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SAR Test Report: Type Number FAD-3022012-BV; FCC ID PY7FD022012; IC 4170B-FD022012

Document number:	EAB-06:015077 Uen Rev C	**Date of report:**	2006-06-14
Testing laboratory:	Ericsson EMF Research Laboratory Ericsson AB Torshamnsgatan 23 SE-164 80 Stockholm Sweden	**Company/Client:**	Lars Melin Sony Ericsson Mobile Communications AB Torshamnsgatan 27 Box 64 SE-164 94 Kista Sweden
Tests performed by:	Martin Siegbahn	**Date of tests:**	March 1 – 24, April 6, 2006
Manufacturer and market name(s) of device:	Sony Ericsson M600		
Testing has been performed in accordance with:	European standard EN 50361, IEEE Standard 1528, IEC 62209-1, FCC OET Bulletin 65 Supplement C		
Test results:	The tested device complies with the requirements in respect of all parameters subject to the test.		
Additional information:			

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Test report summary

The tables below summarize the SAR measurement results obtained for the Sony Ericsson FAD-3022012-BV mobile phone model. The results show that the maximum SAR values are below the applicable SAR limits 1.6 W/kg (1g) or 2 W/kg (10g) and thus the Sony Ericsson FAD-3022012-BV mobile phone is in compliance with the appropriate RF exposure standards and recommendations.

Results applicable to the 1g SAR limit of 1.6 W/kg:

Mode	***Maximum SAR_{1g} (W/kg)***
GSM1900 (Head)	*1.16*
GSM1900 (Body)	*0.99*
GPRS(2TX)1900 (Body)	*1.00*

Results applicable to the 10g SAR limit of 2 W/kg:

Mode	***Maximum SAR_{10g} (W/kg)***
GSM900 (Head)	*1.15*
GSM900 (Body)	*0.75*
GPRS(2TX)900 (Body)	*1.60*
GSM 1800 (Head)	*0.81*
GSM1800 (Body)	*0.46*
GPRS(2TX)1800 (Body)	*0.85*
GSM1900 (Head)	*0.66*
GSM1900 (Body)	*0.58*
GPRS(2TX)1900 (Body)	*0.58*
UMTS (Head)	*0.72*
UMTS (Body)	*0.80*

2 General information

The tests reported in this document have been performed in accordance with the SAR measurement standards IEC 62209-1 [1], CENELEC EN 50361 [2], IEEE Standard 1528 [3] and the FCC Supplement C [6]. The purpose of the tests was to verify that the Sony Ericsson FAD-3022012-BV mobile phone model is in compliance with the appropriate RF exposure standards, recommendations and limits [4-9].

3 Device under test

The table below summarizes the technical data for the tested device. Photographs of the device are presented in Appendix 1.

Device model	Type Number FAD-3022012-BV; FCC ID PY7FD022012; IC 4170B-FD022012
Serial number of tested unit	CB510607DD
Mode	GSM/GPRS(2TX) 900 GSM/GPRS(2TX)1800 GSM/GPRS(2TX)1900 UMTS
Antenna	Internal
Maximum output power level[1] (dBm)	GSM900: 33.0, GPRS(2TX)900: 33.0 GSM1800: 30.5, GPRS(2TX)1800: 30.5 GSM1900: 30.0, GPRS(2TX)1900: 27.0 UMTS: 23.2 Bluetooth: 4.0
GPRS Class	B
Duty cycle	1:8 (GSM), 1:4 (GPRS), 1 (UMTS)
Transmitter frequency range (MHz)	GSM900: 880.2-914.8 GSM1800: 1710.2-1784.8 GSM1900: 1850.2-1909.8 UMTS: 1922.4-1977.6
Hardware status	Pre-production FP1.2
Software	CXC162037 R1A075 CXC162058 R3A01 CXC162071 R1A23D
Tested accessories	Stereo headset HPM-61 Bluetooth headset HBH-20

1 Output power level of the phone model at the antenna port for the maximum power setting. This equals the nominal output power level plus the factory variation.

4 Test equipment

4.1 Dosimetric system

The SAR measurements were made using the DASY4 professional near-field scanner by Schmid & Partner Engineering AG that was installed in December 2002. The total SAR assessment uncertainty (k=1) of the system is ±10.3% for 1g SAR assessments and 10.2% for 10g SAR assessments. The corresponding extended uncertainties (k=2) are ±20.6% and ±20.5%, respectively. The equipment list is given below. In Appendix 4 calibration parameters for the SAR test probes are listed.

Description	Asset number	Calibration due date
DAE3	S/N 422	2006-05-20
E-field probe, ET3DV6	S/N 1572	2006-05-19
E-field probe, ES3DV3	S/N 3062	2007-01-20
Dipole validation kit, D900V2	S/N 015	NA
Dipole validation kit, D1800V2	S/N 203	NA
Dipole validation kit, D1900V2	S/N 510	NA
Dipole validation kit, D2000V2	S/N 1003	NA
SAM Phantom	S/N TP-1004	NA
SAM Phantom	S/N TP-1204	NA
SAM Phantom	S/N TP-1390	NA

4.2 Additional equipment

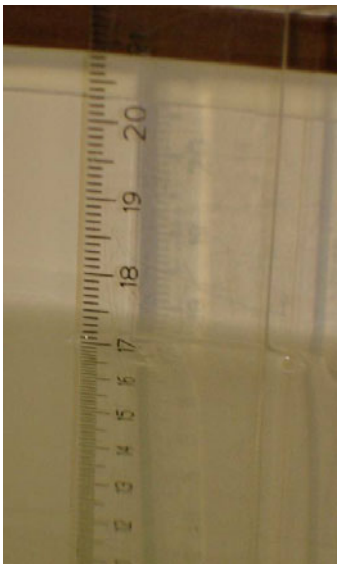
Description	Asset number	Calibration due date
Signal generator, R&S SMHU58	S/N 843863/034	2006-12-10
Dielectric probe kit, HP 85070C	S/N US99360060	NA
Network analyzer, HP 8752C	S/N 3410A03732	2006-10-25
Power meter, R&S NRVS	S/N 848888/052	2006-05-24
Power sensor, R&S NRV-Z5	S/N 849895/030	2006-05-24
Digital radio tester, R&S CMU 200	S/N 107639	2006-05-01
Thermometer, EBRO TFX-392SKWT	S/N 10130918	2006-10-17
Thermo/Hygrometer, Testo 608-H2	S/N 60013082	2007-02-28

5 Electrical parameters of the tissue simulating liquids

The parameters of the tissue simulating liquids were measured with the dielectric probe kit prior to the SAR measurement and the results are shown in the table below. Specified standard values for the permittivity and the conductivity are given in [1],[3],[6]. The measured values are within 5% of the standard values. The mass density of the liquid entered into the DASY4 program was 1000 kg/m^3. The depth of the tissue simulating liquid was larger than 15 cm as shown in the figures below.

f (MHz)	Liquid type	Measured/Specification	ε_r	σ (S/m)
900	Head tissue	Measured	41.1-41.9[2]	0.96-0.97[2]
		Specified value	41.5	0.97
		Difference (%)	-1/+1	-1/0
1800	Head tissue	Measured	38.1/38.1[2]	1.37/1.38[2]
		Specified value	40.0	1.40
		Difference (%)	-5/-5	-2/-1
1900	Head tissue	Measured	39.9	1.43
		Specified value	40.0	1.40
		Difference (%)	0	+2
1900	Body tissue (muscle)	Measured	51.3/51.3[2]	1.53/1.56[2]
		Specified value	53.3	1.52
		Difference (%)	-4/-4	+1/+1
2000	Head tissue	Measured	39.2	1.39
		Specified value	40	1.40
		Difference (%)	-2	-1

Measured level of 1900 MHz head tissue simulating liquid in phantom



Measured level of 1900 MHz muscle tissue simulating liquid in phantom

[2] Measurements were conducted over several days and the parameters were in the stated range.

6 SAR system performance check

System performance checks for the DASY4 were conducted before the SAR measurements with the D900V2, D1800V2, D1900V2 and D2000V2 dipole kits and the obtained results are displayed in the table below. The results are within 10% of the reference values [3][11]. Evaluations prior to the SAR testing showed that the maximum SAR system noise was below 2 mW/kg, which is below the standard requirements. The temperature of the test facility during the system performance checks was in the range 20°C to 25°C.

f (MHz)	Tissue	Measured/ Reference	SAR 1g (W/kg)	SAR 10g (W/kg)	ε_r	σ (S/m)	Liquid temp (°C)	Date
900	Head	Measured	11.0	7.1	41.1	0.96	21.6	2006-03-01
		Reference [3]	10.8	6.9	41.5	0.97	-	-
		Difference (%)	+2	+3	-1	-1	-	-
		Measured	11.3	7.3	41.1	0.97	21.4	2006-04-06
		Reference [3]	10.8	6.9	41.5	0.97	-	-
		Difference (%)	+5	+6	-1	0	-	-
1800	Head	Measured	39.6	21.0	38.5	1.40	22.1	2006-03-21
		Reference [3]	38.1	19.8	40.0	1.40	-	-
		Difference (%)	+4	+6	-4	0	-	-
1900	Head	Measured	41.6	21.9	39.9	1.43	21.8	2006-03-15
		Reference [3]	39.7	20.5	40.0	1.40	-	-
		Difference (%)	+5	+7	0	+2	-	-
	Body	Measured	43.4	22.6	51.3	1.53	23.4	2006-03-06
		Reference [11]	40.4	21.1	53.3	1.52	-	-
		Difference (%)	+7	+7	-4	+1	-	-
2000	Head	Measured	43.0	22.7	39.2	1.39	22.2	2006-03-23
		Reference [3]	41.1	21.1	40.0	1.40	-	-
		Difference (%)	+5	+8	-2	-1	-	-

7 Uncertainty evaluation of SAR measurement system DASY4 according to IEEE 1528

Uncertainty Component	Uncer. (%)	Prob Dist.	Div.	C_i	GSM 1900-Head	GSM 1900-Body
Measurement System						
Probe Calibration	±5.9	N	1	1	±5.9	±5.9
Axial Isotropy	±4.7	R	√3	0.7	±1.9	±1.9
Spherical Isotropy	±9.6	R	√3	0.7	±3.9	±3.9
Boundary Effect	±1.0	R	√3	1	±1.0	±1.0
Linearity	±4.7	R	√3	1	±2.7	±2.7
System Detection Limits	±1.0	R	√3	1	±0.6	±0.6
Readout electronics	±0.3	N	1	1	±0.3	±0.3
Response time	±0.8	R	√3	1	±0.5	±0.5
Integration time	±2.6	R	√3	1	±1.5	±1.5
RF Ambient Conditions	±3.0	R	√3	1	±1.7	±1.7
Probe Positioner	±0.4	R	√3	1	±0.2	±0.2
Probe Positioning	±2.9	R	√3	1	±1.7	±1.7
Max. SAR Evaluation	±1.0	R	√3	1	±0.6	±0.6
Measurement System Uncertainty					*±8.4*	*±8.4*
Test Sample Related						
Device positioning	±2.9	N	1	1	±2.9	±2.9
Device holder uncertainty	±3.6	N	1	1	±3.6	±3.6
Power drift	-1.3/-2.1	R	√3	1	-0.8	-1.2
Test Sample Related Uncertainty					*±4.7*	*±4.8*
***Phantom and Tissue Parameter**s*						
Phantom uncertainty	±4.0	R	√3	1	±2.3	±2.3
Liquid conductivity (meas)	±2.5	N	1	0.64	±1.6	±1.6
Liquid conductivity (target)	+4.3/+1.3	R	√3	0.64	+1.6	+0.5
Liquid Permittivity (meas)	±2.5	N	1	0.6	±1.5	±1.5
Liquid Permittivity (target)	-4.0/-4.1	R	√3	0.6	-1.4	-1.4
Phantom and Tissue Parameters Uncertainty					*±3.8*	*±3.5*
Combined standard uncertainty					*±10.3*	*±10.3*
Extended standard uncertainty (k=2)					*±20.6*	*±20.6*

8 Test results

The tables in this section show the measured 1g and 10g averaged SAR for the device and the corresponding values normalized to the maximum output power level. A digital radio tester was used to control the device during the SAR measurements. The phone was supplied with a fully charged battery for the tests. The temperature of the test facility during the tests was in the range 20 to 25°C. During the tests, the temperature of the tissue simulating liquid was within ±2°C from the liquid temperature at system performance check.

