

SAR Compliance Test Report

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FCC ID:	PDNRM-421	IC:	661R-RM421
Supplement reports:	-		
Testing has been carried out in accordance with:	47CFR §2.1093 Radiofrequency Radiation Exposure Evaluation: Portable Devices FCC OET Bulletin 65 (Edition 97-01), Supplement C (Edition 01-01) Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields RSS-102 Evaluation Procedure for Mobile and Portable Radio Transmitters with Respect to Health Canada's Safety Code 6 for Exposure of Humans to Radio Frequency Fields IEEE 1528 - 2003 IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Technique		
Documentation:	The documentation of the testing performed on the tested devices is archived for 15 years at TCC Nokia.		
Test results:	The tested device complies with the requirements in respect of all parameters subject to the test. The test results and statements relate only to the items tested. The test report shall not be reproduced except in full, without written approval of the laboratory.		

Date and signatures:

For the contents:

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1. SUMMARY OF SAR TEST REPORT

1.1 Test Details

Period of test	2007-11-27 to 2007-12-12
SN, HW and SW numbers of tested device	SN: 004401/01/740028/0, HW: 3000, SW: V 1.2.002, DUT: 27364 SN: 004401/01/740020/7, HW: 3000, SW: V 1.2.002, DUT: 27365
Batteries used in testing	BL-6F, DUT: 27366, 27367, 27570, 27571
Headsets used in testing	HS-45, DUT: 27558
Other accessories used in testing	-
State of sample	Prototype unit
Notes	-

1.2 Maximum Results

The maximum measured SAR values for Head configuration and Body Worn configuration are given in section 1.2.1 and 1.2.2 respectively. The device conforms to the requirements of the standard(s) when the maximum measured SAR value is less than or equal to the limit.

1.2.1 Head Configuration

Mode	Ch / f (MHz)	Radiated power	Position	Measured SAR value (1g avg)	Scaled* SAR value (1g avg)	SAR limit (1g avg)	Result
GSM 850	251 / 848.8	29.2 dBm ERP	Left, Cheek	0.473 W/kg	0.53 W/kg	1.6 W/kg	PASSED
WCDMA 850	4233 / 846.6	21.1 dBm ERP	Left, Cheek	0.508 W/kg	0.57 W/kg	1.6 W/kg	PASSED
GSM 1900	810 / 1909.8	31.3 dBm EIRP	Left, Tilt	0.408 W/kg	0.46 W/kg	1.6 W/kg	PASSED
WCDMA 1900	9400 / 1880.0	21.8 dBm EIRP	Left, Tilt	0.669 W/kg	0.75 W/kg	1.6 W/kg	PASSED
WLAN 2450	1 / 2412.0	17.9 dBm EIRP	Right, Cheek	0.128 W/kg	0.14 W/kg	1.6 W/kg	PASSED
GSM 850 + WLAN 2450	-	-	Left, Cheek	0.566 W/kg	0.63 W/kg	1.6 W/kg	PASSED
WCDMA 850 + WLAN 2450	-	-	Right, Cheek	0.611 W/kg	0.68 W/kg	1.6 W/kg	PASSED
GSM 1900 + WLAN 2450	-	-	Left, Tilt	0.446 W/kg	0.50 W/kg	1.6 W/kg	PASSED
WCDMA 1900 + WLAN 2450	-	-	Left, Tilt	0.707 W/kg	0.79 W/kg	1.6 W/kg	PASSED

1.2.2 Body Worn Configuration

Mode	Ch / f (MHz)	Radiated power	Separation distance	Measured SAR value (1g avg)	Scaled* SAR value (1g avg)	SAR limit (1g avg)	Result
GSM 850	190 / 836.6	29.5 dBm ERP	2.2 cm	0.527 W/kg	0.59 W/kg	1.6 W/kg	PASSED
WCDMA 850	4132/ 826.4	18.4 dBm ERP	2.2 cm	0.467 W/kg	0.52 W/kg	1.6 W/kg	PASSED
GSM 1900	810 / 1909.8	31.3 dBm EIRP	2.2 cm	0.365 W/kg	0.41 W/kg	1.6 W/kg	PASSED
WCDMA 1900	9400 / 1880.0	21.8 dBm EIRP	2.2 cm	0.656 W/kg	0.73 W/kg	1.6 W/kg	PASSED
WLAN 2450	11/ 2462.0	15.4 dBm EIRP	2.2 cm	0.025 W/kg	0.03 W/kg	1.6 W/kg	PASSED
GSM 850 + WLAN 2450	-	-	2.2 cm	0.551 W/kg	0.62 W/kg	1.6 W/kg	PASSED
WCDMA 850 + WLAN 2450	-	-	2.2 cm	0.491 W/kg	0.55 W/kg	1.6 W/kg	PASSED
GSM 1900 + WLAN 2450	-	-	2.2 cm	0.390 W/kg	0.44 W/kg	1.6 W/kg	PASSED
WCDMA 1900 + WLAN 2450	-	-	2.2 cm	0.680 W/kg	0.76 W/kg	1.6 W/kg	PASSED

*SAR values are scaled up by 12% to cover measurement drift.

1.2.3 Maximum Drift

Maximum drift covered by 12% scaling up of the SAR values	Maximum drift during measurements
0.5dB	0.50 dB

1.2.4 Measurement Uncertainty

Expanded Uncertainty (k=2) 95%	± 25.8%
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2. DESCRIPTION OF THE DEVICE UNDER TEST

Device category	Portable
Exposure environment	General population / uncontrolled

Modes of Operation	Bands	Modulation Mode	Duty Cycle	Transmitter Frequency Range (MHz)
GSM	850 1900	GMSK	1/8	824 – 849 1850 – 1910
GPRS	850 1900	GMSK	1/8 to 3/8	824 – 849 1850 – 1910
EGPRS	850 1900	GMSK / 8PSK	1/8 to 3/8	824 – 849 1850 – 1910
WCDMA	850 (Band V) 1900 (Band II)		1	826 – 847 1852 – 1908
BT	2450	GFSK	1	2402 – 2480
WLAN	2450	11Mbps QPSK	1	2412 – 2462

Outside of USA and Canada, the transmitter of the device is capable of operating also in GSM/GPRS/EGPRS900 and GSM/GPRS/EGPRS1800 bands which are not part of this filing.

This device has Voice-over-IP / Dual Transfer Mode capability for use at the ear. Therefore, SAR for multi slot GPRS mode was evaluated against the head profile of the phantom.

2.1 Picture of the Device



2.2 Description of the Antenna

The device has an internal antenna.

3. TEST CONDITIONS

3.1 Temperature and Humidity

Ambient temperature (°C):	20.5 to 22.5
Ambient humidity (RH %):	35 to 55

3.2 Test Signal, Frequencies and Output Power

The device was put into operation by using a call tester except for testing WLAN2450 where control software was used. Communication between the device and the call tester was established by air link.

The device output power was set to maximum power level for all tests; a fully charged battery was used for every test sequence.

The transmission mode of the device in all WCDMA tests was configured to 12.2kbps RMC with all TPC bits set as "1".

In all operating bands the measurements were performed on lowest, middle and highest channels.

The radiated output power of the device was measured by a separate test laboratory on the same unit(s) as used for SAR testing.

4. DESCRIPTION OF THE TEST EQUIPMENT

4.1 Measurement System and Components

The measurements were performed using an automated near-field scanning system, DASY4, manufactured by Schmid & Partner Engineering AG (SPEAG) in Switzerland. The SAR extrapolation algorithm used in all measurements was the 'advanced extrapolation' algorithm.

The following table lists calibration dates of SPEAG components:

Test Equipment	Serial Number	Calibration interval	Calibration expiry
DAE3	339	12 months	2008-06
DAE3	501	12 months	2008-02
DAE4	682	12 months	2008-08
DAE4	710	12 months	2008-10
E-field Probe ES3DV3	3116	12 months	2008-08
E-field Probe ES3DV3	3117	12 months	2008-08
E-field Probe ES3DV3	3118	12 months	2008-10
E-field Probe ES3DV3	3119	12 months	2008-10
Dipole Validation Kit, D835V2	4d042	24 months	2008-09
Dipole Validation Kit, D1900V2	5d026	24 months	2008-02
Dipole Validation Kit, D2450V2	750	24 months	2008-02
DASY4 software	Version 4.7	-	-

Additional test equipment used in testing:

Test Equipment	Model	Serial Number	Calibration interval	Calibration expiry
Signal Generator	SME06	848650/011	36 months	2008-07
Amplifier	ZHL-42W	E012903	-	-
Power Meter	NRP	100808	24 months	2008-03
Power Sensor	NRP-Z51	100412	12 months	2008-03
Call Tester	4400M	0211008	-	-
BT Tester	CBT	100263	-	-
Vector Network Analyzer	AT8753ES	MY40001091	12 months	2008-08
Dielectric Probe Kit	HP85070B	US33020403	-	-

4.1.1 Isotropic E-field Probe Type ES3DV3

Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., butyl diglycol)
Calibration	Calibration certificate in Appendix C
Frequency	10 MHz to 4 GHz (dosimetry); Linearity: ± 0.2 dB (30 MHz to 4 GHz)
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.3 dB in HSL (rotation normal to probe axis)
Dynamic Range	5 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB
Dimensions	Overall length: 330 mm Tip length: 20 mm Body diameter: 12 mm Tip diameter: 3.9 mm
Application	Distance from probe tip to dipole centers: 2.0 mm General dosimetry up to 4 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms

4.2 Phantoms

The phantom used for all tests i.e. for both system checks and device testing, was the twin-headed "SAM Phantom", manufactured by SPEAG. The phantom conforms to the requirements of IEEE 1528 - 2003.

System checking was performed using the flat section, whilst Head SAR tests used the left and right head profile sections. Body SAR testing also used the flat section between the head profiles.

The SPEAG device holder (see Section 5.1) was used to position the device in all tests whilst a tripod was used to position the validation dipoles against the flat section of phantom.

4.3 Tissue Simulants

Recommended values for the dielectric parameters of the tissue simulants are given in IEEE 1528 - 2003 and FCC Supplement C to OET Bulletin 65. All tests were carried out using simulants whose dielectric parameters were within $\pm 5\%$ of the recommended values. All tests were carried out within 24 hours of measuring the dielectric parameters.

The depth of the tissue simulant was 15.0 ± 0.5 cm measured from the ear reference point during system checking and device measurements.

4.3.1 Tissue Simulant Recipes

The following recipe(s) were used for Head and Body tissue simulant(s):

800MHz band

Ingredient	Head (% by weight)	Body (% by weight)
Deionised Water	39.74	55.97
HEC	0.25	1.21
Sugar	58.31	41.76
Preservative	0.15	0.27
Salt	1.55	0.79

1900MHz band

Ingredient	Head (% by weight)	Body (% by weight)
Deionised Water	54.88	69.02
Butyl Diglycol	44.91	30.76
Salt	0.21	0.22

2450MHz band

Ingredient	Head (% by weight)	Body (% by weight)
Deionised Water	56.0	70.20
Tween 20	44.0	29.62
Salt	-	0.18

4.3.2 System Checking

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulants were measured every day using the dielectric probe kit and the network analyser. A system check measurement was made following the determination of the dielectric parameters of the simulant, using the dipole validation kit. A power level of 250 mW was supplied to the dipole antenna, which was placed under the flat section of the twin SAM phantom. The system checking results (dielectric parameters and SAR values) are given in the table below.

System checking, head tissue simulant

f [MHz]	Description	SAR [W/kg], 1g	Dielectric Parameters		Temp [°C]
			ϵ_r	σ [S/m]	
835	Reference result	2.33	42.2	0.90	
	± 10% window	2.10 - 2.56			
	2007-11-27	2.44	41.6	0.91	21.1
	2007-11-28	2.53	42.6	0.94	21.1
1900	Reference result	9.83	39.4	1.42	
	± 10% window	8.85 - 10.81			
	2007-11-29	9.91	39.0	1.40	21.4
	2007-12-10	10.7	39.3	1.48	20.9
2450	Reference result	13.7	38.5	1.79	
	± 10% window	12.3 - 15.1			
	2007-12-11	14.2	38.5	1.84	22.1

System checking, body tissue simulant

f [MHz]	Description	SAR [W/kg],	Dielectric Parameters		Temp [°C]
		1g	ϵ_r	σ [S/m]	
835	Reference result	2.45	53.8	0.98	
	± 10% window	2.20 - 2.70			
	2007-11-28	2.51	54.0	0.99	21.7
1900	Reference result	10.0	54.8	1.54	
	± 10% window	9.0 - 11.0			
	2007-11-29	9.79	53.0	1.50	21.4
	2007-12-11	10.9	53.0	1.59	21.4
2450	Reference result	13.5	53.8	1.97	
	± 10% window	12.1 - 14.9			
	2007-12-12	14.3	51.7	2.01	22.1

Plots of the system checking scans are given in Appendix A.

4.3.3 Tissue Simulants used in the Measurements

Head tissue simulant measurements

f [MHz]	Description	Dielectric Parameters		Temp [°C]
		ϵ_r	σ [S/m]	
836	Recommended value	41.5	0.90	
	± 5% window	39.4 - 43.6	0.86 - 0.95	
	2007-11-27	41.5	0.91	21.1
	2007-11-28	42.6	0.93	21.1
1880	Recommended value	40.0	1.40	
	± 5% window	38.0 - 42.0	1.33 - 1.47	
	2007-11-29	39.1	1.38	21.4
	2007-12-10	39.3	1.46	20.9
2442	Recommended value	39.2	1.79	
	± 5% window	37.3 - 41.2	1.70 - 1.88	
	2007-12-11	38.5	1.83	22.1

Body tissue simulant measurements

f [MHz]	Description	Dielectric Parameters		Temp [°C]
		ϵ_r	σ [S/m]	
836	Recommended value	55.2	0.97	
	± 5% window	52.4 – 58.0	0.92 – 1.02	
	2007-11-28	54.0	0.99	21.7
1880	Recommended value	53.3	1.52	
	± 5% window	50.6 – 56.0	1.44 – 1.60	
	2007-11-29	53.1	1.48	21.4
	2007-12-11	53.0	1.56	21.4
2442	Recommended value	52.7	1.94	
	± 5% window	50.1 – 55.3	1.85 – 2.04	
	2007-12-12	51.7	2.00	22.1

5. DESCRIPTION OF THE TEST PROCEDURE

5.1 Device Holder

The device was placed in the device holder (illustrated below) that is supplied by SPEAG as an integral part of the Dasy system.



Device holder supplied by SPEAG

A Nokia designed spacer (illustrated below) was used to position the device within the SPEAG holder. The spacer positions the device so that the holder has minimal effect on the test results but still holds the device securely. The spacer was removed before the tests.



Nokia spacer

5.2 Test Positions

5.2.1 Against Phantom Head

Measurements were made in “cheek” and “tilt” positions on both the left hand and right hand sides of the phantom.

The positions used in the measurements were according to IEEE 1528 - 2003 "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques".

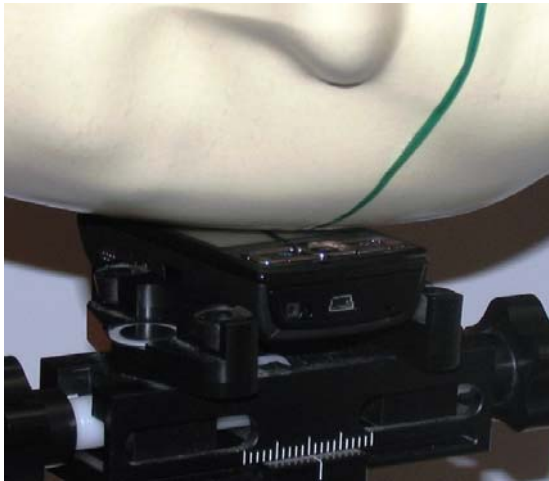


Photo of the device in “cheek” slide closed position

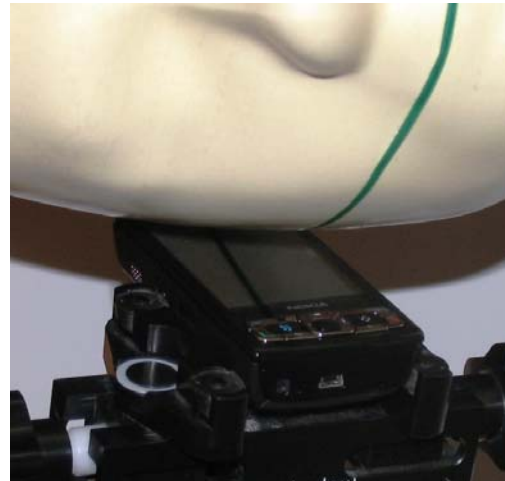


Photo of the device in “tilt” slide closed position



Photo of the device in "cheek" slide open position



Photo of the device in "tilt" slide open position

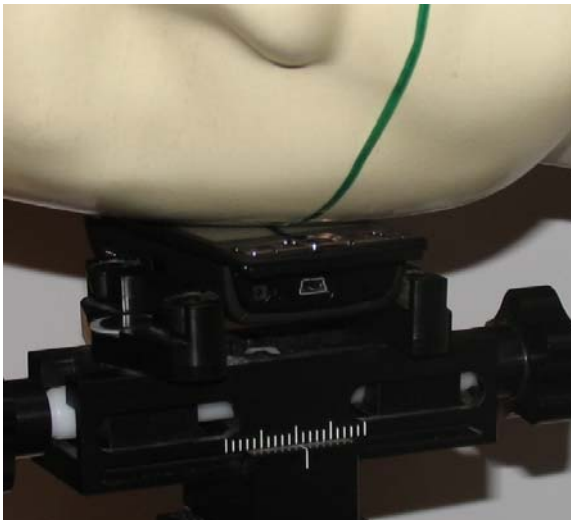


Photo of the device in "cheek" MPS position

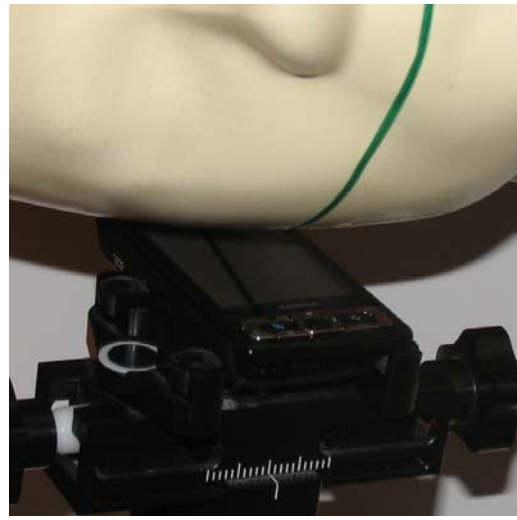


Photo of the device in "tilt" MPS position

"Slide" means the keypad slide
"MPS" means the Multimedia Player slide

5.2.2 Body Worn Configuration

The device was placed in the SPEAG holder using the Nokia spacer and placed below the flat section of the phantom. The distance between the device and the phantom was kept at the separation distance indicated in the photo below using a separate flat spacer that was removed before the start of the measurements. The device was oriented with its antenna facing the phantom since this orientation gives higher results.



Photo of the device positioned for Body SAR measurement.
The spacer was removed for the tests.

5.3 Scan Procedures

First, area scans were used for determination of the field distribution. Next, a zoom scan, a minimum of 5x5x7 points covering a volume of at least 30x30x30mm, was performed around the highest E-field value to determine the averaged SAR value. Drift was determined by measuring the same point at the start of the area scan and again at the end of the zoom scan.

5.4 SAR Averaging Methods

The maximum SAR value was averaged over a cube of tissue using interpolation and extrapolation.

The interpolation, extrapolation and maximum search routines within Dasy4 are all based on the modified Quadratic Shepard's method (Robert J. Renka, "Multivariate Interpolation Of Large Sets Of Scattered Data", University of North Texas ACM Transactions on Mathematical Software, vol. 14, no. 2, June 1988, pp. 139-148).

The interpolation scheme combines a least-square fitted function method with a weighted average method. A trivariate 3-D / bivariate 2-D quadratic function is computed for each measurement point and fitted to neighbouring points by a least-square method. For the zoom scan, inverse distance weighting is incorporated to fit distant points more accurately. The interpolating function is finally calculated as a weighted average of the quadratics.

In the zoom scan, the interpolation function is used to extrapolate the Peak SAR from the deepest measurement points to the inner surface of the phantom.

6. MEASUREMENT UNCERTAINTY

Table 6.1 – Measurement uncertainty evaluation

Uncertainty Component	Section in IEEE 1528	Tol. (%)	Prob Dist	Div	G_i	$G_i \cdot U_i$ (%)	v_i
Measurement System							
Probe Calibration	E2.1	±5.9	N	1	1	±5.9	∞
Axial Isotropy	E2.2	±4.7	R	√3	$(1-c_p)^{1/2}$	±1.9	∞
Hemispherical Isotropy	E2.2	±9.6	R	√3	$(c_p)^{1/2}$	±3.9	∞
Boundary Effect	E2.3	±1.0	R	√3	1	±0.6	∞
Linearity	E2.4	±4.7	R	√3	1	±2.7	∞
System Detection Limits	E2.5	±1.0	R	√3	1	±0.6	∞
Readout Electronics	E2.6	±1.0	N	1	1	±1.0	∞
Response Time	E2.7	±0.8	R	√3	1	±0.5	∞
Integration Time	E2.8	±2.6	R	√3	1	±1.5	∞
RF Ambient Conditions - Noise	E6.1	±3.0	R	√3	1	±1.7	∞
RF Ambient Conditions - Reflections	E6.1	±3.0	R	√3	1	±1.7	∞
Probe Positioner Mechanical Tolerance	E6.2	±0.4	R	√3	1	±0.2	∞
Probe Positioning with respect to Phantom Shell	E6.3	±2.9	R	√3	1	±1.7	∞
Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	E5	±3.9	R	√3	1	±2.3	∞
Test sample Related							
Test Sample Positioning	E4.2	±6.0	N	1	1	±6.0	11
Device Holder Uncertainty	E4.1	±5.0	N	1	1	±5.0	7
Output Power Variation - SAR drift measurement	6.6.3	±0.0	R	√3	1	±0.0	∞
Phantom and Tissue Parameters							
Phantom Uncertainty (shape and thickness tolerances)	E3.1	±4.0	R	√3	1	±2.3	∞
Conductivity Target - tolerance	E3.2	±5.0	R	√3	0.64	±1.8	∞
Conductivity - measurement uncertainty	E3.3	±5.5	N	1	0.64	±3.5	5
Permittivity Target - tolerance	E3.2	±5.0	R	√3	0.6	±1.7	∞
Permittivity - measurement uncertainty	E3.3	±2.9	N	1	0.6	±1.7	5
Combined Standard Uncertainty			RSS			±12.9	116
Coverage Factor for 95%			k=2				
Expanded Uncertainty						±25.8	

7. RESULTS

The measured Head SAR values for the test device are tabulated below:

850MHz Head SAR results

Option used	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz
GSM	Power		28.2 dBm	29.5 dBm	29.2 dBm
Slide closed	Left	Cheek	0.294	0.408	0.471
		Tilt	-	0.341	-
	Right	Cheek	-	0.398	-
		Tilt	-	0.291	-
GSM	Power		27.9 dBm	29.4 dBm	29.2 dBm
Slide open	Left	Cheek	-	0.199	-
		Tilt	-	0.101	-
	Right	Cheek	-	0.208	-
		Tilt	-	0.094	-
2-slot GPRS	Power		23.6 dBm	24.8 dBm	24.7 dBm
Slide closed	Left	Cheek	-	0.402	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
3-slot GPRS	Power		23.6 dBm	24.8 dBm	24.6 dBm
Slide closed	Left	Cheek	-	0.383	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
1-slot 8PSK EGPRS	Power		20.3 dBm	21.3 dBm	21.1 dBm
Slide closed	Left	Cheek	-	-	0.115
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-

850MHz Head SAR results - continued

Option used	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz
GSM	Power		28.5 dBm	30.0 dBm	29.6 dBm
MPS	Left	Cheek	-	-	0.468
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
GSM Slide closed	Left cheek, BT active		-	-	0.473
Option used	Test configuration		Ch 4132 826.4 MHz	Ch 4175 835.0 MHz	Ch 4233 846.6 MHz
WCDMA	Power		18.4 dBm	20.9 dBm	21.1 dBm
Slide closed	Left	Cheek	0.383	0.485	0.508
		Tilt	-	0.415	-
	Right	Cheek	-	0.483	-
		Tilt	-	0.367	-
WCDMA	Power		18.4 dBm	20.5 dBm	20.8 dBm
Slide open	Left	Cheek	-	0.261	-
		Tilt	-	0.135	-
	Right	Cheek	-	0.263	-
		Tilt	-	0.121	-
WCDMA	Power		20.4 dBm	21.3 dBm	21.6 dBm
MPS	Left	Cheek	-	-	0.471
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
WCDMA Slide closed	Left cheek, BT active		-	-	0.506

1900MHz Head SAR results

Option used	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 512 1850.2 MHz	Ch 661 1880.0 MHz	Ch 810 1909.8 MHz
GSM	Power		26.8 dBm	30.1 dBm	31.3 dBm
Slide closed	Left	Cheek	-	0.280	-
		Tilt	0.352	0.388	0.398
	Right	Cheek	-	0.210	-
		Tilt	-	0.331	-
GSM	Power		26.6 dBm	28.8 dBm	28.5 dBm
Slide open	Left	Cheek	-	0.132	-
		Tilt	-	0.224	-
	Right	Cheek	-	0.145	-
		Tilt	-	0.229	-
2-slot GPRS	Power		23.8 dBm	27.0 dBm	28.2 dBm
Slide closed	Left	Cheek	-	0.262	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
3-slot GPRS	Power		22.0 dBm	25.1 dBm	26.3 dBm
Slide closed	Left	Cheek	-	0.250	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
1-slot 8PSK EGPRS	Power		21.3 dBm	24.6 dBm	25.9 dBm
Slide closed	Left	Cheek	-	-	-
		Tilt	-	-	0.151
	Right	Cheek	-	-	-
		Tilt	-	-	-

