012/11/25

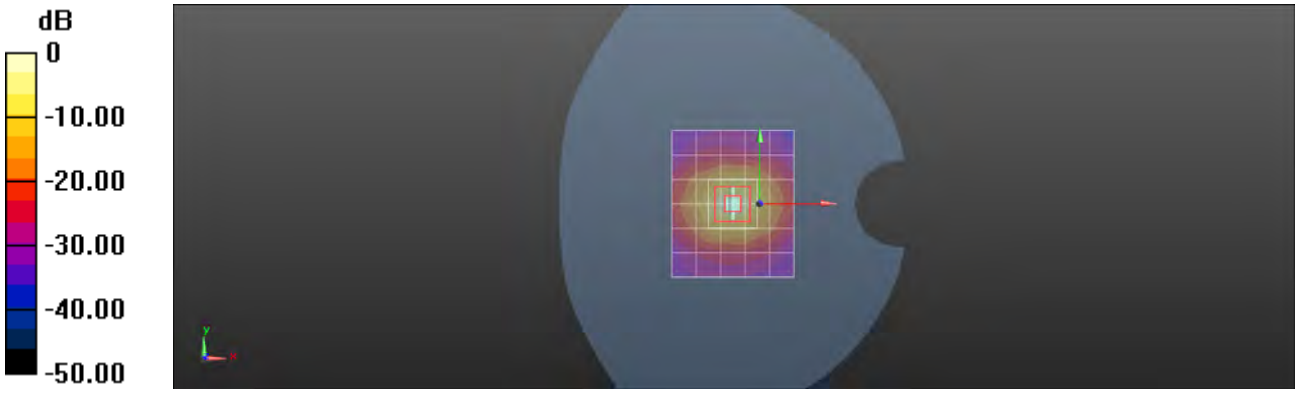
Dipole 5.2GHz (Body)

Communication System: CW; Frequency: 5200 MHz
Medium parameters used: f = 5200 MHz; σ = 5.31 mho/m; ε_r = 48.516; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Body Tissue/Pin=100mW, d=10mm/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 15.7 mW/g

Dipole Calibration for Body Tissue/Pin=100mW, d=10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 60.091 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 31.418 mW/g
SAR(1 g) = 7.56 mW/g; SAR(10 g) = 2.1 mW/g
Maximum value of SAR (measured) = 15.7 mW/g



0 dB = 15.7 mW/g = 23.92 dB mW/g

Date: 2012/11/26

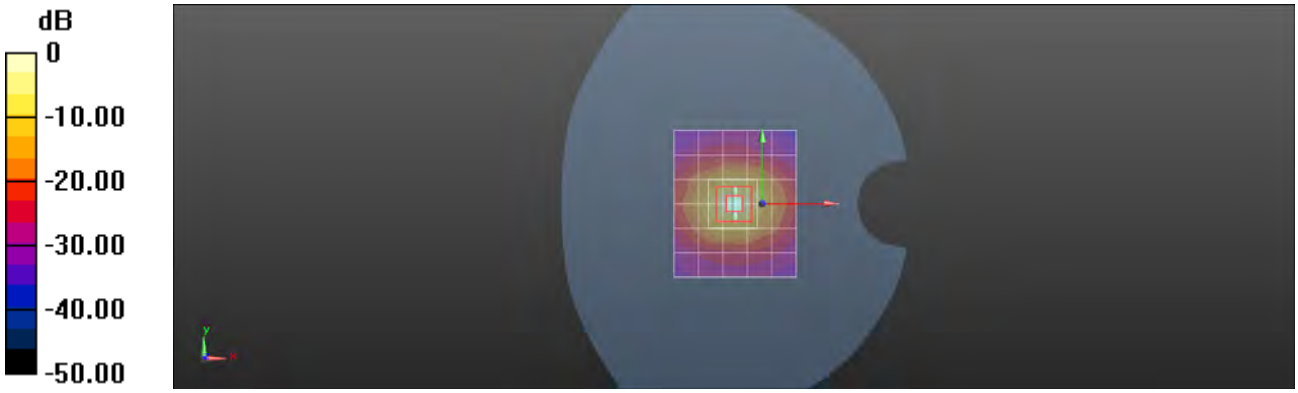
Dipole 5.2GHz (Head)

Communication System: CW; Frequency: 5200 MHz
Medium parameters used: f = 5200 MHz; σ = 4.491 mho/m; ε_r = 35.485; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(5.24, 5.24, 5.24); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Head Tissue/Pin=100mW, d=10mm/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 10.2 mW/g

Dipole Calibration for Head Tissue/Pin=100mW, d=10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 64.065 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 32.936 mW/g
SAR(1 g) = 7.92 mW/g; SAR(10 g) = 2.24 mW/g
Maximum value of SAR (measured) = 16.3 mW/g



0 dB = 16.3 mW/g = 24.24 dB mW/g

Date: 2012/11/30

Dipole 5.2GHz (Body)

Communication System: CW; Frequency: 5200 MHz

Medium parameters used: f = 5200 MHz; σ = 5.299 mho/m; ε_r = 48.522; ρ = 1000 kg/m^3

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.4, 4.4, 4.4); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Body Tissue/Pin=100mW, d=10mm/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 15.9 mW/g

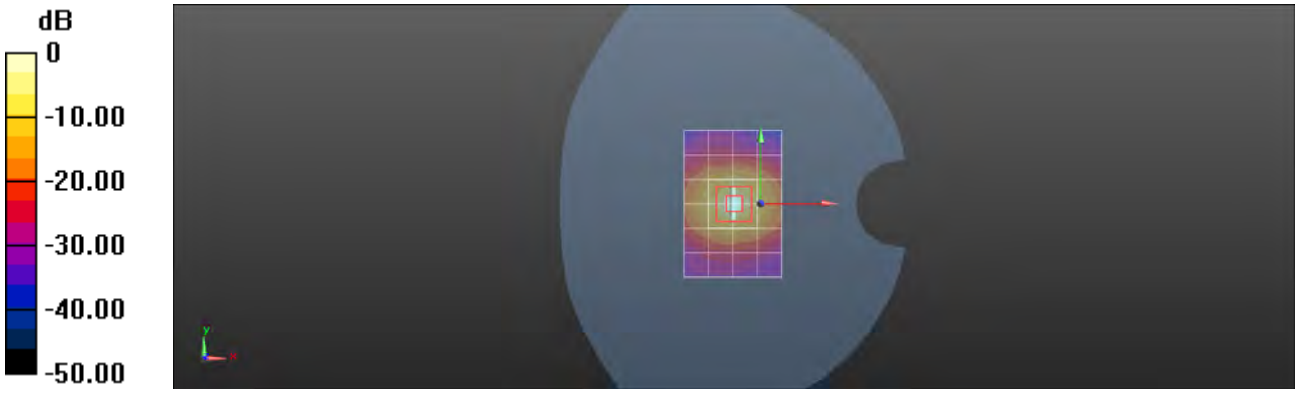
Dipole Calibration for Body Tissue/Pin=100mW, d=10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 59.819 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 32.542 mW/g

SAR(1 g) = 7.63 mW/g; SAR(10 g) = 2.13 mW/g

Maximum value of SAR (measured) = 15.9 mW/g



0 dB = 15.3 mW/g = 24.14 dB mW/g

Date: 2012/12/3

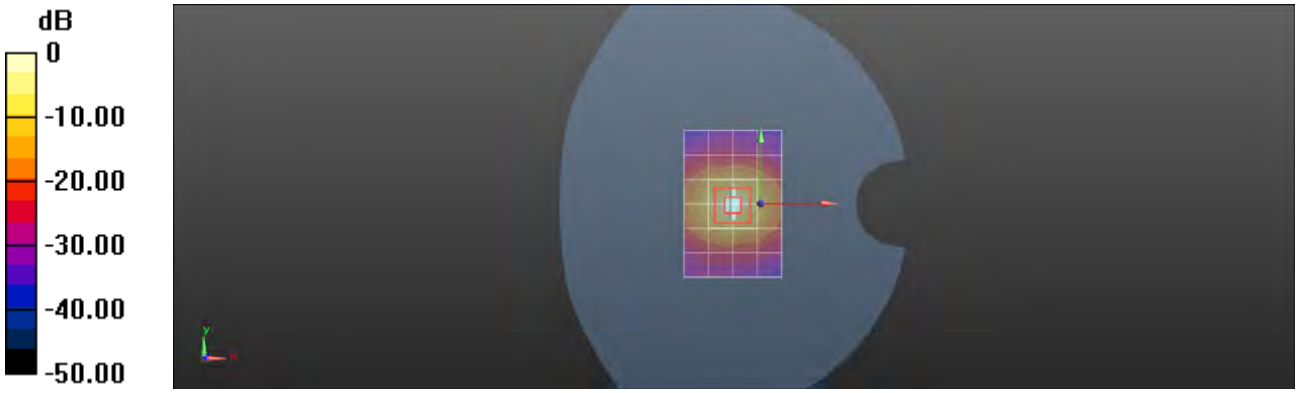
Dipole 5.5GHz (Head)

Communication System: CW; Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 4.818 mho/m; ε_r = 34.784; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.85, 4.85, 4.85); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Head Tissue/Pin=100mW, d=10mm/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 17.3 mW/g

Dipole Calibration for Head Tissue/Pin=100mW, d=10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 63.242 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 39.606 mW/g
SAR(1 g) = 8.21 mW/g; SAR(10 g) = 2.28 mW/g
Maximum value of SAR (measured) = 17.3 mW/g