The device was tested on the right-hand phantom (corresponding to the right side of the head) and the left-hand phantom for the cheek and tilt phone positions in the middle of the transmit band, corresponding to the traffic channel 37 for GSM900, channel 699 for GSM1800, channel 661 for GSM1900 and channel 9750 for UMTS band 1. In Appendix 2, pictures of the device when positioned on the head phantom are shown. For the phone position giving the highest SAR result, the device was then also tested at the lowest and the highest frequencies of the transmit bands corresponding to the traffic channels 975 and 124 for GSM900, channels 512 and 885 for GSM1800, channels 512 and 810 for GSM1900 and channels 9612 and 9888 for UMTS band 1. Finally, for the position and frequency giving the highest SAR result in each band, tests were performed with the Bluetooth transmitter turned on.

The device was also tested in body worn positions for both front and back side of the device facing the phantom. For the phone position giving the highest SAR result, the device was then tested at the lowest and the highest frequencies of the transmit band. Tests were performed for a 15 mm separation between the device and the flat phantom, with the stereo headset attached for speech mode and without headset for data mode (GPRS). In Appendix 2, pictures of the device when positioned under the flat section of the phantom are shown.

8.1 Results for the GSM900 mode (head)

Mode	Hand side	Phone position	f (MHz)	Measured output power (dBm)	SAR_{10g} (W/kg)	
					Measured	Normalized to max power, 33.0 dBm
GSM900	Left	Cheek	897.4	32.4	0.81	0.93
		Tilt	897.4	32.4	0.51	0.58
	Right	Cheek	880.2	32.1	0.74	0.91
			897.4	32.4	1.00	1.14
			914.8	32.7	1.07	**1.15**
		Tilt	897.4	32.4	0.57	0.65
GSM900 and Bluetooth	Right	Cheek	914.8	32.7	1.06	1.14

Appendix 4 (a) shows the maximum SAR distribution for the right-hand phantom giving the maximum 10g averaged SAR of 1.15 W/kg at 914.8 MHz.

8.2 Results for the GSM900 mode (body)

Separation	Mode/Accessory	Phone position (Front/Back towards the phantom)	f (MHz)	Measured output power (dBm)	SAR_{10g} (W/kg)	
					Measured	Normalized to max power, 33.0 dBm
15mm between the device and the flat phantom	GSM900/Stereo headset attached	Front	897.4	32.4	0.45	0.51
		Back	880.2	32.1	0.50	0.61
			897.4	32.4	0.54	0.62
			914.8	32.7	0.50	0.53
	GSM900 and Bluetooth	Back	897.4	32.4	0.65	**0.75**

8.3 Results for the GPRS(2TX)900 mode (body)

Separation	Mode/Accessory	Phone position (Front/Back towards the phantom)	f (MHz)	Measured output power (dBm)	SAR_{10g} (W/kg)	
					Measured	Normalized to max power, 33.0 dBm
15mm between the device and the flat phantom	GPRS(2TX)900	Front	897.4	32.4	1.29	1.48
		Back	880.2	32.1	1.30	**1.60**
			897.4	32.4	1.34	1.54
			914.8	32.7	1.37	1.47
	GPRS(2TX)900 and Bluetooth	Back	880.2	32.1	1.24	1.53

Appendix 4 (b) shows the maximum SAR distribution for the flat phantom giving the maximum 10g averaged SAR of 1.30 W/kg at 880.2 MHz.

8.4 Results for the GSM1800 mode (head)

Mode	Hand side	Phone position	f (MHz)	Measured output power (dBm)	SAR_{10g} (W/kg)	
					Measured	Normalized to max power, 30.5 dBm
GSM1800	Left	Cheek	1710.2	30.3	0.54	0.57
			1747.6	29.9	0.70	**0.81**
			1784.8	29.5	0.52	0.66
		Tilt	1747.6	29.9	0.69	0.80
	Right	Cheek	1747.6	29.9	0.49	0.56
		Tilt	1747.6	29.9	0.59	0.68
GSM1800 and Bluetooth	left	cheek	1747.6	29.9	0.66	0.75

Appendix 4 (c) shows the maximum SAR distribution for the left-hand phantom giving the maximum 10g averaged SAR of 0.70 W/kg at 1747.6 MHz.

8.5 Results for the GSM1800 mode (body)

Separation	Mode/Accessory	Phone position (Front/Back towards the phantom)	f (MHz)	Measured output power (dBm)	SAR_{10g} (W/kg)	
					Measured	Normalized to max power, 30.5 dBm
15mm between the device and the flat phantom	GSM1800/Stereo headset attached	Front	1747.6	29.9	0.13	0.15
		Back	1710.2	30.3	0.20	0.21
			1747.6	29.9	0.36	0.41
			1784.8	29.5	0.35	0.43
	GSM1800 and Bluetooth	Back	1747.6	29.9	0.40	**0.46**

8.6 Results for the GPRS(2TX)1800 mode (body)

Separation	Mode/Accessory	Phone position (Front/Back towards the phantom)	f (MHz)	Measured output power (dBm)	SAR_{10g} (W/kg)	
					Measured	Normalized to max power, 30.5 dBm
15mm between the device and the flat phantom	GPRS(2TX)1800	Front	1747.6	29.9	0.30	0.35
		Back	1710.2	30.3	0.50	0.52
			1747.6	29.9	0.74	**0.85**
			1784.8	29.5	0.67	0.85
	GPRS(2TX)1800 and Bluetooth	Back	1747.6	29.9	0.69	0.80

Appendix 4 (d) shows the maximum SAR distribution for the flat phantom giving the maximum 10g averaged SAR of 0.74 W/kg at 1747.6 MHz.

8.7 Results for the GSM1900 mode (head)

Mode	Hand side	Phone position	f (MHz)	Measured output power (dBm)	Measured (W/kg)		Normalized to max power, 30.0 dBm (W/kg)	
					SAR_{1g}	SAR_{10g}	SAR_{1g}	SAR_{10g}
GSM1900	Left	Cheek	1880.0	30.1	1.00	0.59	0.97	0.58
		Tilt	1850.2	30.0	0.87	0.50	0.87	0.50
			1880.0	30.1	1.03	0.59	1.01	0.57
			1909.8	30.0	1.14	0.66	1.14	0.66
	Right	Cheek	1880.0	30.1	0.60	0.40	0.58	0.39
		Tilt	1880.0	30.1	0.82	0.48	0.80	0.47
GSM1900 and Bluetooth	Left	Tilt	1909.8	30	1.16	0.66	**1.16**	0.66

Appendix 4 (e-h) shows the SAR distributions giving the 1g SAR for the phone positions cheek and tilt at the right and left-hand phantoms.

8.8 Results for the GSM1900 mode (body)

Separation	Mode/Accessory	Phone position (Front/Back towards the phantom)	f (MHz)	Measured output power (dBm)	Measured (W/kg)		Normalized to max power, 30.0 dBm (W/kg)	
					SAR_{1g}	SAR_{10g}	SAR_{1g}	SAR_{10g}
15mm between the device and the flat phantom,	GSM1900/Stereo headset attached	Front	1880.0	30.1	0.24	0.15	0.23	0.15
		Back	1850.2	30.0	0.69	0.41	0.69	0.41
			1880.0	30.1	0.87	0.51	0.85	0.50
			1909.8	30.0	0.98	0.57	0.98	0.57
	GSM1900 and Bluetooth	Back	1909.8	30.0	0.99	0.58	**0.99**	0.58

Appendix 4 (i) shows the maximum SAR distribution for the flat section of the phantom giving the maximum 1g SAR of 0.99 W/kg and the maximum 10g averaged SAR of 0.58 W/kg at 1909.8 MHz.

8.9 Results for the GPRS(2TX)1900 mode (body)

Separation	Mode/Accessory	Phone position (Front/Back towards the phantom)	f (MHz)	Measured output power (dBm)	Measured (W/kg)		Normalized to max power, 27.0 dBm (W/kg)	
					SAR_{1g}	SAR_{10g}	SAR_{1g}	SAR_{10g}
15mm between the device and the flat phantom,	GPRS(2TX)1900	Front	1880.0	27.0	0.27	0.17	0.27	0.17
		Back	1850.2	27.3	0.65	0.39	0.61	0.36
			1880.0	27.0	0.82	0.49	0.82	0.49
			1909.8	26.8	0.95	0.56	**1.00**	0.58
	GPRS(2TX)1900 and Bluetooth	Back	1909.8	26.8	0.89	0.52	0.93	0.55

Appendix 4 (j) shows the maximum SAR distribution for the flat section of the phantom giving the maximum 1g SAR of 0.95 W/kg and the maximum 10g averaged SAR of 0.56 W/kg at 1909.8 MHz.

8.10 Results for the UMTS mode (head)

Mode	Hand side	Phone position	f (MHz)	Measured output power (dBm)	SAR_{10g} (W/kg)	
					Measured	Normalized to max power, 23.2 dBm
UMTS	Left	Cheek	1950.0	22.7	0.55	0.61
		Tilt	1922.4	22.7	0.64	0.72
			1950.0	22.7	0.55	0.62
			1977.6	22.9	0.53	0.57
	Right	Cheek	1950.0	22.7	0.43	0.48
		Tilt	1950.0	22.7	0.50	0.56
UMTS and Bluetooth	Left	Tilt	1922.4	22.7	0.64	**0.72**

Appendix 4 (k) shows the maximum SAR distribution for the left-hand phantom giving the maximum 10g averaged SAR of 0.64 W/kg at 1922.4 MHz.