1900MHz Head SAR results - continued

Option used	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 512 1850.2 MHz	Ch 661 1880.0 MHz	Ch 810 1909.8 MHz
GSM	Power		26.9 dBm	29.3 dBm	29.0 dBm
MPS	Left	Cheek	-	-	-
		Tilt	-	-	0.389
	Right	Cheek	-	-	-
		Tilt	-	-	-
GSM Slide closed	Left tilt, BT active		-	-	0.408
Option used	Test configuration		Ch 9262 1852.4 MHz	Ch 9400 1880.0 MHz	Ch 9538 1907.6 MHz
WCDMA	Power		20.9 dBm	21.8 dBm	23.1 dBm
Slide closed	Left	Cheek	-	0.521	-
		Tilt	0.595	0.665	0.592
	Right	Cheek	-	0.378	-
		Tilt	-	0.507	-
WCDMA	Power		21.4 dBm	22.1 dBm	22.0 dBm
Slide open	Left	Cheek	-	0.299	-
		Tilt	-	0.390	-
	Right	Cheek	-	0.213	-
		Tilt	-	0.370	-
WCDMA	Power		20.9 dBm	22.5 dBm	23.4 dBm
MPS	Left	Cheek	-	-	-
		Tilt	-	0.628	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
WCDMA Slide closed	Left tilt, BT active		-	0.669	-

2450MHz Head SAR results

Option used	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 1 2412.0 MHz	Ch 7 2442.0 MHz	Ch 11 2462.0 MHz
WLAN	Power		16.2 dBm	16.7 dBm	15.4 dBm
Slide closed	Left	Cheek	-	0.093	-
		Tilt	-	0.038	-
	Right	Cheek	0.102	0.101	0.095
		Tilt	-	0.022	-
WLAN	Power		19.3 dBm	19.0 dBm	17.5 dBm
Slide open	Left	Cheek	-	0.047	-
		Tilt	-	0.031	-
	Right	Cheek	-	0.042	-
		Tilt	-	0.020	-
WLAN	Power		17.9 dBm	16.2 dBm	15.7 dBm
MPS	Left	Cheek	-	-	-
		Tilt	-	-	-
	Right	Cheek	0.128	-	-
		Tilt	-	-	-

The measured Body SAR values for the test device are tabulated below:

850MHz Body SAR results

Option used	Test configuration	SAR, averaged over 1g (W/kg)		
		Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz
GSM	Power	28.2 dBm	29.5 dBm	29.2 dBm
Slide closed	Without headset	0.457	0.527	0.457
	Headset HS-45	0.421	0.465	0.392
Slide closed	Without headset, BT active	-	0.505	-
Option used	Test configuration	Ch 4132 826.4 MHz	Ch 4175 835.0 MHz	Ch 4233 846.6 MHz
WCDMA	Power	18.4 dBm	20.9 dBm	21.1 dBm
Slide closed	Without headset	0.467	0.432	0.402
	Headset HS-45	0.410	0.373	0.344
Slide closed	Without headset, BT active	0.461	-	-

1900MHz Body SAR results

Option used	Test configuration	SAR, averaged over 1g (W/kg)		
		Ch 512 1850.2 MHz	Ch 661 1880.0 MHz	Ch 810 1909.8 MHz
GSM	Power	26.8 dBm	30.1 dBm	31.3 dBm
Slide closed	Without headset	0.301	0.343	0.346
	Headset HS-45	0.284	0.325	0.351
Slide closed	Headset HS-45, BT active	-	-	0.365
Option used	Test configuration	Ch 9262 1852.4 MHz	Ch 9400 1880.0 MHz	Ch 9538 1907.6 MHz
WCDMA	Power	20.9 dBm	21.8 dBm	23.1 dBm
Slide closed	Without headset	0.589	0.656	0.592
	Headset HS-45	0.561	0.637	0.579
Slide closed	Without headset, BT active	-	0.647	-

2450MHz Body SAR results

Option used	Test configuration	SAR, averaged over 1g (W/kg)		
		Ch 1 2412.0 MHz	Ch 7 2442.0 MHz	Ch 11 2462.0 MHz
WCDMA	Power	16.2 dBm	16.7 dBm	15.4 dBm
Slide closed	Without headset	0.013	0.021	0.024
	Headset HS-45	0.014	0.022	0.025

Simultaneous transmissions: Combined SAR results

Test configuration	Max. 1g SAR results				
	WLAN	GSM 850	WCDMA 850	GSM 1900	WCDMA 1900
Head: Left, Cheek	0.093	0.473	0.508	0.280	0.521
Head: Left, Tilt	0.038	0.341	0.415	0.408	0.669
Head: Right, Cheek	0.128	0.398	0.483	0.210	0.378
Head: Right, Tilt	0.022	0.291	0.367	0.331	0.507
Body: Without Headset	0.024	0.527	0.467	0.346	0.656
Body: Headset HS-45	0.025	0.465	0.410	0.365	0.637

Simultaneous transmissions: Combined SAR results

Test configuration	Combined 1g SAR values			
	WLAN + GSM 850	WLAN + WCDMA 850	WLAN + GSM 1900	WLAN + WCDMA 1900
Head: Left, Cheek	0.566	0.601	0.373	0.614
Head: Left, Tilt	0.379	0.453	0.446	0.707
Head: Right, Cheek	0.526	0.611	0.338	0.506
Head: Right, Tilt	0.313	0.389	0.353	0.529
Body: Without Headset	0.551	0.491	0.370	0.680
Body: Headset HS-45	0.490	0.435	0.390	0.662

Combining the maximum SAR values of WLAN2450 and the cellular bands tends to overestimate the SAR value since their maxima do not necessarily occur in the same location.

Plots of the Measurement scans are given in Appendix B.

APPENDIX A: SYSTEM CHECKING SCANS

See the following pages

Date/Time: 2007-11-27 09:03:13

Test Laboratory: TCC Nokia
Type: D835V2; Serial: 4d042

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.905$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

d=15mm, Pin=250mW/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 2.63 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.8 V/m

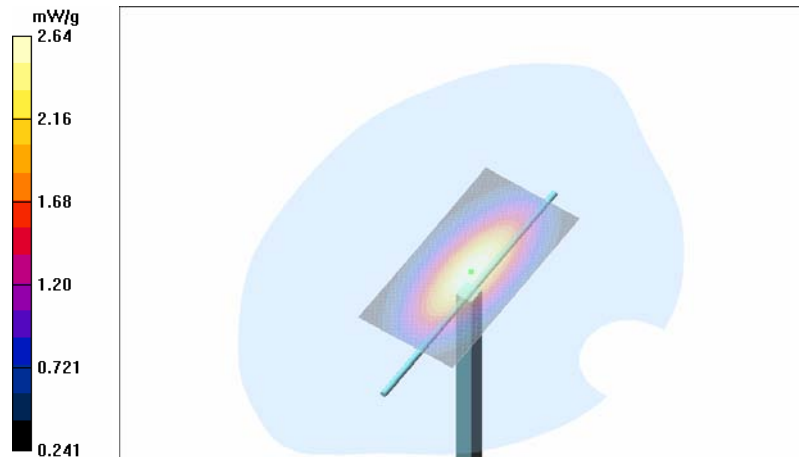
Peak SAR (extrapolated) = 3.60 W/kg

SAR(1 g) = 2.44 mW/g

SAR(10 g) = 1.6 mW/g

Power Drift = -0.061 dB

Maximum value of SAR (measured) = 2.64 mW/g



Date/Time: 2007-11-28 08:41:08

Test Laboratory: TCC Nokia
Type: D835V2; Serial: 4d042

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.935$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

d=15mm, Pin=250mW/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 2.75 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.1 V/m

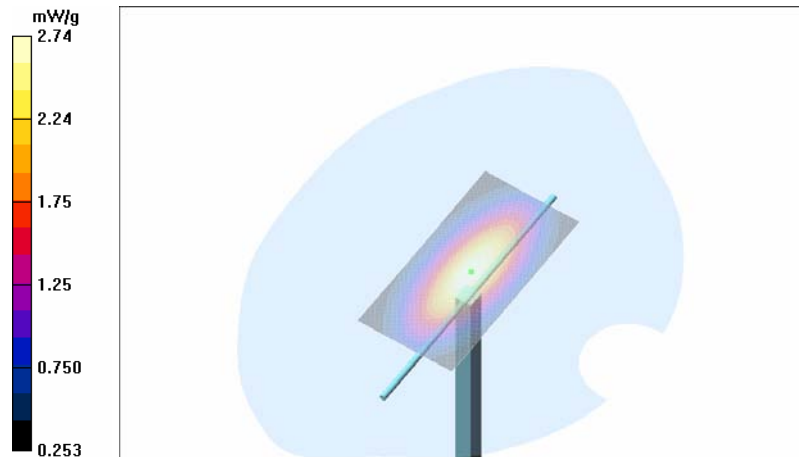
Peak SAR (extrapolated) = 3.73 W/kg

SAR(1 g) = 2.53 mW/g

SAR(10 g) = 1.66 mW/g

Power Drift = -0.002 dB

Maximum value of SAR (measured) = 2.74 mW/g



Date/Time: 2007-11-29 11:39:53

Test Laboratory: TCC Nokia
Type: D1900V2; Serial: 5d026

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.4$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3118; Probe Notes:
- ConvF(5.26, 5.26, 5.26); Calibrated: 2007-10-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 2007-02-21
- Phantom: SAM 6; Type: SAM Twin Phantom; Serial: TP-1301
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

d=10mm, Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 11.3 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 90.8 V/m

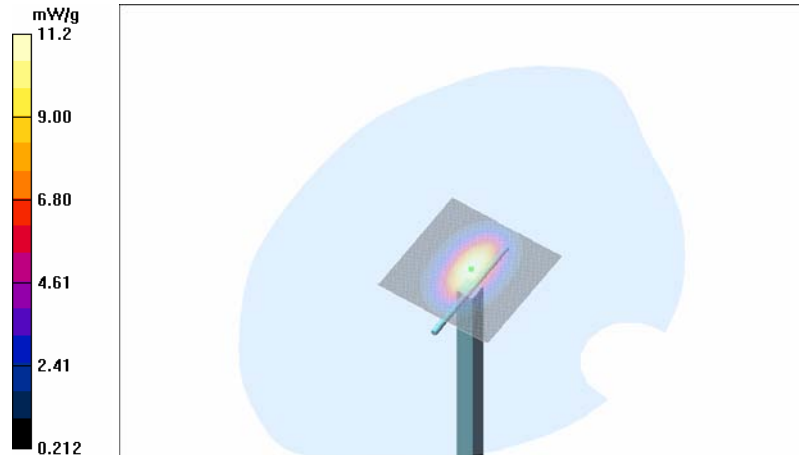
Peak SAR (extrapolated) = 18.5 W/kg

SAR(1 g) = 9.91 mW/g

SAR(10 g) = 5.12 mW/g

Power Drift = -0.018 dB

Maximum value of SAR (measured) = 11.2 mW/g



Date/Time: 2007-12-10 15:13:31

Test Laboratory: TCC Nokia
Type: D1900V2; Serial: 5d026

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 20.9 C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 39.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.05, 5.05, 5.05); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

d=10mm, Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 12.2 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 90.1 V/m

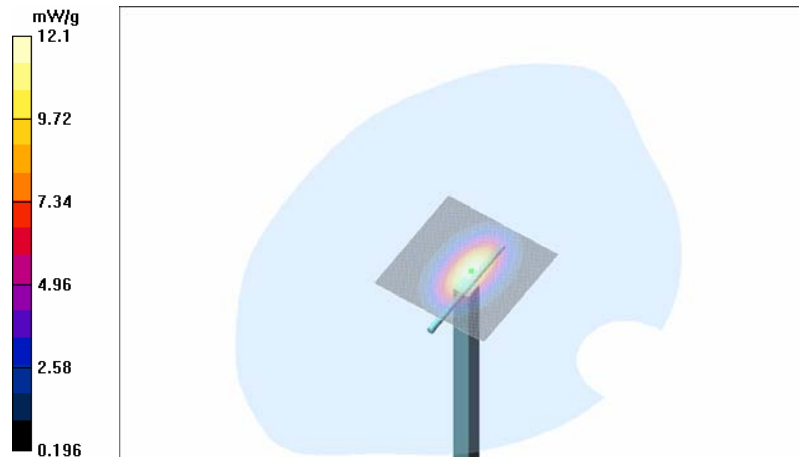
Peak SAR (extrapolated) = 20.1 W/kg

SAR(1 g) = 10.7 mW/g

SAR(10 g) = 5.49 mW/g

Power Drift = 0.003 dB

Maximum value of SAR (measured) = 12.1 mW/g



Date/Time: 2007-12-11 13:00:58

Test Laboratory: TCC Nokia

Type: D2450V2; Serial: 750

Communication System: CW2450

Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: 22.1 C

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.84$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(4.41, 4.41, 4.41); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 4; Type: Twin Phantom; Serial: TP-1410
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

d=10mm, Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 16.3 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 83.0 V/m

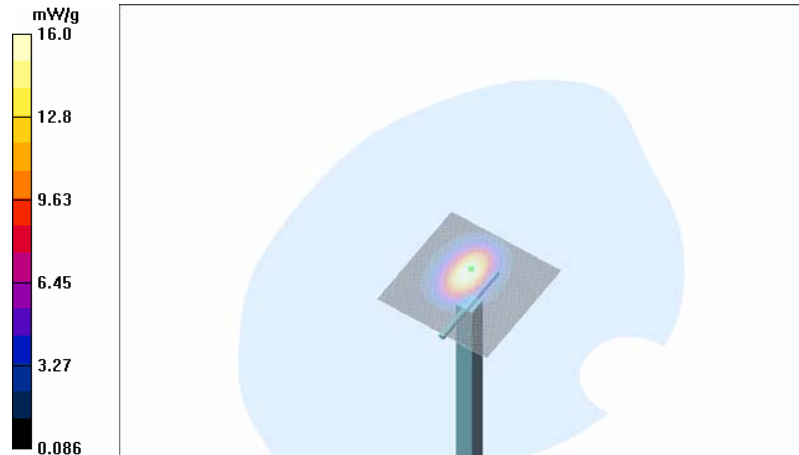
Peak SAR (extrapolated) = 30.0 W/kg

SAR(1 g) = 14.2 mW/g

SAR(10 g) = 6.54 mW/g

Power Drift = 0.006 dB

Maximum value of SAR (measured) = 16.0 mW/g



Date/Time: 2007-11-28 09:13:46

Test Laboratory: TCC Nokia
Type: D835V2; Serial: 4d042

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Body 850; Medium Notes: Medium Temperature: 21.7 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.986$ mho/m; $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.74, 5.74, 5.74); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1412
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

d=15mm, Pin=250mW/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 2.70 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 51.5 V/m

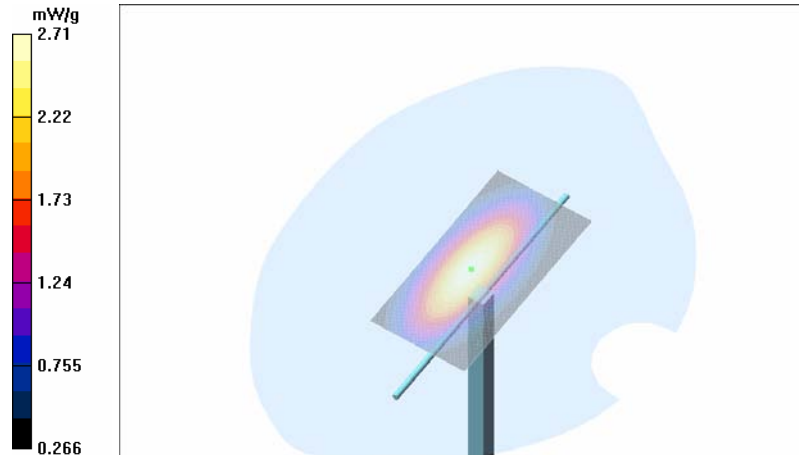
Peak SAR (extrapolated) = 3.64 W/kg

SAR(1 g) = 2.51 mW/g

SAR(10 g) = 1.66 mW/g

Power Drift = -0.011 dB

Maximum value of SAR (measured) = 2.71 mW/g



Date/Time: 2007-11-29 12:26:42

Test Laboratory: TCC Nokia
Type: D1900V2; Serial: 5d026

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: Body 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 53$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3119; Probe Notes:
- ConvF(5.02, 5.02, 5.02); Calibrated: 2007-10-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn710; Calibrated: 2007-10-16
- Phantom: SAM 8; Type: SAM Twin Phantom; Serial: TP-1408
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

d=10mm, Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 11.3 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 77.4 V/m

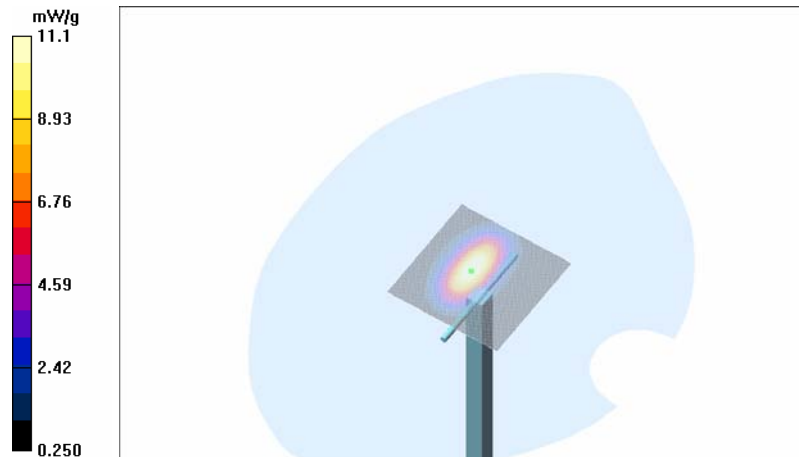
Peak SAR (extrapolated) = 17.4 W/kg

SAR(1 g) = 9.79 mW/g

SAR(10 g) = 5.17 mW/g

Power Drift = 0.050 dB

Maximum value of SAR (measured) = 11.1 mW/g



Date/Time: 2007-12-11 08:18:58

Test Laboratory: TCC Nokia
Type: D1900V2; Serial: 5d026

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: Body 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.59$ mho/m; $\epsilon_r = 53$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.69, 4.69, 4.69); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 2; Type: Twin Phantom; Serial: TP-1037
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

d=10mm, Pin=250mW 2/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 12.6 mW/g

d=10mm, Pin=250mW 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 88.7 V/m

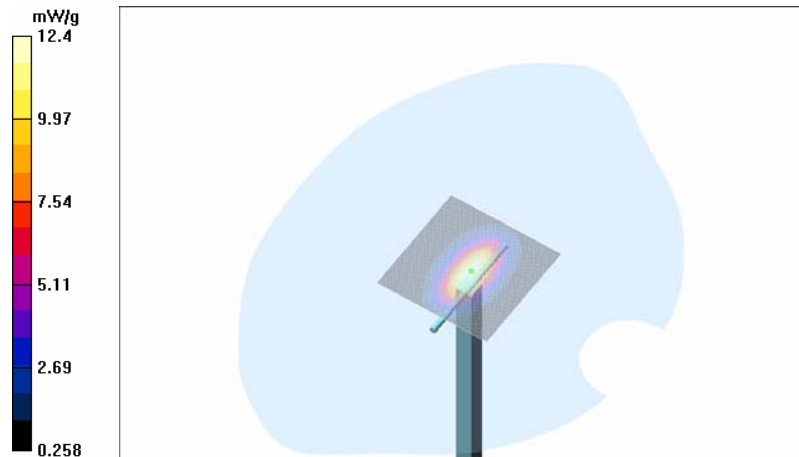
Peak SAR (extrapolated) = 19.7 W/kg

SAR(1 g) = 10.9 mW/g

SAR(10 g) = 5.68 mW/g

Power Drift = -0.018 dB

Maximum value of SAR (measured) = 12.4 mW/g



Date/Time: 2007-12-12 16:25:12

Test Laboratory: TCC Nokia

Type: D2450V2; Serial: 750

Communication System: CW2450

Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: Body 2450; Medium Notes: Medium Temperature: t=22.1 C

Medium parameters used: f = 2450 MHz; $\sigma = 2.01$ mho/m; $\epsilon_r = 51.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(4.12, 4.12, 4.12); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 4; Type: Twin Phantom; Serial: TP-1410
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

d=10mm, Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 16.7 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 75.0 V/m

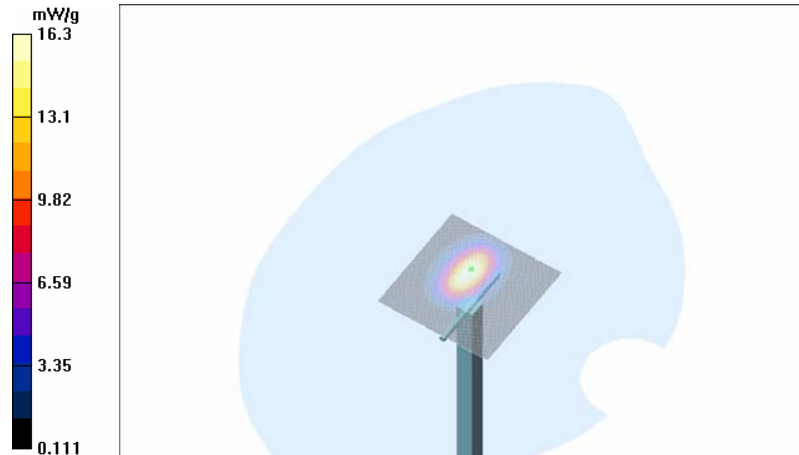
Peak SAR (extrapolated) = 30.0 W/kg

SAR(1 g) = 14.3 mW/g

SAR(10 g) = 6.64 mW/g

Power Drift = -0.036 dB

Maximum value of SAR (measured) = 16.3 mW/g



APPENDIX B: MEASUREMENT SCANS

See the following pages

Date/Time: 2007-11-27 18:10:13

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM850

Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 849$ MHz; $\sigma = 0.919$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - High - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.502 mW/g

Cheek position - High - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.7 V/m

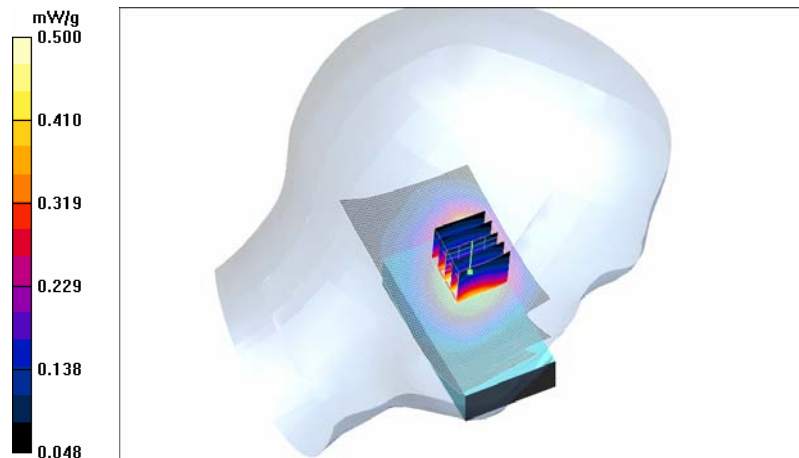
Peak SAR (extrapolated) = 0.620 W/kg

SAR(1 g) = 0.471 mW/g

SAR(10 g) = 0.340 mW/g

Power Drift = 0.017 dB

Maximum value of SAR (measured) = 0.500 mW/g



Date/Time: 2007-11-27 15:53:28

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.907$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

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

Tilt position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.8 V/m

Peak SAR (extrapolated) = 0.550 W/kg

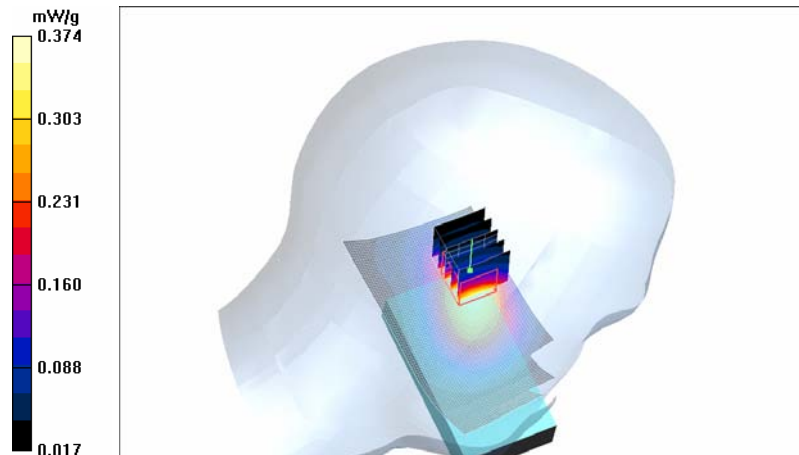
SAR(1 g) = 0.341 mW/g

SAR(10 g) = 0.222 mW/g

Power Drift = -0.237 dB

Warning: Maximum averaged SAR over 10 g is located on the boundary of the measurement cube. This cube might not incorporate the absolute averaged SAR. Please consider a refinement of the Area Scan measurement.