0 dB = 17.3 mW/g = 24.76 dB mW/g

Date: 2012/12/10

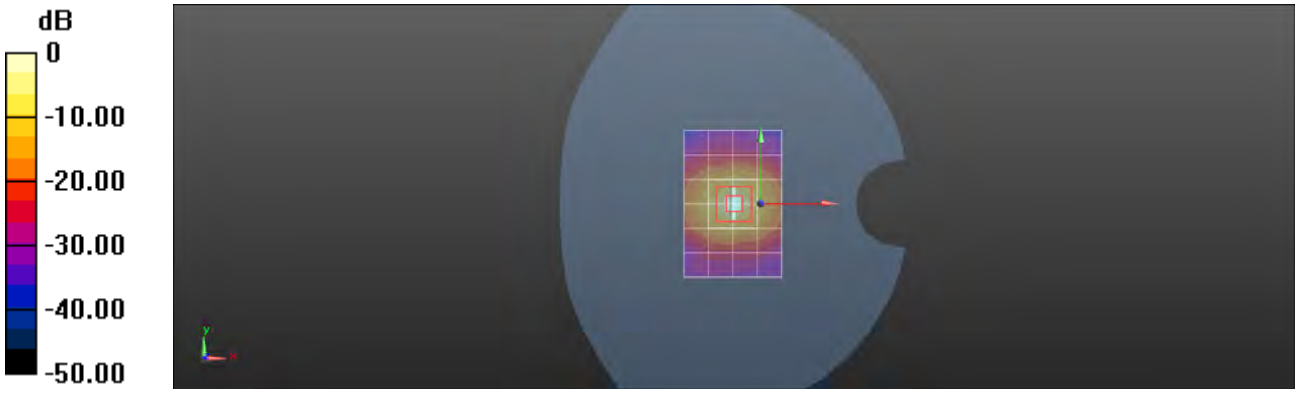
Dipole 5.5GHz (Body)

Communication System: CW; Frequency: 5500 MHz
Medium parameters used: f = 5500 MHz; σ = 5.741 mho/m; ε_r = 47.906; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.88, 3.88, 3.88); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Body Tissue/Pin=100mW, d=10mm/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 16.5 mW/g

Dipole Calibration for Body Tissue/Pin=100mW, d=10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 58.992 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 35.703 mW/g
SAR(1 g) = 7.83 mW/g; SAR(10 g) = 2.13 mW/g
Maximum value of SAR (measured) = 16.4 mW/g



0 dB = 16.4 mW/g = 24.30 dB mW/g

Date: 2012/12/11

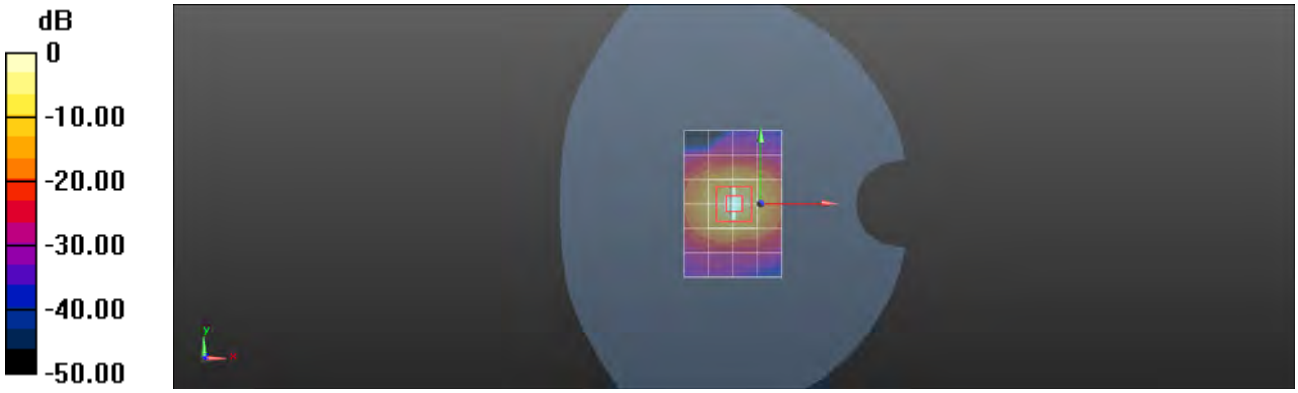
Dipole 5.8GHz (Head)

Communication System: CW; Frequency: 5800 MHz
Medium parameters used: f = 5800 MHz; σ = 5.146 mho/m; ε_r = 34.161; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(4.65, 4.65, 4.65); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Head Tissue/Pin=100mW, d=10mm/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 12.0 mW/g

Dipole Calibration for Head Tissue/Pin=100mW, d=10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 60.265 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 37.708 mW/g
SAR(1 g) = 8.1 mW/g; SAR(10 g) = 2.2 mW/g
Maximum value of SAR (measured) = 16.8 mW/g



0 dB = 16.8 mW/g = 24.51 dB mW/g

Date: 2012/12/12

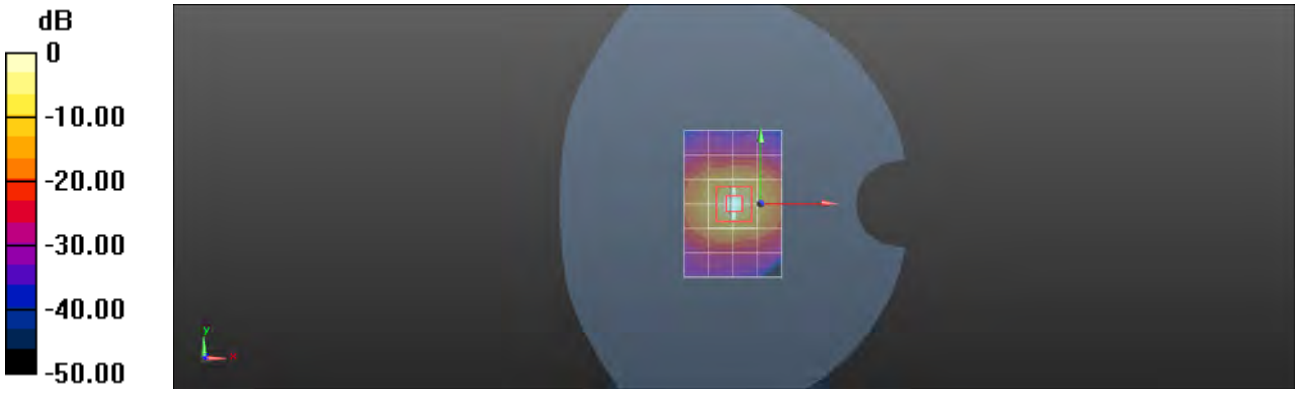
Dipole 5.8GHz (Body)

Communication System: CW; Frequency: 5800 MHz
Medium parameters used: f = 5800 MHz; σ = 6.178 mho/m; ε_r = 47.31; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3848; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/6/4;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1336; Calibrated: 2012/6/5
- Phantom: SAM with CRP; Type: SAM; Serial: 1712
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Body Tissue/Pin=100mW, d=10mm/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 15.6 mW/g

Dipole Calibration for Body Tissue/Pin=100mW, d=10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.261 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 34.911 mW/g
SAR(1 g) = 7.31 mW/g; SAR(10 g) = 1.99 mW/g
Maximum value of SAR (measured) = 15.6 mW/g



0 dB = 15.6 mW/g = 23.86 dB mW/g

6. DAE & Probe Calibration Certificate

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Accreditation No.: **SCS 108**

Client **SGS-TW (Auden)** Certificate No: **DAE4-1336_Jun12**

CALIBRATION CERTIFICATE

Object	DAE4 - SD 000 D04 BJ - SN: 1336
Calibration procedure(s)	QA CAL-06.v24 Calibration procedure for the data acquisition electronics (DAE)
Calibration date:	June 05, 2012

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Keithley Multimeter Type 2001	SN: 0810278	28-Sep-11 (No:11450)	Sep-12
Secondary Standards	**ID #**	**Check Date (in house)**	**Scheduled Check**
Calibrator Box V2.1	SE UWS 053 AA 1001	05-Jan-12 (in house check)	In house check: Jan-13

	Name	Function	Signature
Calibrated by:	Dominique Steffen	Technician	
Approved by:	Fin Bomholt	R&D Director	

Issued: June 5, 2012

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: DAE4-1336_Jun12 Page 1 of 5

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Accreditation No.: SCS 108

Glossary

DAE	data acquisition electronics
Connector angle	information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle*: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
  - *DC Voltage Measurement Linearity*: Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
  - *Common mode sensitivity:* Influence of a positive or negative common mode voltage on the differential measurement.
  - *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
  - *AD Converter Values with inputs shorted:* Values on the internal AD converter corresponding to zero input voltage
  - *Input Offset Measurement*: Output voltage and statistical results over a large number of zero voltage measurements.
  - *Input Offset Current:* Typical value for information; Maximum channel input offset current, not considering the input resistance.
  - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
  - *Low Battery Alarm Voltage:* Typical value for information. Below this voltage, a battery alarm signal is generated.
  - *Power consumption:* Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range:	1LSB =	6.1μV ,	full range =	-100...+300 mV
Low Range:	1LSB =	61nV ,	full range =	-1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	403.371 ± 0.1% (k=2)	403.127 ± 0.1% (k=2)	403.194 ± 0.1% (k=2)
Low Range	3.96695 ± 0.7% (k=2)	3.96890 ± 0.7% (k=2)	3.99405 ± 0.7% (k=2)

Connector Angle

Connector Angle to be used in DASY system	122.5 ° ± 1 °

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Appendix

1. DC Voltage Linearity

High Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	199994.11	-3.29	-0.00
Channel X	+ Input	20001.83	0.90	0.00
Channel X	- Input	-19999.76	0.45	-0.00
Channel Y	+ Input	199997.52	0.39	0.00
Channel Y	+ Input	19998.61	-2.15	-0.01
Channel Y	- Input	-20001.36	-1.00	0.00
Channel Z	+ Input	199993.95	-3.37	-0.00
Channel Z	+ Input	19998.98	-1.78	-0.01
Channel Z	- Input	-20001.47	-0.97	0.00