8.11 Results for the UMTS mode (body)

Separation	Mode/Accessory	Phone position (Front/Back towards the phantom)	f (MHz)	Measured output power (dBm)	SAR_{10g} (W/kg)	
					Measured	Normalized to max power, 23.2 dBm
15mm between the device and the flat phantom	UMTS/ Stereo headset attached	Front	1950.0	22.7	0.15	0.17
		Back	1922.4	22.7	0.71	**0.80**
			1950.0	22.7	0.68	0.76
			1977.6	22.9	0.66	0.71
	UMTS and Bluetooth	Back	1922.4	22.7	0.66	0.73

Appendix 4 (l) shows the maximum SAR distribution for the flat section of the phantom giving the maximum 10g averaged SAR of 0.71 W/kg at 1922.4 MHz.

9 Conclusion

The results above show that the maximum SAR for the Sony Ericsson FAD-3022012-BV mobile phone is below the applicable SAR limits. Consequently, the Sony Ericsson FAD-3022012-BV mobile phone model is in compliance with the appropriate RF exposure standards and recommendations.

10 References

[1] IEC 62209-1, International Standard, “Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Humans models, instrumentation, and procedures – Part 1: Procedure to determine the Specific Absorption Rate (SAR) for hand-held mobile devices used in close proximity of the ear (frequency range of 300 MHz to 3 GHz)”, IEC, February, 2005.

[2] CENELEC, European Standard EN 50361, “Basic Standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz – 3 GHz)”, European Committee for Electrotechnical Standardization (CENELEC), July 2001.

[3] IEEE, Standard 1528, “Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques.”, The Institute for Electrical and Electronics Engineers (IEEE) Inc., June 2003

[4] CENELEC, European Standard EN 50360, “Product standard to demonstrate the compliance of mobile telephones with basic restrictions related to human exposure to electromagnetic fields (300 MHz – 3 GHz), European Committee for Electrotechnical Standardization (CENELEC), July 2001.

[5] European Council Recommendation 1999/519/EC.

[6] FCC, "Evaluating Compliance with FCC Guidelines from Human Exposure To Radiofrequency Electromagnetic Fields", Supplement C Edition 01-01 to OET Bulletin 65 Edition 97-01, June 2001.

[7] ANSI/IEEE C95.1-1999, “Safety levels with respect to human exposure to radio frequency electromagnetic fields, 3 kHz to 300 GHz”, The Institute of Electrical and Electronics Engineers Inc., New York, 1999.

[8] ACA, Radiocommunications (Electromagnetic Radiation Human Exposure) Standard 2003, Australian Communications Authority (ACA), 2003.

[9] ARPANSA, “Radiation Protection Standard for Maximum Exposure Levels for Radiofrequency Fields – 3 kHz to 300 GHz (2002)”, Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), May 2002.

[10] ARIB Standard STD-T56, “Method of Measuring the Specific Absorption Rate from Portable Wireless Terminals”, 2nd Edition, Association of Radio Industries and Businesses, January 24th, 2002. (Translation by Asia Technical Translation Pty Ltd 10/04/02).

[11] Lennart Hamberg, “Calculation of reference SAR values for system performance checks with muscle tissue simulating liquid”, Ericsson wide internal, Report, EAB/TF-03:090, Rev B, February 2006.

[12] IEC 62209-2, Draft, “Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Humans models, instrumentation, and procedures – Part 2: Procedure to determine the Specific Absorption Rate (SAR) for devices used in close proximity of the body (frequency range of 30 MHz to 6 GHz)”, December, 2005.

APPENDIX 1: Photographs of the DUT

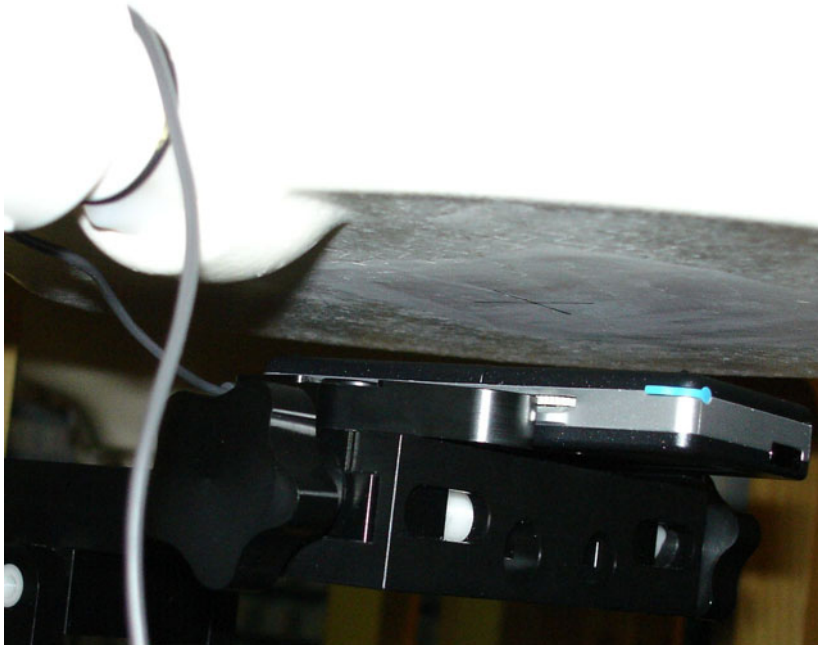
(a) Front, side and back view of the Sony Ericsson FAD-3022012-BV mobile phone.

(b) Battery BST-33

APPENDIX 2: Photographs of the DUT when positioned for SAR measurements

(a) Device on head phantom in the cheek position.

(b) Device on head phantom in the tilt position.



(c) Device on flat section of the phantom. The separation was 15 mm between the device and the flat phantom.

APPENDIX 3: SAR distribution plots for the system performance checks

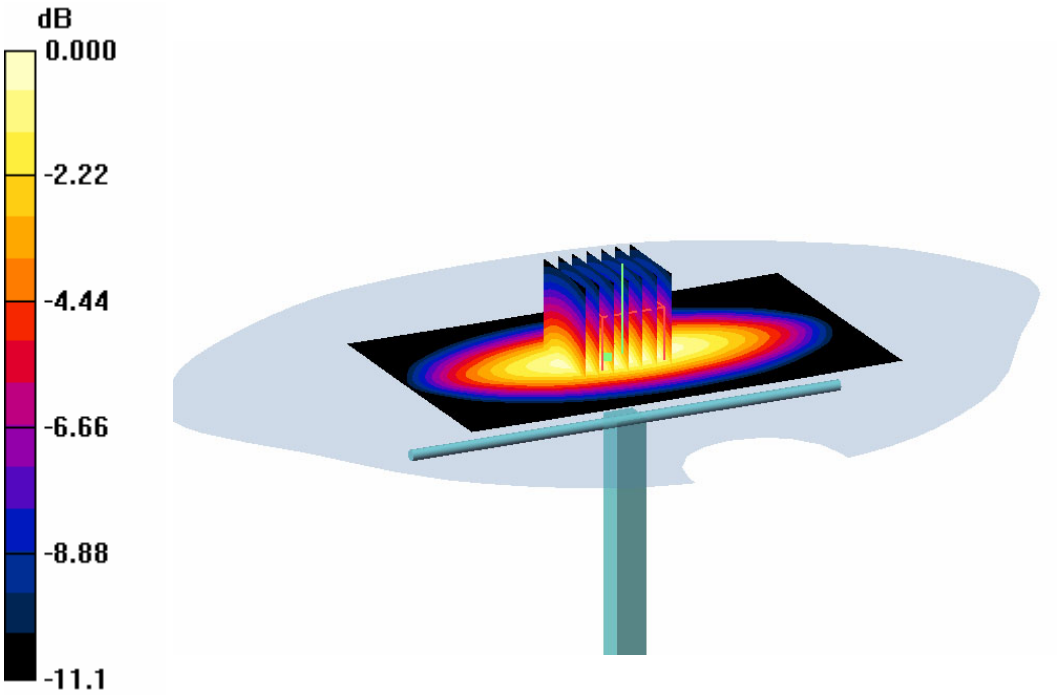
System performance check at 900 MHz conducted March 1st

Date/Time: 2006-03-01 10:19:29

-Communication System: CW; Frequency: 900 MHz; Duty Cycle: 1:1
-Medium: Head 900 MHz; $\sigma = 0.96$ mho/m; $\varepsilon_r = 41.1$; $\rho = 1000$ kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(6.74, 6.74, 6.74)
-Electronics: DAE3 Sn422
-Phantom: SAM 1;
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

d=15mm, Pin=249.9mW/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 3.04 mW/g
d=15mm, Pin=249.9mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.7 V/m; Power Drift = -0.026 dB
Peak SAR (extrapolated) = 4.16 W/kg
SAR(1 g) = 2.76 mW/g; SAR(10 g) = 1.78 mW/g
Maximum value of SAR (measured) = 2.99 mW/g



0 dB = 2.99mW/g

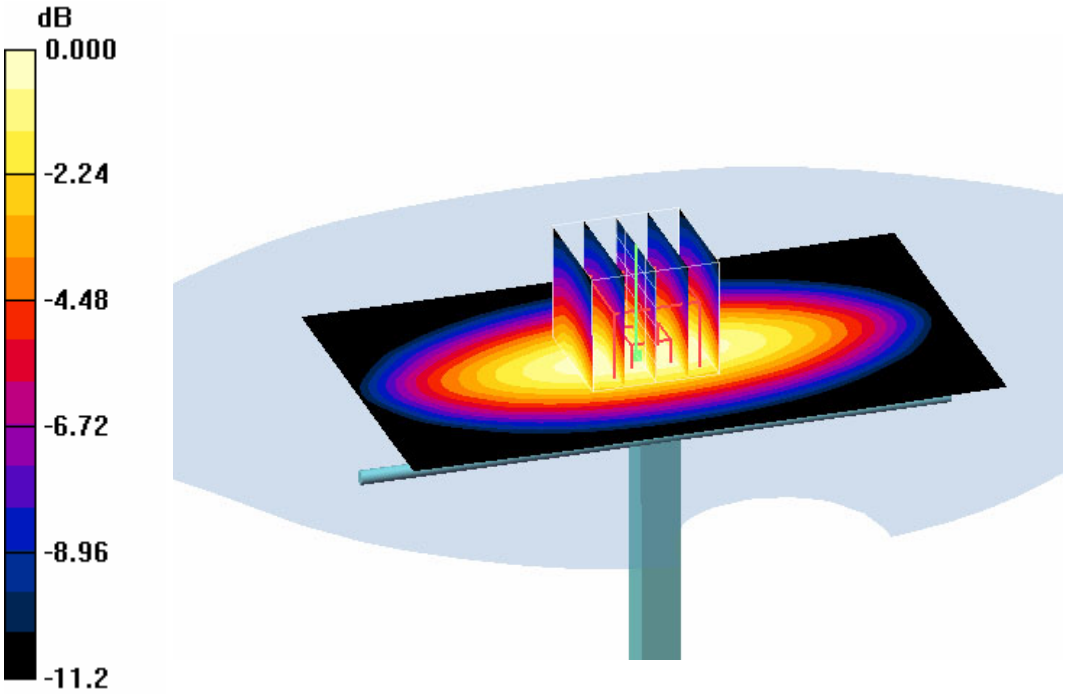
System performance check at 900 MHz conducted April 6th