Maximum value of SAR (measured) = 0.374 mW/g



Date/Time: 2007-11-27 16:44:28

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.907$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.423 mW/g

Cheek position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18.9 V/m

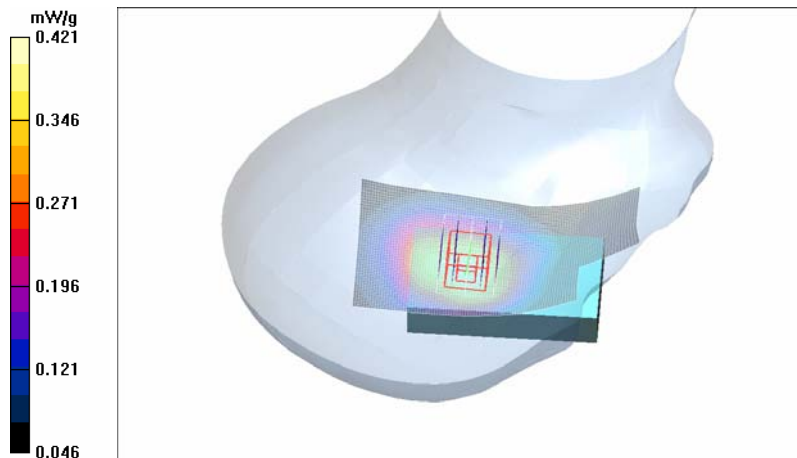
Peak SAR (extrapolated) = 0.513 W/kg

SAR(1 g) = 0.398 mW/g

SAR(10 g) = 0.289 mW/g

Power Drift = -0.094 dB

Maximum value of SAR (measured) = 0.421 mW/g



Date/Time: 2007-11-27 16:58:10

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.907$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.332 mW/g

Tilt position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18.4 V/m

Peak SAR (extrapolated) = 0.422 W/kg

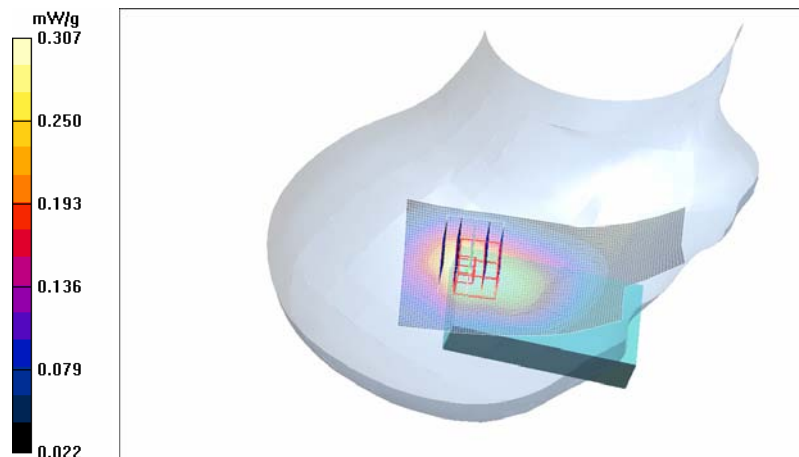
SAR(1 g) = 0.291 mW/g

SAR(10 g) = 0.207 mW/g

Power Drift = 0.047 dB

Warning: Maximum averaged SAR over 10 g is located on the boundary of the measurement cube. This cube might not incorporate the absolute averaged SAR. Please consider a refinement of the Area Scan measurement.

Maximum value of SAR (measured) = 0.307 mW/g



Date/Time: 2007-11-27 16:05:43

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.907$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.207 mW/g

Cheek position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.0 V/m

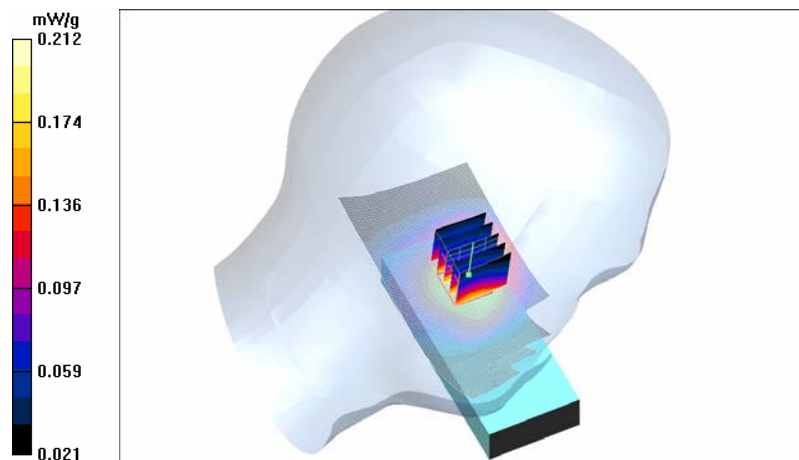
Peak SAR (extrapolated) = 0.258 W/kg

SAR(1 g) = 0.199 mW/g

SAR(10 g) = 0.143 mW/g

Power Drift = 0.151 dB

Maximum value of SAR (measured) = 0.212 mW/g



Date/Time: 2007-11-27 16:20:07

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.907$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.106 mW/g

Tilt position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.79 V/m

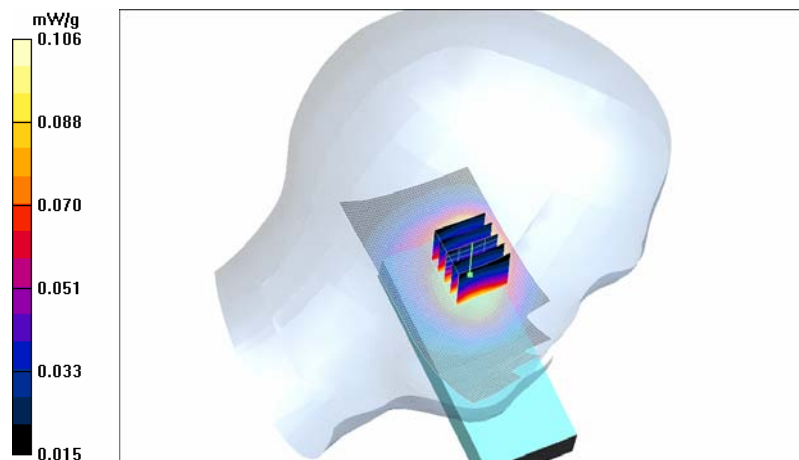
Peak SAR (extrapolated) = 0.132 W/kg

SAR(1 g) = 0.101 mW/g

SAR(10 g) = 0.074 mW/g

Power Drift = 0.037 dB

Maximum value of SAR (measured) = 0.106 mW/g



Date/Time: 2007-11-27 17:10:27

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.907$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.219 mW/g

Cheek position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.34 V/m

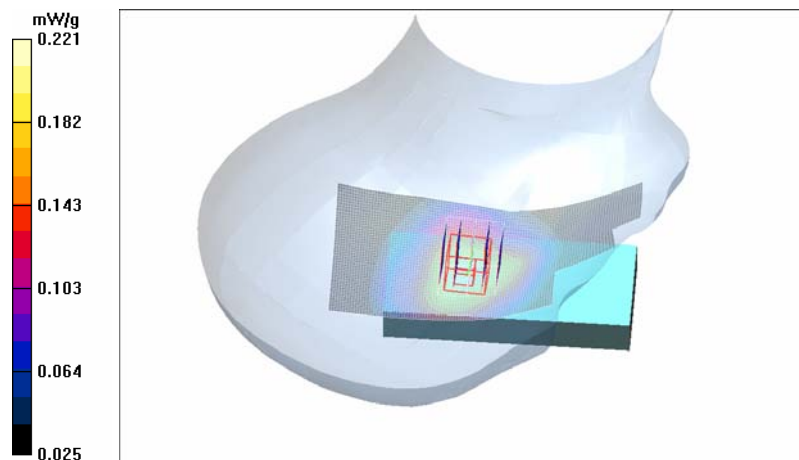
Peak SAR (extrapolated) = 0.266 W/kg

SAR(1 g) = 0.208 mW/g

SAR(10 g) = 0.151 mW/g

Power Drift = 0.164 dB

Maximum value of SAR (measured) = 0.221 mW/g



Date/Time: 2007-11-27 17:35:09

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.907$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.099 mW/g

Tilt position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.59 V/m

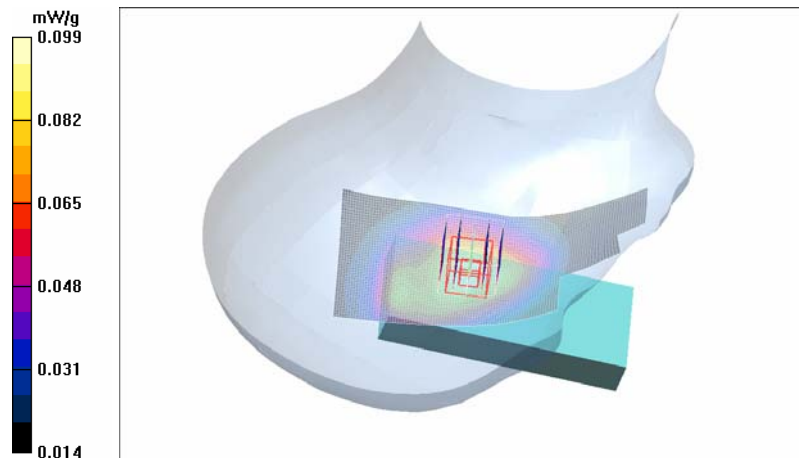
Peak SAR (extrapolated) = 0.120 W/kg

SAR(1 g) = 0.094 mW/g

SAR(10 g) = 0.069 mW/g

Power Drift = 0.026 dB

Maximum value of SAR (measured) = 0.099 mW/g



Date/Time: 2007-11-27 15:22:43

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.2

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.907$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.428 mW/g

Cheek position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.9 V/m

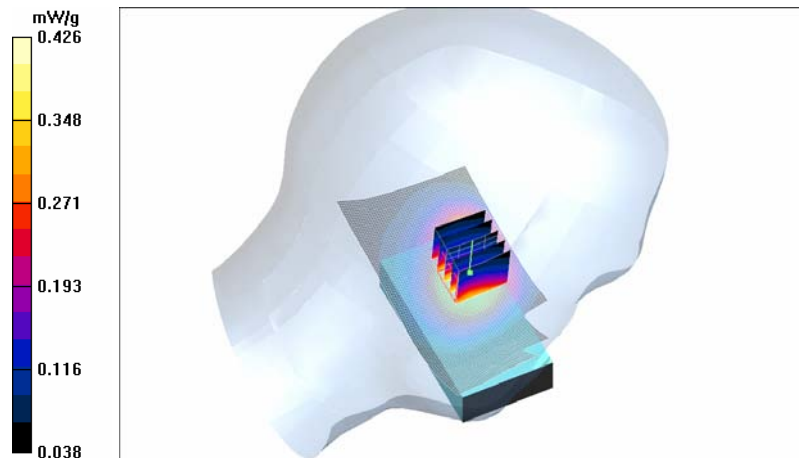
Peak SAR (extrapolated) = 0.541 W/kg

SAR(1 g) = 0.402 mW/g

SAR(10 g) = 0.288 mW/g

Power Drift = -0.071 dB

Maximum value of SAR (measured) = 0.426 mW/g



Date/Time: 2007-11-27 15:37:33

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: 3-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:2.8

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.907$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.402 mW/g

Cheek position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.5 V/m

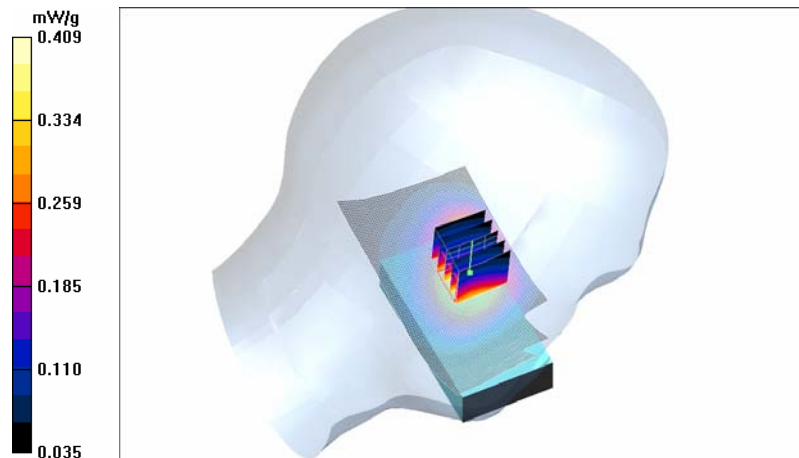
Peak SAR (extrapolated) = 0.510 W/kg

SAR(1 g) = 0.383 mW/g

SAR(10 g) = 0.273 mW/g

Power Drift = -0.054 dB

Maximum value of SAR (measured) = 0.409 mW/g



Date/Time: 2007-11-27 19:13:52

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: 1-slot 8PSK EGPRS850

Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 849$ MHz; $\sigma = 0.919$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - High - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.113 mW/g

Cheek position - High - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.18 V/m

Peak SAR (extrapolated) = 0.160 W/kg

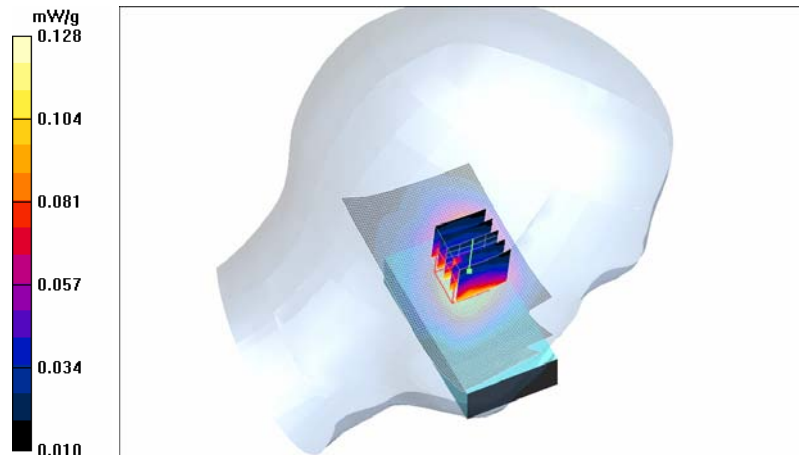
SAR(1 g) = 0.115 mW/g

SAR(10 g) = 0.081 mW/g

Power Drift = 0.142 dB

Warning: Maximum averaged SAR over 10 g is located on the boundary of the measurement cube. This cube might not incorporate the absolute averaged SAR. Please consider a refinement of the Area Scan measurement.

Maximum value of SAR (measured) = 0.128 mW/g



Date/Time: 2007-11-27 18:35:19

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM850

Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 849$ MHz; $\sigma = 0.919$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - High - MPS/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.497 mW/g

Cheek position - High - MPS/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 19.2 V/m

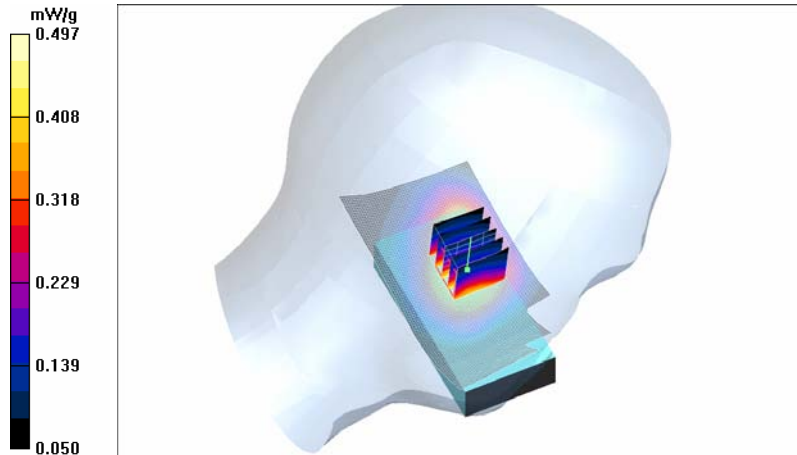
Peak SAR (extrapolated) = 0.600 W/kg

SAR(1 g) = 0.468 mW/g

SAR(10 g) = 0.340 mW/g

Power Drift = 0.071 dB

Maximum value of SAR (measured) = 0.497 mW/g



Date/Time: 2007-11-27 18:23:18

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM850

Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 849$ MHz; $\sigma = 0.919$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - High - Slide closed - BT active/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.502 mW/g

Cheek position - High - Slide closed - BT active/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.9 V/m

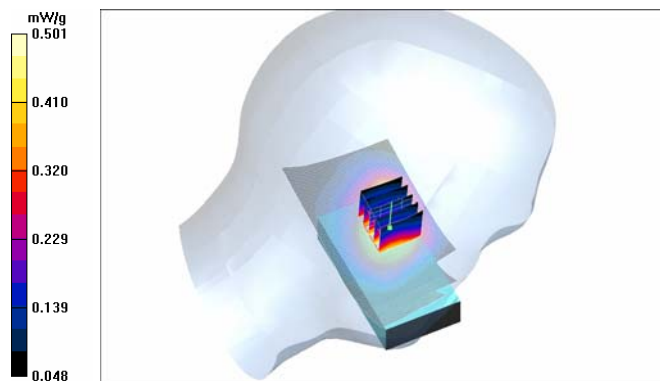
Peak SAR (extrapolated) = 0.615 W/kg

SAR(1 g) = 0.473 mW/g

SAR(10 g) = 0.340 mW/g

Power Drift = 0.026 dB

Maximum value of SAR (measured) = 0.501 mW/g



Date/Time: 2007-11-28 17:27:44

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA850

Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 847$ MHz; $\sigma = 0.945$ mho/m; $\epsilon_r = 42.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - High - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.540 mW/g

Cheek position - High - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18.1 V/m

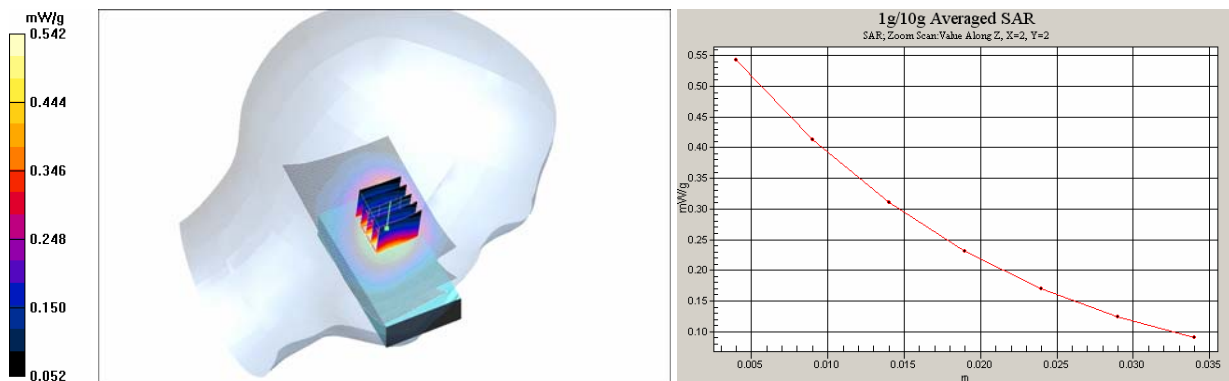
Peak SAR (extrapolated) = 0.670 W/kg

SAR(1 g) = 0.508 mW/g

SAR(10 g) = 0.365 mW/g

Power Drift = -0.013 dB

Maximum value of SAR (measured) = 0.542 mW/g



Date/Time: 2007-11-28 13:20:22

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.935$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.469 mW/g

Tilt position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 19.0 V/m

Peak SAR (extrapolated) = 0.675 W/kg

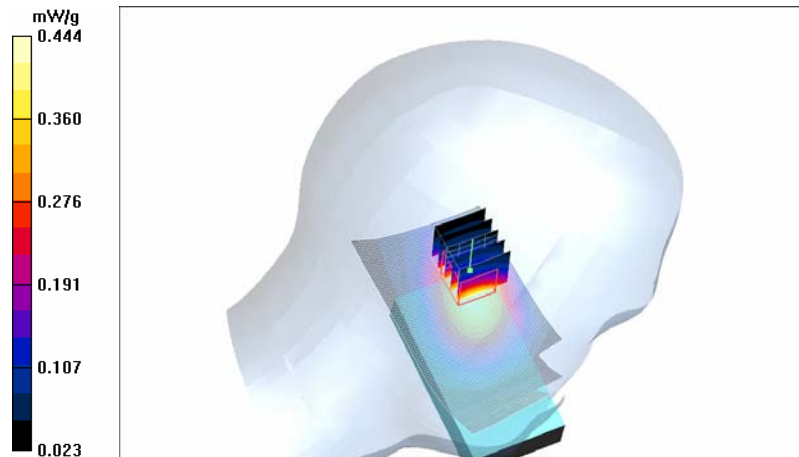
SAR(1 g) = 0.415 mW/g

SAR(10 g) = 0.277 mW/g

Power Drift = -0.080 dB

Warning: Maximum averaged SAR over 10 g is located on the boundary of the measurement cube. This cube might not incorporate the absolute averaged SAR. Please consider a refinement of the Area Scan measurement.

Maximum value of SAR (measured) = 0.444 mW/g



Date/Time: 2007-11-28 15:27:10

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.935$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.521 mW/g

Cheek position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 20.1 V/m

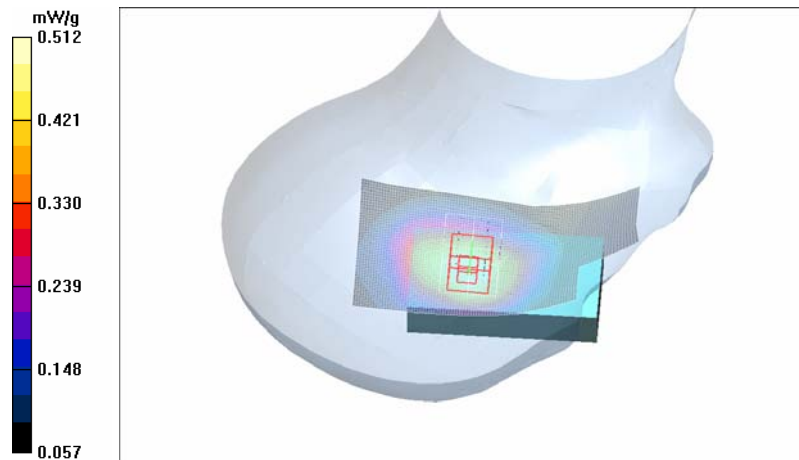
Peak SAR (extrapolated) = 0.602 W/kg

SAR(1 g) = 0.483 mW/g

SAR(10 g) = 0.353 mW/g

Power Drift = 0.013 dB

Maximum value of SAR (measured) = 0.512 mW/g



Date/Time: 2007-11-28 15:41:08

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.935$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.412 mW/g

Tilt position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 20.6 V/m

Peak SAR (extrapolated) = 0.539 W/kg

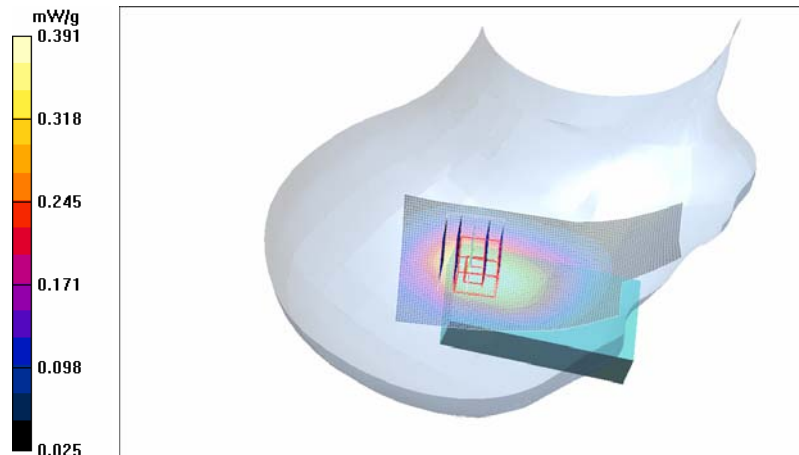
SAR(1 g) = 0.367 mW/g

SAR(10 g) = 0.260 mW/g

Power Drift = -0.018 dB

Warning: Maximum averaged SAR over 10 g is located on the boundary of the measurement cube. This cube might not incorporate the absolute averaged SAR. Please consider a refinement of the Area Scan measurement.