Low Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	2002.07	0.90	0.04
Channel X	+ Input	202.26	0.62	0.31
Channel X	- Input	-197.79	0.45	-0.23
Channel Y	+ Input	2001.57	0.59	0.03
Channel Y	+ Input	201.46	-0.01	-0.01
Channel Y	- Input	-198.80	-0.34	0.17
Channel Z	+ Input	2001.54	0.51	0.03
Channel Z	+ Input	200.53	-1.00	-0.50
Channel Z	- Input	-199.57	-1.21	0.61

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	5.99	4.73
	- 200	-3.24	-5.13
Channel Y	200	4.30	4.27
	- 200	-5.85	-5.85
Channel Z	200	8.94	9.05
	- 200	-12.06	-12.09

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	6.36	-0.99
Channel Y	200	9.20	-	7.23
Channel Z	200	8.41	6.54	-

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4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	15917	15922
Channel Y	15876	15535
Channel Z	15842	16395

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec
Input 10MΩ

	Average (μV)	min. Offset (μV)	max. Offset (μV)	Std. Deviation (μV)
Channel X	1.30	-0.23	2.19	0.37
Channel Y	-0.29	-1.58	1.23	0.56
Channel Z	-2.08	-3.18	-0.96	0.49

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

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Accreditation No.: SCS 108

Client SGS-TW (Auden)

Certificate No: EX3-3848_Jun12

CALIBRATION CERTIFICATE

Object: EX3DV4 - SN:3848

Calibration procedure(s): QA CAL-01.v8, QA CAL-14.v3, QA CAL-23.v4, QA CAL-25.v4
Calibration procedure for dosimetric E-field probes

Calibration date: June 4, 2012

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	29-Mar-12 (No. 217-01508)	Apr-13
Power sensor E4412A	MY41498087	29-Mar-12 (No. 217-01508)	Apr-13
Reference 3 dB Attenuator	SN: S5054 (3c)	27-Mar-12 (No. 217-01531)	Apr-13
Reference 20 dB Attenuator	SN: S5086 (20b)	27-Mar-12 (No. 217-01529)	Apr-13
Reference 30 dB Attenuator	SN: S5129 (30b)	27-Mar-12 (No. 217-01532)	Apr-13
Reference Probe ES3DV2	SN: 3013	29-Dec-11 (No. ES3-3013_Dec11)	Dec-12
DAE4	SN: 660	10-Jan-12 (No. DAE4-660_Jan12)	Jan-13
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-11)	In house check: Apr-13
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-11)	In house check: Oct-12

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: June 5, 2012

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Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *PAR:* PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z, VRx,y,z: A, B, C* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

Probe EX3DV4

SN:3848

Manufactured: October 25, 2011
Calibrated: June 4, 2012

Calibrated for DASY/EASY Systems
(Note: non-compatible with DASY2 system!)

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DASY/EASY - Parameters of Probe: EX3DV4 - SN:3848

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	0.35	0.40	0.45	± 10.1 %
DCP (mV)[B]	105.4	102.1	99.4	

Modulation Calibration Parameters

UID	Communication System Name	PAR		A dB	B dB	C dB	VR mV	Unc[E] (k=2)
0	CW	0.00	X	0.00	0.00	1.00	177.0	±3.5 %
			Y	0.00	0.00	1.00	188.5	
			Z	0.00	0.00	1.00	199.4	

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

[A] The uncertainties of NormX,Y,Z do not affect the E^2-field uncertainty inside TSL (see Pages 5 and 6).
[B] Numerical linearization parameter: uncertainty not required.
[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3848

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
750	41.9	0.89	9.19	9.19	9.19	0.38	0.93	± 12.0 %
835	41.5	0.90	8.90	8.90	8.90	0.35	1.03	± 12.0 %
900	41.5	0.97	8.73	8.73	8.73	0.28	1.15	± 12.0 %
1750	40.1	1.37	7.82	7.82	7.82	0.80	0.55	± 12.0 %
1900	40.0	1.40	7.55	7.55	7.55	0.29	0.88	± 12.0 %
2000	40.0	1.40	7.54	7.54	7.54	0.41	0.74	± 12.0 %
2300	39.5	1.67	7.15	7.15	7.15	0.35	0.75	± 12.0 %
2450	39.2	1.80	6.78	6.78	6.78	0.53	0.66	± 12.0 %
2600	39.0	1.96	6.62	6.62	6.62	0.29	0.99	± 12.0 %
5200	36.0	4.66	5.24	5.24	5.24	0.30	1.80	± 13.1 %
5300	35.9	4.76	4.99	4.99	4.99	0.32	1.80	± 13.1 %
5600	35.5	5.07	4.85	4.85	4.85	0.30	1.80	± 13.1 %
5800	35.3	5.27	4.65	4.65	4.65	0.40	1.80	± 13.1 %

[C] Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

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DASY/EASY - Parameters of Probe: EX3DV4 - SN:3848

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
750	55.5	0.96	9.24	9.24	9.24	0.34	0.99	± 12.0 %
835	55.2	0.97	9.11	9.11	9.11	0.54	0.76	± 12.0 %
900	55.0	1.05	8.99	8.99	8.99	0.29	1.13	± 12.0 %
1750	53.4	1.49	7.48	7.48	7.48	0.38	0.88	± 12.0 %
1900	53.3	1.52	7.28	7.28	7.28	0.39	0.83	± 12.0 %
2000	53.3	1.52	7.42	7.42	7.42	0.28	1.01	± 12.0 %
2300	52.9	1.81	7.10	7.10	7.10	0.46	0.74	± 12.0 %
2450	52.7	1.95	6.95	6.95	6.95	0.80	0.50	± 12.0 %
2600	52.5	2.16	6.74	6.74	6.74	0.80	0.54	± 12.0 %
5200	49.0	5.30	4.40	4.40	4.40	0.50	1.90	± 13.1 %
5300	48.9	5.42	4.17	4.17	4.17	0.50	1.90	± 13.1 %
5600	48.5	5.77	3.88	3.88	3.88	0.50	1.90	± 13.1 %
5800	48.2	6.00	3.87	3.87	3.87	0.60	1.90	± 13.1 %

[C] Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

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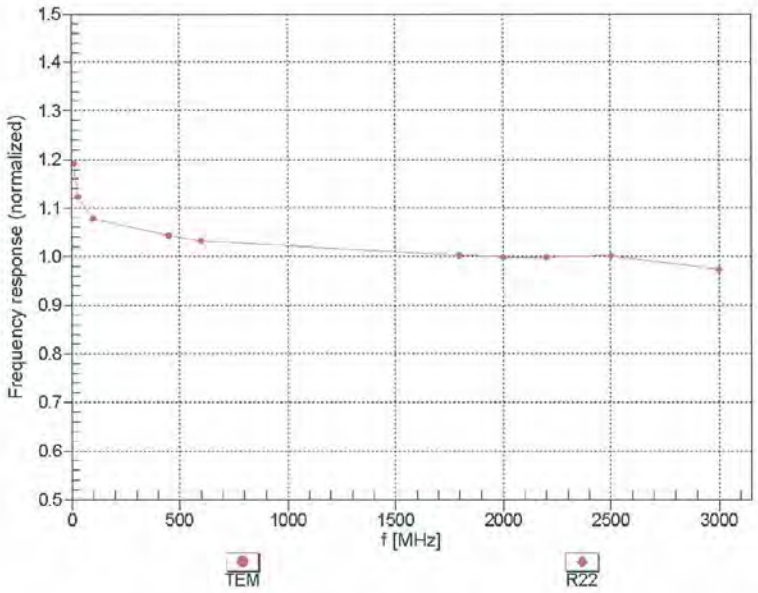
EX3DV4– SN:3848 June 4, 2012

Frequency Response of E-Field
(TEM-Cell:ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

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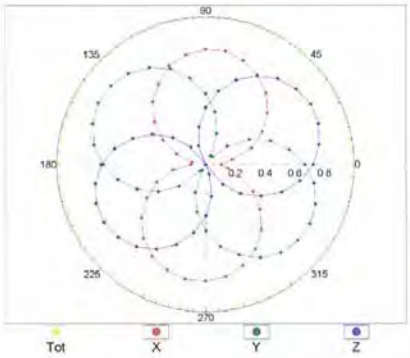
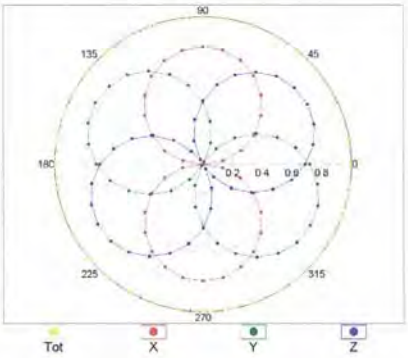
EX3DV4– SN:3848 June 4, 2012