Date/Time: 2006-04-06 10:01:54

-Communication System: CW; Frequency: 900 MHz; Duty Cycle: 1:1
-Medium: Head 900 MHz; σ = 0.97 mho/m; ε_r = 41.1; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(6.74, 6.74, 6.74)
-Electronics: DAE3 Sn422
-Phantom: SAM 2;
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

d=15mm, Pin=246.1mW/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 3.05 mW/g
d=15mm, Pin=246.1mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 57.9 V/m; Power Drift = -0.081 dB
Peak SAR (extrapolated) = 4.20 W/kg
SAR(1 g) = 2.78 mW/g; SAR(10 g) = 1.79 mW/g
Maximum value of SAR (measured) = 3.01 mW/g



0 dB = 3.01mW/g

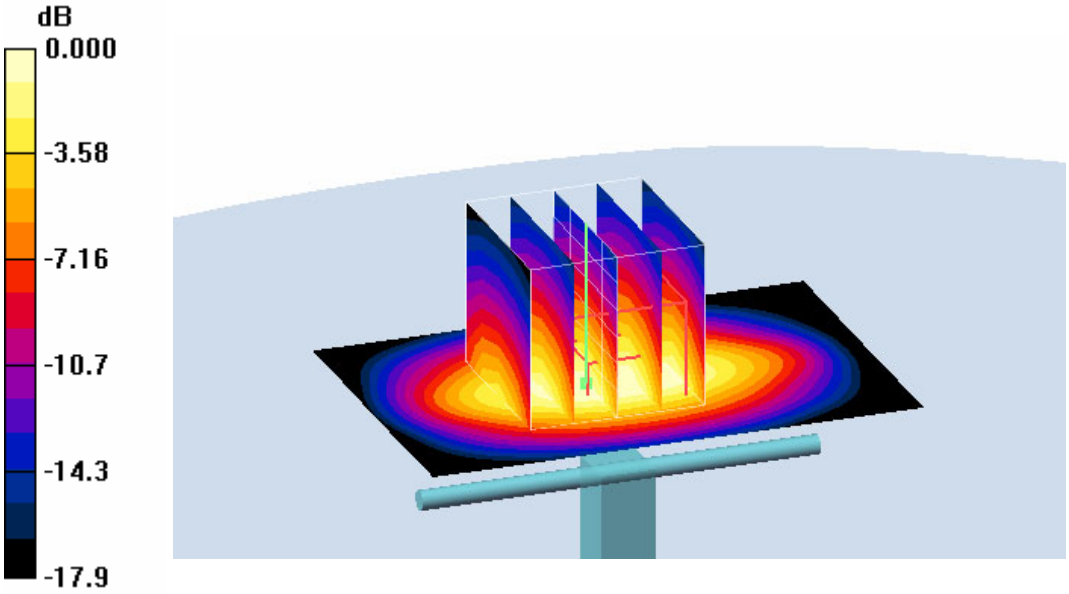
System performance check at 1800 MHz conducted March 21st

Date/Time: 2006-03-21 10:15:47

-Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1
-Medium: Head 1800 MHz; σ = 1.4 mho/m; ε_r = 38.5; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(5.53, 5.53, 5.53)
-Electronics: DAE3 Sn422
-Phantom: SAM 1
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

d=10mm, Pin=249mW/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.5 mW/g
d=10mm, Pin=249mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 93.4 V/m; Power Drift = -0.041 dB
Peak SAR (extrapolated) = 16.9 W/kg
SAR(1 g) = 9.86 mW/g; SAR(10 g) = 5.24 mW/g
Maximum value of SAR (measured) = 10.9 mW/g



0 dB = 10.9mW/g

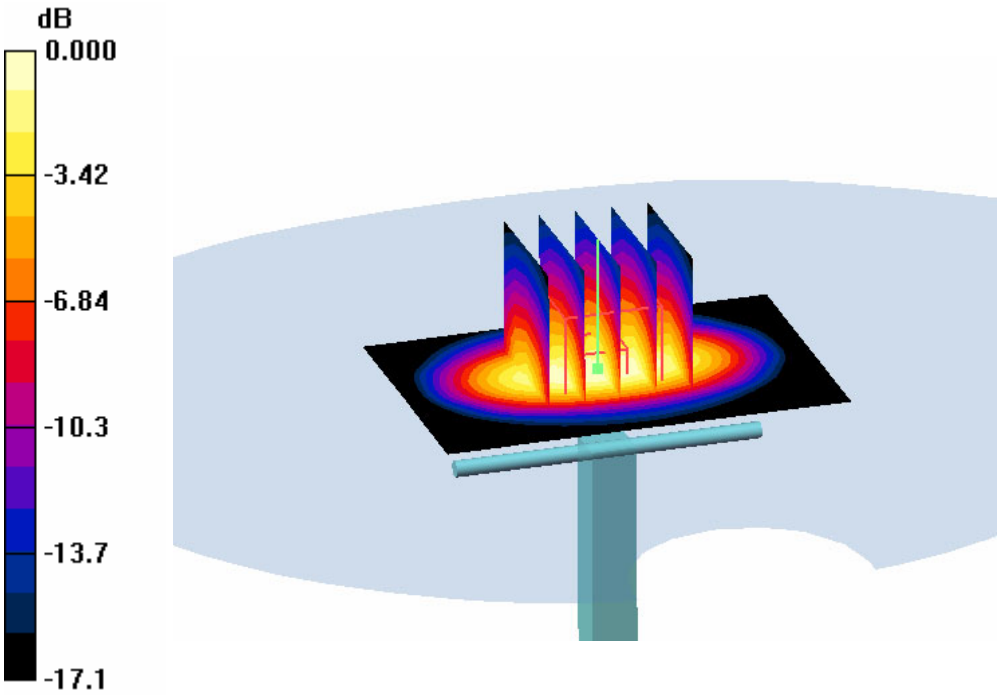
System performance check at 1900 MHz conducted March 6th

Date/Time: 2006-03-06 15:56:13

-Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
-Medium: Muscle 1900 MHz; σ = 1.53 mho/m; ε_r = 51.3; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ES3DV3 - SN3062; ConvF(4.39, 4.39, 4.39)
-Electronics: DAE3 Sn422
-Phantom: SAM 2
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

d=10mm, Pin=248.8mW/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 12.6 mW/g
d=10mm, Pin=248.8mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 90.2 V/m; Power Drift = -0.033 dB
Peak SAR (extrapolated) = 18.8 W/kg
SAR(1 g) = 10.8 mW/g; SAR(10 g) = 5.63 mW/g
Maximum value of SAR (measured) = 12.2 mW/g



0 dB = 12.2mW/g

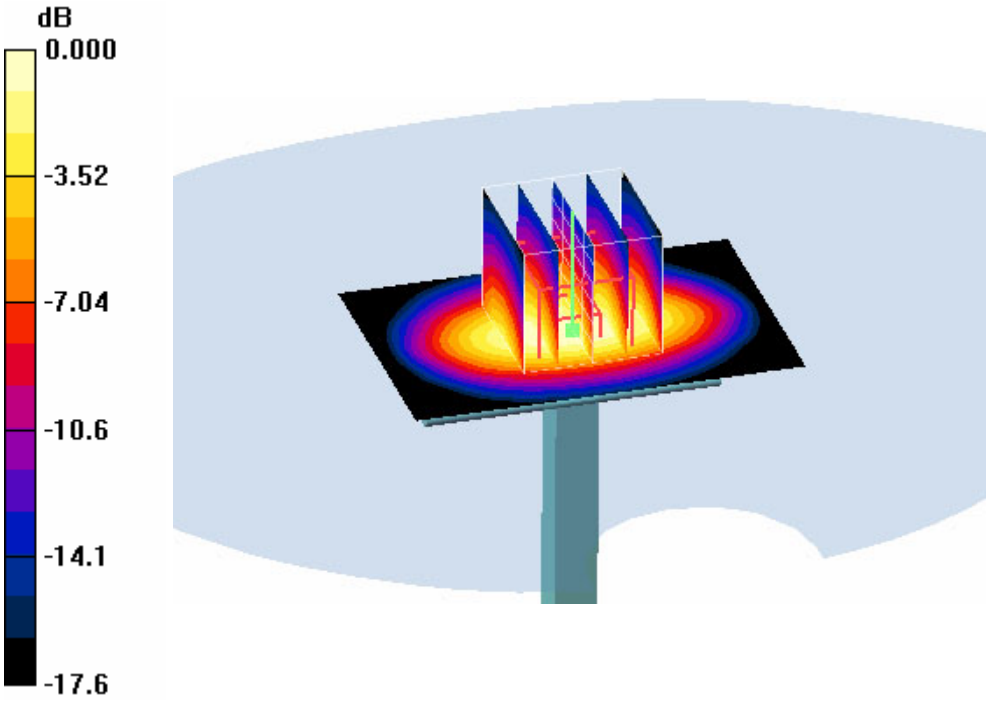
System performance check at 1900 MHz conducted March 15th

Date/Time: 2006-03-15 13:27:49

-Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
-Medium: Head 1900 MHz; σ = 1.43 mho/m; ε_r = 39.9; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(5.53, 5.53, 5.53)
-Electronics: DAE3 Sn422
-Phantom: SAM 2
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

d=10mm, Pin=245mW/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 11.8 mW/g
d=10mm, Pin=245mW/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 95.4 V/m; Power Drift = -0.014 dB
Peak SAR (extrapolated) = 17.9 W/kg
SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.37 mW/g
Maximum value of SAR (measured) = 11.5 mW/g



0 dB = 11.5mW/g

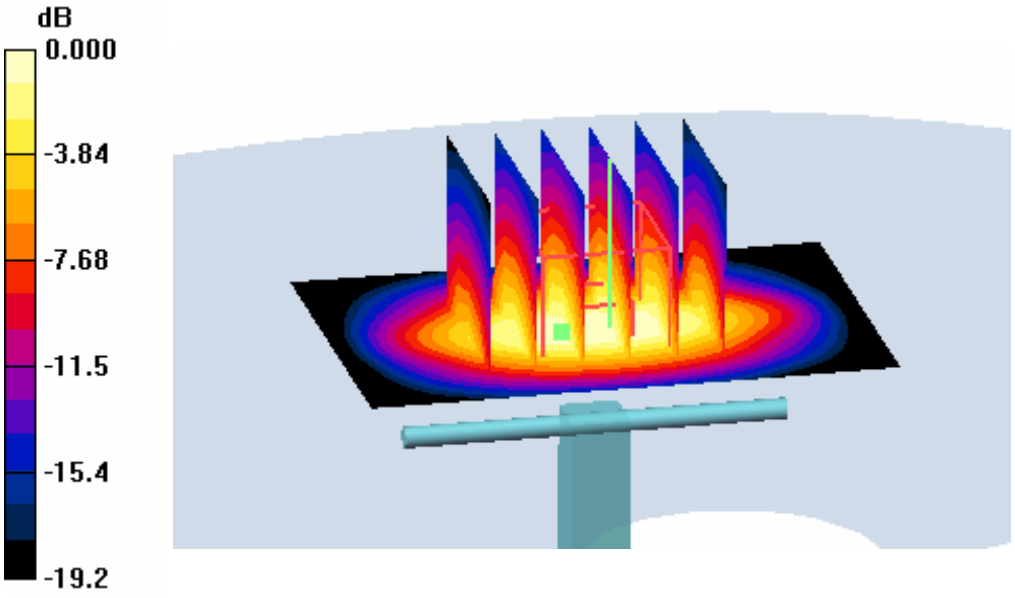
System performance check at 2000 MHz conducted March 23rd