Maximum value of SAR (measured) = 0.391 mW/g



Date/Time: 2007-11-28 13:35:55

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.935$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.272 mW/g

Cheek position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.0 V/m

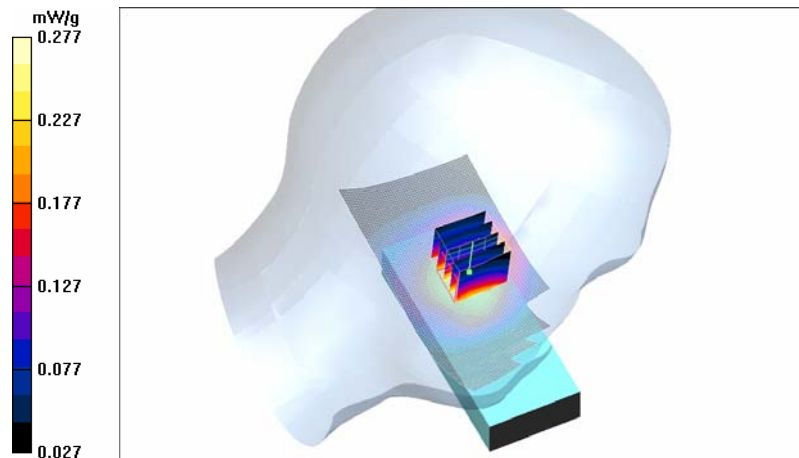
Peak SAR (extrapolated) = 0.335 W/kg

SAR(1 g) = 0.261 mW/g

SAR(10 g) = 0.189 mW/g

Power Drift = 0.080 dB

Maximum value of SAR (measured) = 0.277 mW/g



Date/Time: 2007-11-28 14:11:07

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.935$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

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

Tilt position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.0 V/m

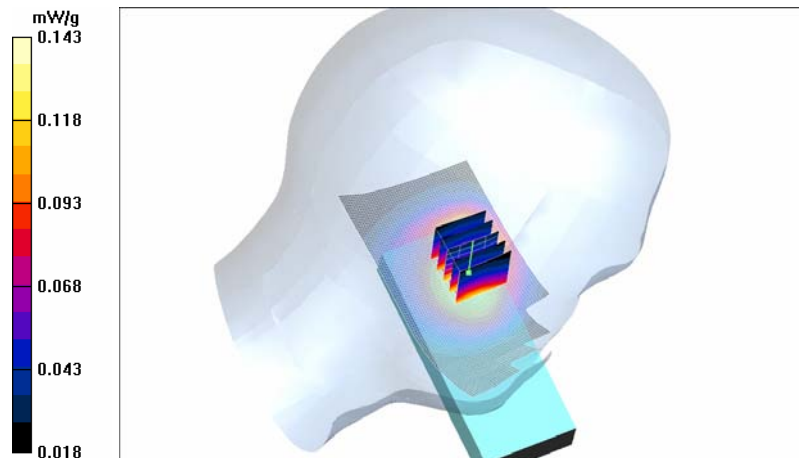
Peak SAR (extrapolated) = 0.175 W/kg

SAR(1 g) = 0.135 mW/g

SAR(10 g) = 0.099 mW/g

Power Drift = -0.006 dB

Maximum value of SAR (measured) = 0.143 mW/g



Date/Time: 2007-11-28 15:54:44

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.935$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.273 mW/g

Cheek position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.7 V/m

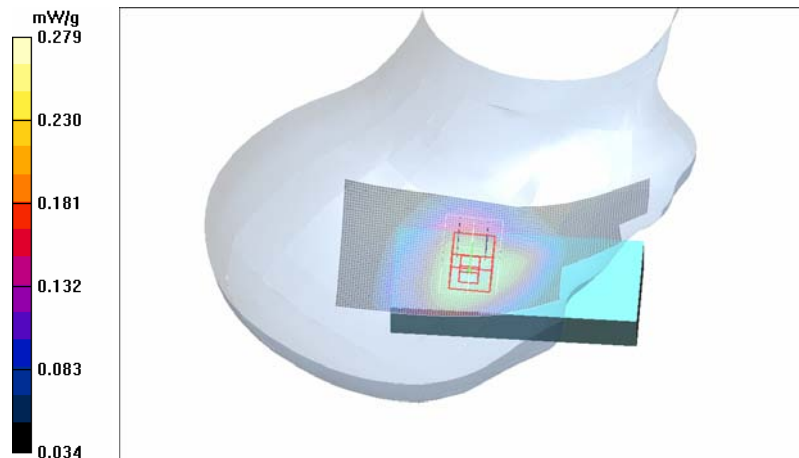
Peak SAR (extrapolated) = 0.330 W/kg

SAR(1 g) = 0.263 mW/g

SAR(10 g) = 0.192 mW/g

Power Drift = 0.127 dB

Maximum value of SAR (measured) = 0.279 mW/g



Date/Time: 2007-11-28 16:08:46

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.935$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.128 mW/g

Tilt position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.53 V/m

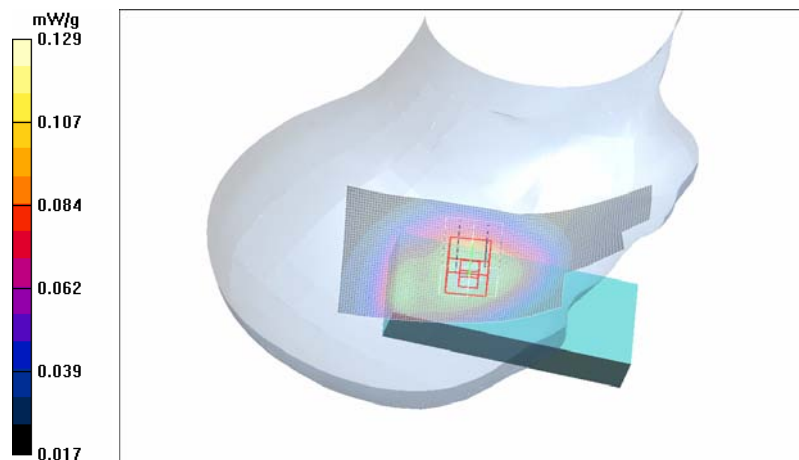
Peak SAR (extrapolated) = 0.156 W/kg

SAR(1 g) = 0.121 mW/g

SAR(10 g) = 0.089 mW/g

Power Drift = 0.029 dB

Maximum value of SAR (measured) = 0.129 mW/g



Date/Time: 2007-11-28 17:52:35

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA850

Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 847$ MHz; $\sigma = 0.945$ mho/m; $\epsilon_r = 42.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - High - MPS/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.495 mW/g

Cheek position - High - MPS/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 19.5 V/m

Peak SAR (extrapolated) = 0.607 W/kg

SAR(1 g) = 0.471 mW/g

SAR(10 g) = 0.343 mW/g

Power Drift = 0.191 dB

Maximum value of SAR (measured) = 0.497 mW/g



Date/Time: 2007-11-28 17:40:14

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA850

Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 21.1 C

Medium parameters used: $f = 847$ MHz; $\sigma = 0.945$ mho/m; $\epsilon_r = 42.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.98, 5.98, 5.98); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 1; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - High - Slide closed - BT active/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.540 mW/g

Cheek position - High - Slide closed - BT active/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18.0 V/m

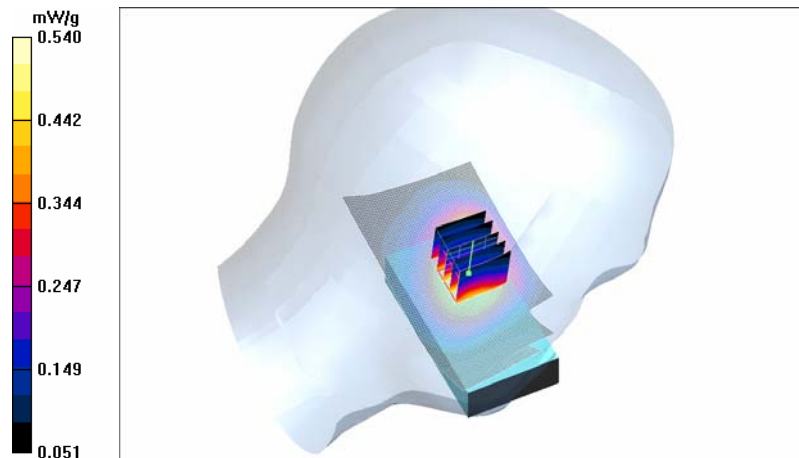
Peak SAR (extrapolated) = 0.665 W/kg

SAR(1 g) = 0.506 mW/g

SAR(10 g) = 0.363 mW/g

Power Drift = 0.026 dB

Maximum value of SAR (measured) = 0.540 mW/g



Date/Time: 2007-12-10 16:14:52

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM 1900

Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Head 1900; Medium Notes: Medium Temperature: 20.9 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.3$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.05, 5.05, 5.05); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.319 mW/g

Cheek position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.8 V/m

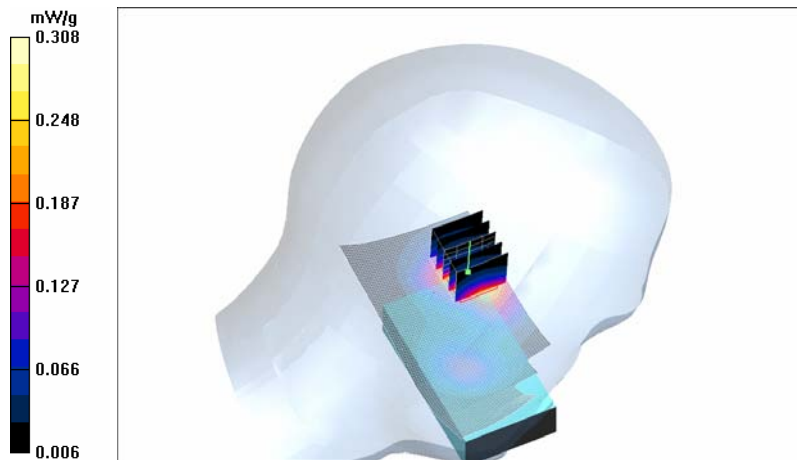
Peak SAR (extrapolated) = 0.476 W/kg

SAR(1 g) = 0.280 mW/g

SAR(10 g) = 0.159 mW/g

Power Drift = -0.061 dB

Maximum value of SAR (measured) = 0.308 mW/g



Date/Time: 2007-12-10 18:56:03

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM 1900

Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: Head 1900; Medium Notes: Medium Temperature: 20.9 C

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.05, 5.05, 5.05); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - High - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.458 mW/g

Tilt position - High - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.5 V/m

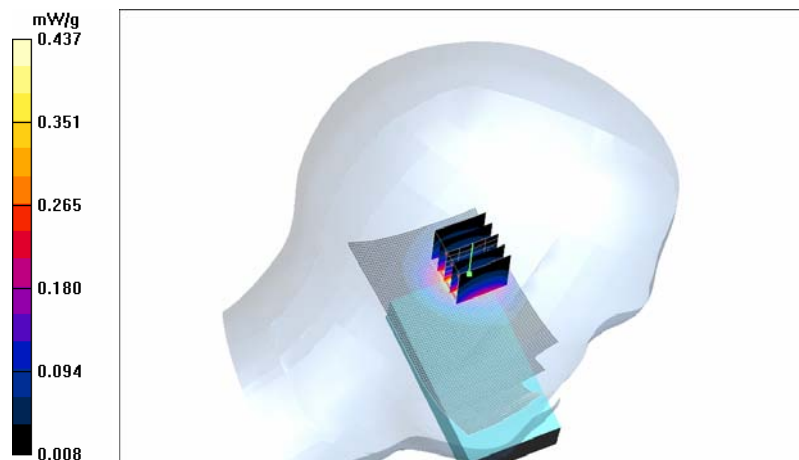
Peak SAR (extrapolated) = 0.654 W/kg

SAR(1 g) = 0.398 mW/g

SAR(10 g) = 0.224 mW/g

Power Drift = 0.004 dB

Maximum value of SAR (measured) = 0.437 mW/g



Date/Time: 2007-12-10 17:43:53

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM 1900

Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Head 1900; Medium Notes: Medium Temperature: 20.9 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.05, 5.05, 5.05); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.234 mW/g

Cheek position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.7 V/m

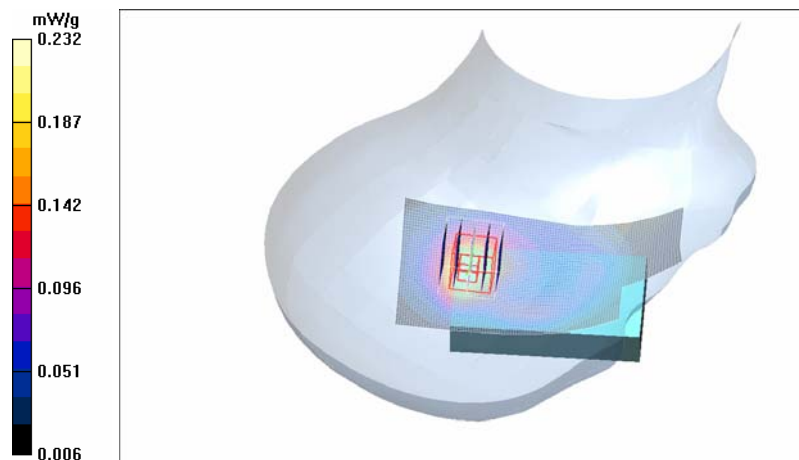
Peak SAR (extrapolated) = 0.345 W/kg

SAR(1 g) = 0.210 mW/g

SAR(10 g) = 0.123 mW/g

Power Drift = -0.071 dB

Maximum value of SAR (measured) = 0.232 mW/g



Date/Time: 2007-12-10 17:58:05

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM 1900

Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Head 1900; Medium Notes: Medium Temperature: 20.9 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.05, 5.05, 5.05); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.395 mW/g

Tilt position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.2 V/m

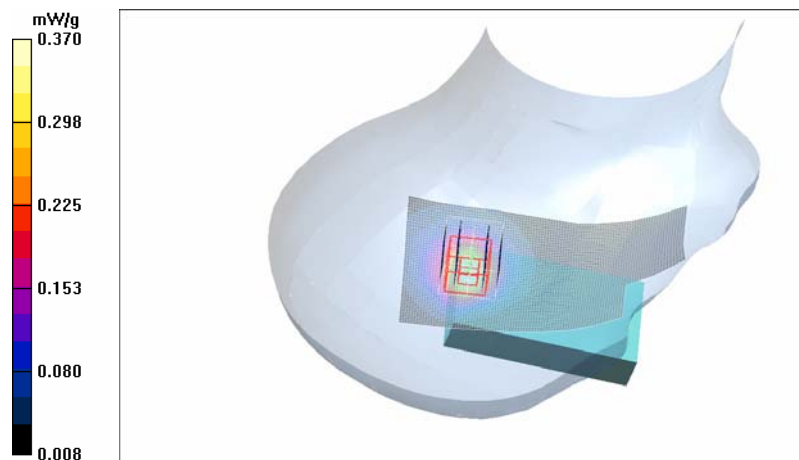
Peak SAR (extrapolated) = 0.551 W/kg

SAR(1 g) = 0.331 mW/g

SAR(10 g) = 0.187 mW/g

Power Drift = 0.004 dB

Maximum value of SAR (measured) = 0.370 mW/g



Date/Time: 2007-12-10 17:14:47

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM 1900

Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Head 1900; Medium Notes: Medium Temperature: 20.9 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.3$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.05, 5.05, 5.05); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

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

Cheek position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.36 V/m

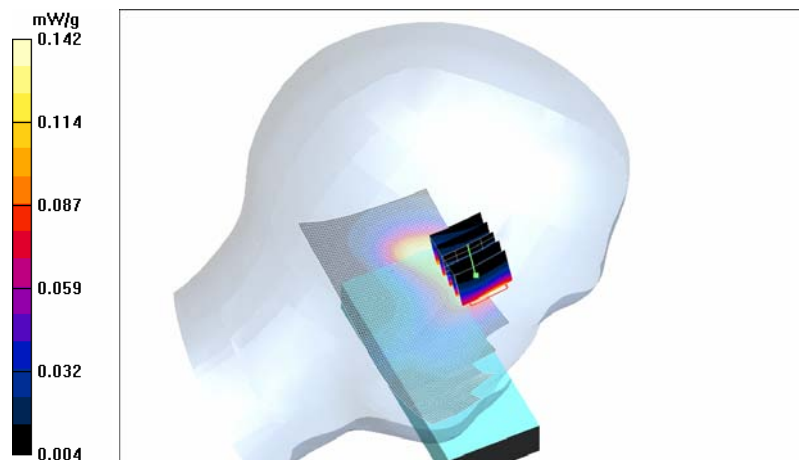
Peak SAR (extrapolated) = 0.244 W/kg

SAR(1 g) = 0.132 mW/g

SAR(10 g) = 0.073 mW/g

Power Drift = 0.151 dB

Maximum value of SAR (measured) = 0.142 mW/g



Date/Time: 2007-12-10 17:29:25

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM 1900

Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Head 1900; Medium Notes: Medium Temperature: 20.9 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.3$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.05, 5.05, 5.05); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.247 mW/g

Tilt position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.0 V/m

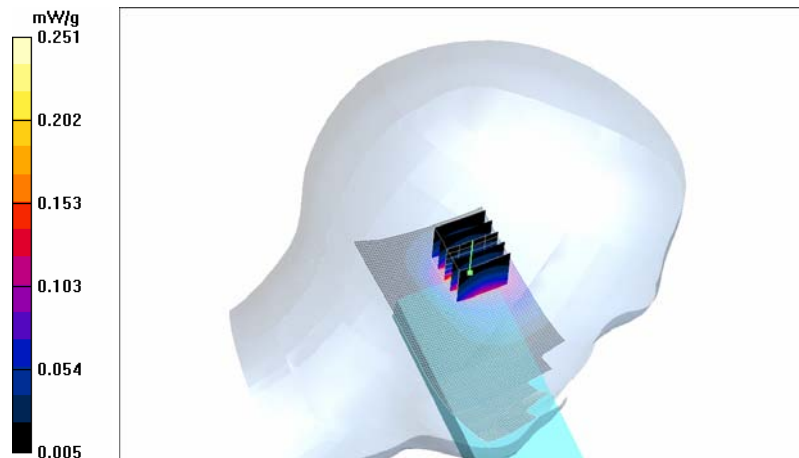
Peak SAR (extrapolated) = 0.381 W/kg

SAR(1 g) = 0.224 mW/g

SAR(10 g) = 0.123 mW/g

Power Drift = -0.027 dB

Maximum value of SAR (measured) = 0.251 mW/g



Date/Time: 2007-12-10 18:09:59

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM 1900

Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Head 1900; Medium Notes: Medium Temperature: 20.9 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.05, 5.05, 5.05); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.164 mW/g

Cheek position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.7 V/m

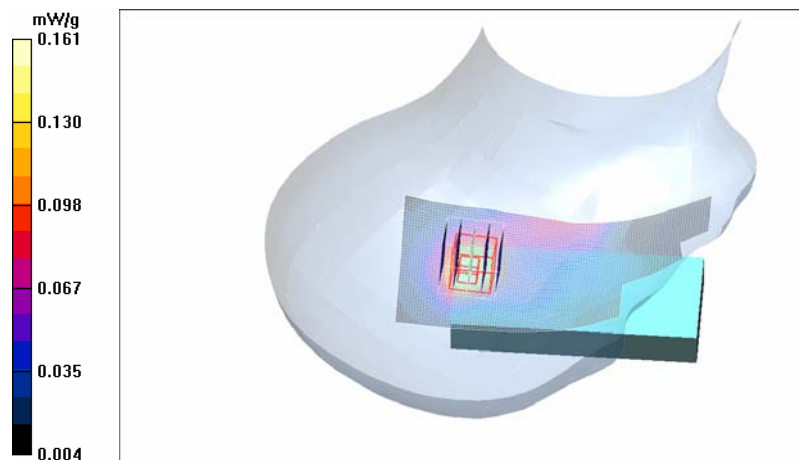
Peak SAR (extrapolated) = 0.242 W/kg

SAR(1 g) = 0.145 mW/g

SAR(10 g) = 0.085 mW/g

Power Drift = 0.027 dB

Maximum value of SAR (measured) = 0.161 mW/g



Date/Time: 2007-12-10 18:24:43

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM 1900

Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Head 1900; Medium Notes: Medium Temperature: 20.9 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.05, 5.05, 5.05); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.267 mW/g

Tilt position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.6 V/m

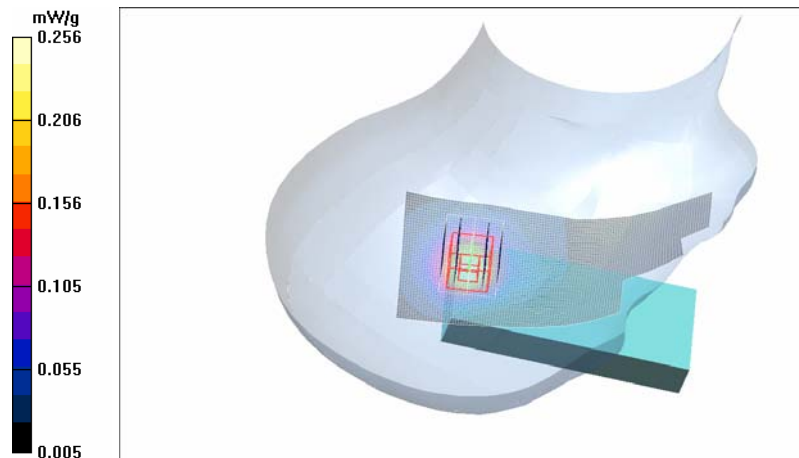
Peak SAR (extrapolated) = 0.383 W/kg

SAR(1 g) = 0.229 mW/g

SAR(10 g) = 0.128 mW/g

Power Drift = -0.010 dB

Maximum value of SAR (measured) = 0.256 mW/g



Date/Time: 2007-12-10 16:31:26

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: 2-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:4.2

Medium: Head 1900; Medium Notes: Medium Temperature: 20.9 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.3$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.05, 5.05, 5.05); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position – Middle – Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.298 mW/g

Cheek position – Middle – Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.4 V/m

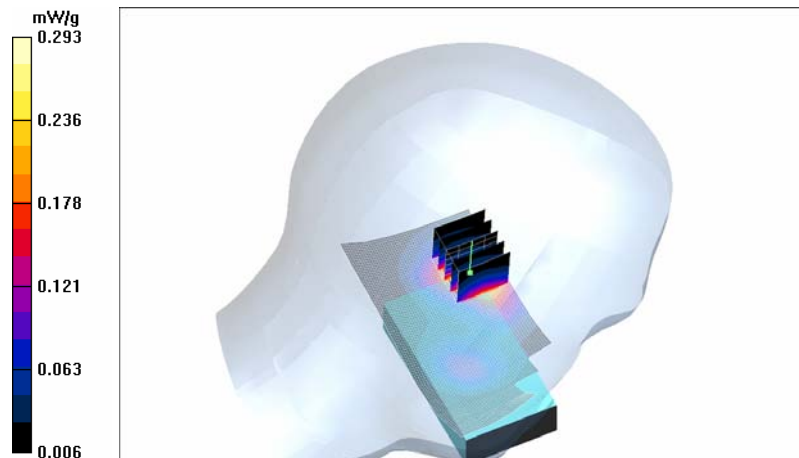
Peak SAR (extrapolated) = 0.441 W/kg

SAR(1 g) = 0.262 mW/g

SAR(10 g) = 0.148 mW/g

Power Drift = -0.088 dB

Maximum value of SAR (measured) = 0.293 mW/g



Date/Time: 2007-12-10 16:46:21

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: 3-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.8

Medium: Head 1900; Medium Notes: Medium Temperature: 20.9 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.3$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.05, 5.05, 5.05); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position – Middle – Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.285 mW/g

Cheek position – Middle – Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.1 V/m

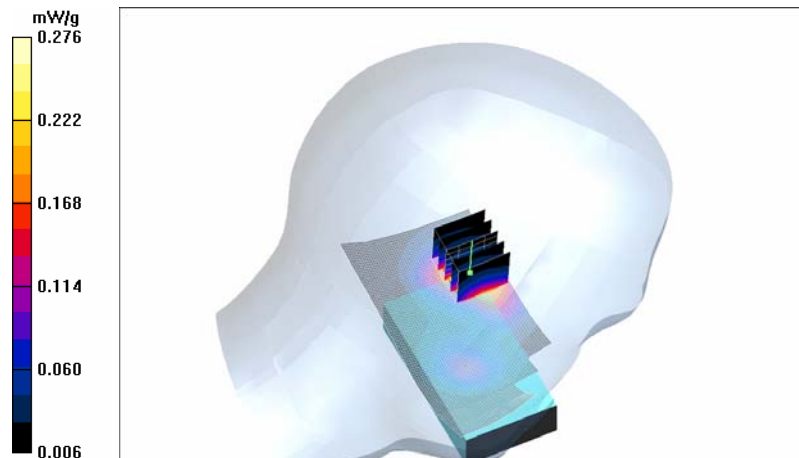
Peak SAR (extrapolated) = 0.426 W/kg

SAR(1 g) = 0.250 mW/g

SAR(10 g) = 0.142 mW/g

Power Drift = -0.056 dB

Maximum value of SAR (measured) = 0.276 mW/g



Date/Time: 2007-12-10 20:01:00

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: 1-slot 8PSK EGPRS 1900

Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: Head 1900; Medium Notes: Medium Temperature: 20.9 C

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.05, 5.05, 5.05); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - High - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.163 mW/g

Tilt position - High - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.85 V/m

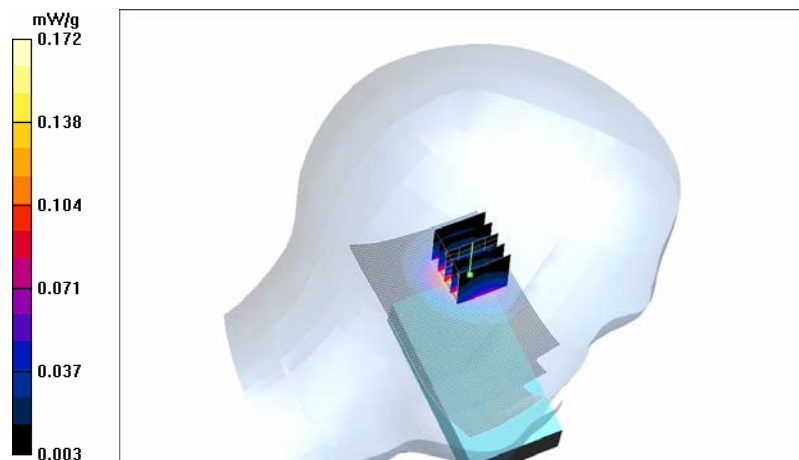
Peak SAR (extrapolated) = 0.244 W/kg

SAR(1 g) = 0.151 mW/g

SAR(10 g) = 0.083 mW/g

Power Drift = -0.262 dB

Maximum value of SAR (measured) = 0.172 mW/g



Date/Time: 2007-12-10 19:19:14

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM 1900

Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: Head 1900; Medium Notes: Medium Temperature: 20.9 C

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.05, 5.05, 5.05); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - High - MPS/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.442 mW/g

Tilt position - High - MPS/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.3 V/m

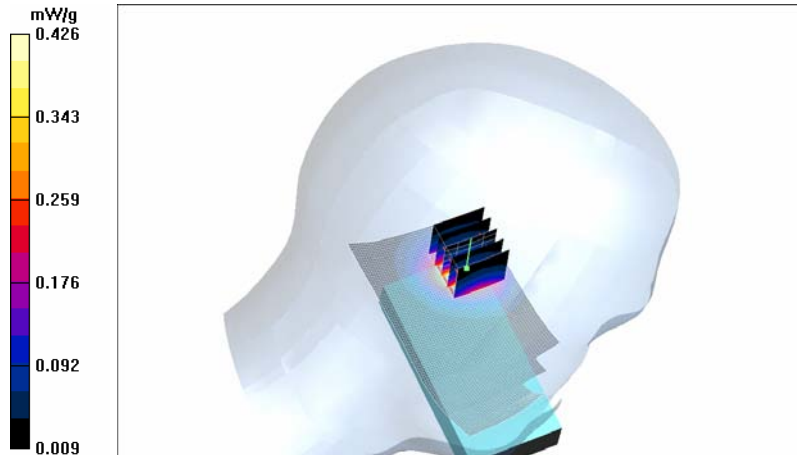
Peak SAR (extrapolated) = 0.616 W/kg

SAR(1 g) = 0.389 mW/g

SAR(10 g) = 0.224 mW/g

Power Drift = 0.019 dB

Maximum value of SAR (measured) = 0.426 mW/g



Date/Time: 2007-12-10 19:07:59

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM 1900

Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: Head 1900; Medium Notes: Medium Temperature: 20.9 C