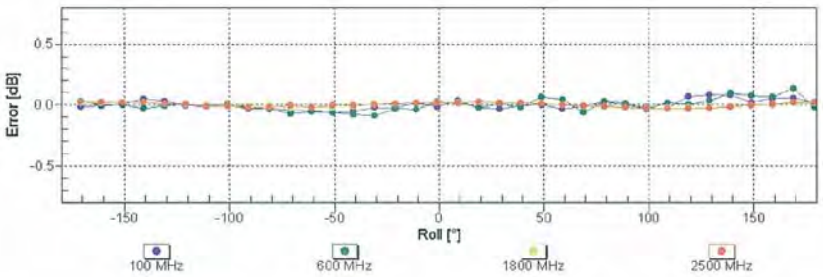
Receiving Pattern (ϕ), ϑ = 0°

f=600 MHz,TEM



f=1800 MHz,R22





Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

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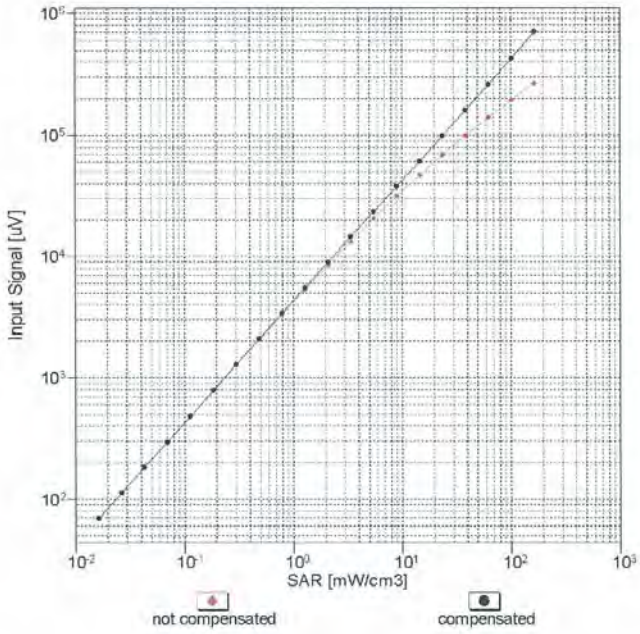
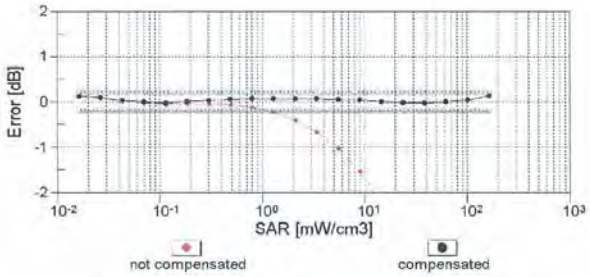
Dynamic Range f(SAR_{head})
(TEM cell , f = 900 MHz)





Uncertainty of Linearity Assessment: ± 0.6% (k=2)

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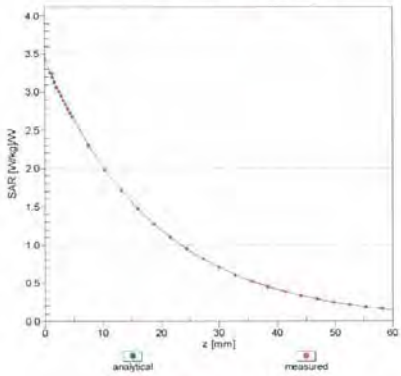
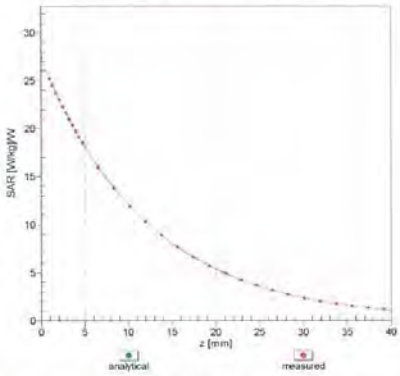
EX3DV4– SN:3848 June 4, 2012

Conversion Factor Assessment

f = 835 MHz,WGLS R9 (H_convF)

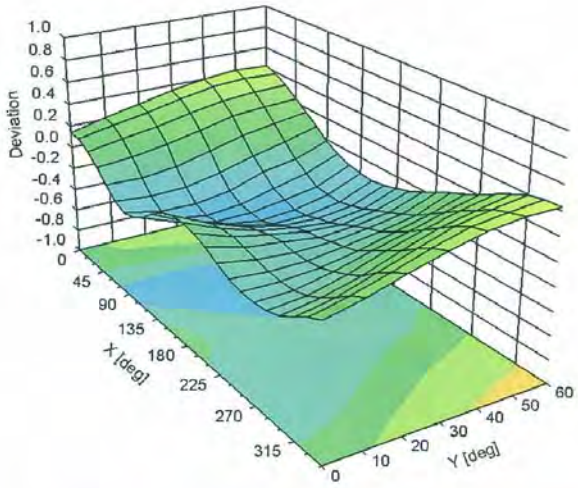


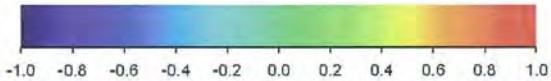
f = 1900 MHz,WGLS R22 (H_convF)



Deviation from Isotropy in Liquid

Error (ϕ, ϑ), f = 900 MHz





Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3848

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	59
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	2 mm

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7. Uncertainty Budget

Measurement Uncertainty evaluation template for DUT SAR test

IEEE 1528

A	c	D	e		f	g	h=c * f / e	i=c * g / e	k
Source of Uncertainty	Tolerance/ Uncertainty %	Probability Distributioin	Div	Div Value	ci (1g)	ci (10g)	Standard uncertainty	Standard uncertainty	vi, or Veff
Measurement system									
Probe calibration(under 6Ghz)	6.55%	N	1	1	1	1	6.55%	6.55%	∞
Isotropy , Axial	3.50%	R	√3	1.732	1	1	2.02%	2.02%	∞
Isotropy, Hemispherical	9.60%	R	√3	1.732	1	1	5.54%	5.54%	∞
Boundary Effect	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Linearity	4.70%	R	√3	1.732	1	1	2.71%	2.71%	∞
Detection Limits	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Readout Electronics	0.30%	N	1	1	1	1	0.30%	0.30%	∞
Response time	0.80%	R	√3	1.732	1	1	0.46%	0.46%	∞
Integration Time	2.60%	R	√3	1.732	1	1	1.50%	1.50%	∞
Measurement drift (class A evaluation)	1.75%	R	√3	1.732	1	1	1.01%	1.01%	∞
RF ambient condition - noise	3.00%	R	√3	1.732	1	1	1.73%	1.73%	∞
RF ambient conditions -	3.00%	R	√3	1.732	1	1	1.73%	1.73%	∞
Probe positioner Mechanical restrictions	0.40%	R	√3	1.732	1	1	0.23%	0.23%	∞
Probe Positioning with respect to phantom shell	2.90%	R	√3	1.732	1	1	1.67%	1.67%	∞
Post-processing	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Max SAR Eval	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Test Sample related									
Test sample positioning	2.90%	N	1	1	1	1	2.90%	2.90%	M-1
Device Holder Uncertainty	3.60%	N	1	1	1	1	3.60%	3.60%	M-1
Drift of output power	5.00%	R	√3	1.732	1	1	2.89%	2.89%	∞
Phantom and Setup									
Phantom Uncertainty	4.00%	R	√3	1.732	1	1	2.31%	2.31%	∞
Deviation from reference liquid target ε 'r (Head)	3.58%	N	1	1	0.64	0.43	2.29%	1.54%	M
Deviation from reference liquid target σ (Head)	4.50%	N	1	1	0.6	0.49	2.70%	2.21%	M
Deviation from reference liquid target ε 'r (Body)	2.27%	N	1	1	0.64	0.43	1.45%	0.98%	M
Deviation from reference liquid target σ (Body)	6.76%	N	1	1	0.6	0.49	4.06%	3.31%	M
Combined standard		RSS					12.84%	12.37%	
Expant uncertainty (95% confidence interval),K=2							25.69%	24.74%	

8. Phantom Description

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Zeughausstrasse 43, 8004 Zurich, Switzerland
Phone +41 1 245 9700, Fax +41 1 245 9779
info@speag.com, http://www.speag.com

s p e a g

Certificate of Conformity / First Article Inspection

Item	SAM Twin Phantom V4.0
Type No	QD 000 P40 C
Series No	TP-1150 and higher
Manufacturer	SPEAG Zeughausstrasse 43 CH-8004 Zürich Switzerland

Tests
The series production process used allows the limitation to test of first articles.
Complete tests were made on the pre-series Type No. QD 000 P40 AA, Serial No. TP-1001 and on the series first article Type No. QD 000 P40 BA, Serial No. TP-1006. Certain parameters have been retested using further series items (called samples) or are tested at each item.

Test	Requirement	Details	Units tested
Dimensions	Compliant with the geometry according to the CAD model.	IT'IS CAD File (*)	First article, Samples
Material thickness of shell	Compliant with the requirements according to the standards	2mm +/- 0.2mm in flat and specific areas of head section	First article, Samples, TP-1314 ff.
Material thickness at ERP	Compliant with the requirements according to the standards	6mm +/- 0.2mm at ERP	First article, All items
Material parameters	Dielectric parameters for required frequencies	300 MHz – 6 GHz: Relative permittivity < 5, Loss tangent < 0.05	Material samples
Material resistivity	The material has been tested to be compatible with the liquids defined in the standards if handled and cleaned according to the instructions. Observe technical Note for material compatibility.	DEGMBE based simulating liquids	Pre-series, First article, Material samples
Sagging	Compliant with the requirements according to the standards. Sagging of the flat section when filled with tissue simulating liquid.	< 1% typical < 0.8% if filled with 155mm of HSL900 and without DUT below	Prototypes, Sample testing

Standards
[1] CENELEC EN 50361
[2] IEEE Std 1528-2003
[3] IEC 62209 Part I
[4] FCC OET Bulletin 65, Supplement C, Edition 01-01
(*) The IT'IS CAD file is derived from [2] and is also within the tolerance requirements of the shapes of the other documents.

Conformity
Based on the sample tests above, we certify that this item is in compliance with the uncertainty requirements of SAR measurements specified in standards [1] to [4].

