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SAR Compliance Test Report

Test report no.:	Salo_SAR_0737_12	**Date of report:**	2007-09-20
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Measurements made by:	Ari Orte, Virpi Tuominen		
Tested device:	RM-313		
FCC ID:	QVVRM-313	**IC:**	661AE-RM313
Supplement reports:	Salo_SAR_0738_05		

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:

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CONTENTS

1. SUMMARY OF SAR TEST REPORT

1.1 Test Details

Period of test	2007-09-11 to 2007-09-18
SN, HW and SW numbers of tested device	SN: 004401/01/318014/2, HW: 3001, SW: 10.0.005, DUT: 12225
Batteries used in testing	BP-6MT, DUT: 12228, 12229, 12230
Headsets used in testing	HS-43, DUT: 12190
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
2-slot GPRS850	190 / 836.6	27.0dBm ERP	Left, Cheek	0.483 W/kg	**0.54 W/kg**	1.6 W/kg	PASSED
GSM1900	661 / 1880.0	31.2dBm EIRP	Left, Cheek	0.257 W/kg	**0.29 W/kg**	1.6 W/kg	PASSED
WLAN2450	7 / 2442.0	22.7dBm EIRP	Right, Cheek	0.251 W/kg	**0.28 W/kg**	1.6 W/kg	PASSED
2-slot GPRS850 + WLAN2450	-	-	Right, Cheek	0.694 W/kg	**0.78 W/kg**	1.6 W/kg	PASSED
GSM1900 + WLAN2450	-	-	Left, Cheek	0.411 W/kg	**0.46 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
2-slot GPRS850	251 / 848.8	25.6dBm ERP	1.5cm	0.693 W/kg	**0.78 W/kg**	1.6 W/kg	**PASSED**
GSM1900	810 / 1909.8	31.9dBm EIRP	1.5cm	0.263 W/kg	**0.29 W/kg**	1.6 W/kg	**PASSED**
WLAN2450	7 / 2442.0	22.7dBm EIRP	1.5cm	0.080 W/kg	**0.09 W/kg**	1.6 W/kg	**PASSED**
2-slot GPRS850 + WLAN2450	-	-	1.5cm	0.773 W/kg	**0.87 W/kg**	1.6 W/kg	**PASSED**
GSM1900 + WLAN2450	-	-	1.5cm	0.343 W/kg	**0.38 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	0.31dB

1.2.4 Measurement Uncertainty

Expanded Uncertainty (k=2) 95%	± 25.8%

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
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, GSM/GPRS/EGPRS1800 and WCDMA2100 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 Description of the Antenna

The device has internal antennas.

3. TEST CONDITIONS

3.1 Temperature and Humidity

Ambient temperature (°C):	21.2 to 22.1
Ambient humidity (RH %):	40 to 52

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.

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
DAE 4	555	12 months	2008-03
DAE 4	728	12 months	2008-02
E-field Probe ET3DV6	1396	12 months	2008-02
E-field Probe ET3DV6	1766	12 months	2008-03
E-field Probe ES3DV3	3131	12 months	2008-02
Dipole Validation Kit, D835V2	480	24 months	2009-05
Dipole Validation Kit, D1900V2	5d013	24 months	2008-07
Dipole Validation Kit, D2450V2	749	24 months	2008-04
DASY4 software	Version 4.7	-	-

Additional test equipment used in testing:

Test Equipment	Model	Serial Number	Calibration interval	Calibration expiry
Signal Generator	SML03	101265	12 months	2008-07
Amplifier	ZHL-42 (SMA)	N072095-5	12 months	2008-07
Power Meter	NRVS	849305/028	12 months	2008-07
Power Sensor	NRV-Z32	839176/020	12 months	2008-07
Call Tester	CMU 200	101111	-	-
Call Tester	CMU 200	103293	-	-
Call Tester	CMU 200	104983	-	-
Vector Network Analyzer	8753E	US38432928	12 months	
Dielectric Probe Kit	85070B	US33020420	-	-