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.05, 5.05, 5.05); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - High - Slide closed - BT active/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.471 mW/g

Tilt position - High - Slide closed - BT active/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.6 V/m

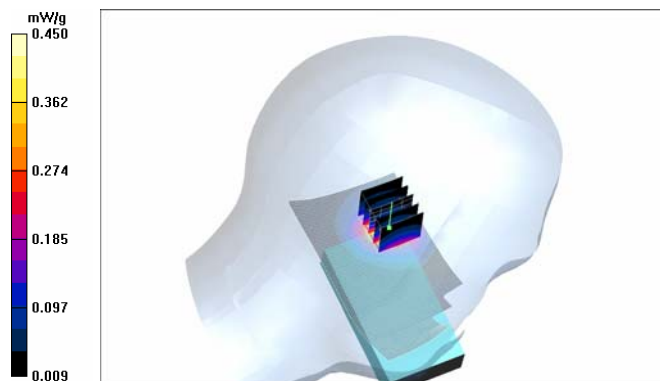
Peak SAR (extrapolated) = 0.676 W/kg

SAR(1 g) = 0.408 mW/g

SAR(10 g) = 0.230 mW/g

Power Drift = -0.022 dB

Maximum value of SAR (measured) = 0.450 mW/g



Date/Time: 2007-11-29 15:29:59

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3118; Probe Notes:
- ConvF(5.26, 5.26, 5.26); Calibrated: 2007-10-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 2007-02-21
- Phantom: SAM 6; Type: SAM Twin Phantom; Serial: TP-1301
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

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

Cheek position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.9 V/m

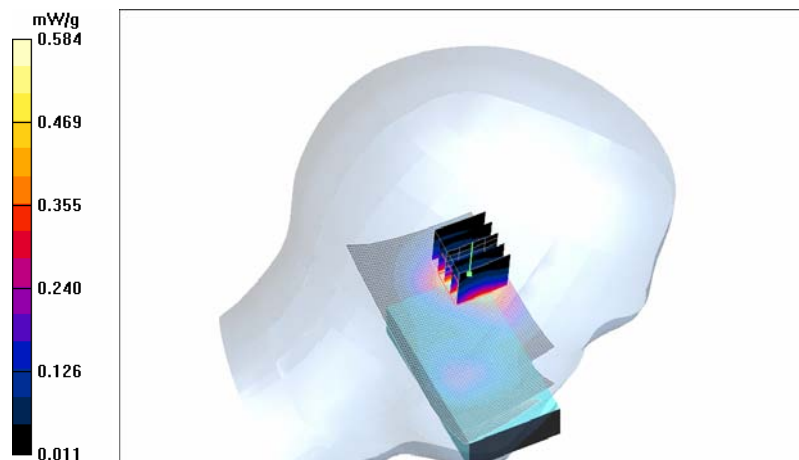
Peak SAR (extrapolated) = 0.891 W/kg

SAR(1 g) = 0.521 mW/g

SAR(10 g) = 0.297 mW/g

Power Drift = -0.242 dB

Maximum value of SAR (measured) = 0.584 mW/g



Date/Time: 2007-11-29 15:44:18

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3118; Probe Notes:
- ConvF(5.26, 5.26, 5.26); Calibrated: 2007-10-26
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 2007-02-21
- Phantom: SAM 6; Type: SAM Twin Phantom; Serial: TP-1301
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.733 mW/g

Tilt position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 21.0 V/m

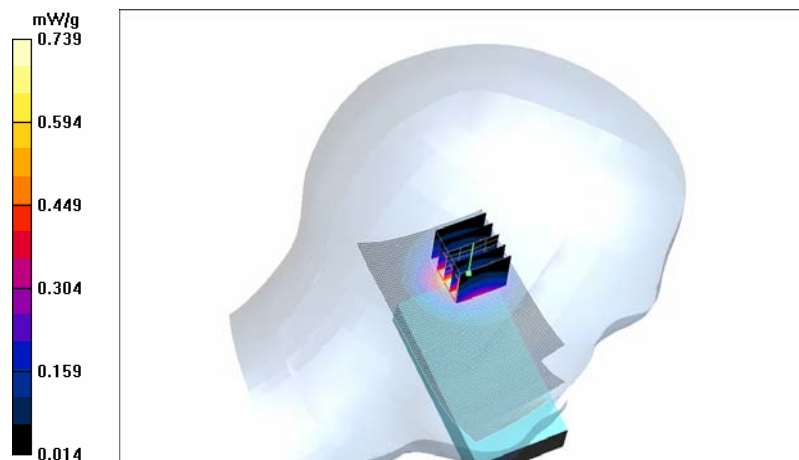
Peak SAR (extrapolated) = 1.10 W/kg

SAR(1 g) = 0.665 mW/g

SAR(10 g) = 0.377 mW/g

Power Drift = 0.025 dB

Maximum value of SAR (measured) = 0.739 mW/g



Date/Time: 2007-11-29 16:33:22

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3118; Probe Notes:
- ConvF(5.26, 5.26, 5.26); Calibrated: 2007-10-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 2007-02-21
- Phantom: SAM 6; Type: SAM Twin Phantom; Serial: TP-1301
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.420 mW/g

Cheek position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.8 V/m

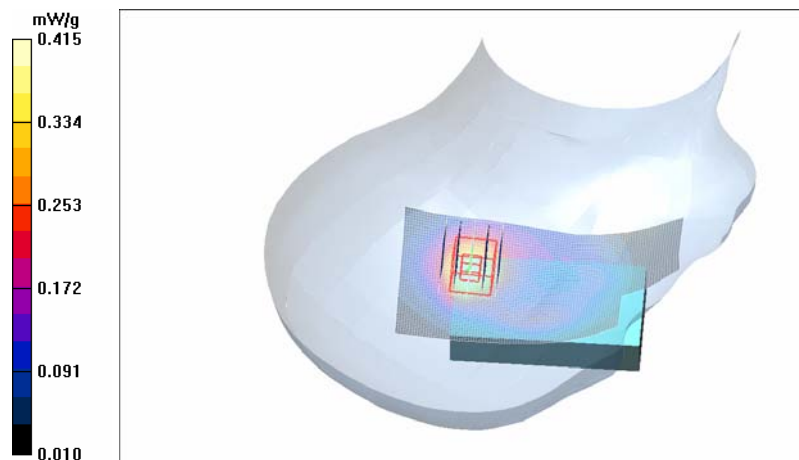
Peak SAR (extrapolated) = 0.606 W/kg

SAR(1 g) = 0.378 mW/g

SAR(10 g) = 0.225 mW/g

Power Drift = -0.025 dB

Maximum value of SAR (measured) = 0.415 mW/g



Date/Time: 2007-11-29 16:48:14

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3118; Probe Notes:
- ConvF(5.26, 5.26, 5.26); Calibrated: 2007-10-26
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 2007-02-21
- Phantom: SAM 6; Type: SAM Twin Phantom; Serial: TP-1301
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.578 mW/g

Tilt position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 19.9 V/m

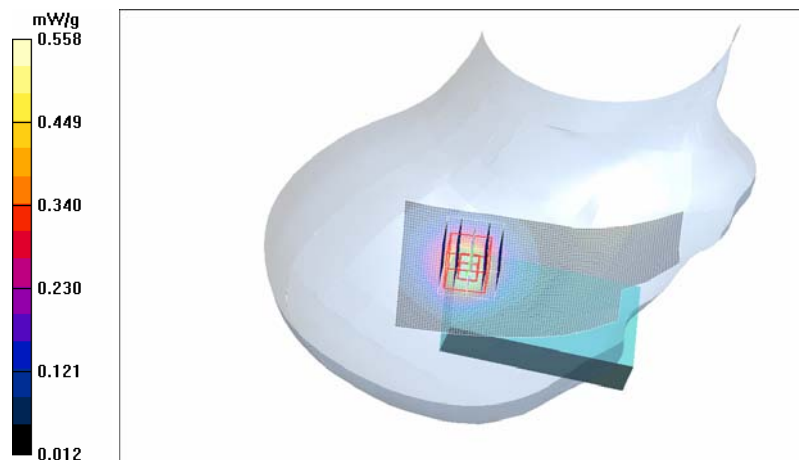
Peak SAR (extrapolated) = 0.815 W/kg

SAR(1 g) = 0.507 mW/g

SAR(10 g) = 0.294 mW/g

Power Drift = 0.008 dB

Maximum value of SAR (measured) = 0.558 mW/g



Date/Time: 2007-11-29 15:57:11

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3118; Probe Notes:
- ConvF(5.26, 5.26, 5.26); Calibrated: 2007-10-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 2007-02-21
- Phantom: SAM 6; Type: SAM Twin Phantom; Serial: TP-1301
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.319 mW/g

Cheek position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.1 V/m

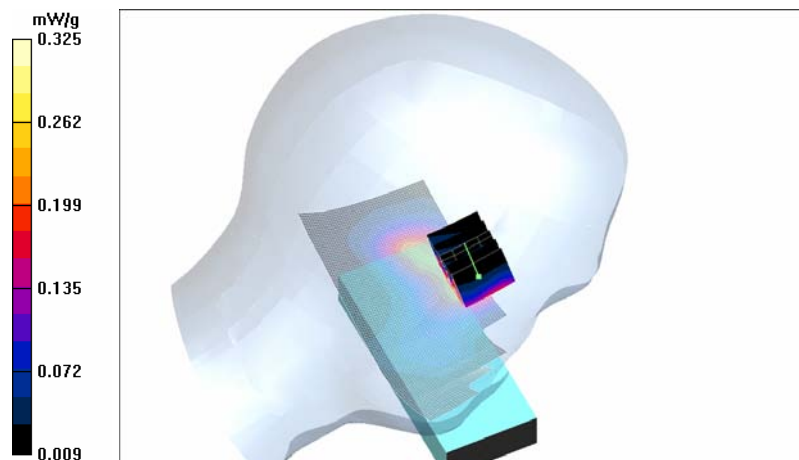
Peak SAR (extrapolated) = 0.564 W/kg

SAR(1 g) = 0.299 mW/g

SAR(10 g) = 0.163 mW/g

Power Drift = -0.027 dB

Maximum value of SAR (measured) = 0.325 mW/g



Date/Time: 2007-11-29 16:12:25

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3118; Probe Notes:
- ConvF(5.26, 5.26, 5.26); Calibrated: 2007-10-26
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 2007-02-21
- Phantom: SAM 6; Type: SAM Twin Phantom; Serial: TP-1301
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.422 mW/g

Tilt position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.3 V/m

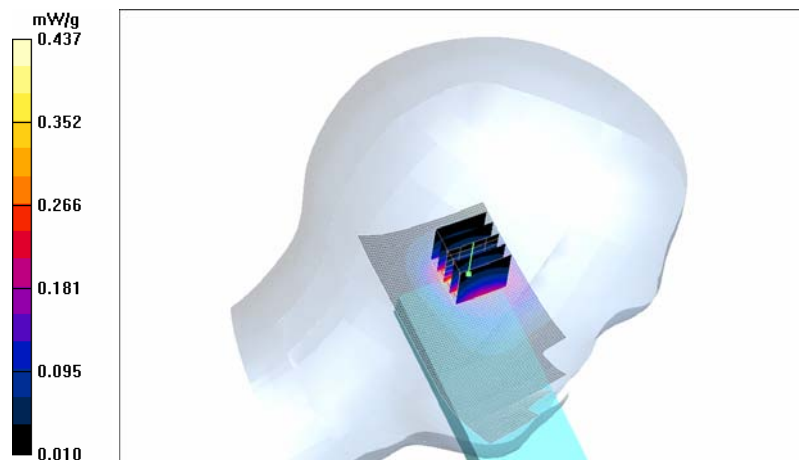
Peak SAR (extrapolated) = 0.643 W/kg

SAR(1 g) = 0.390 mW/g

SAR(10 g) = 0.222 mW/g

Power Drift = 0.001 dB

Maximum value of SAR (measured) = 0.437 mW/g



Date/Time: 2007-11-29 17:00:59

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3118; Probe Notes:
- ConvF(5.26, 5.26, 5.26); Calibrated: 2007-10-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 2007-02-21
- Phantom: SAM 6; Type: SAM Twin Phantom; Serial: TP-1301
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.228 mW/g

Cheek position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.7 V/m

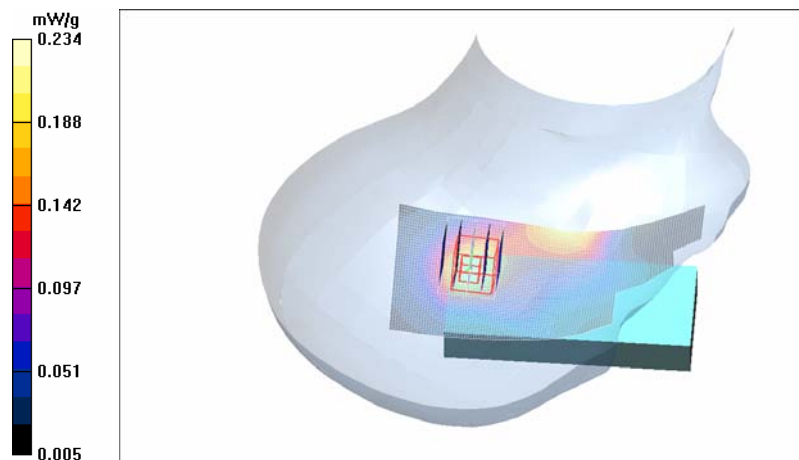
Peak SAR (extrapolated) = 0.341 W/kg

SAR(1 g) = 0.213 mW/g

SAR(10 g) = 0.129 mW/g

Power Drift = -0.022 dB

Maximum value of SAR (measured) = 0.234 mW/g



Date/Time: 2007-11-29 17:15:05

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3118; Probe Notes:
- ConvF(5.26, 5.26, 5.26); Calibrated: 2007-10-26
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 2007-02-21
- Phantom: SAM 6; Type: SAM Twin Phantom; Serial: TP-1301
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.419 mW/g

Tilt position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.2 V/m

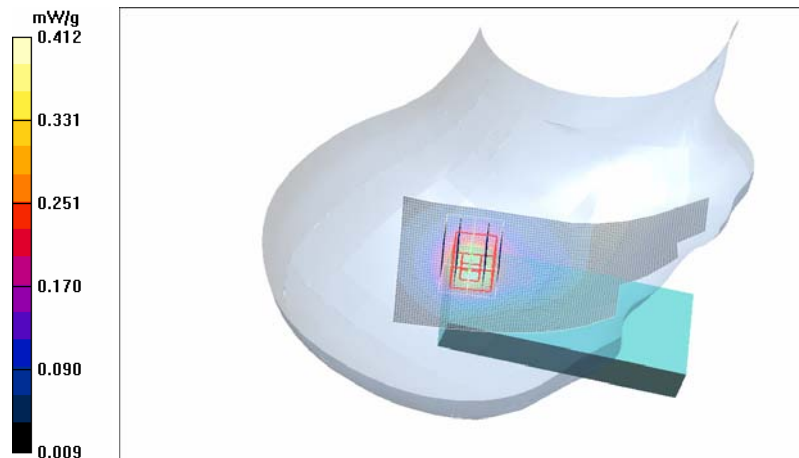
Peak SAR (extrapolated) = 0.605 W/kg

SAR(1 g) = 0.370 mW/g

SAR(10 g) = 0.211 mW/g

Power Drift = -0.076 dB

Maximum value of SAR (measured) = 0.412 mW/g



Date/Time: 2007-11-29 18:14:07

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3118; Probe Notes:
- ConvF(5.26, 5.26, 5.26); Calibrated: 2007-10-26
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 2007-02-21
- Phantom: SAM 6; Type: SAM Twin Phantom; Serial: TP-1301
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - MPS/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.700 mW/g

Tilt position - Middle - MPS/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 20.0 V/m

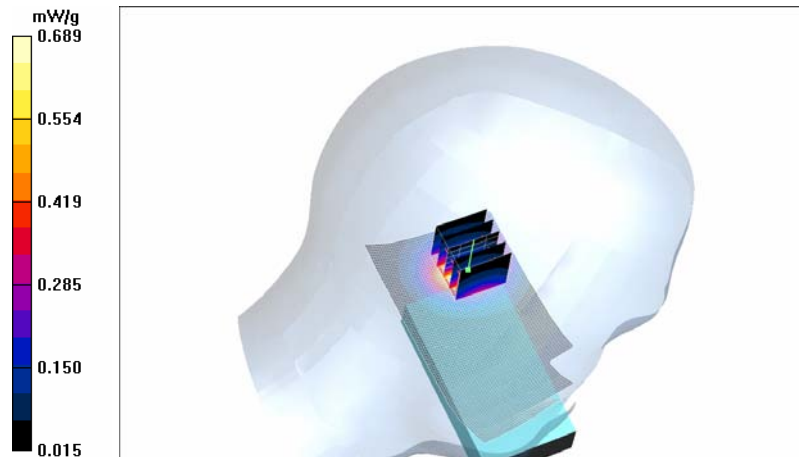
Peak SAR (extrapolated) = 0.966 W/kg

SAR(1 g) = 0.628 mW/g

SAR(10 g) = 0.372 mW/g

Power Drift = -0.065 dB

Maximum value of SAR (measured) = 0.689 mW/g



Date/Time: 2007-11-29 18:01:51

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3118; Probe Notes:
- ConvF(5.26, 5.26, 5.26); Calibrated: 2007-10-26
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 2007-02-21
- Phantom: SAM 6; Type: SAM Twin Phantom; Serial: TP-1301
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide closed - BT active/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.729 mW/g

Tilt position - Middle - Slide closed - BT active/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 21.9 V/m

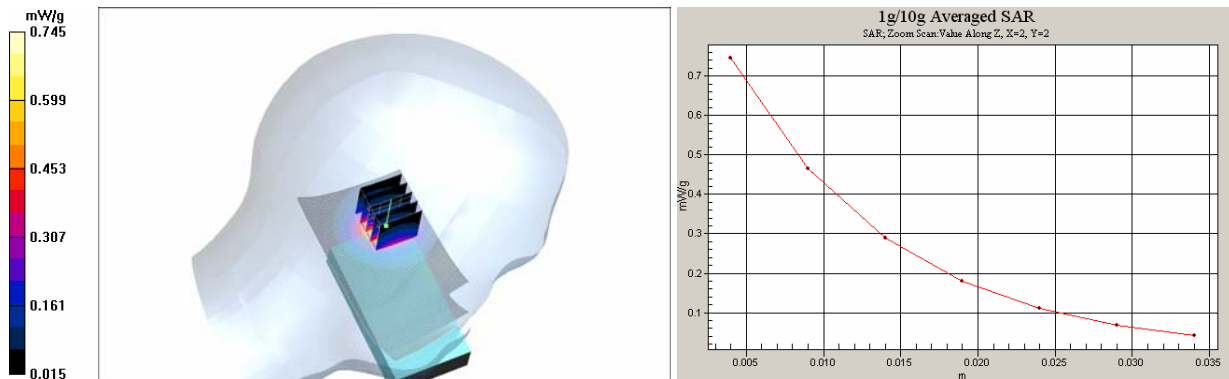
Peak SAR (extrapolated) = 1.09 W/kg

SAR(1 g) = 0.669 mW/g

SAR(10 g) = 0.381 mW/g

Power Drift = -0.015 dB

Maximum value of SAR (measured) = 0.745 mW/g



Date/Time: 2007-12-11 15:17:18

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740028/0

Communication System: WLAN2450

Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: 22.1 C

Medium parameters used: $f = 2442$ MHz; $\sigma = 1.83$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(4.41, 4.41, 4.41); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 4; Type: Twin Phantom; Serial: TP-1410
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.104 mW/g

Cheek position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 2.64 V/m

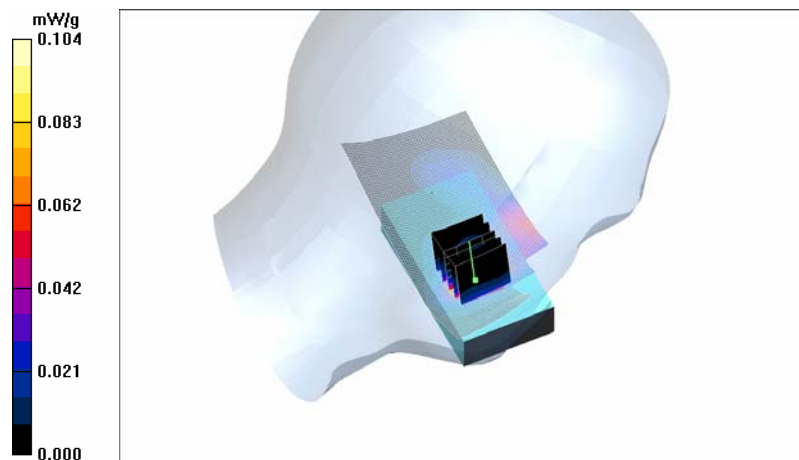
Peak SAR (extrapolated) = 0.157 W/kg

SAR(1 g) = 0.093 mW/g

SAR(10 g) = 0.048 mW/g

Power Drift = 0.048 dB

Maximum value of SAR (measured) = 0.104 mW/g



Date/Time: 2007-12-11 15:40:48

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740028/0

Communication System: WLAN2450

Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: 22.1 C

Medium parameters used: $f = 2442$ MHz; $\sigma = 1.83$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(4.41, 4.41, 4.41); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 4; Type: Twin Phantom; Serial: TP-1410
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.046 mW/g

Tilt position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.51 V/m

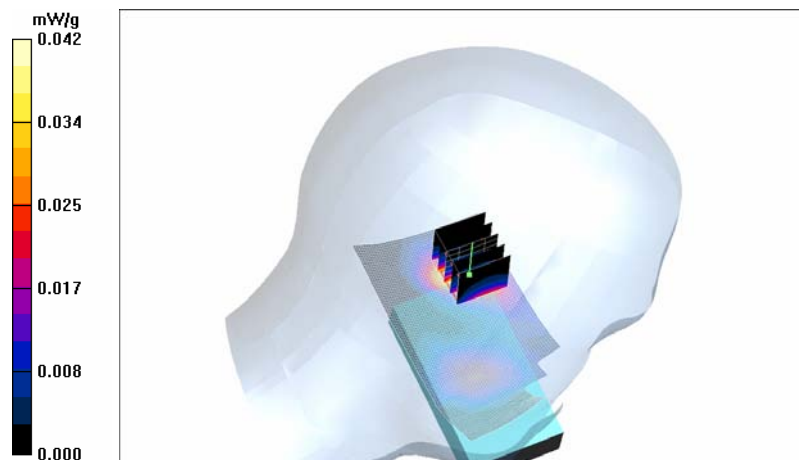
Peak SAR (extrapolated) = 0.071 W/kg

SAR(1 g) = 0.038 mW/g

SAR(10 g) = 0.020 mW/g

Power Drift = 0.469 dB

Maximum value of SAR (measured) = 0.042 mW/g



Date/Time: 2007-12-11 20:34:18

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740028/0

Communication System: WLAN2450

Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: 22.1 C

Medium parameters used: $f = 2412$ MHz; $\sigma = 1.8$ mho/m; $\epsilon_r = 38.7$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(4.41, 4.41, 4.41); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 4; Type: Twin Phantom; Serial: TP-1410
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Low - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.111 mW/g

Cheek position - Low - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 2.41 V/m

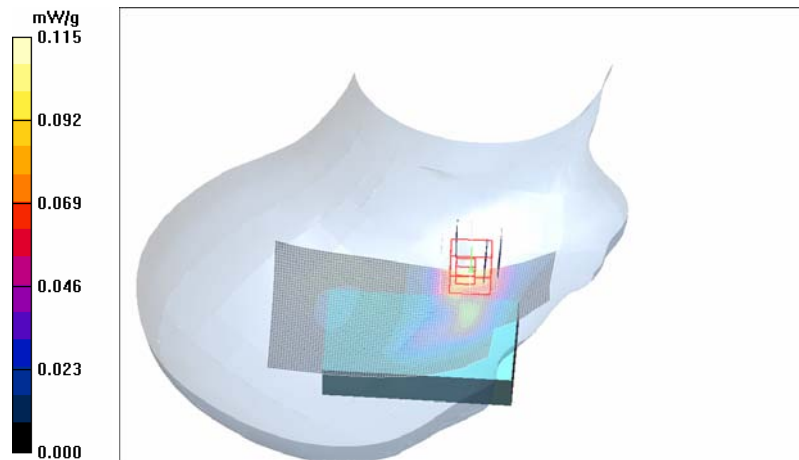
Peak SAR (extrapolated) = 0.222 W/kg

SAR(1 g) = 0.102 mW/g

SAR(10 g) = 0.051 mW/g

Power Drift = 0.473 dB

Maximum value of SAR (measured) = 0.115 mW/g



Date/Time: 2007-12-11 18:07:57

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740028/0

Communication System: WLAN2450

Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: 22.1 C

Medium parameters used: $f = 2442$ MHz; $\sigma = 1.83$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(4.41, 4.41, 4.41); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 4; Type: Twin Phantom; Serial: TP-1410
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

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

Tilt position - Middle - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.19 V/m