Date 07.07.2005

Signature / Stamp

s p e a g
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Zeughausstrasse 43, 8004 Zurich, Switzerland
Phone +41 1 245 9700, Fax +41 1 245 9779
info@speag.com, http://www.speag.com

Doc No 881 – QD 000 P40 C – F Page 1 (1)

9. System Validation from Original Equipment Supplier

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Client SGS-TW (Auden)

Certificate No: D835V2-4d063_May12

CALIBRATION CERTIFICATE

Object D835V2 - SN: 4d063

Calibration procedure(s) QA CAL-05.v8
Calibration procedure for dipole validation kits above 700 MHz

Calibration date: May 25, 2012

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	05-Oct-11 (No. 217-01451)	Oct-12
Power sensor HP 8481A	US37292783	05-Oct-11 (No. 217-01451)	Oct-12
Reference 20 dB Attenuator	SN: 5058 (20k)	27-Mar-12 (No. 217-01530)	Apr-13
Type-N mismatch combination	SN: 5047.2 / 06327	27-Mar-12 (No. 217-01533)	Apr-13
Reference Probe ES3DV3	SN: 3205	30-Dec-11 (No. ES3-3205_Dec11)	Dec-12
DAE4	SN: 601	04-Jul-11 (No. DAE4-601_Jul11)	Jul-12

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-11)	In house check: Oct-13
RF generator R&S SMT-06	100005	04-Aug-99 (in house check Oct-11)	In house check: Oct-13
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-11)	In house check: Oct-12

	Name	Function	Signature
Calibrated by:	Israe El-Naouq	Laboratory Technician	Israe El-Naouq
Approved by:	Katja Pokovic	Technical Manager	

Issued: May 25, 2012

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: D835V2-4d063_May12 Page 1 of 8

Calibration Laboratory of
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Swiss Calibration Service

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Accreditation No.: SCS 108

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

d) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.8.1
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	835 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.5	0.90 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.6 ± 6 %	0.89 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.36 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**9.47 mW /g ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.54 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**6.18 mW /g ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	55.2	0.97 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	54.3 ± 6 %	1.00 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	---	---

SAR result with Body TSL

SAR averaged over 1 cm^3 (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.46 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**9.58 mW / g ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Body TSL	condition	
SAR measured	250 mW input power	1.62 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**6.35 mW / g ± 16.5 % (k=2)**

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Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	53.6 Ω + 0.3 jΩ
Return Loss	- 29.1 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	48.0 Ω - 2.9 jΩ
Return Loss	- 28.9 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.390 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	November 27, 2006

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DASY5 Validation Report for Head TSL

Date: 25.05.2012

Test Laboratory: SPEAG, Zurich, Switzerland

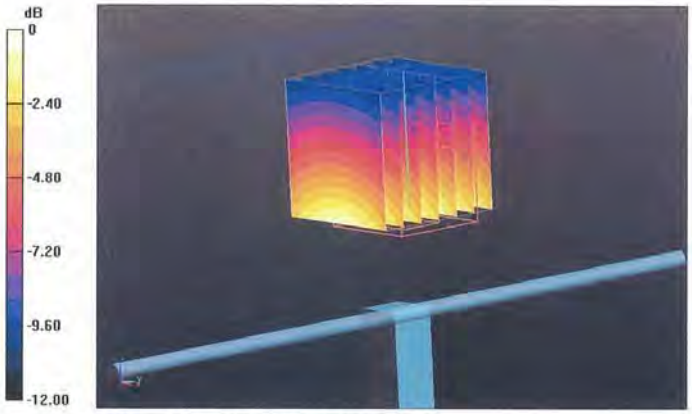
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d063

Communication System: CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.89 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(6.07, 6.07, 6.07); Calibrated: 30.12.2011;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm 2/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.199 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 3.481 mW/g
SAR(1 g) = 2.36 mW/g; SAR(10 g) = 1.54 mW/g
Maximum value of SAR (measured) = 2.75 mW/g



0 dB = 2.75 mW/g = 8.79 dB mW/g

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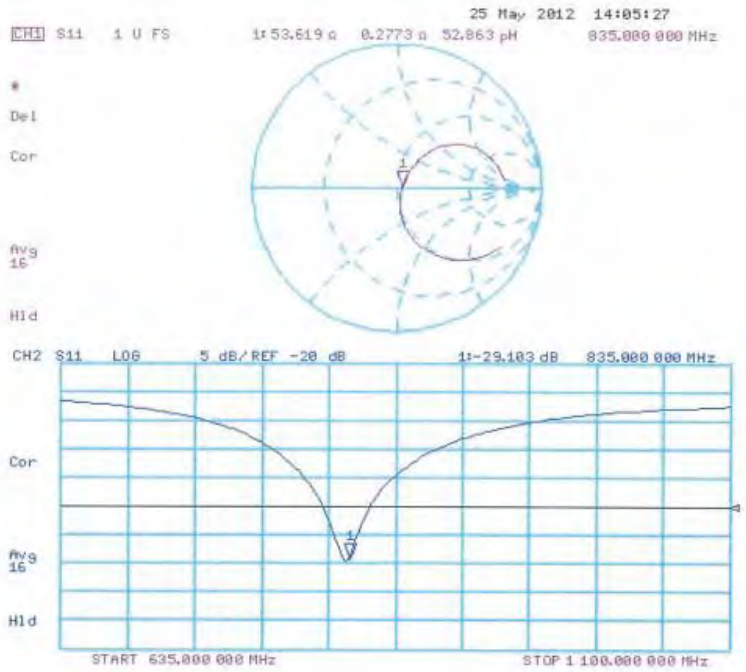
Impedance Measurement Plot for Head TSL



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DASY5 Validation Report for Body TSL

Date: 25.05.2012

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d063

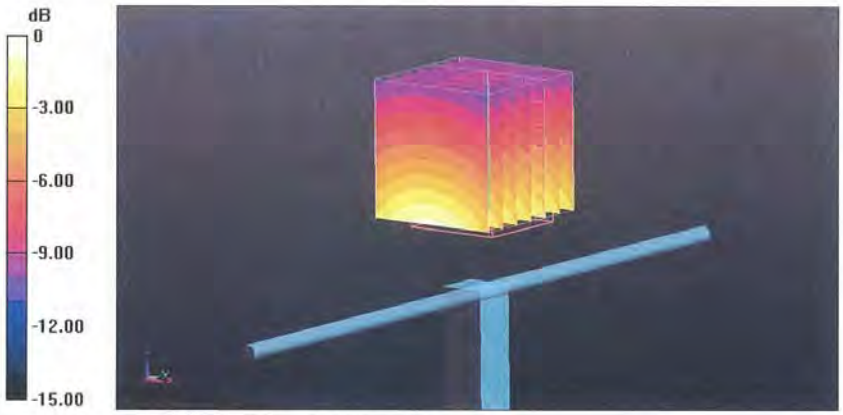
Communication System: CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 1 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(6.02, 6.02, 6.02); Calibrated: 30.12.2011;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Body Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.303 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 3.569 mW/g
SAR(1 g) = 2.46 mW/g; SAR(10 g) = 1.62 mW/g
Maximum value of SAR (measured) = 2.87 mW/g



0 dB = 2.87 mW/g = 9.16 dB mW/g

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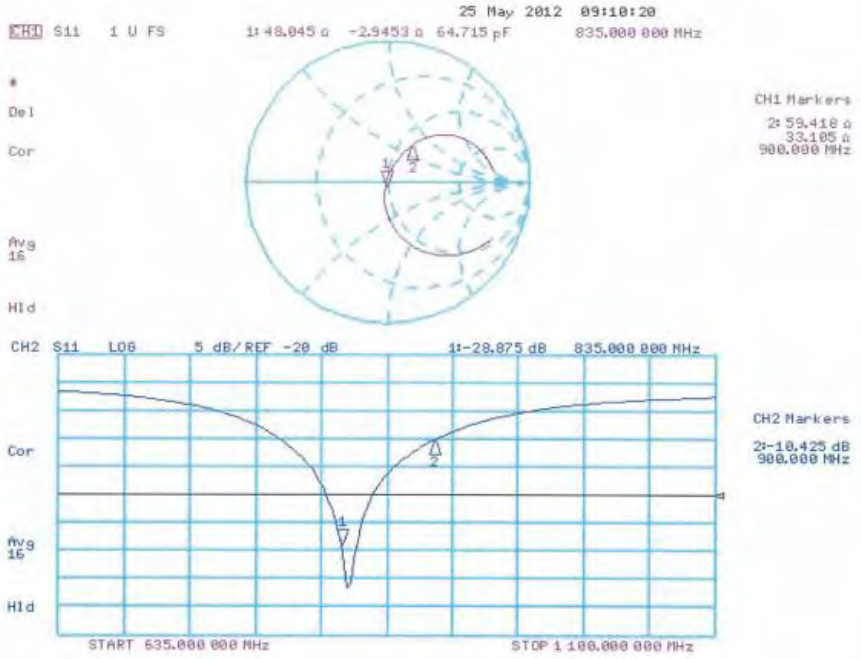
Impedance Measurement Plot for Body TSL



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Accreditation No.: SCS 108

Client SGS-TW (Auden)

Certificate No: D1900V2-5d027_Apr12

CALIBRATION CERTIFICATE

Object	D1900V2 - SN: 5d027
Calibration procedure(s)	QA CAL-05.v8 Calibration procedure for dipole validation kits above 700 MHz
Calibration date:	April 26, 2012

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	05-Oct-11 (No. 217-01451)	Oct-12
Power sensor HP 8481A	US37292783	05-Oct-11 (No. 217-01451)	Oct-12
Reference 20 dB Attenuator	SN: 5058 (20k)	27-Mar-12 (No. 217-01530)	Apr-13
Type-N mismatch combination	SN: 5047.2 / 06327	27-Mar-12 (No. 217-01533)	Apr-13
Reference Probe ES3DV3	SN: 3205	30-Dec-11 (No. ES3-3205_Dec11)	Dec-12
DAE4	SN: 601	04-Jul-11 (No. DAE4-601_Jul11)	Jul-12

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-11)	In house check: Oct-13
RF generator R&S SMT-06	100005	04-Aug-99 (in house check Oct-11)	In house check: Oct-13
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-11)	In house check: Oct-12