Date/Time: 2006-03-23 12:24:20

-Communication System: CW; Frequency: 2000 MHz; Duty Cycle: 1:1
-Medium: HSL2000 MHz; σ = 1.39 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(5.01, 5.01, 5.01)
-Electronics: DAE3 Sn422
-Phantom: SAM 1
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

d=10mm, Pin=248.9mW/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 12.5 mW/g
d=10mm, Pin=248.9mW/Zoom Scan (5x5x7) 2 (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 98.9 V/m; Power Drift = -0.006 dB
Peak SAR (extrapolated) = 18.4 W/kg
SAR(1 g) = 10.7 mW/g; SAR(10 g) = 5.66 mW/g
Maximum value of SAR (measured) = 12.0 mW/g



0 dB = 12.0mW/g

APPENDIX 4: SAR distribution plots

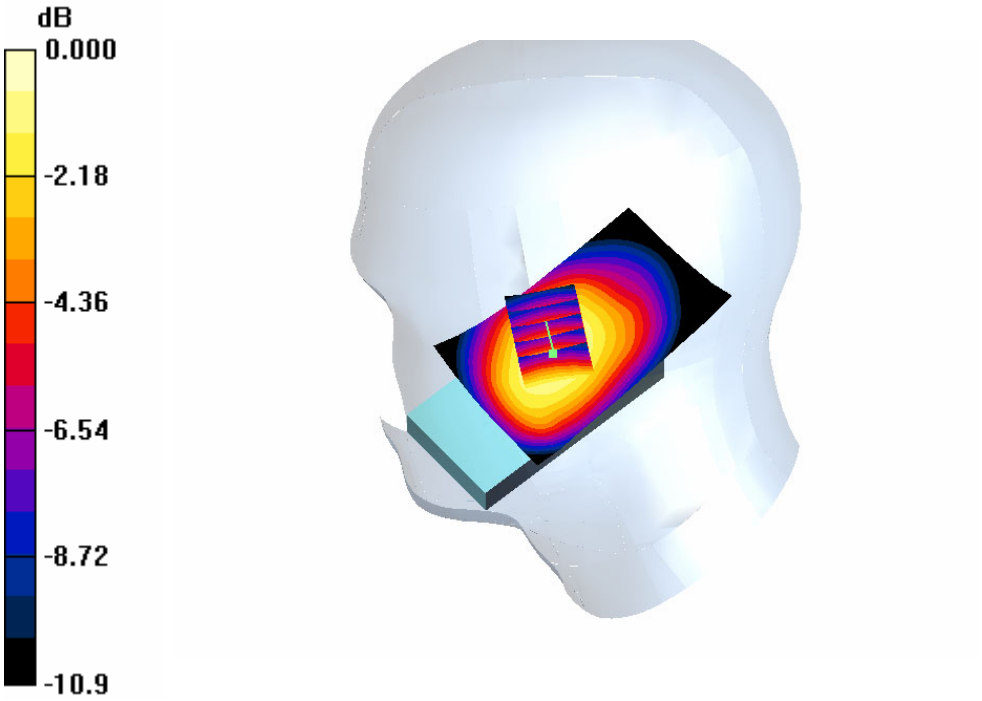
DUT: FAD-3022012-BV; Type: Mobile Terminal; Serial: CB510607DD

Date/Time: 2006-03-02 14:18:01

-Communication System: GSM 900; Frequency: 914.8 MHz; Duty Cycle: 1:8.3
-Medium: Head 900 MHz; $\sigma = 0.97$ mho/m; $\varepsilon_r = 41.9$; $\rho = 1000$ kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(6.74, 6.74, 6.74)
-Electronics: DAE3 Sn422
-Phantom: SAM 1
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Cheek High/Area Scan (81x51x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.57 mW/g
Cheek High/Zoom Scan 5x5x7 (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.9 V/m; Power Drift = -0.083 dB
Peak SAR (extrapolated) = 2.04 W/kg
SAR(10 g) = 1.07 mW/g
Maximum value of SAR (measured) = 1.59 mW/g



0 dB = 1.59mW/g

(a) Distribution of maximum SAR in GSM900 mode giving the maximum 10g averaged SAR. Measured against the right hand side phantom for the cheek phone position.

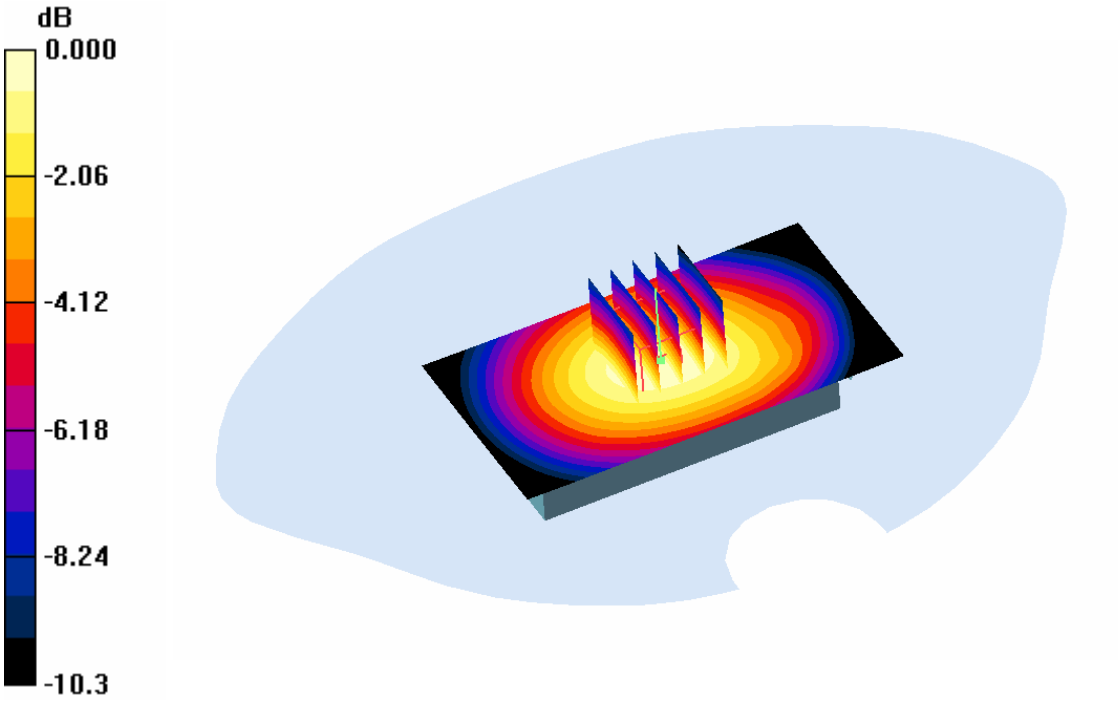
DUT: FAD-3022012-BV; Type: Mobile Terminal; Serial: CB510607DD

Date/Time: 2006-03-03 10:10:11

-Communication System: GPRS(2TX)900; Frequency: 880.2 MHz; Duty Cycle: 1:4.1
-Medium: Head 900 MHz; σ = 0.99 mho/m; ε_r = 42.5; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(6.74, 6.74, 6.74)
-Electronics: DAE3 Sn422
-Phantom: SAM 1
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Back to Phantom Low/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.93 mW/g
Back to Phantom Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 45.0 V/m; Power Drift = 0.121 dB
Peak SAR (extrapolated) = 2.41 W/kg
SAR(10 g) = 1.3 mW/g
Maximum value of SAR (measured) = 1.93 mW/g



0 dB = 1.93mW/g

(b) Distribution of maximum SAR in GPRS(2TX)900 mode giving the maximum 10g averaged SAR. Measured against the flat section of the phantom with the back of the device facing the phantom and with a 15 mm separation between the device and the phantom.

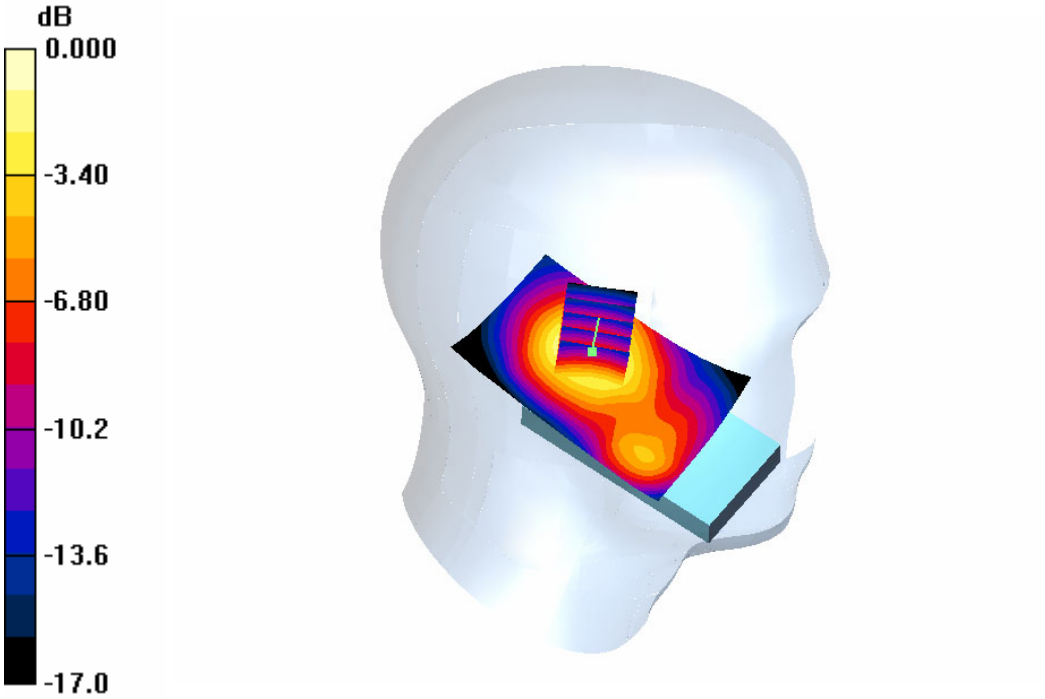
DUT: FAD-3022012-BV; Type: Mobile Terminal; Serial: CB510607DD

Date/Time: 2006-03-22 13:08:08

-Communication System: GSM1800; Frequency: 1747.6 MHz; Duty Cycle: 1:8.3
-Medium: Head 1800 MHz; σ = 1.37 mho/m; ε_r = 38.1; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(5.53, 5.53, 5.53)
-Electronics: DAE3 Sn422
-Phantom: SAM 1
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Cheek Mid/Area Scan (81x51x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.30 mW/g
Cheek Mid/Zoom Scan 5x5x7 (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.2 V/m; Power Drift = -0.036 dB
Peak SAR (extrapolated) = 2.14 W/kg
SAR(10 g) = 0.70 mW/g
Maximum value of SAR (measured) = 1.34 mW/g



0 dB = 1.34mW/g

(c) Distribution of maximum SAR in GSM1800 mode giving the maximum 10g averaged SAR. Measured against the left hand side phantom for the cheek phone position.