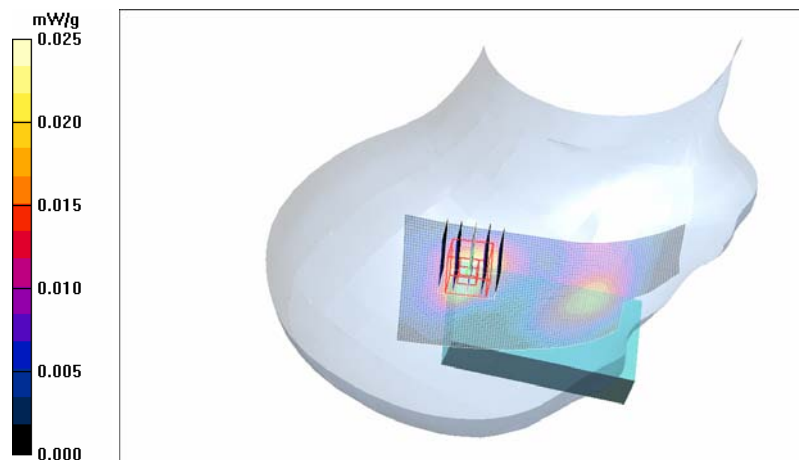
Peak SAR (extrapolated) = 0.085 W/kg

SAR(1 g) = 0.022 mW/g

SAR(10 g) = 0.011 mW/g

Power Drift = 0.470 dB

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



Date/Time: 2007-12-11 16:37:17

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740028/0

Communication System: WLAN2450

Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: 22.1 C

Medium parameters used: $f = 2442$ MHz; $\sigma = 1.83$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(4.41, 4.41, 4.41); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 4; Type: Twin Phantom; Serial: TP-1410
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.052 mW/g

Cheek position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 1.39 V/m

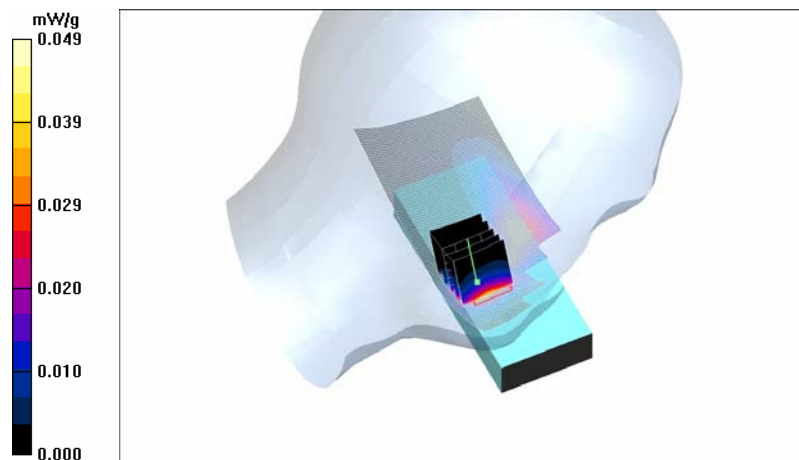
Peak SAR (extrapolated) = 0.084 W/kg

SAR(1 g) = 0.047 mW/g

SAR(10 g) = 0.025 mW/g

Power Drift = 0.492 dB

Maximum value of SAR (measured) = 0.049 mW/g



Date/Time: 2007-12-11 17:05:03

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740028/0

Communication System: WLAN2450

Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: 22.1 C

Medium parameters used: $f = 2442$ MHz; $\sigma = 1.83$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(4.41, 4.41, 4.41); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 4; Type: Twin Phantom; Serial: TP-1410
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.041 mW/g

Tilt position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.08 V/m

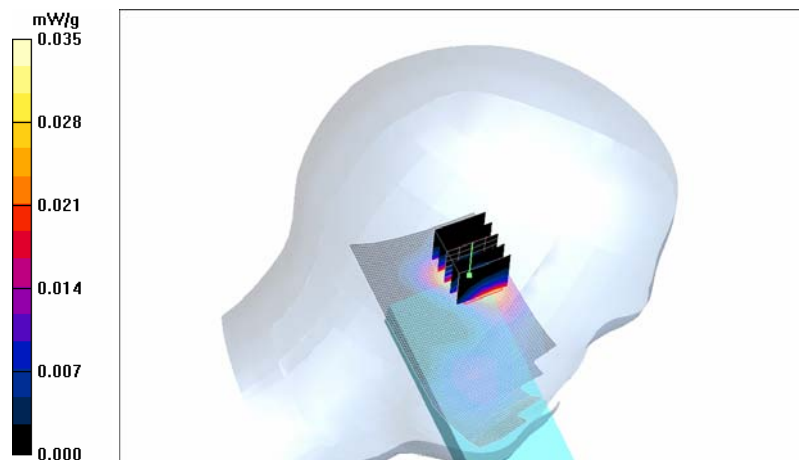
Peak SAR (extrapolated) = 0.055 W/kg

SAR(1 g) = 0.031 mW/g

SAR(10 g) = 0.016 mW/g

Power Drift = -0.085 dB

Maximum value of SAR (measured) = 0.035 mW/g



Date/Time: 2007-12-11 19:50:06

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740028/0

Communication System: WLAN2450

Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: 22.1 C

Medium parameters used: $f = 2442$ MHz; $\sigma = 1.83$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(4.41, 4.41, 4.41); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 4; Type: Twin Phantom; Serial: TP-1410
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.042 mW/g

Cheek position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 1.60 V/m

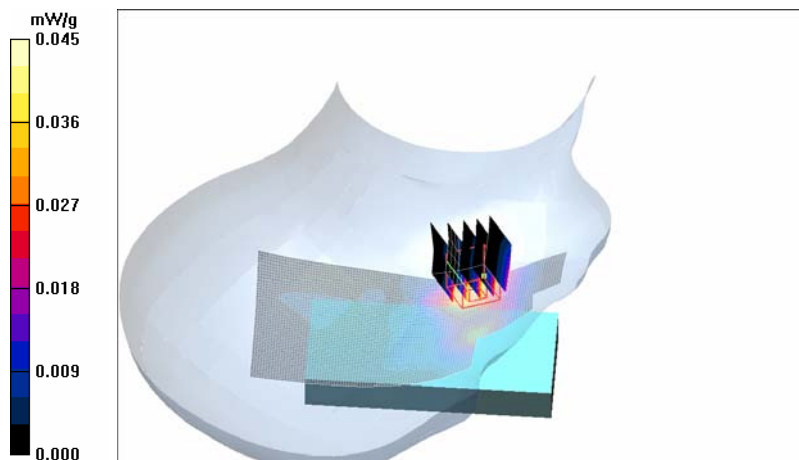
Peak SAR (extrapolated) = 0.088 W/kg

SAR(1 g) = 0.042 mW/g

SAR(10 g) = 0.020 mW/g

Power Drift = 0.455 dB

Maximum value of SAR (measured) = 0.045 mW/g



Date/Time: 2007-12-11 20:18:42

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740028/0

Communication System: WLAN2450

Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: 22.1 C

Medium parameters used: $f = 2442$ MHz; $\sigma = 1.83$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(4.41, 4.41, 4.41); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 4; Type: Twin Phantom; Serial: TP-1410
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt position - Middle - Slide open/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.024 mW/g

Tilt position - Middle - Slide open/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.15 V/m

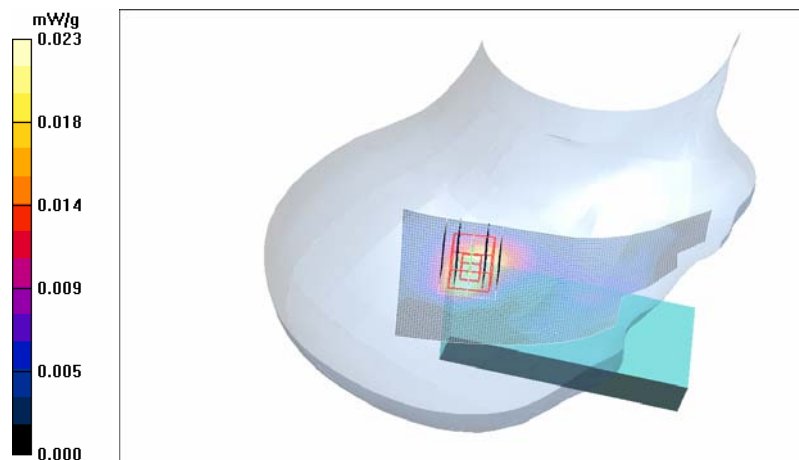
Peak SAR (extrapolated) = 0.040 W/kg

SAR(1 g) = 0.020 mW/g

SAR(10 g) = 0.00992 mW/g

Power Drift = 0.175 dB

Maximum value of SAR (measured) = 0.023 mW/g



Date/Time: 2007-12-11 22:02:36

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740028/0

Communication System: WLAN2450

Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: 22.1 C

Medium parameters used: $f = 2412$ MHz; $\sigma = 1.8$ mho/m; $\epsilon_r = 38.7$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(4.41, 4.41, 4.41); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 4; Type: Twin Phantom; Serial: TP-1410
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek position - Low - MPS/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.144 mW/g

Cheek position - Low - MPS/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.04 V/m

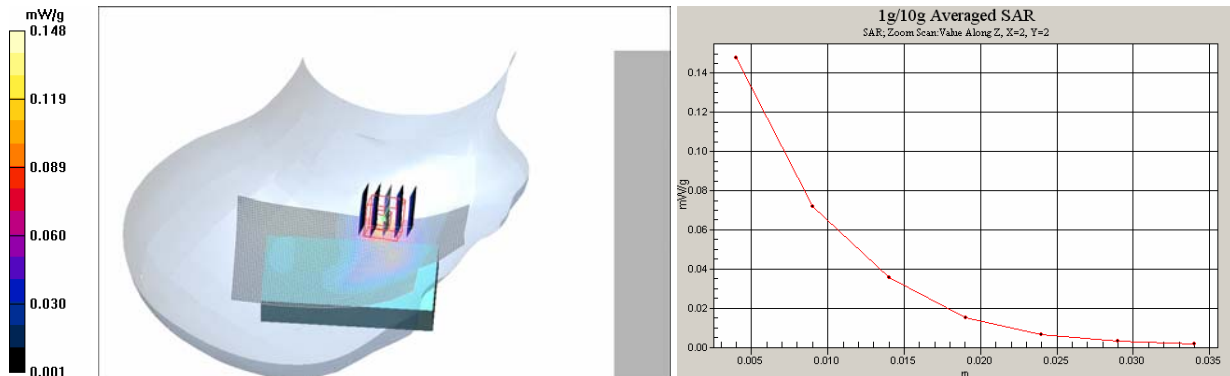
Peak SAR (extrapolated) = 0.294 W/kg

SAR(1 g) = 0.128 mW/g

SAR(10 g) = 0.058 mW/g

Power Drift = 0.470 dB

Maximum value of SAR (measured) = 0.148 mW/g



Date/Time: 2007-11-28 10:15:14

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Body 850; Medium Notes: Medium Temperature: 21.7 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.988$ mho/m; $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.74, 5.74, 5.74); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1412
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Body - Middle - Slide closed - No Accessory/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.563 mW/g

Body - Middle - Slide closed - No Accessory/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.1 V/m

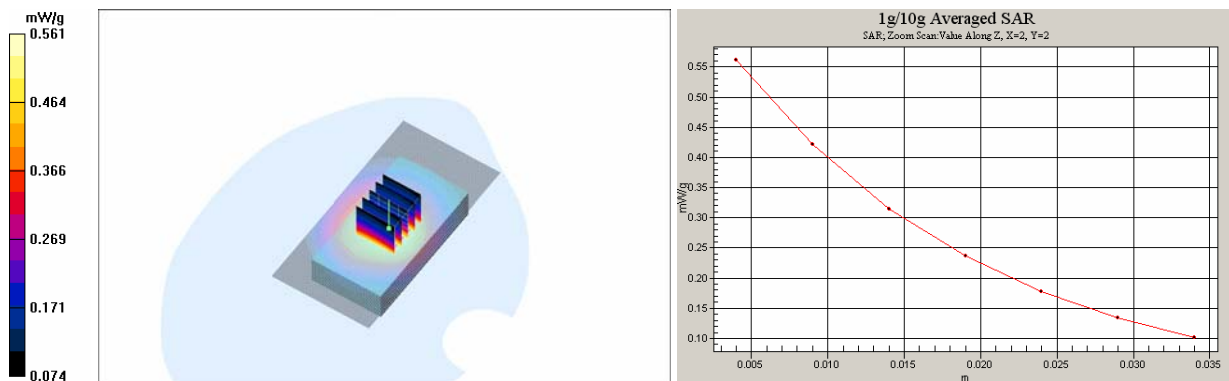
Peak SAR (extrapolated) = 0.689 W/kg

SAR(1 g) = 0.527 mW/g

SAR(10 g) = 0.383 mW/g

Power Drift = -0.070 dB

Maximum value of SAR (measured) = 0.561 mW/g



Date/Time: 2007-11-28 10:32:45

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Body 850; Medium Notes: Medium Temperature: 21.7 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.988$ mho/m; $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.74, 5.74, 5.74); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1412
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Body - Middle - Slide closed - HS-45/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.495 mW/g

Body - Middle - Slide closed - HS-45/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.3 V/m

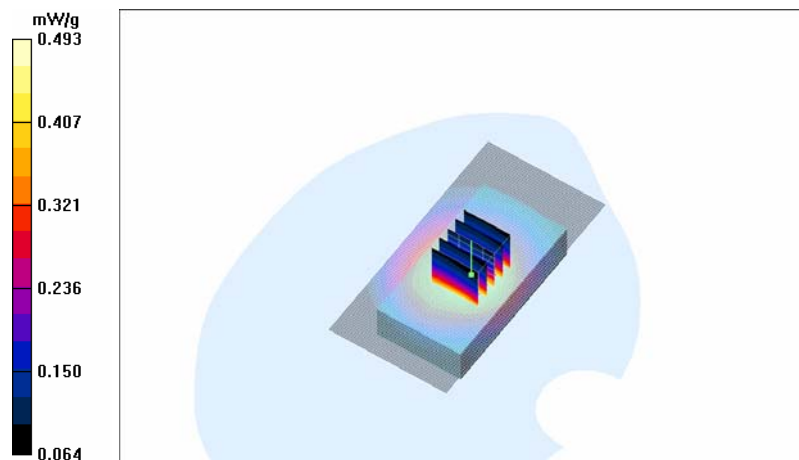
Peak SAR (extrapolated) = 0.615 W/kg

SAR(1 g) = 0.465 mW/g

SAR(10 g) = 0.338 mW/g

Power Drift = 0.006 dB

Maximum value of SAR (measured) = 0.493 mW/g



Date/Time: 2007-11-28 12:26:05

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Body 850; Medium Notes: Medium Temperature: 21.7 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.988$ mho/m; $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.74, 5.74, 5.74); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1412
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Body - Middle - Slide closed - No Accessory - BT active/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.537 mW/g

Body - Middle - Slide closed - No Accessory - BT active/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.5 V/m

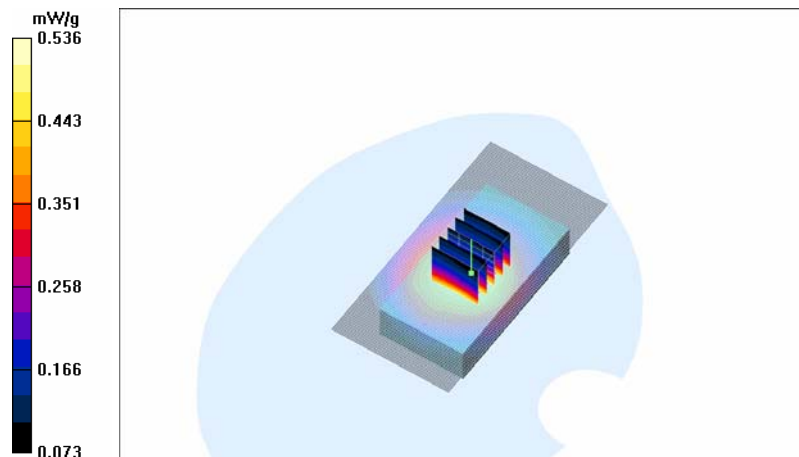
Peak SAR (extrapolated) = 0.662 W/kg

SAR(1 g) = 0.505 mW/g

SAR(10 g) = 0.367 mW/g

Power Drift = -0.018 dB

Maximum value of SAR (measured) = 0.536 mW/g



Date/Time: 2007-11-28 18:21:24

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA850

Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: Body 850; Medium Notes: Medium Temperature: 21.7 C

Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.977$ mho/m; $\epsilon_r = 54.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.74, 5.74, 5.74); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1412
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Body - Low - No Accessory - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.504 mW/g

Body - Low - No Accessory - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.6 V/m

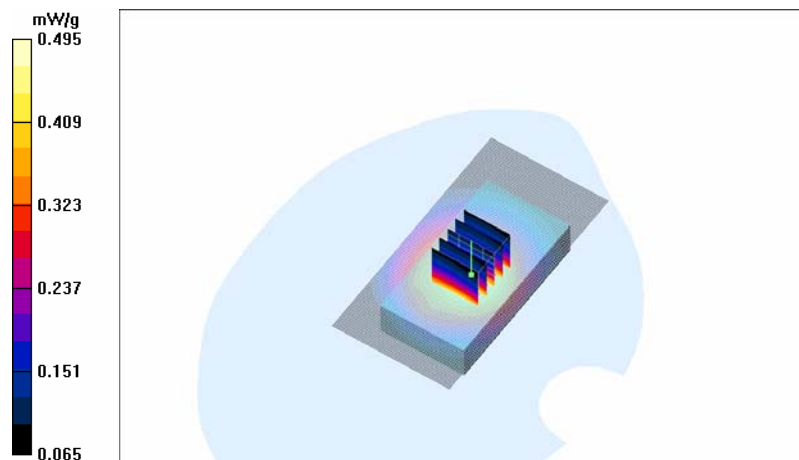
Peak SAR (extrapolated) = 0.606 W/kg

SAR(1 g) = 0.467 mW/g

SAR(10 g) = 0.341 mW/g

Power Drift = -0.226 dB

Maximum value of SAR (measured) = 0.495 mW/g



Date/Time: 2007-11-28 18:55:55

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA850

Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: Body 850; Medium Notes: Medium Temperature: 21.7 C

Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.977$ mho/m; $\epsilon_r = 54.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.74, 5.74, 5.74); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1412
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Body - Low - HS-45 - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.437 mW/g

Body - Low - HS-45 - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.2 V/m

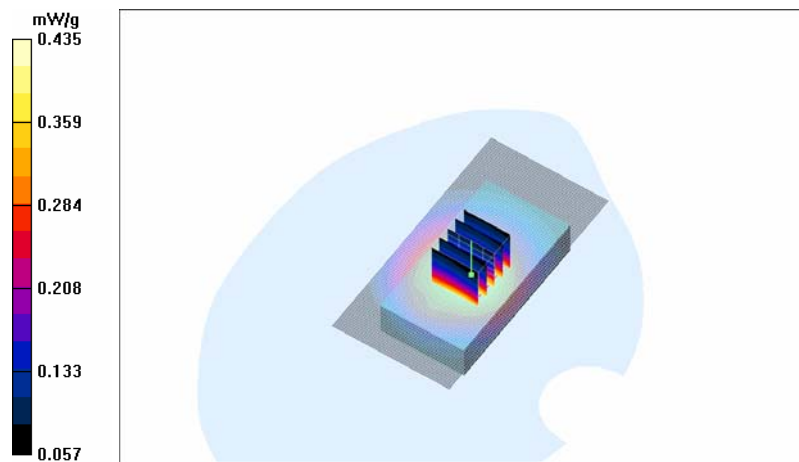
Peak SAR (extrapolated) = 0.533 W/kg

SAR(1 g) = 0.410 mW/g

SAR(10 g) = 0.298 mW/g

Power Drift = 0.024 dB

Maximum value of SAR (measured) = 0.435 mW/g



Date/Time: 2007-11-28 19:31:25

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA850

Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: Body 850; Medium Notes: Medium Temperature: 21.7 C

Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.977$ mho/m; $\epsilon_r = 54.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(5.74, 5.74, 5.74); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1412
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Body - Low - No Accessory - Slide closed - BT active/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.498 mW/g

Body - Low - No Accessory - Slide closed - BT active/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.1 V/m

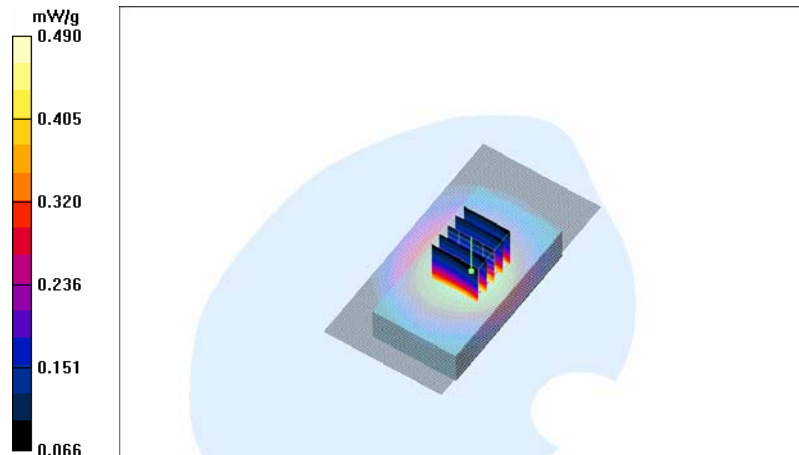
Peak SAR (extrapolated) = 0.598 W/kg

SAR(1 g) = 0.461 mW/g

SAR(10 g) = 0.337 mW/g

Power Drift = -0.137 dB

Maximum value of SAR (measured) = 0.490 mW/g



Date/Time: 2007-12-11 09:19:46

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM 1900

Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: Body 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.6$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.69, 4.69, 4.69); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 2; Type: Twin Phantom; Serial: TP-1037
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Body - High - No Accessory - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.381 mW/g

Body - High - No Accessory - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.5 V/m

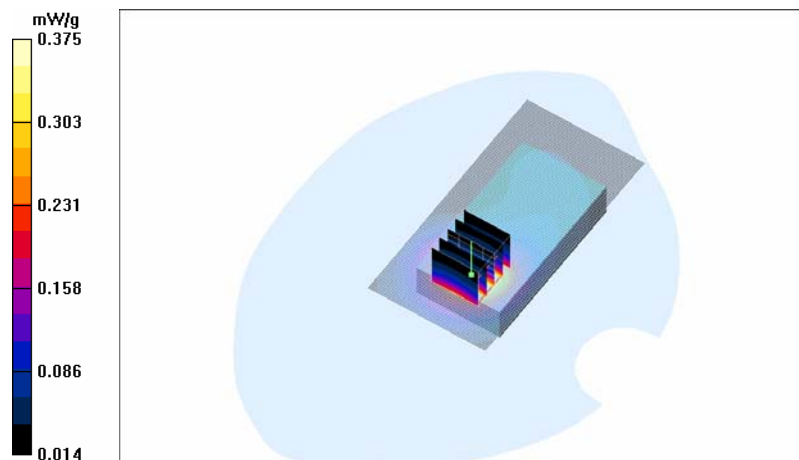
Peak SAR (extrapolated) = 0.561 W/kg

SAR(1 g) = 0.346 mW/g

SAR(10 g) = 0.210 mW/g

Power Drift = -0.018 dB

Maximum value of SAR (measured) = 0.375 mW/g



Date/Time: 2007-12-11 09:30:52

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM 1900

Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: Body 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.6$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.69, 4.69, 4.69); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 2; Type: Twin Phantom; Serial: TP-1037
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Body - High - HS-45 - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.388 mW/g

Body - High - HS-45 - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.6 V/m

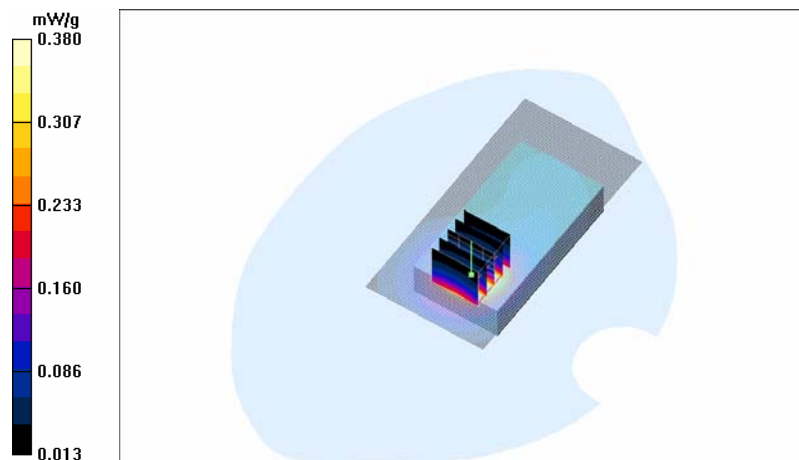
Peak SAR (extrapolated) = 0.565 W/kg

SAR(1 g) = 0.351 mW/g

SAR(10 g) = 0.212 mW/g

Power Drift = -0.035 dB

Maximum value of SAR (measured) = 0.380 mW/g



Date/Time: 2007-12-11 10:07:06

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: GSM 1900

Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: Body 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.6$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.69, 4.69, 4.69); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn682; Calibrated: 2007-08-29
- Phantom: SAM 2; Type: Twin Phantom; Serial: TP-1037
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Body - High - HS-45 - Slide closed - BT Active/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.402 mW/g

Body - High - HS-45 - Slide closed - BT Active/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.7 V/m

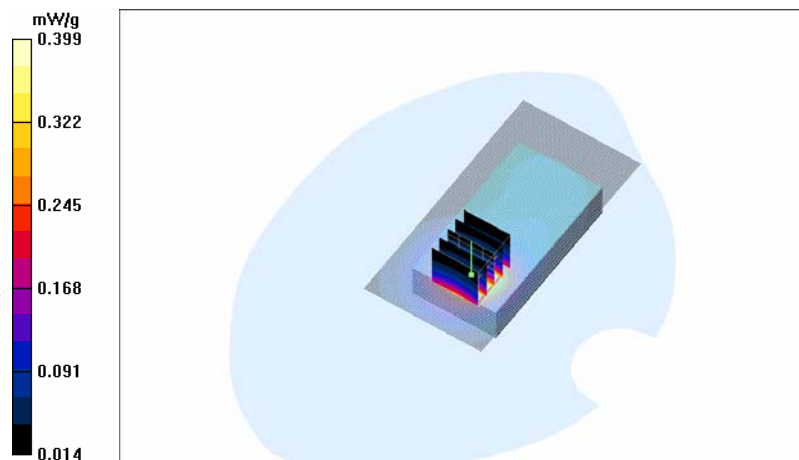
Peak SAR (extrapolated) = 0.597 W/kg

SAR(1 g) = 0.365 mW/g

SAR(10 g) = 0.218 mW/g

Power Drift = -0.003 dB

Maximum value of SAR (measured) = 0.399 mW/g



Date/Time: 2007-11-29 13:04:09

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Body 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 53.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3119; Probe Notes:
- ConvF(5.02, 5.02, 5.02); Calibrated: 2007-10-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn710; Calibrated: 2007-10-16
- Phantom: SAM 8; Type: SAM Twin Phantom; Serial: TP-1408
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Body - Middle - Slide Closed - No Accessory/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.725 mW/g