	Name	Function	Signature
Calibrated by:	Israe El-Naouq	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: April 26, 2012

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Engineering AG
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Accreditation No.: SCS 108

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

d) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.8.1
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.8 ± 6 %	1.37 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	9.43 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**38.4 mW /g ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	condition	
SAR measured	250 mW input power	4.96 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**20.1 mW /g ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	53.3	1.52 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	53.3 ± 6 %	1.51 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm^3 (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	10.0 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**40.2 mW / g ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.30 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**21.3 mW / g ± 16.5 % (k=2)**

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	49.5 Ω + 4.5 jΩ
Return Loss	- 26.9 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	46.2 Ω + 4.5 jΩ
Return Loss	- 24.3 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.197 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	December 17, 2002

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DASY5 Validation Report for Head TSL

Date: 26.04.2012

Test Laboratory: SPEAG, Zurich, Switzerland

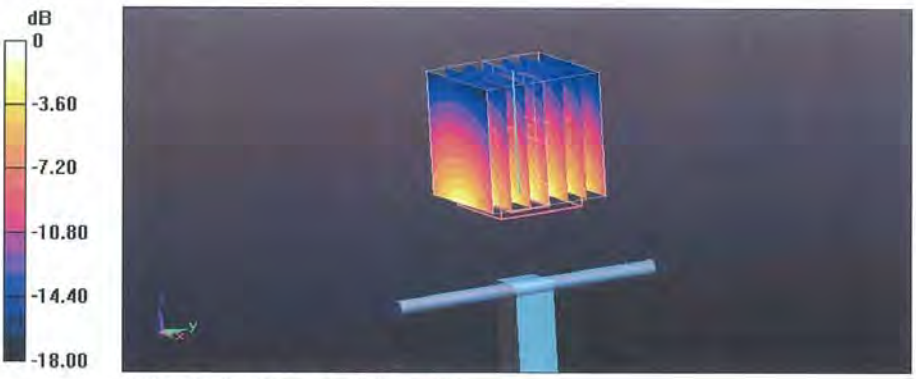
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d027

Communication System: CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.37 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(5.01, 5.01, 5.01); Calibrated: 30.12.2011;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 96.127 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 16.890 mW/g
SAR(1 g) = 9.43 mW/g; SAR(10 g) = 4.96 mW/g
Maximum value of SAR (measured) = 11.8 mW/g



0 dB = 11.8 mW/g = 21.44 dB mW/g

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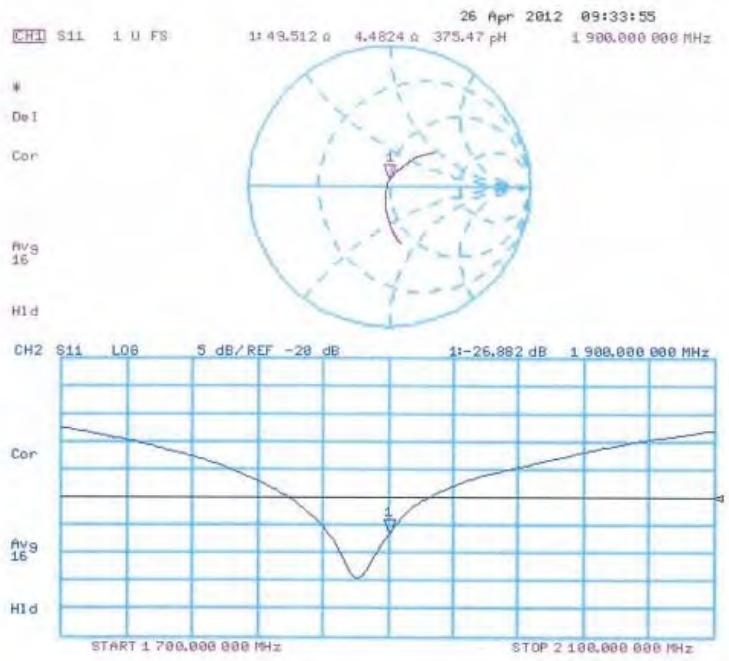
Impedance Measurement Plot for Head TSL



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DASY5 Validation Report for Body TSL

Date: 26.04.2012

Test Laboratory: SPEAG, Zurich, Switzerland

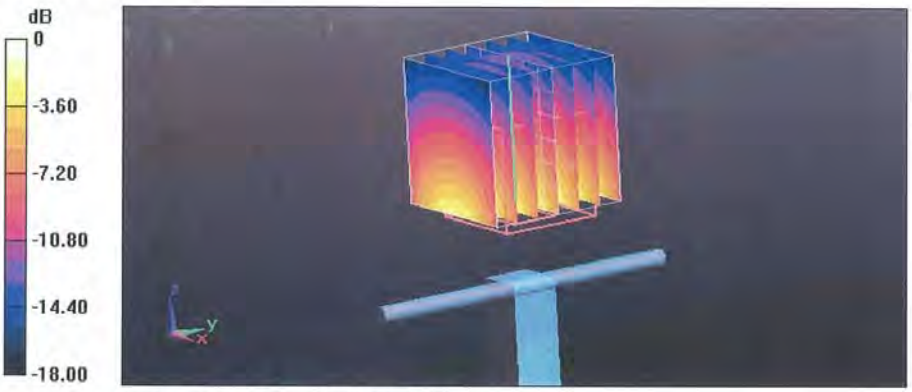
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d027

Communication System: CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.51 mho/m; ε_r = 53.3; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.62, 4.62, 4.62); Calibrated: 30.12.2011;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 95.355 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 17.593 mW/g
SAR(1 g) = 10 mW/g; SAR(10 g) = 5.3 mW/g
Maximum value of SAR (measured) = 12.7 mW/g



0 dB = 12.7 mW/g = 22.08 dB mW/g

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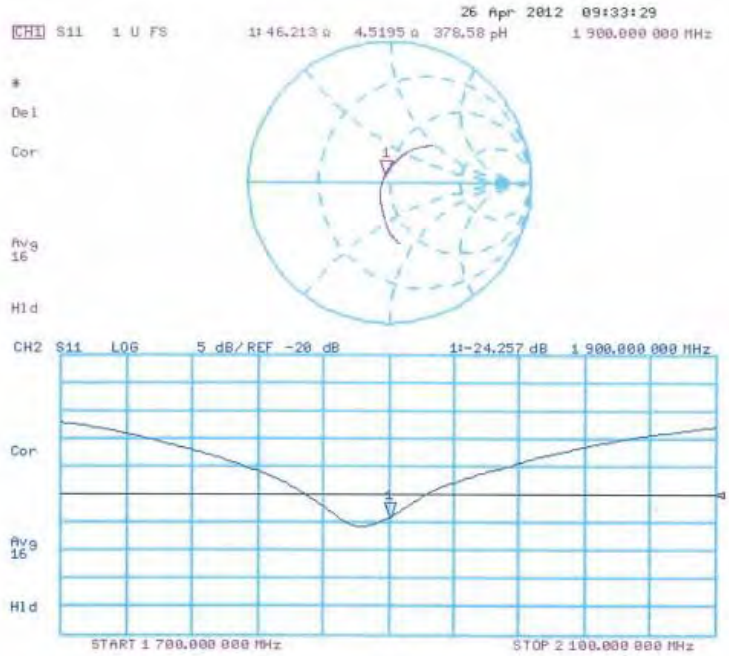
Impedance Measurement Plot for Body TSL



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Accreditation No.: SCS 108

Client **SGS-TW (Auden)**

Certificate No: **D2450V2-727_Apr12**

CALIBRATION CERTIFICATE

Object	D2450V2 - SN: 727
Calibration procedure(s)	QA CAL-05.v8 Calibration procedure for dipole validation kits above 700 MHz
Calibration date:	April 25, 2012

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	05-Oct-11 (No. 217-01451)	Oct-12
Power sensor HP 8481A	US37292783	05-Oct-11 (No. 217-01451)	Oct-12
Reference 20 dB Attenuator	SN: 5058 (20k)	27-Mar-12 (No. 217-01530)	Apr-13
Type-N mismatch combination	SN: 5047.2 / 06327	27-Mar-12 (No. 217-01533)	Apr-13
Reference Probe ES3DV3	SN: 3205	30-Dec-11 (No. ES3-3205_Dec11)	Dec-12
DAE4	SN: 601	04-Jul-11 (No. DAE4-601_Jul11)	Jul-12

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-11)	In house check: Oct-13
RF generator R&S SMT-06	100005	04-Aug-99 (in house check Oct-11)	In house check: Oct-13
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-11)	In house check: Oct-12

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: April 25, 2012

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Engineering AG
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Accreditation No.: SCS 108

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

d) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.8.1
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2450 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	39.6 ± 6 %	1.81 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	12.8 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**51.2 mW /g ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	5.95 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**23.8 mW /g ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.7	1.95 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	52.4 ± 6 %	1.98 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	12.7 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**50.4 mW / g ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.92 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**23.6 mW / g ± 16.5 % (k=2)**

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Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	53.6 Ω + 2.8 jΩ
Return Loss	- 27.2 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	51.3 Ω + 3.9 jΩ
Return Loss	- 27.8 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.149 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	January 09, 2003

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DASY5 Validation Report for Head TSL