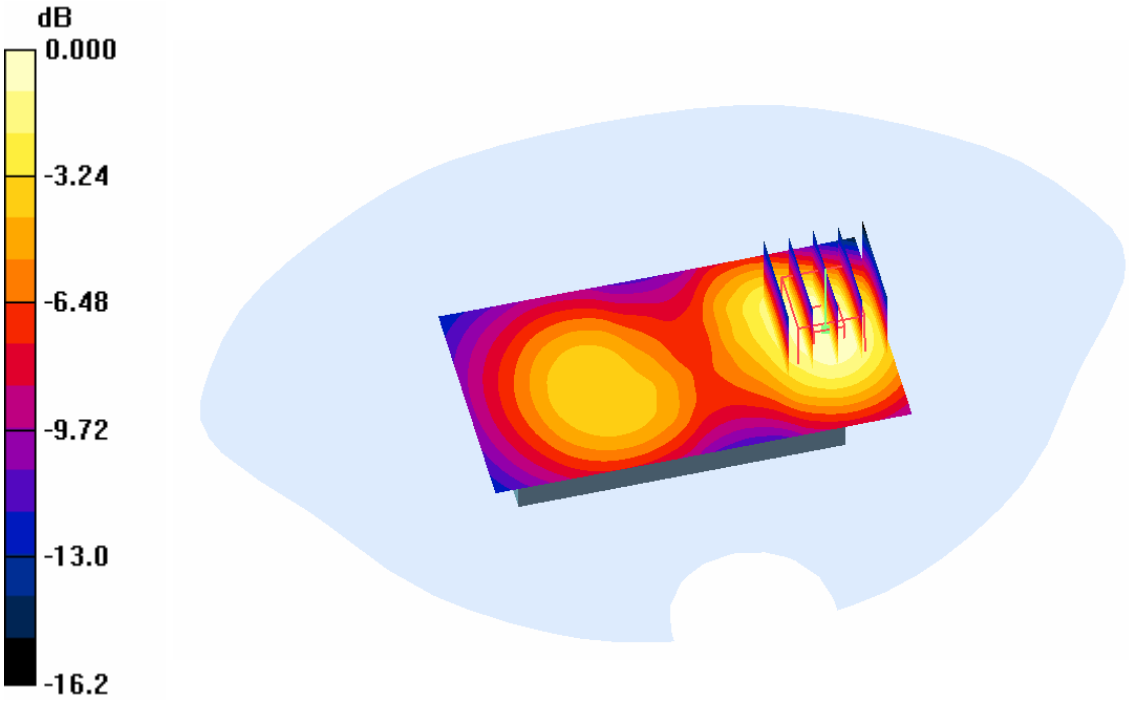
DUT: FAD-3022012-BV; Type: Mobile Terminal; Serial: CB510607DD

Date/Time: 2006-03-22 16:37:51

-Communication System: GPRS(2TX)1800; Frequency: 1747.6 MHz; Duty Cycle: 1:4.1
-Medium: Head 1800 MHz; σ = 1.37 mho/m; ε_r = 38.1; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(5.53, 5.53, 5.53)
-Electronics: DAE3 Sn422
-Phantom: SAM 1;
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Back to Phantom Mid/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.40 mW/g
Back to Phantom Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.4 V/m; Power Drift = -0.077 dB
Peak SAR (extrapolated) = 1.93 W/kg
SAR(10 g) = 0.74 mW/g
Maximum value of SAR (measured) = 1.34 mW/g



0 dB = 1.34mW/g

(d) Distribution of maximum SAR in GPRS(2TX)1800 mode giving the maximum 10g averaged SAR. Measured against the flat section of the phantom with the back of the device facing the phantom and with a 15 mm separation between the device and the phantom.

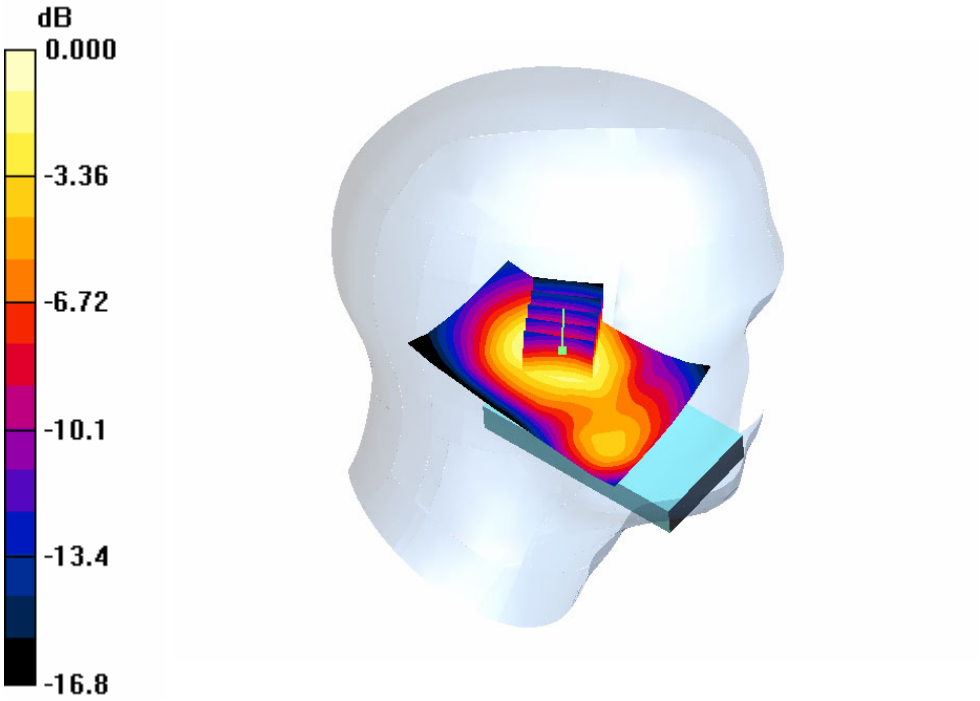
DUT: FAD-3022012-BV; Type: Mobile Terminal; Serial: CB510607DD

Date/Time: 2006-03-15 15:23:11

-Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3
-Medium: Head 1900 MHz; σ = 1.43 mho/m; ε_r = 39.9; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(5.53, 5.53, 5.53)
-Electronics: DAE3 Sn422
-Phantom: SAM 2; ;
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Cheek Mid/Area Scan (81x51x1): Measurement grid: dx=15mm, dy=15mm.
Maximum value of SAR (interpolated) = 1.06 mW/g
Cheek Mid/Zoom Scan 5x5x7 (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.2 V/m; Power Drift = -0.010 dB
Peak SAR (extrapolated) = 1.65 W/kg
SAR(1 g) = 1.00 mW/g; SAR(10 g) = 0.59 mW/g
Maximum value of SAR (measured) = 1.09 mW/g



0 dB = 1.09mW/g

(e) Distribution of SAR in the GSM1900 mode giving the 1g SAR in the left hand side phantom for the cheek position

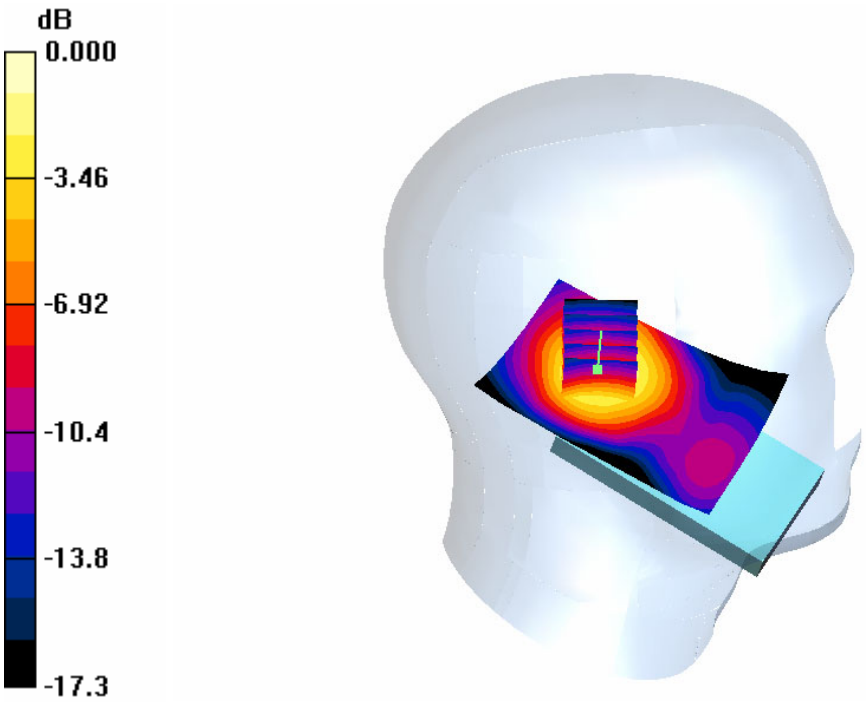
DUT: FAD-3022012-BV; Type: Mobile Terminal; Serial: CB510607DD

Date/Time: 2006-03-15 16:47:02

-Communication System: GSM1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3
-Medium: Head 1900 MHz; σ = 1.43 mho/m; ε_r = 39.9; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(5.53, 5.53, 5.53)
-Electronics: DAE3 Sn422
-Phantom: SAM 2; ;
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Tilt High BT/Area Scan (81x51x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.30 mW/g
Tilt High BT/Zoom Scan 5x5x7 (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.2 V/m; Power Drift = -0.065 dB
Peak SAR (extrapolated) = 1.95 W/kg
SAR(1 g) = 1.16 mW/g; SAR(10 g) = 0.66 mW/g
Maximum value of SAR (measured) = 1.26 mW/g



0 dB = 1.26mW/g

(f) Distribution of SAR in the GSM1900 mode giving the maximum 1g SAR in the left hand side phantom for the tilt position