Body - Middle - Slide Closed - No Accessory/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 21.1 V/m

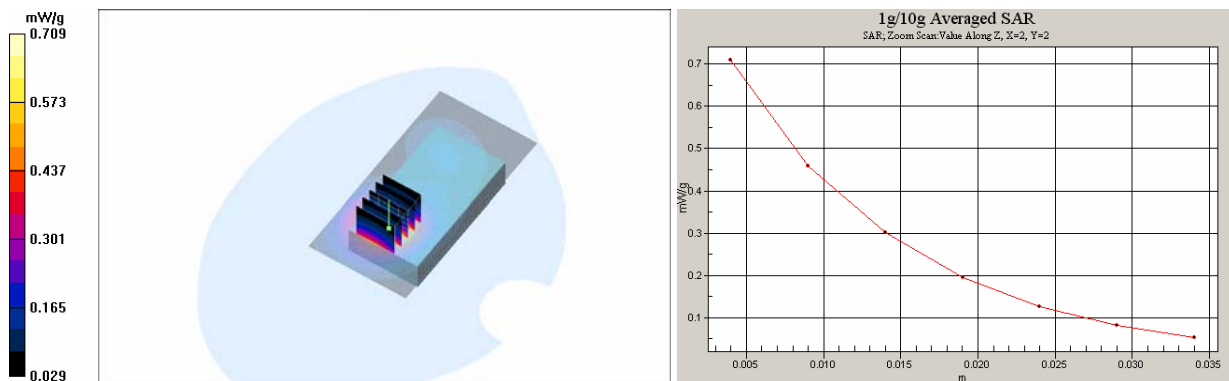
Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.656 mW/g

SAR(10 g) = 0.404 mW/g

Power Drift = -0.055 dB

Maximum value of SAR (measured) = 0.709 mW/g



Date/Time: 2007-11-29 13:18:48

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Body 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 53.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3119; Probe Notes:
- ConvF(5.02, 5.02, 5.02); Calibrated: 2007-10-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn710; Calibrated: 2007-10-16
- Phantom: SAM 8; Type: SAM Twin Phantom; Serial: TP-1408
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Body - Middle - Slide Closed - HS-45/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.712 mW/g

Body - Middle - Slide Closed - HS-45/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 21.1 V/m

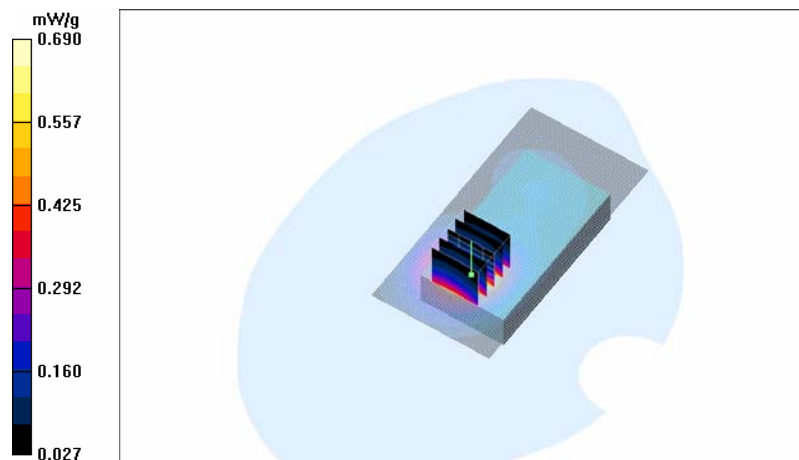
Peak SAR (extrapolated) = 0.988 W/kg

SAR(1 g) = 0.637 mW/g

SAR(10 g) = 0.390 mW/g

Power Drift = -0.007 dB

Maximum value of SAR (measured) = 0.690 mW/g



Date/Time: 2007-11-29 14:43:40

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740020/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Body 1900; Medium Notes: Medium Temperature: 21.4 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 53.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3119; Probe Notes:
- ConvF(5.02, 5.02, 5.02); Calibrated: 2007-10-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn710; Calibrated: 2007-10-16
- Phantom: SAM 8; Type: SAM Twin Phantom; Serial: TP-1408
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Body - Middle - Slide Closed - No Accessory - BT Active/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.716 mW/g

Body - Middle - Slide Closed - No Accessory - BT Active/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 21.0 V/m

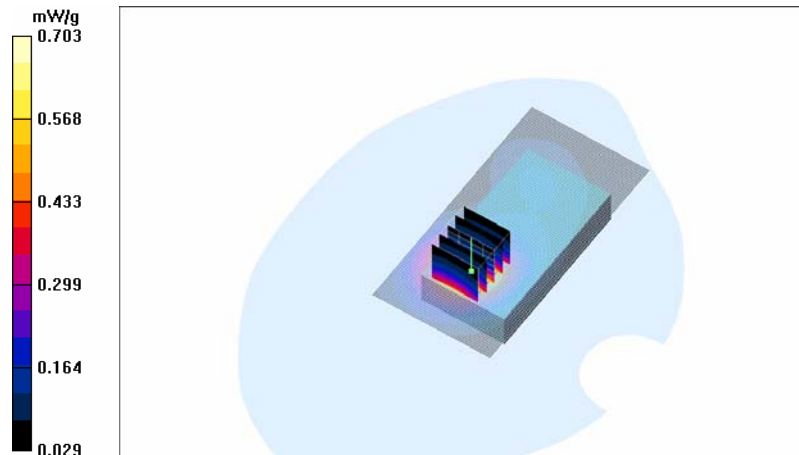
Peak SAR (extrapolated) = 1.00 W/kg

SAR(1 g) = 0.647 mW/g

SAR(10 g) = 0.398 mW/g

Power Drift = -0.096 dB

Maximum value of SAR (measured) = 0.703 mW/g



Date/Time: 2007-12-12 18:24:17

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740028/0

Communication System: WLAN2450

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: Body 2450; Medium Notes: Medium Temperature: t=22.1 C

Medium parameters used: f = 2462 MHz; σ = 2.03 mho/m; ϵ_r = 51.7; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(4.12, 4.12, 4.12); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 4; Type: Twin Phantom; Serial: TP-1410
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Body - High - No Accessory - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.028 mW/g

Body - High - No Accessory - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 2.42 V/m

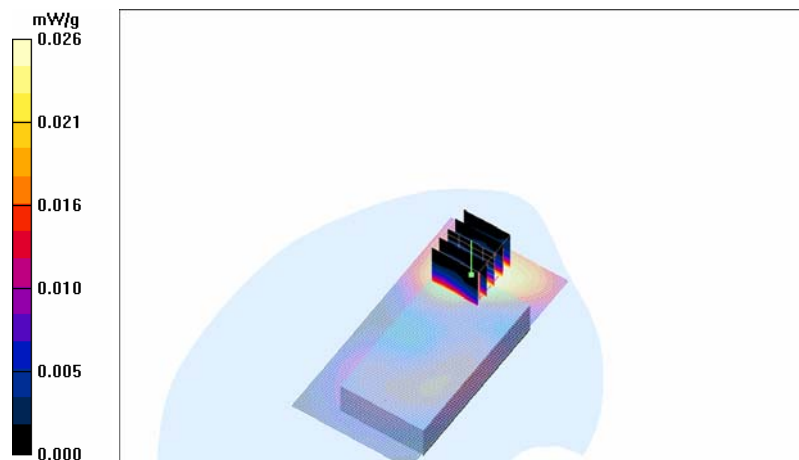
Peak SAR (extrapolated) = 0.042 W/kg

SAR(1 g) = 0.024 mW/g

SAR(10 g) = 0.014 mW/g

Power Drift = 0.126 dB

Maximum value of SAR (measured) = 0.026 mW/g



Date/Time: 2007-12-12 18:13:33

Test Laboratory: TCC Nokia
Type: RM-421; Serial: 004401/01/740028/0

Communication System: WLAN2450

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: Body 2450; Medium Notes: Medium Temperature: t=22.1 C

Medium parameters used: f = 2462 MHz; $\sigma = 2.03$ mho/m; $\epsilon_r = 51.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3117; Probe Notes:
- ConvF(4.12, 4.12, 4.12); Calibrated: 2007-08-29
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 2007-06-12
- Phantom: SAM 4; Type: Twin Phantom; Serial: TP-1410
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Body - High - HS-45 - Slide closed/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.029 mW/g

Body - High - HS-45 - Slide closed/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 2.51 V/m

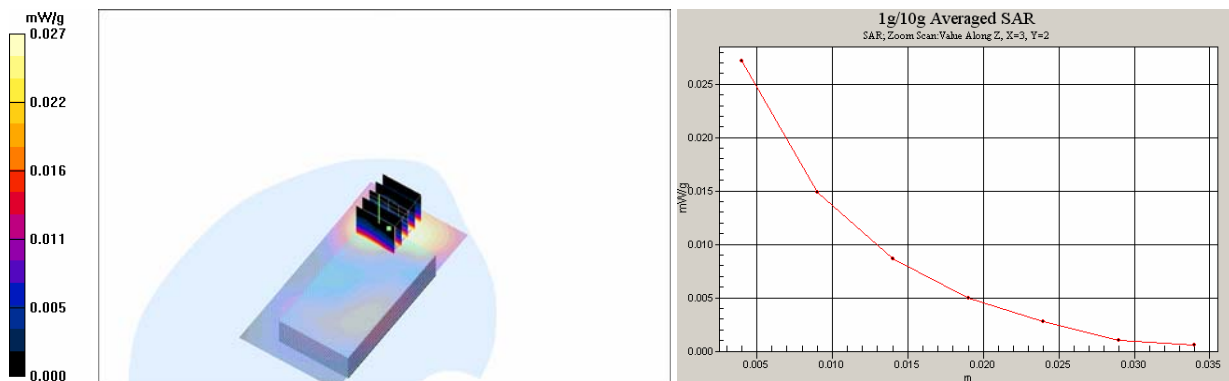
Peak SAR (extrapolated) = 0.045 W/kg

SAR(1 g) = 0.025 mW/g

SAR(10 g) = 0.015 mW/g

Power Drift = 0.198 dB

Maximum value of SAR (measured) = 0.027 mW/g



APPENDIX C: RELEVANT PAGES FROM PROBE CALIBRATION REPORT(S)

See the following pages



Accredited by the Swiss Federal Office of Metrology and Accreditation
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 **Nokia Denmark A/S**

Certificate No: **ES3-3116_Aug07**

CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3116**

Calibration procedure(s) **QA CAL-01.v6
Calibration procedure for dosimetric E-field probes**

Calibration date: **August 29, 2007**

Condition of the calibrated item **In Tolerance**

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 (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Power sensor E4412A	MY41495277	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Power sensor E4412A	MY41498087	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Reference 3 dB Attenuator	SN: S5054 (3c)	8-Aug-07 (METAS, No. 217-00719)	Aug-08
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-07 (METAS, No. 217-00671)	Mar-08
Reference 30 dB Attenuator	SN: S5129 (30b)	8-Aug-07 (METAS, No. 217-00720)	Aug-08
Reference Probe ES3DV2	SN: 3013	4-Jan-07 (SPEAG, No. ES3-3013_Jan07)	Jan-08
DAE4	SN: 654	20-Apr-07 (SPEAG, No. DAE4-654_Apr07)	Apr-08
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (SPEAG, in house check Nov-05)	In house check: Nov-07
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Oct-06)	In house check: Oct-07

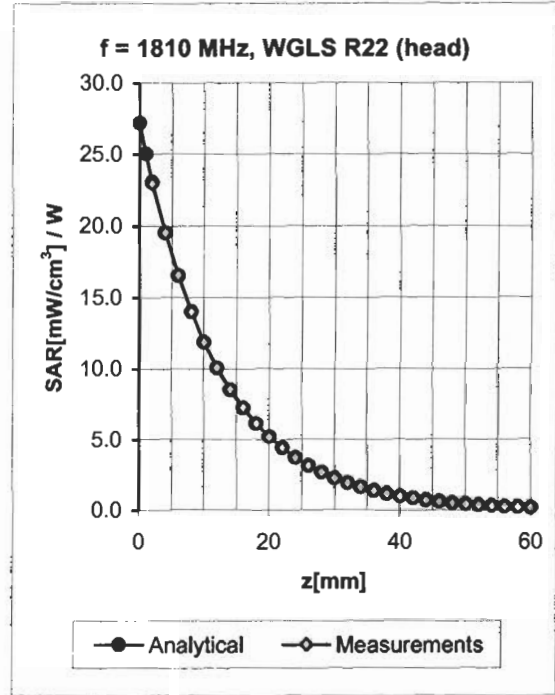
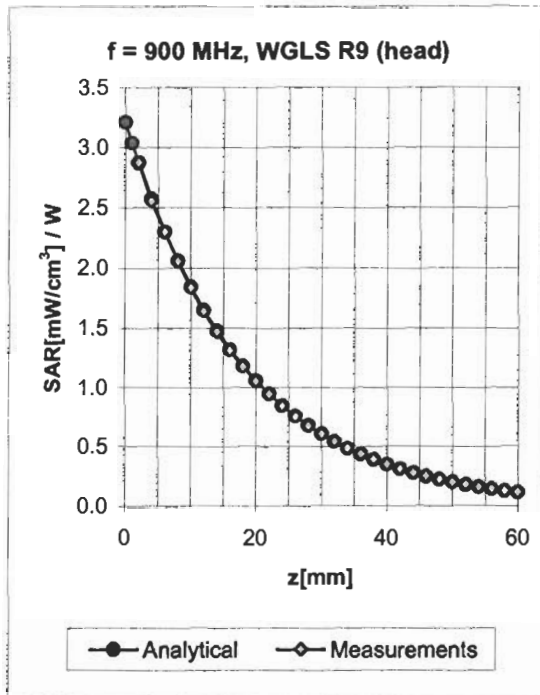
Calibrated by: **Katja Pokovic** **Technical Manager**

Approved by: **Niels Kuster** **Quality Manager**

Issued: August 29, 2007

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Conversion Factor Assessment



f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	1.00	1.16	5.98 ± 11.0% (k=2)
1810	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.91	1.15	4.96 ± 11.0% (k=2)
1950	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.83	1.24	4.74 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.84	1.18	4.43 ± 11.8% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	1.00	1.22	5.78 ± 11.0% (k=2)
1810	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.72	1.42	4.69 ± 11.0% (k=2)
1950	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.73	1.39	4.46 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	1.00	1.05	4.13 ± 11.8% (k=2)

^c The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.



Accredited by the Swiss Federal Office of Metrology and Accreditation
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 **Nokia Denmark A/S**

Certificate No: **ES3-3117_Aug07**

CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3117**

Calibration procedure(s) **QA CAL-01.v6
Calibration procedure for dosimetric E-field probes**

Calibration date: **August 29, 2007**

Condition of the calibrated item **In Tolerance**

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 (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Power sensor E4412A	MY41495277	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Power sensor E4412A	MY41498087	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Reference 3 dB Attenuator	SN: S5054 (3c)	8-Aug-07 (METAS, No. 217-00719)	Aug-08
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-07 (METAS, No. 217-00671)	Mar-08
Reference 30 dB Attenuator	SN: S5129 (30b)	8-Aug-07 (METAS, No. 217-00720)	Aug-08
Reference Probe ES3DV2	SN: 3013	4-Jan-07 (SPEAG, No. ES3-3013_Jan07)	Jan-08
DAE4	SN: 654	20-Apr-07 (SPEAG, No. DAE4-654_Apr07)	Apr-08
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (SPEAG, in house check Nov-05)	In house check: Nov-07
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Oct-06)	In house check: Oct-07

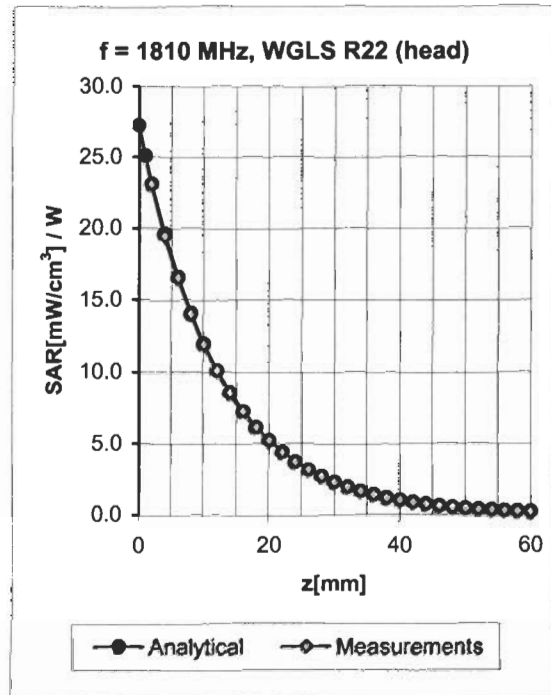
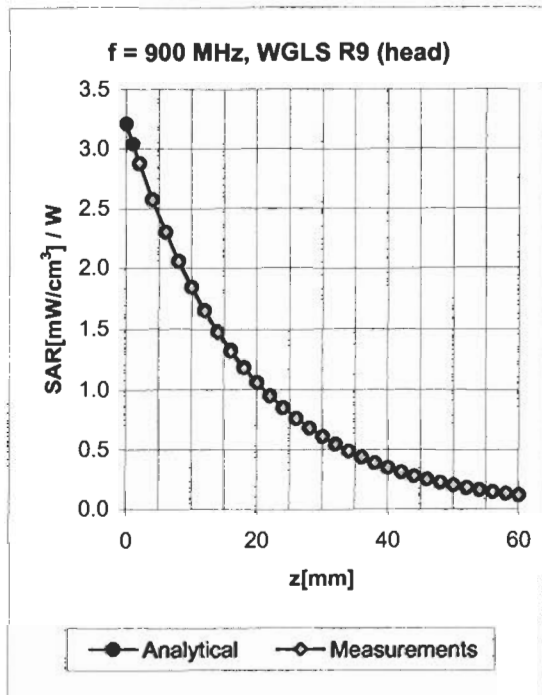
Calibrated by: **Katja Pokovic** **Technical Manager**

Approved by: **Niels Kuster** **Quality Manager**

Issued: August 29, 2007

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Conversion Factor Assessment



f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	1.00	1.13	6.01 ± 11.0% (k=2)
1810	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.75	1.32	5.05 ± 11.0% (k=2)
1950	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.79	1.23	4.71 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.68	1.35	4.41 ± 11.8% (k=2)
2600	± 50 / ± 100	Head	39.0 ± 5%	1.96 ± 5%	0.63	1.36	4.28 ± 11.8% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.97	1.21	5.74 ± 11.0% (k=2)
1810	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.78	1.30	4.62 ± 11.0% (k=2)
1950	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.67	1.48	4.41 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.85	1.09	4.12 ± 11.8% (k=2)
2600	± 50 / ± 100	Body	52.5 ± 5%	2.16 ± 5%	0.80	1.17	3.89 ± 11.8% (k=2)

^c The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.



Accredited by the Swiss Accreditation Service (SAS)
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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Nokia Denmark A/S**

Certificate No: **ES3-3118_Oct07**

CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3118**

Calibration procedure(s) **QA CAL-01.v6
Calibration procedure for dosimetric E-field probes**

Calibration date: **October 26, 2007**

Condition of the calibrated item **In Tolerance**

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)

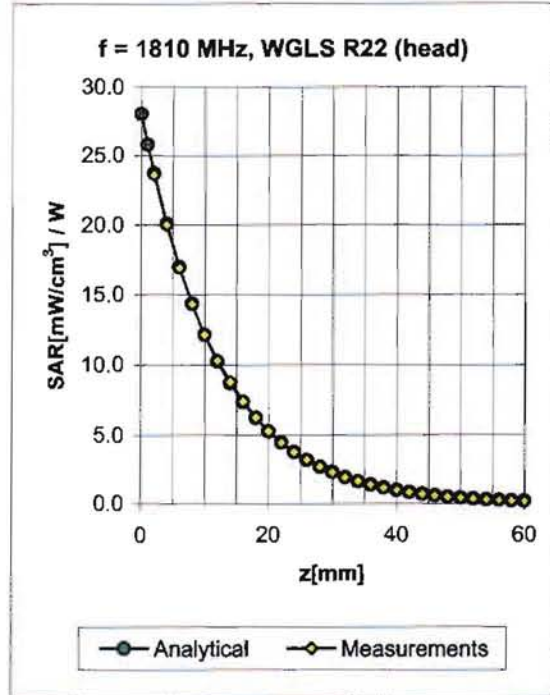
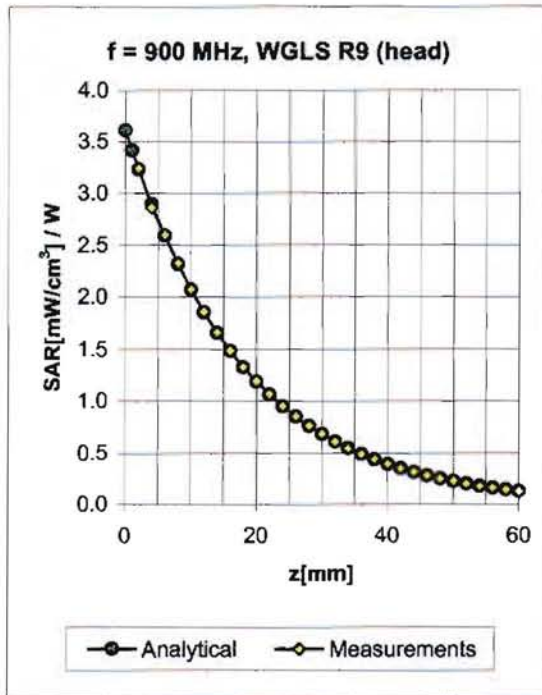
Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Power sensor E4412A	MY41495277	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Power sensor E4412A	MY41498087	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Reference 3 dB Attenuator	SN: S5054 (3c)	8-Aug-07 (METAS, No. 217-00719)	Aug-08
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-07 (METAS, No. 217-00671)	Mar-08
Reference 30 dB Attenuator	SN: S5129 (30b)	8-Aug-07 (METAS, No. 217-00720)	Aug-08
Reference Probe ES3DV2	SN: 3013	4-Jan-07 (SPEAG, No. ES3-3013_Jan07)	Jan-08
DAE4	SN: 654	20-Apr-07 (SPEAG, No. DAE4-654_Apr07)	Apr-08
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (SPEAG, in house check Nov-05)	In house check: Nov-07
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Oct-06)	In house check: Oct-07

	Name	Function	Signature
Calibrated by:	Katja Pokovic	Technical Manager	
Approved by:	Niels Kuster	Quality Manager	

Issued: October 29, 2007

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Conversion Factor Assessment



f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.85	1.30	5.99 ± 11.0% (k=2)
1810	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.90	1.21	5.26 ± 11.0% (k=2)
1950	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.85	1.26	5.05 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.85	1.21	4.68 ± 11.8% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.85	1.34	5.59 ± 11.0% (k=2)
1810	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.89	1.31	4.92 ± 11.0% (k=2)
1950	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.89	1.27	4.66 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.80	1.19	4.30 ± 11.8% (k=2)

^c The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.