Date: 25.04.2012

Test Laboratory: SPEAG, Zurich, Switzerland

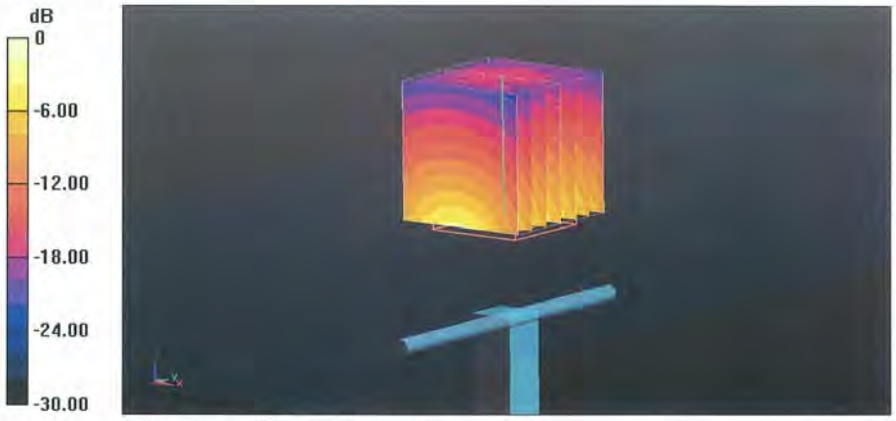
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 727

Communication System: CW; Frequency: 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.81 mho/m; ε_r = 39.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.45, 4.45, 4.45); Calibrated: 30.12.2011;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 98.712 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 26.388 mW/g
SAR(1 g) = 12.8 mW/g; SAR(10 g) = 5.95 mW/g
Maximum value of SAR (measured) = 16.4 mW/g



0 dB = 16.4 mW/g = 24.30 dB mW/g

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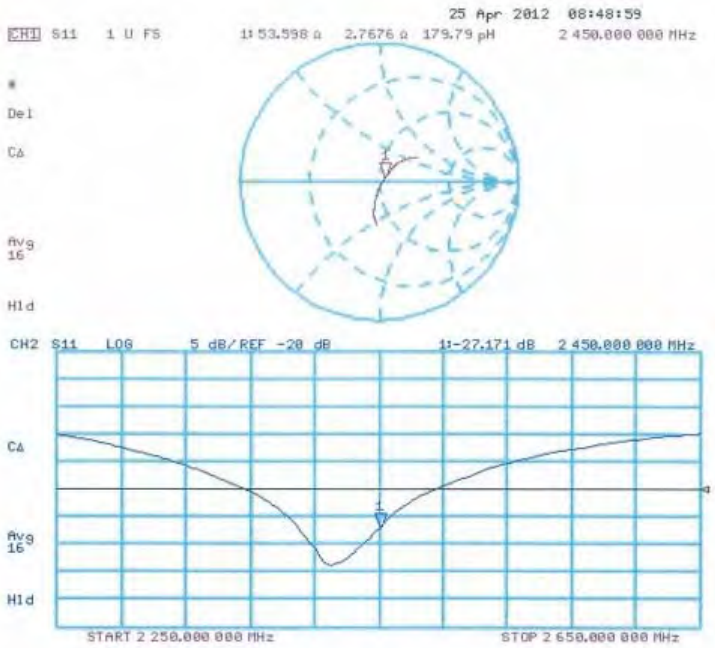
Impedance Measurement Plot for Head TSL



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DASY5 Validation Report for Body TSL

Date: 25.04.2012

Test Laboratory: SPEAG, Zurich, Switzerland

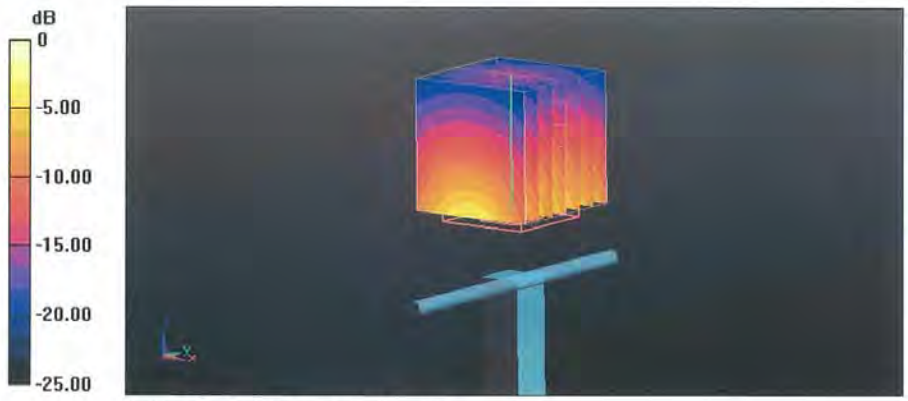
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 727

Communication System: CW; Frequency: 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.98 mho/m; ε_r = 52.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

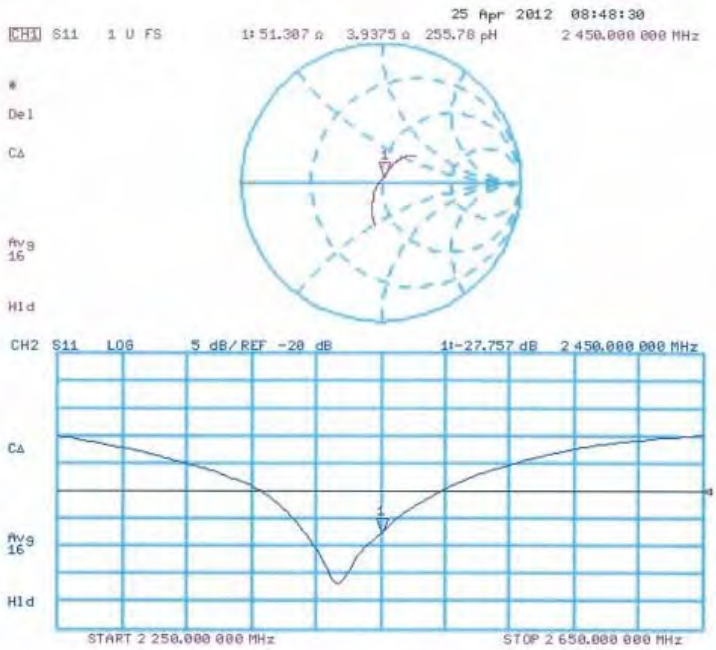
- Probe: ES3DV3 - SN3205; ConvF(4.26, 4.26, 4.26); Calibrated: 30.12.2011;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 95.136 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 25.811 mW/g
SAR(1 g) = 12.7 mW/g; SAR(10 g) = 5.92 mW/g
Maximum value of SAR (measured) = 16.7 mW/g



0 dB = 16.7 mW/g = 24.45 dB mW/g

Impedance Measurement Plot for Body TSL



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Calibration Laboratory of
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Accreditation No.: SCS 108

Client SGS-TW (Auden)

Certificate No: D5GHzV2-1104_Apr12

CALIBRATION CERTIFICATE

Object	D5GHzV2 - SN: 1104
Calibration procedure(s)	QA CAL-22.v1 Calibration procedure for dipole validation kits between 3-6 GHz
Calibration date:	April 18, 2012

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	05-Oct-11 (No. 217-01451)	Oct-12
Power sensor HP 8481A	US37292783	05-Oct-11 (No. 217-01451)	Oct-12
Reference 20 dB Attenuator	SN: 5058 (20k)	27-Mar-12 (No. 217-01530)	Apr-13
Type-N mismatch combination	SN: 5047.2 / 06327	27-Mar-12 (No. 217-01533)	Apr-13
Reference Probe EX3DV4	SN: 3503	30-Dec-11 (No. EX3-3503_Dec11)	Dec-12
DAE4	SN: 601	04-Jul-11 (No. DAE4-601_Jul11)	Jul-12

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-11)	In house check: Oct-13
RF generator R&S SMT-06	100005	04-Aug-99 (in house check Oct-11)	In house check: Oct-13
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-11)	In house check: Oct-12

	Name	Function	Signature
Calibrated by:	Israe El-Naouq	Laboratory Technician	Israe ElNaouq
Approved by:	Katja Pokovic	Technical Manager	

Issued: April 18, 2012

Calibration Laboratory of
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Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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Accreditation No.: SCS 108

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEC 62209-2, "Evaluation of Human Exposure to Radio Frequency Fields from Handheld and Body-Mounted Wireless Communication Devices in the Frequency Range of 30 MHz to 6 GHz: Human models, Instrumentation, and Procedures"; Part 2: "Procedure to determine the Specific Absorption Rate (SAR) for including accessories and multiple transmitters", March 2010

b) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

c) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.8.1
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4.0 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	5200 MHz ± 1 MHz 5500 MHz ± 1 MHz 5800 MHz ± 1 MHz	

Head TSL parameters at 5200 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	36.0	4.66 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.0 ± 6 %	4.52 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5200 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.22 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**81.7 mW /g ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.35 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**23.3 mW /g ± 19.5 % (k=2)**

Head TSL parameters at 5500 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.6	4.96 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	34.6 ± 6 %	4.80 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5500 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.54 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**84.8 mW / g ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.43 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**24.1 mW / g ± 19.5 % (k=2)**

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Head TSL parameters at 5800 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.3	5.27 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	34.1 ± 6 %	5.11 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5800 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.08 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**80.1 mW / g ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.29 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**22.7 mW / g ± 19.5 % (k=2)**

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Body TSL parameters at 5200 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	49.0	5.30 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	47.8 ± 6 %	5.41 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL at 5200 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.41 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**73.8 mW / g ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.07 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**20.6 mW / g ± 19.5 % (k=2)**

Body TSL parameters at 5500 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.6	5.65 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	47.3 ± 6 %	5.78 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL at 5500 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.89 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**78.5 mW / g ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.18 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**21.7 mW / g ± 19.5 % (k=2)**

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Body TSL parameters at 5800 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.2	6.00 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	46.8 ± 6 %	6.20 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL at 5800 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.32 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**72.9 mW / g ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.02 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	**20.1 mW / g ± 19.5 % (k=2)**