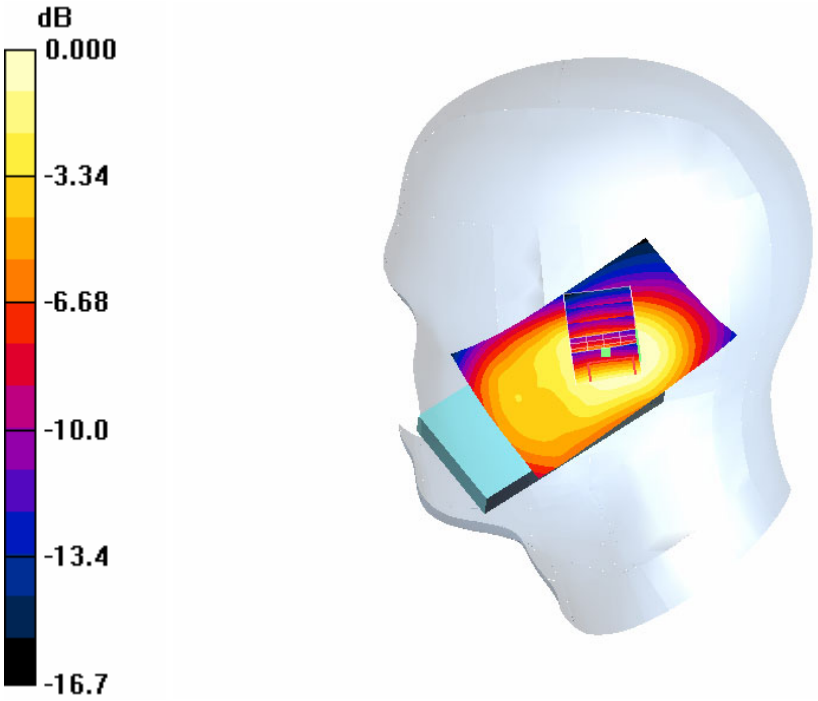
DUT: FAD-3022012-BV; Type: Mobile Terminal; Serial: CB510607DD

Date/Time: 2006-03-15 14:46:03

-Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3
-Medium: Head 1900 MHz; σ = 1.43 mho/m; ε_r = 39.9; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(5.53, 5.53, 5.53)
-Electronics: DAE3 Sn422
-Phantom: SAM 2; ;
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Cheek Mid/Area Scan (81x51x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.657 mW/g
Cheek Mid/Zoom Scan 5x5x7 (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.1 V/m; Power Drift = -0.068 dB
Peak SAR (extrapolated) = 0.926 W/kg
SAR(1 g) = 0.60 mW/g; SAR(10 g) = 0.40 mW/g
Maximum value of SAR (measured) = 0.637 mW/g



0 dB = 0.637mW/g

(g) Distribution of SAR in the GSM1900 mode giving the 1g SAR in the right hand side phantom for the cheek position

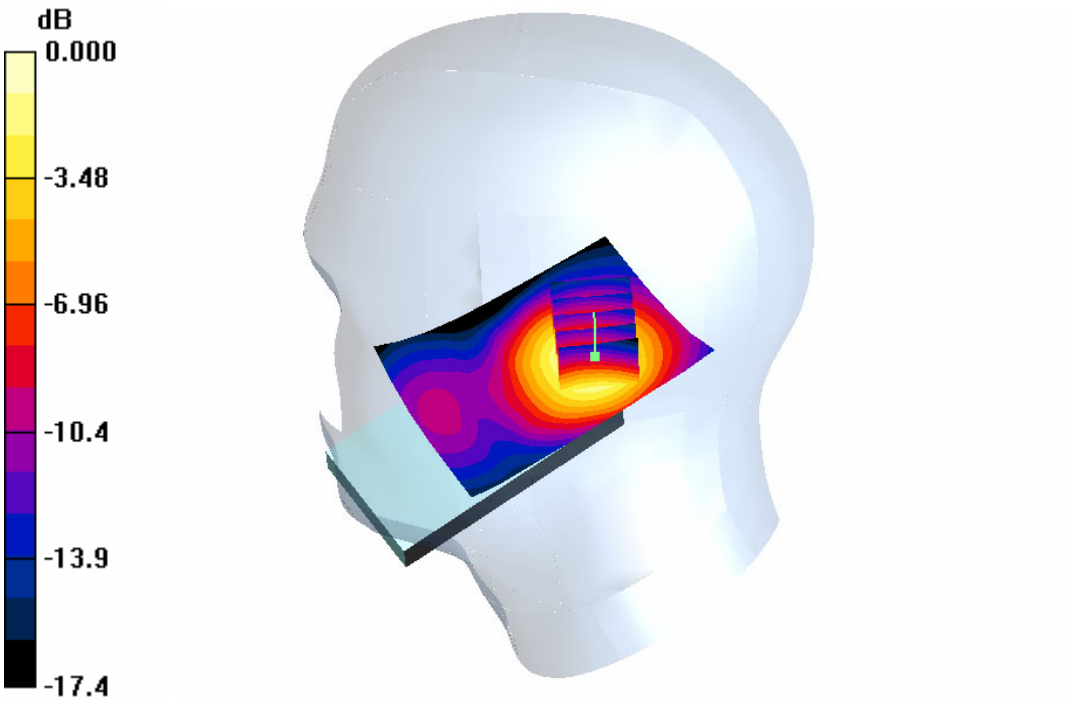
DUT: FAD-3022012-BV; Type: Mobile Terminal; Serial: CB510607DD

Date/Time: 2006-03-15 15:01:55

-Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3
-Medium: Head 1900 MHz; σ = 1.43 mho/m; ε_r = 39.9; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(5.53, 5.53, 5.53)
-Electronics: DAE3 Sn422
-Phantom: SAM 2; ;
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Tilt Mid/Area Scan (81x51x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.925 mW/g
Tilt Mid/Zoom Scan 5x5x7 (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.3 V/m; Power Drift = -0.030 dB
Peak SAR (extrapolated) = 1.30 W/kg
SAR(1 g) = 0.82 mW/g; SAR(10 g) = 0.48 mW/g
Maximum value of SAR (measured) = 0.898 mW/g



0 dB = 0.898mW/g

(h) Distribution of SAR in the GSM1900 mode giving the 1g SAR in the right hand side phantom for the tilt position.

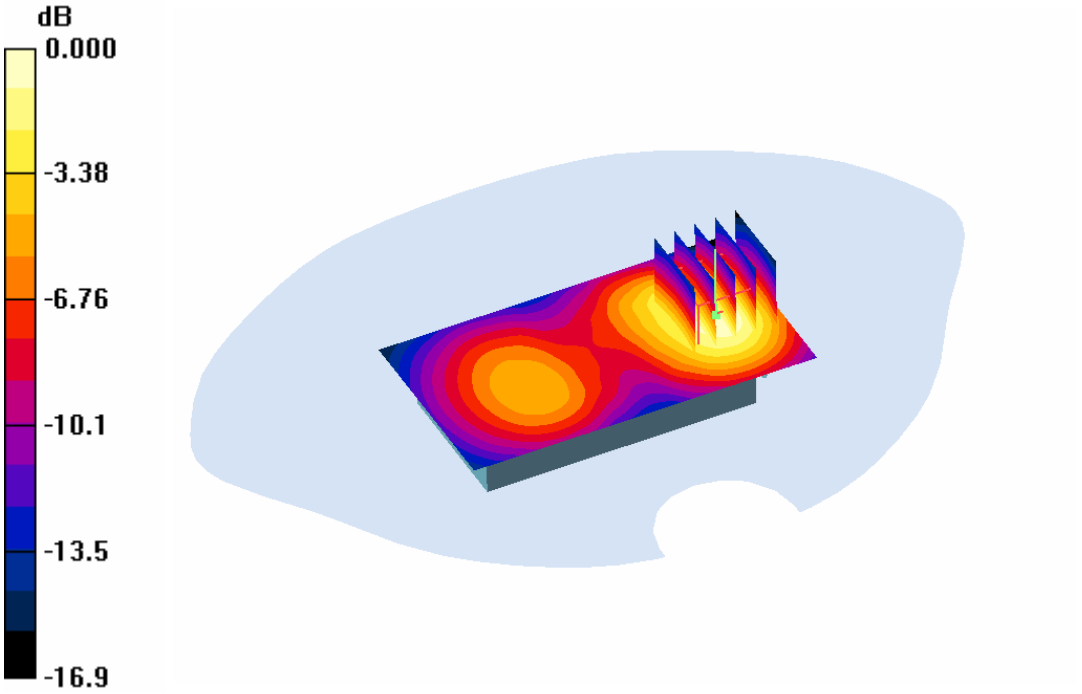
DUT: FAD-3022012-BV; Type: Mobile Terminal; Serial: CB510607DD

Date/Time: 2006-03-06 18:03:13

-Communication System: GSM1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3
-Medium: Muscle 1900 MHz; σ = 1.53 mho/m; ε_r = 51.3; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ES3DV3 - SN3062; ConvF(4.39, 4.39, 4.39)
-Electronics: DAE3 Sn422
-Phantom: SAM 2; ;
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Back to Phantom High BT/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.11 mW/g
Back to Phantom High BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.6 V/m; Power Drift = -0.047 dB
Peak SAR (extrapolated) = 1.59 W/kg
SAR(1 g) = 0.99 mW/g; SAR(10 g) = 0.58 mW/g
Maximum value of SAR (measured) = 1.10 mW/g



0 dB = 1.10mW/g

(i) Distribution of maximum SAR in GSM1900 mode with muscle tissue simulating liquid giving the maximum 1g and 10g averaged SAR. Measured against the flat section of the phantom with the back of the device facing the phantom and with a 15 mm separation between the device and the phantom.