Accredited by the Swiss Accreditation Service (SAS)
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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Nokia Denmark A/S**

Certificate No: **ES3-3119_Oct07**

CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3119**

Calibration procedure(s) **QA CAL-01.v6
Calibration procedure for dosimetric E-field probes**

Calibration date: **October 24, 2007**

Condition of the calibrated item **In Tolerance**

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 (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Power sensor E4412A	MY41495277	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Power sensor E4412A	MY41498087	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Reference 3 dB Attenuator	SN: S5054 (3c)	8-Aug-07 (METAS, No. 217-00719)	Aug-08
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-07 (METAS, No. 217-00671)	Mar-08
Reference 30 dB Attenuator	SN: S5129 (30b)	8-Aug-07 (METAS, No. 217-00720)	Aug-08
Reference Probe ES3DV2	SN: 3013	4-Jan-07 (SPEAG, No. ES3-3013_Jan07)	Jan-08
DAE4	SN: 654	20-Apr-07 (SPEAG, No. DAE4-654_Apr07)	Apr-08

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (SPEAG, in house check Nov-05)	In house check: Nov-07
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Oct-06)	In house check: Oct-07

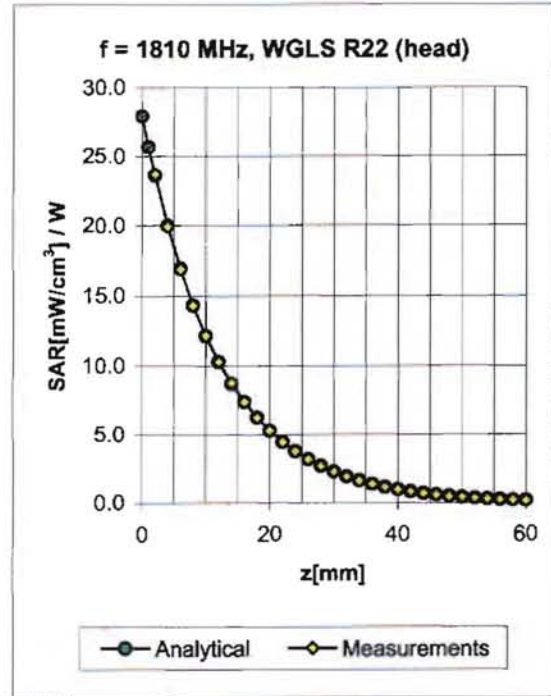
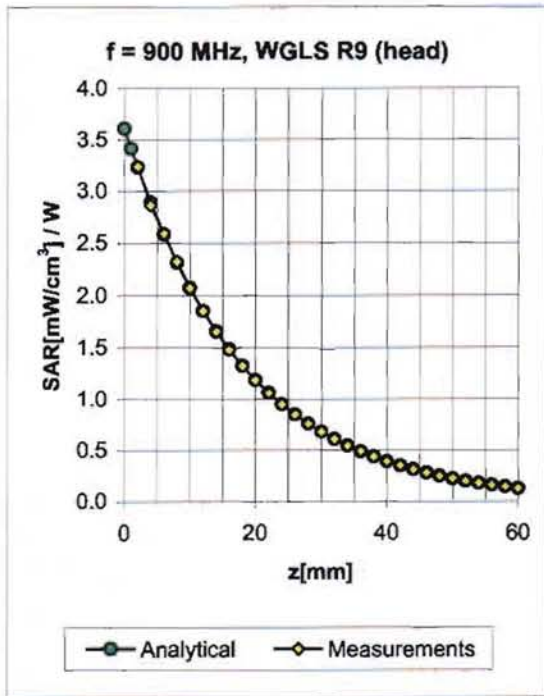
Calibrated by: **Katja Pokovic** Technical Manager

Approved by: **Niels Kuster** Quality Manager

Issued: October 29, 2007

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Conversion Factor Assessment



f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.85	1.29	5.99 ± 11.0% (k=2)
1810	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.88	1.27	5.08 ± 11.0% (k=2)
1950	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.80	1.32	4.91 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.75	1.25	4.55 ± 11.8% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.80	1.40	5.60 ± 11.0% (k=2)
1810	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.87	1.33	5.02 ± 11.0% (k=2)
1950	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.82	1.37	4.75 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.80	1.12	4.34 ± 11.8% (k=2)

^c The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

APPENDIX D: RELEVANT PAGES FROM DIPOLE VALIDATION KIT REPORT(S)

See the following pages



Accredited by the Swiss Federal Office of Metrology and Accreditation
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 **Nokia DK R&D**

Certificate No: **D835V2-4d042_Sep06**

CALIBRATION CERTIFICATE

Object **D835V2 - SN: 4d042**

Calibration procedure(s) **QA CAL-05.v6
Calibration procedure for dipole validation kits**

Calibration date: **September 19, 2006**

Condition of the calibrated item **In Tolerance**

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 (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-05 (METAS, No. 251-00516)	Oct-06
Power sensor HP 8481A	US37292783	04-Oct-05 (METAS, No. 251-00516)	Oct-06
Reference 20 dB Attenuator	SN: 5086 (20g)	10-Aug-06 (METAS, No 217-00591)	Aug-07
Reference 10 dB Attenuator	SN: 5047.2 (10r)	10-Aug-06 (METAS, No 217-00591)	Aug-07
Reference Probe ET3DV6	SN 1507	28-Oct-05 (SPEAG, No. ET3-1507_Oct05)	Oct-06
DAE4	SN 601	15-Dec-05 (SPEAG, No. DAE4-601_Dec05)	Dec-06
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (SPEAG, in house check Oct-05)	In house check: Oct-07
RF generator Agilent E4421B	MY41000675	11-May-05 (SPEAG, in house check Nov-05)	In house check: Nov-07
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (SPEAG, in house check Nov-05)	In house check: Nov-06

Calibrated by:	Name	Function	Signature
	Mike Meili	Laboratory Technician	<i>M. Meili</i>

Approved by:	Name	Function	Signature
	Katja Pokovic	Technical Manager	<i>Katja Pokovic</i>

Issued: September 19, 2006

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

DASY4 Validation Report for Head TSL

Date/Time: 14.08.2006 14:29:57

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d042

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL900;

Medium parameters used: $f = 835$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 42.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507 (HF); ConvF(6.09, 6.09, 6.09); Calibrated: 28.10.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 15.12.2005
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0:

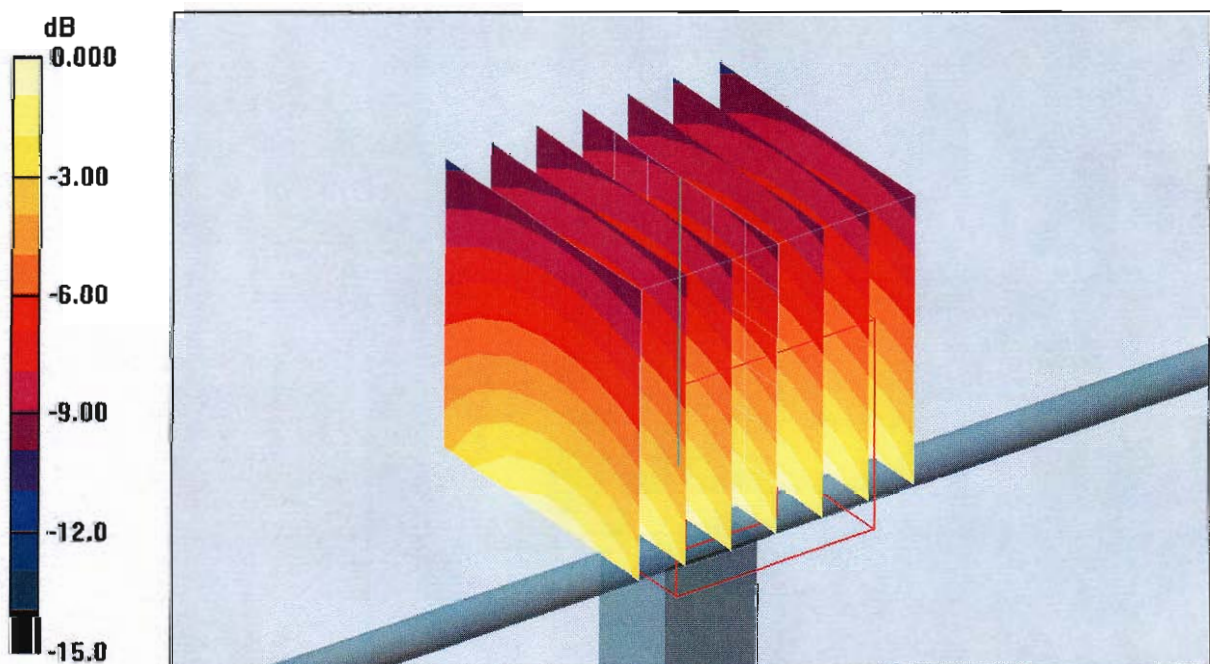
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.3 V/m; Power Drift = -0.102 dB

Peak SAR (extrapolated) = 3.46 W/kg

SAR(1 g) = 2.33 mW/g; SAR(10 g) = 1.53 mW/g

Maximum value of SAR (measured) = 2.52 mW/g



0 dB = 2.52mW/g

DASY4 Validation Report for Body TSL

Date/Time: 19.09.2006 15:10:39

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d042

Communication System: CW-835; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL 900;

Medium parameters used: $f = 835$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 53.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507 (HF); ConvF(5.84, 5.84, 5.84); Calibrated: 28.10.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 15.12.2005
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0:

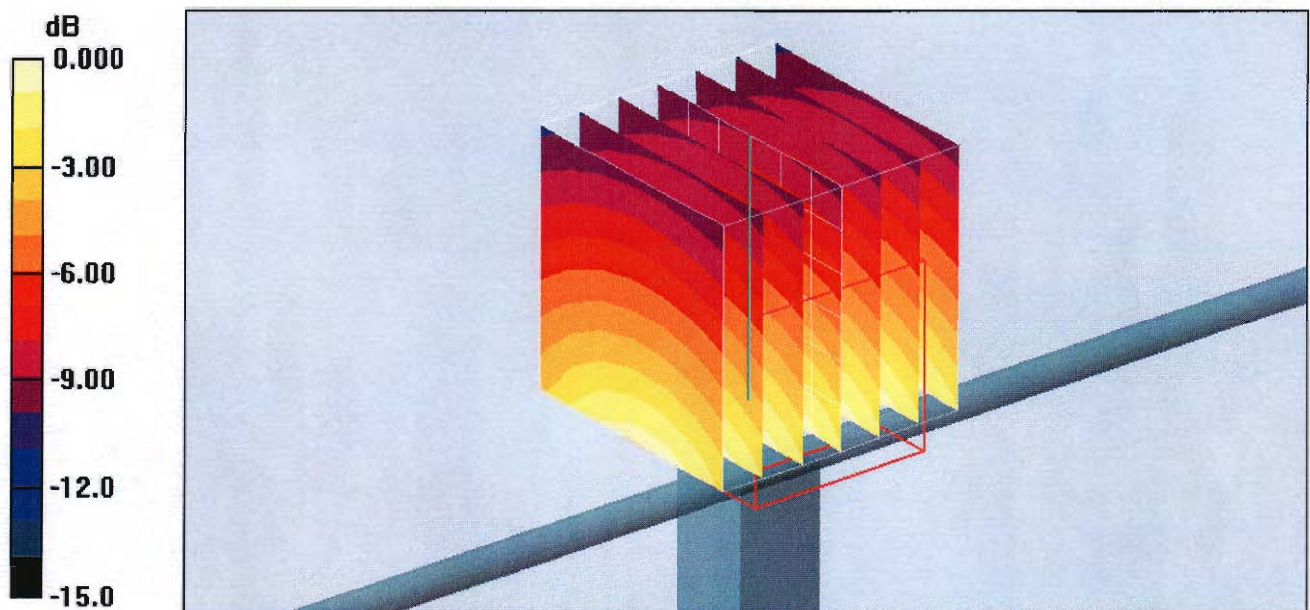
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.8 V/m; Power Drift = -0.004 dB

Peak SAR (extrapolated) = 3.54 W/kg

SAR(1 g) = 2.45 mW/g; SAR(10 g) = 1.62 mW/g

Maximum value of SAR (measured) = 2.61 mW/g



0 dB = 2.61mW/g



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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 **Nokia Denmark A/S**

Certificate No: **D1900V2-5d026_Feb06/2**

CALIBRATION CERTIFICATE (Replacement of No: D1900V2-5d026_Feb06)

Object: **D1900V2 - SN: 5d026**

Calibration procedure(s): **QA CAL-05.v6
Calibration procedure for dipole validation kits**

Calibration date: **February 21, 2006**

Condition of the calibrated item: **In Tolerance**

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 (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-05 (METAS, No. 251-00516)	Oct-06
Power sensor HP 8481A	US37292783	04-Oct-05 (METAS, No. 251-00516)	Oct-06
Reference 20 dB Attenuator	SN: 5086 (20g)	11-Aug-05 (METAS, No 251-00498)	Aug-06
Reference 10 dB Attenuator	SN: 5047.2 (10r)	11-Aug-05 (METAS, No 251-00498)	Aug-06
Reference Probe ET3DV6	SN 1507	28-Oct-05 (SPEAG, No. ET3-1507_Oct05)	Oct-06
DAE4	SN 601	15-Dec-05 (SPEAG, No. DAE4-601_Dec05)	Dec-06
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (SPEAG, in house check Oct-05)	In house check: Oct-07
RF generator Agilent E4421B	MY41000675	11-May-05 (SPEAG, in house check Nov-05)	In house check: Nov-07
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (SPEAG, in house check Nov-05)	In house check: Nov-06

Calibrated by:	Name Mike Meili	Function Laboratory Technician	Signature
Approved by:	Name Katja Pokovic	Function Technical Manager	Signature

Issued: March 9, 2006

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

DASY4 Validation Report for Head TSL

Date/Time: 21.02.2006 13:52:34

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d026

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL U10 BB;

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507 (HF); ConvF(4.74, 4.74, 4.74); Calibrated: 28.10.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 15.12.2005
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA
- Measurement SW: DASY4, V4.6 Build 57; Postprocessing SW: SEMCAD, V1.8 Build 160

Pin = 250 mW; d = 10 mm/Area Scan (71x71x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.1 mW/g

Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0:

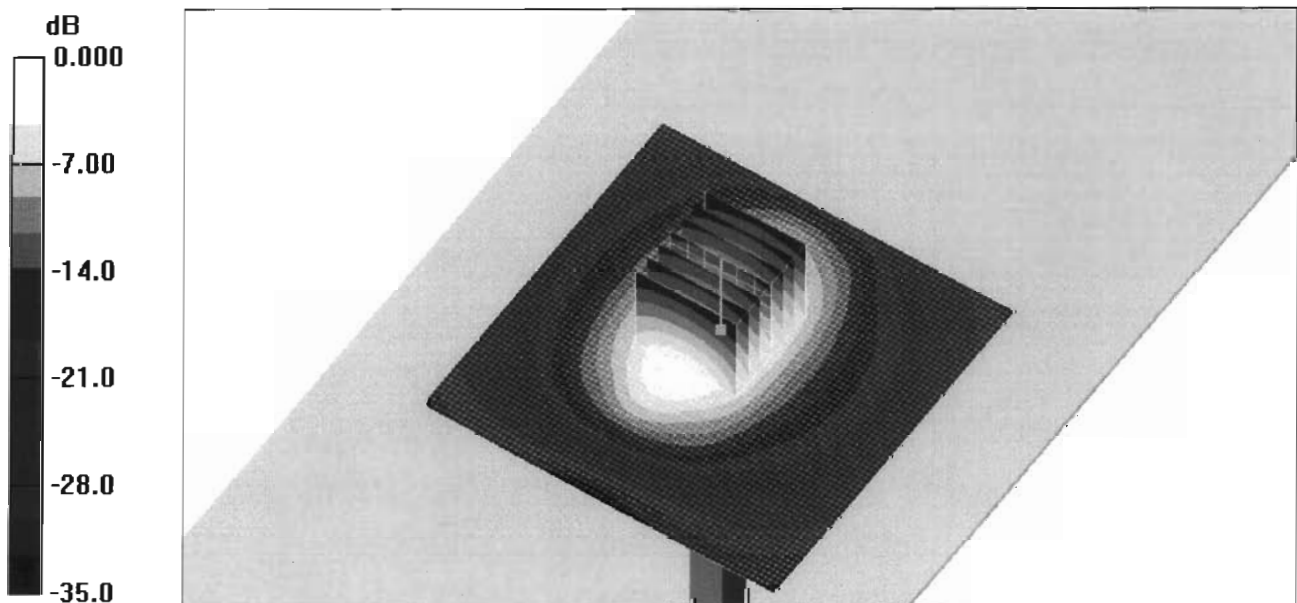
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 84.2 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 16.6 W/kg

SAR(1 g) = 9.83 mW/g; SAR(10 g) = 5.2 mW/g

Maximum value of SAR (measured) = 11.0 mW/g



0 dB = 11.0mW/g

DASY4 Validation Report for Body TSL

Date/Time: 21.02.2006 15:46:28

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d026

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: MSL U10;

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 54.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507 (HF); ConvF(4.3, 4.3, 4.3); Calibrated: 28.10.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 15.12.2005
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA
- Measurement SW: DASY4, V4.6 Build 57; Postprocessing SW: SEMCAD, V1.8 Build 160

Pin = 250 mW; d = 10 mm/Area Scan (71x71x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.1 mW/g

Pin = 250 mW; d = 10 mm/Zoom Scan 2 (7x7x7)/Cube 0:

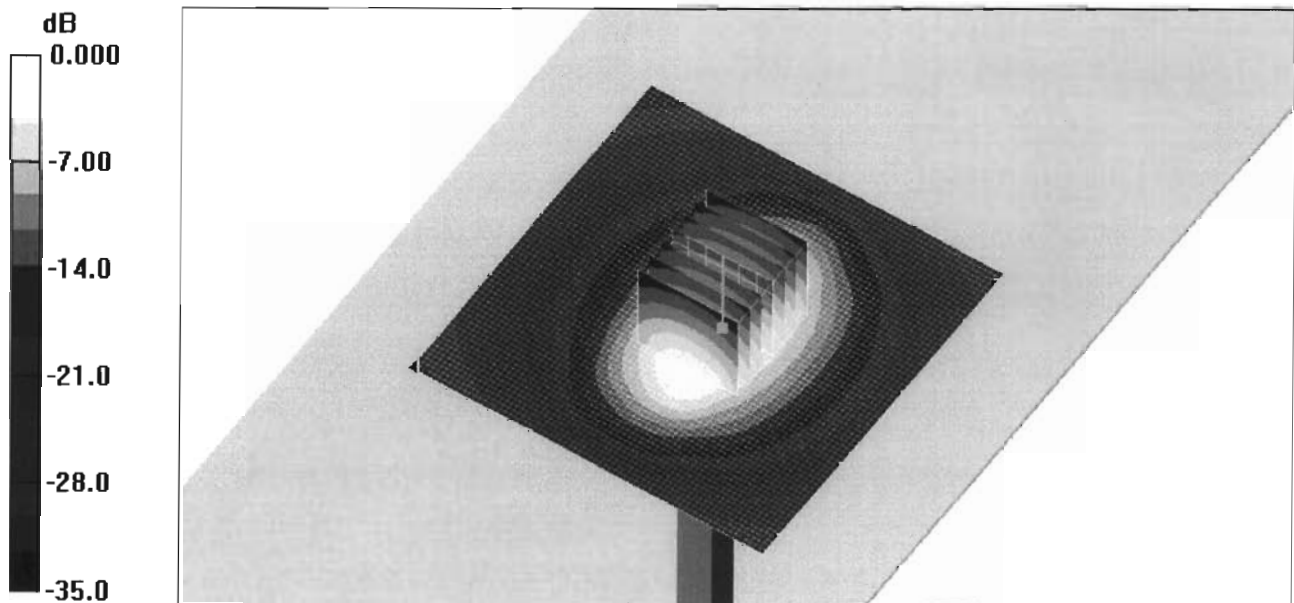
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 83.1 V/m; Power Drift = -0.066 dB

Peak SAR (extrapolated) = 17.3 W/kg

SAR(1 g) = 10 mW/g; SAR(10 g) = 5.38 mW/g

Maximum value of SAR (measured) = 11.5 mW/g



0 dB = 11.5mW/g



Accredited by the Swiss Federal Office of Metrology and Accreditation
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 **Nokia Denmark A/S**

Certificate No. **D2450V2-750_Feb06**

CALIBRATION CERTIFICATE

Object **D2450V2 - SN: 750**

Calibration procedure(s) **QA CAL-05.v6
Calibration procedure for dipole validation kits**

Calibration date: **February 16, 2006**

Condition of the calibrated item **In Tolerance**

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 (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-05 (METAS, No. 251-00516)	Oct-06
Power sensor HP 8481A	US37292783	04-Oct-05 (METAS, No. 251-00516)	Oct-06
Reference 20 dB Attenuator	SN: 5086 (20g)	11-Aug-05 (METAS, No 251-00498)	Aug-06
Reference 10 dB Attenuator	SN: 5047.2 (10r)	11-Aug-05 (METAS, No 251-00498)	Aug-06
Reference Probe ES3DV2	SN 3025	28-Oct-05 (SPEAG, No. ES3-3025_Oct05)	Oct-06
DAE4	SN 601	15-Dec-05 (SPEAG, No. DAE4-601_Dec05)	Dec-06
Secondary Standards	ID #	Check Date (In house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (SPEAG, in house check Oct-05)	In house check: Oct-07
RF generator Agilent E4421B	MY41000675	11-May-05 (SPEAG, in house check Nov-05)	In house check: Nov-07
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (SPEAG, in house check Nov-05)	In house check: Nov-06

	Name	Function	Signature
Calibrated by:	Judith Müller	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: February 16, 2006

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

DASY4 Validation Report for Head TSL

Date/Time: 16.02.2006 15:43:44

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN750

Communication System: CW-2450; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL U10 BB;

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.79$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV2 - SN3025 (HF); ConvF(4.4, 4.4, 4.4); Calibrated: 28.10.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 15.12.2005
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; ;
- Measurement SW: DASY4, V4.6 Build 57; Postprocessing SW: SEMCAD, V1.8 Build 160

Pin = 250 mW; d = 10 mm/Area Scan (71x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 17.2 mW/g

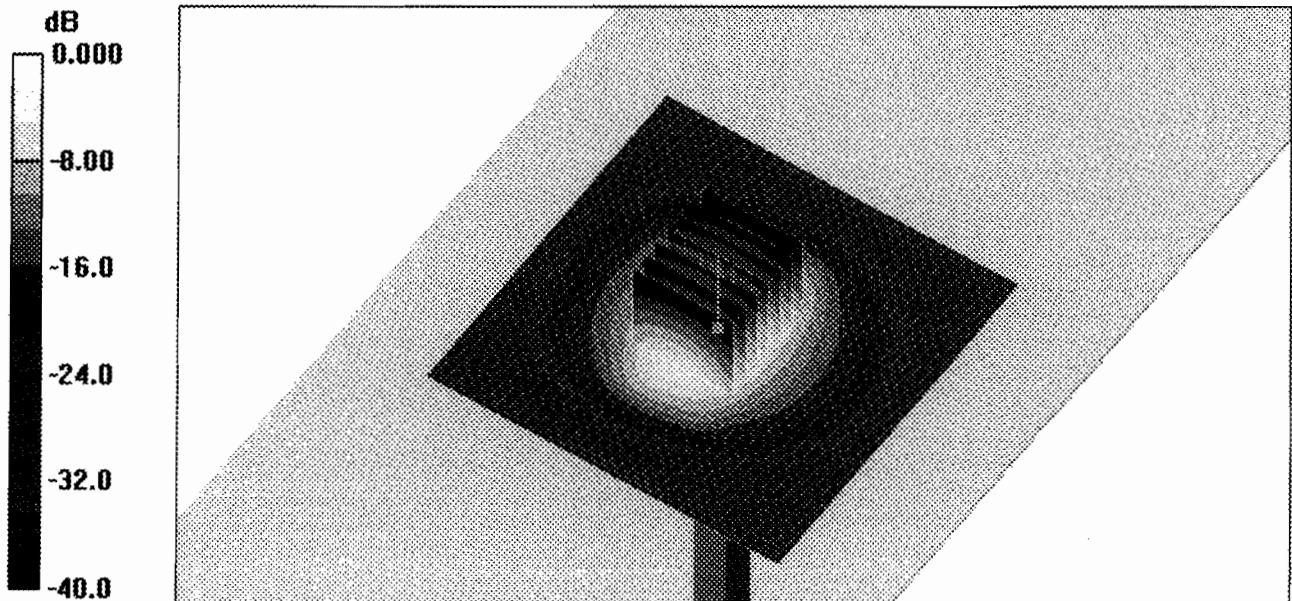
Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 94.5 V/m; Power Drift = -0.038 dB

Peak SAR (extrapolated) = 28.4 W/kg

SAR(1 g) = 13.7 mW/g; SAR(10 g) = 6.34 mW/g

Maximum value of SAR (measured) = 15.5 mW/g



0 dB = 15.5mW/g

DASY4 Validation Report for Body TSL

Date/Time: 13.02.2006 12:45:42

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN750

Communication System: CW-2450; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: MSL U10;

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 53.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV2 - SN3025 (HF); ConvF(4.06, 4.06, 4.06); Calibrated: 28.10.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 15.12.2005
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; ;
- Measurement SW: DASY4, V4.6 Build 56; Postprocessing SW: SEMCAD, V1.8 Build 160

Pin = 250 mW; d = 10 mm/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 16.7 mW/g

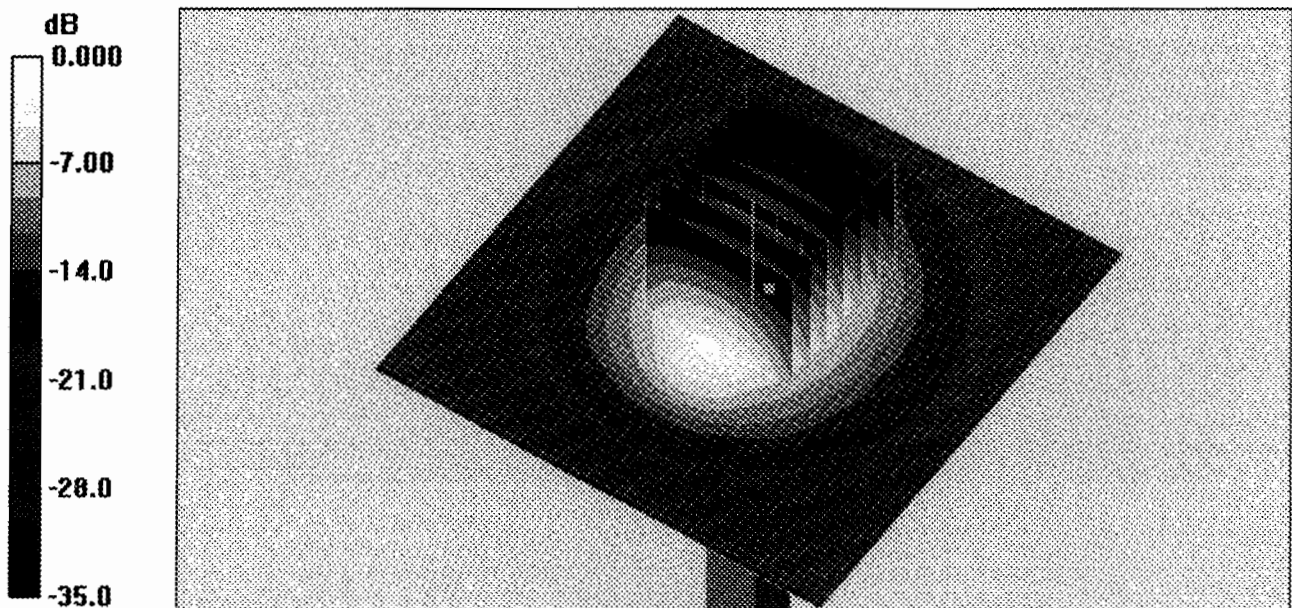
Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 88.7 V/m; Power Drift = -0.117 dB

Peak SAR (extrapolated) = 28.6 W/kg

SAR(1 g) = 13.5 mW/g; SAR(10 g) = 6.27 mW/g

Maximum value of SAR (measured) = 15.2 mW/g



0 dB = 15.2mW/g