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Appendix

Antenna Parameters with Head TSL at 5200 MHz

Impedance, transformed to feed point	52.8 Ω - 8.7 jΩ
Return Loss	- 21.0 dB

Antenna Parameters with Head TSL at 5500 MHz

Impedance, transformed to feed point	52.4 Ω - 5.4 jΩ
Return Loss	- 24.8 dB

Antenna Parameters with Head TSL at 5800 MHz

Impedance, transformed to feed point	56.5 Ω - 0.3 jΩ
Return Loss	- 24.3 dB

Antenna Parameters with Body TSL at 5200 MHz

Impedance, transformed to feed point	53.5 Ω - 6.6 jΩ
Return Loss	- 22.9 dB

Antenna Parameters with Body TSL at 5500 MHz

Impedance, transformed to feed point	53.2 Ω - 2.6 jΩ
Return Loss	- 27.9 dB

Antenna Parameters with Body TSL at 5800 MHz

Impedance, transformed to feed point	56.8 Ω + 1.9 jΩ
Return Loss	- 23.6 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.209 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	September 24, 2010

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DASY5 Validation Report for Head TSL

Date: 17.04.2012

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 5GHz; Type: D5GHzV2; Serial: D5GHzV2 - SN: 1104

Communication System: CW; Frequency: 5200 MHz, Frequency: 5500 MHz, Frequency: 5800 MHz
Medium parameters used: f = 5200 MHz; σ = 4.52 mho/m; ε_r = 35; ρ = 1000 kg/m^3 , Medium parameters used: f = 5500 MHz; σ = 4.8 mho/m; ε_r = 34.6; ρ = 1000 kg/m^3 , Medium parameters used: f = 5800 MHz; σ = 5.11 mho/m; ε_r = 34.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

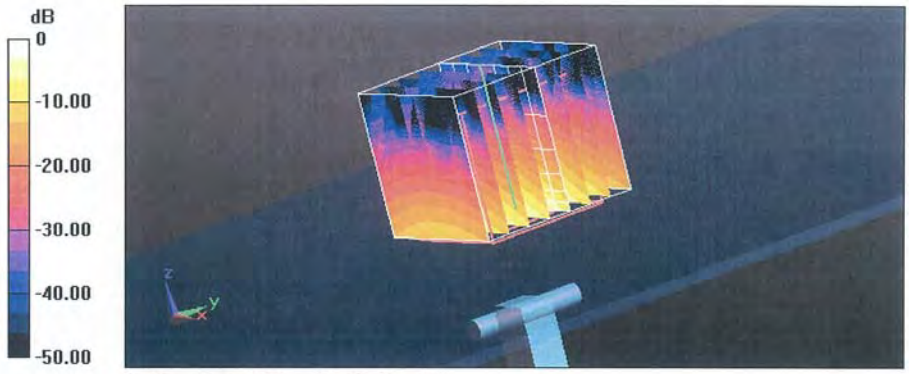
DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(5.41, 5.41, 5.41); Calibrated: 30.12.2011, ConvF(4.91, 4.91, 4.91); Calibrated: 30.12.2011, ConvF(4.81, 4.81, 4.81); Calibrated: 30.12.2011;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5200 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 65.351 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 30.800 mW/g
SAR(1 g) = 8.22 mW/g; SAR(10 g) = 2.35 mW/g
Maximum value of SAR (measured) = 19.1 mW/g

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5500 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 65.317 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 33.950 mW/g
SAR(1 g) = 8.54 mW/g; SAR(10 g) = 2.43 mW/g
Maximum value of SAR (measured) = 20.1 mW/g

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5800 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 61.898 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 34.138 mW/g
SAR(1 g) = 8.08 mW/g; SAR(10 g) = 2.29 mW/g
Maximum value of SAR (measured) = 19.7 mW/g



0 dB = 19.7 mW/g = 25.89 dB mW/g

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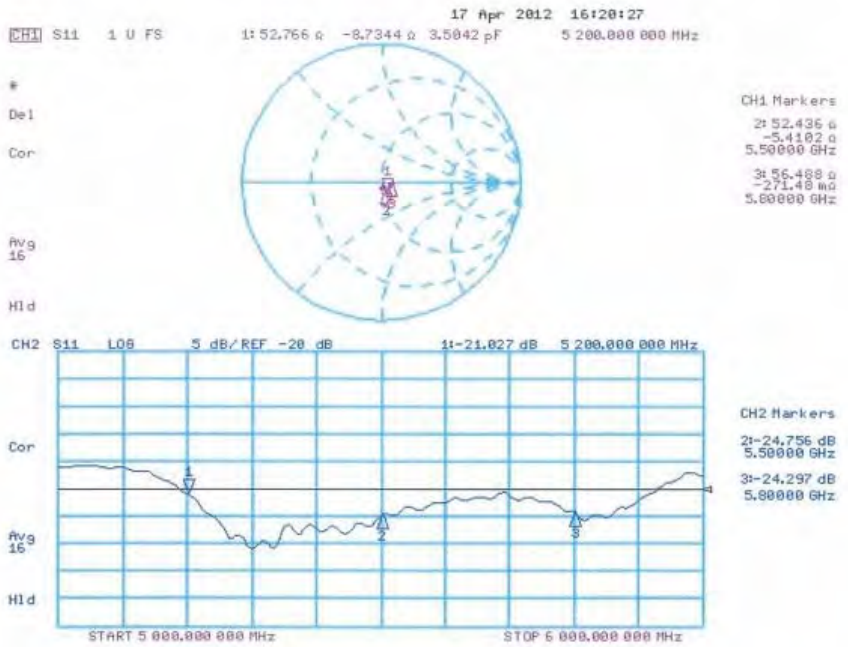
Impedance Measurement Plot for Head TSL



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DASY5 Validation Report for Body TSL

Date: 18.04.2012

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 5GHz; Type: D5GHzV2; Serial: D5GHzV2 - SN: 1104

Communication System: CW; Frequency: 5200 MHz, Frequency: 5500 MHz, Frequency: 5800 MHz
Medium parameters used: f = 5200 MHz; σ = 5.41 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3 , Medium parameters used: f = 5500 MHz; σ = 5.78 mho/m; ε_r = 47.3; ρ = 1000 kg/m^3 , Medium parameters used: f = 5800 MHz; σ = 6.2 mho/m; ε_r = 46.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(4.91, 4.91, 4.91); Calibrated: 30.12.2011, ConvF(4.43, 4.43, 4.43); Calibrated: 30.12.2011, ConvF(4.38, 4.38, 4.38); Calibrated: 30.12.2011;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5200 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 58.557 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 29.375 mW/g
SAR(1 g) = 7.41 mW/g; SAR(10 g) = 2.07 mW/g
Maximum value of SAR (measured) = 16.9 mW/g

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5500 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 58.550 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 34.062 mW/g
SAR(1 g) = 7.89 mW/g; SAR(10 g) = 2.18 mW/g
Maximum value of SAR (measured) = 18.9 mW/g

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5800 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 54.767 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 34.448 mW/g
SAR(1 g) = 7.32 mW/g; SAR(10 g) = 2.02 mW/g
Maximum value of SAR (measured) = 18.0 mW/g

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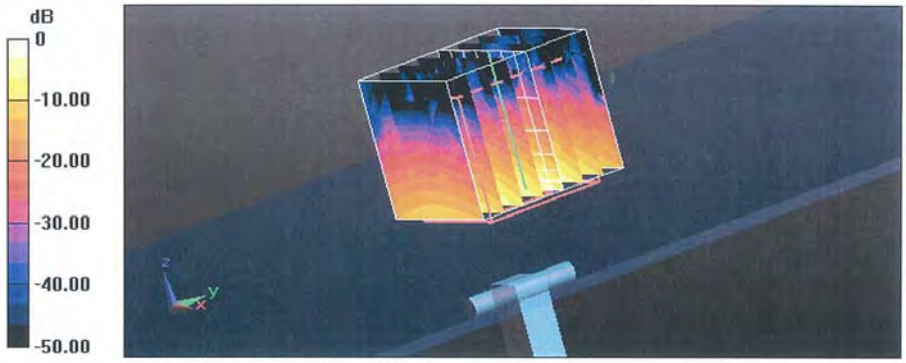

0 dB = 18.0 mW/g = 25.11 dB mW/g

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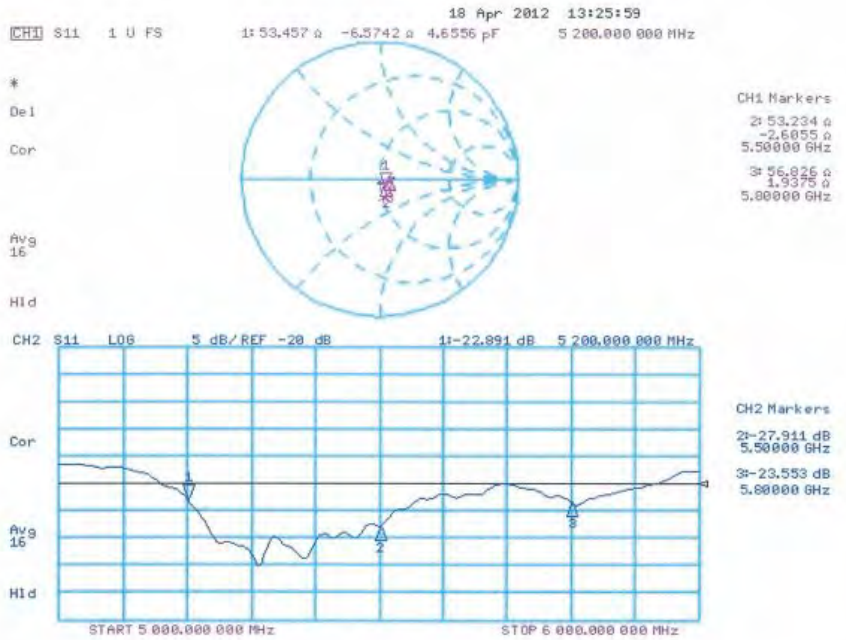
Impedance Measurement Plot for Body TSL



End of 1st part of report

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