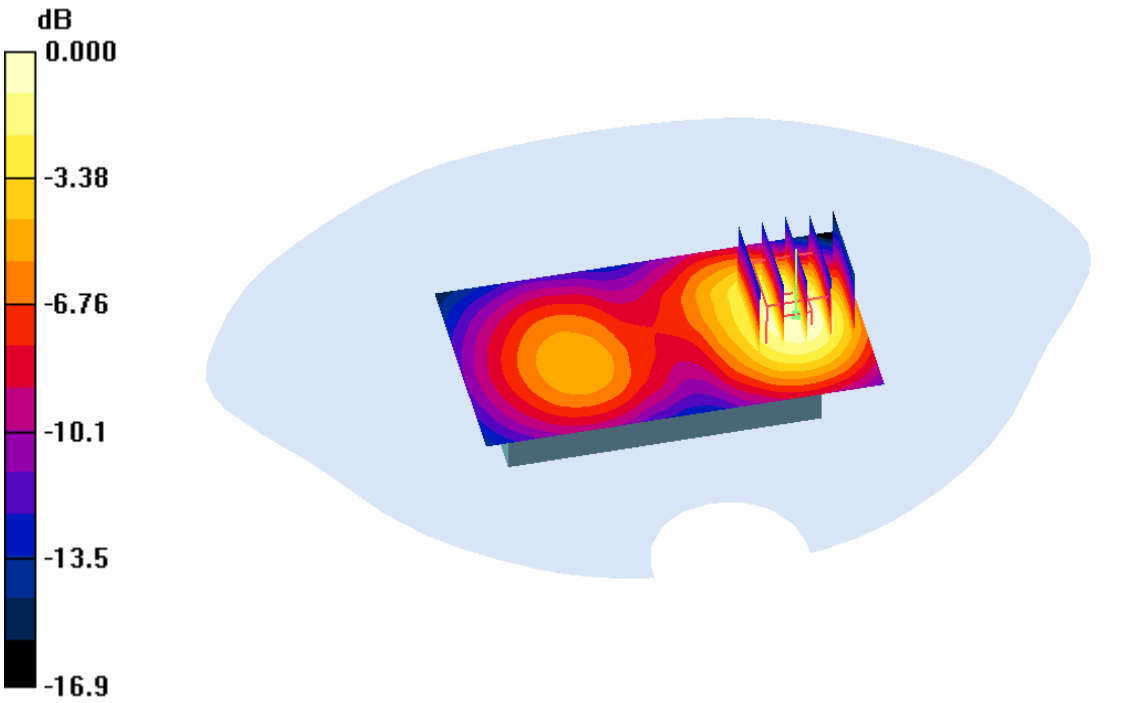
DUT: FAD-3022012-BV; Type: Mobile Terminal; Serial: CB510607DD

Date/Time: 2006-03-07 10:33:27

-Communication System: GPRS(2TX)1900; Frequency: 1909.8 MHz; Duty Cycle: 1:4.1
-Medium: Muscle 1900 MHz; σ = 1.56 mho/m; ε_r = 51.3; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ES3DV3 - SN3062; ConvF(4.39, 4.39, 4.39)
-Electronics: DAE3 Sn422
-Phantom: SAM 2; ;
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Back to Phantom High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.08 mW/g
Back to Phantom High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.3 V/m; Power Drift = -0.051 dB
Peak SAR (extrapolated) = 1.51 W/kg
SAR(1 g) = 0.95 mW/g; SAR(10 g) = 0.56 mW/g
Maximum value of SAR (measured) = 1.05 mW/g



0 dB = 1.05mW/g

(j) Distribution of maximum SAR in GPRS(2TX)1900 mode with muscle tissue simulating liquid giving the maximum 1g and 10g averaged SAR. Measured against the flat section of the phantom with the back of the device facing the phantom and with a 15 mm separation between the device and the phantom.

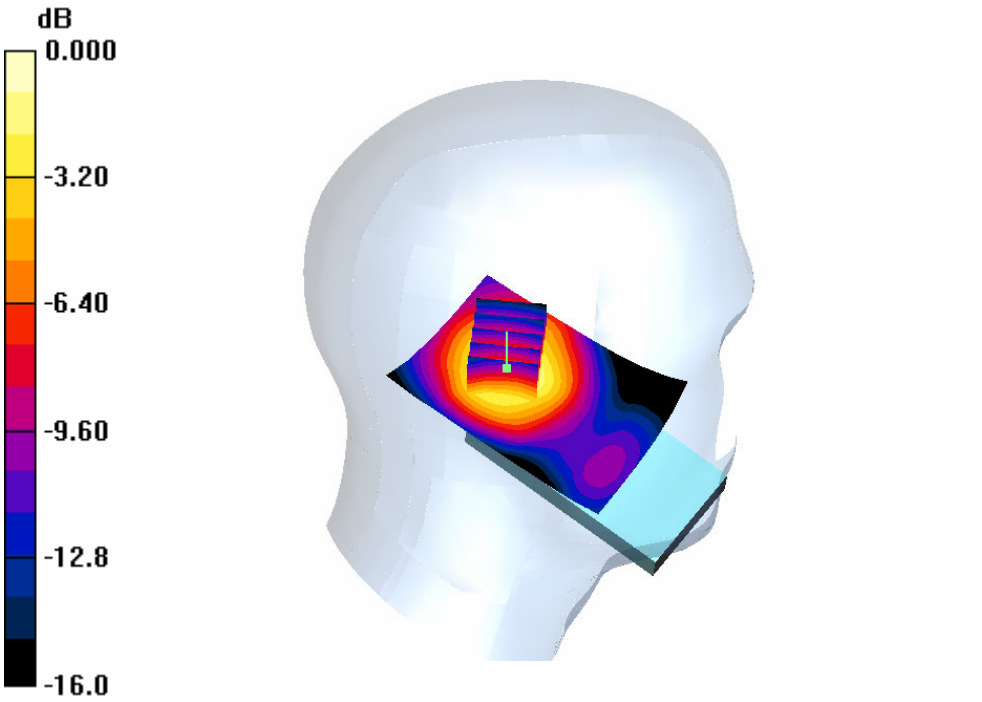
DUT: FAD-3022012-BV; Type: Mobile Terminal; Serial: CB510607DD

Date/Time: 2006-03-23 16:15:29

-Communication System: UMTS Uplink; Frequency: 1922.4 MHz; Duty Cycle: 1:1
-Medium: Head 2000 MHz; σ = 1.39 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(5.01, 5.01, 5.01)
-Electronics: DAE3 Sn422
-Phantom: SAM 1;
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Tilt Low BT/Area Scan (81x51x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.26 mW/g
Tilt Low BT/Zoom Scan 5x5x7 (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.7 V/m; Power Drift = 0.062 dB
Peak SAR (extrapolated) = 1.70 W/kg
SAR(10 g) = 0.64 mW/g
Maximum value of SAR (measured) = 1.16 mW/g



0 dB = 1.16mW/g

(k) Distribution of maximum SAR in UMTS mode giving the maximum 10g averaged SAR. Measured against the left hand side phantom for the tilt phone position.

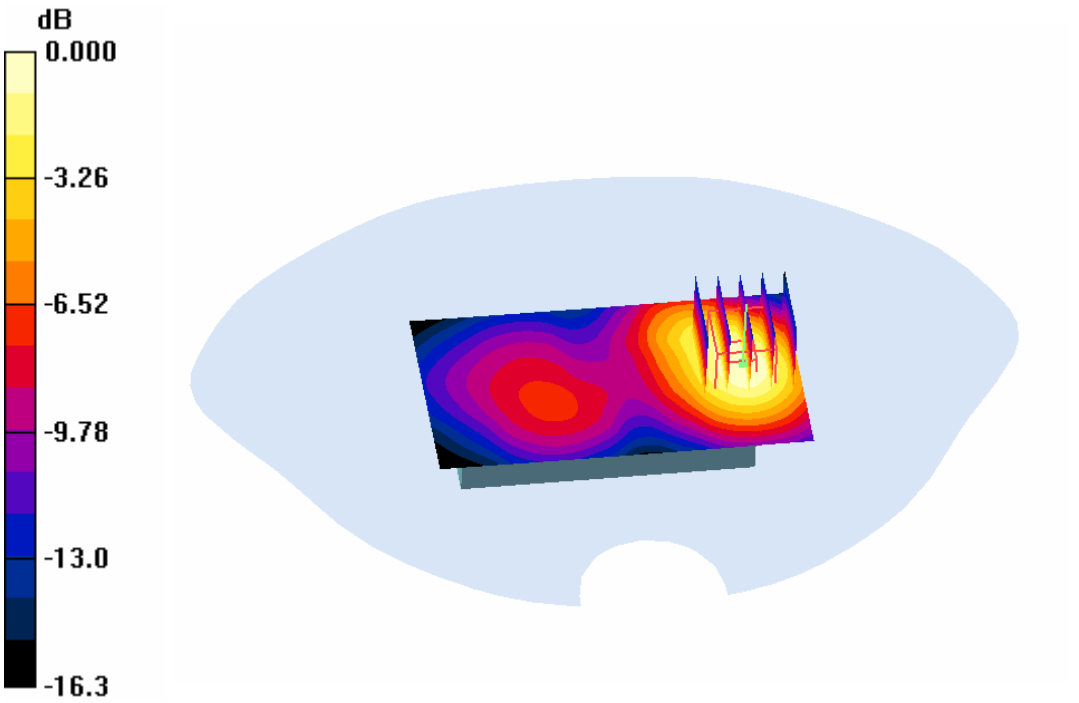
DUT: FAD-3022012-BV; Type: Mobile Terminal; Serial: CB510607DD

Date/Time: 2006-03-24 09:43:55

-Communication System: UMTS Uplink; Frequency: 1922.4 MHz; Duty Cycle: 1:1
-Medium: Head 2000 MHz; σ = 1.38 mho/m; ε_r = 38.2; ρ = 1000 kg/m^3

DASY4 Configuration:
-Probe: ET3DV6 - SN1572; ConvF(5.01, 5.01, 5.01)
-Electronics: DAE3 Sn422
-Phantom: SAM 1;
-Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Back to Phantom Low/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.38 mW/g
Back to Phantom Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.3 V/m; Power Drift = -0.137 dB
Peak SAR (extrapolated) = 1.90 W/kg
SAR(10 g) = 0.71 mW/g
Maximum value of SAR (measured) = 1.34 mW/g



0 dB = 1.34mW/g

(l) Distribution of maximum SAR in UMTS mode giving the maximum 10g averaged SAR. Measured against the flat section of the phantom with the back of the device facing the phantom and with a 15 mm separation between the device and the phantom.

APPENDIX 5: Probe calibration parameters for ET3DV6, SN: 1572

Diode compression

Parameter	Value in mV
DCP X	92
DCP Y	92
DCP Z	92

Sensitivity in free space:

Parameter	Value in $\mu V/(V/m)^2$
Norm X	1.96
Norm Y	1.84
Norm Z	2.05

Sensitivity in tissue simulating liquid

Head 900 MHz; ε_r=41.5 ± 5%, σ=0.97± 5% S/m.

Parameter	Value
ConvF X	6.74
ConvF Y	6.74
ConvF Z	6.74

Head 1800 MHz; ε_r=40 ± 5%, σ=1.40± 5% S/m.

Parameter	Value
ConvF X	5.53
ConvF Y	5.53
ConvF Z	5.53

Head 2000 MHz; ε_r=40 ± 5%, σ=1.40± 5% S/m.

Parameter	Value
ConvF X	5.01
ConvF Y	5.01
ConvF Z	5.01

Probe tip to sensor center: 2.7 mm

Optical Surface Detection: 1.3 ± 0.2 mm

APPENDIX 6: Probe calibration parameters for ET3DV3, SN: 3062

Diode compression

Parameter	Value in mV
DCP X	96
DCP Y	96
DCP Z	96

Sensitivity in free space:

Parameter	Value in $\mu V/(V/m)^2$
Norm X	1.18
Norm Y	1.24
Norm Z	1.08

Sensitivity in tissue simulating liquid

Muscle 1900 MHz; ε_r=53.3 ± 5%, σ=1.52± 5% S/m.

Parameter	Value
ConvF X	4.39
ConvF Y	4.39
ConvF Z	4.39

Probe tip to sensor center: 2 mm