4.1.1 Isotropic E-field Probe Type ET3DV6

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system 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 3 GHz (dosimetry); Linearity: ± 0.2 dB (30 MHz to 3 GHz)
Optical Surface Detection	± 0.2 mm repeatability in air and clear liquids over diffuse reflecting surfaces
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.4 dB in HSL (rotation normal to probe axis)
Dynamic Range	5 µW/g to > 100 mW/g; Linearity: ± 0.2 dB
Dimensions	Overall length: 330 mm Tip length: 16 mm Body diameter: 12 mm Tip diameter: 6.8 mm Distance from probe tip to dipole centers: 2.7 mm
Application	General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms

4.1.2 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 µW/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 Distance from probe tip to dipole centers: 2.0 mm
Application	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 ± 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	51.50	69.25
Tween 20	47.35	30.00
Salt	1.15	0.75

1900MHz band

Ingredient	Head (% by weight)	Body (% by weight)
Deionised Water	54.50	70.25
Tween 20	45.23	29.41
Salt	0.27	0.34

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]	
	Reference result	2.29	41.6	0.90	
	± 10% window	2.06 – 2.52			
835	2007-09-11	2.25	41.4	0.90	21.0
	Reference result	9.69	39.3	1.44	
	± 10% window	8.72 – 10.66			
1900	2007-09-12	9.95	40.1	1.40	21.0
	Reference result	13.5	38.8	1.76	
	± 10% window	12.1 – 14.9			
2450	2007-09-17	14.2	37.9	1.83	21.0

System checking, body tissue simulant

f [MHz]	Description	SAR [W/kg], 1g	Dielectric Parameters		Temp [°C]
			ε_r	σ [S/m]	
	Reference result	2.48	53.0	0.98	
	± 10% window	2.23 – 2.73			
835	2007-09-13	2.34	54.7	0.98	21.0
	2007-09-14	2.31	54.7	0.98	21.0
	Reference result	10.1	52.3	1.57	
	± 10% window	9.1 – 11.1			
1900	2007-09-13	9.79	52.9	1.55	21.0
	Reference result	14.1	53.7	1.97	
	± 10% window	12.7 – 15.5			
2450	2007-09-18	14.1	52.8	1.98	21.0

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]	
	Recommended value	41.5	0.90	
	± 5% window	39.4 – 43.6	0.86 – 0.95	
836	2007-09-11	41.4	0.90	21.0
	Recommended value	40.0	1.40	
	± 5% window	38.0 – 42.0	1.33 – 1.47	
1880	2007-09-12	40.2	1.39	21.0
	Recommended value	39.2	1.79	
	± 5% window	37.3 – 41.2	1.70 – 1.88	
2442	2007-09-17	37.9	1.82	21.0

Body tissue simulant measurements

f [MHz]	Description	Dielectric Parameters		Temp [°C]
		ε_r	σ [S/m]	
	Recommended value	55.2	0.97	
	± 5% window	52.4 – 58.0	0.92 – 1.02	
836	2007-09-13	54.8	0.98	21.0
	2007-09-14	54.7	0.97	21.0
	Recommended value	53.3	1.52	
	± 5% window	50.6 – 56.0	1.44 – 1.60	
1880	2007-09-13	52.9	1.53	21.0
	Recommended value	52.7	1.94	
	± 5% window	50.1 – 55.3	1.85 – 2.04	
2442	2007-09-18	52.8	1.97	21.0

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".

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 Section 1.2.2 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.

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	c_i	$c_i . u_i$ (%)	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

Mode	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**		**28.6 dBm**	**28.7 dBm**	**28.0 dBm**
	Left	Cheek	-	0.428	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
2-slot GPRS	**Power**		**26.8 dBm**	**27.0 dBm**	**25.6 dBm**
	Left	Cheek	0.384	**0.483**	0.449
		Tilt	-	0.340	-
	Right	Cheek	-	0.443	-
		Tilt	-	0.340	-
3-slot GPRS	**Power**		**25.5 dBm**	**25.5 dBm**	**23.7 dBm**
	Left	Cheek	-	0.454	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
2-slot 8PSK EGPRS	**Power**		**22.5 dBm**	**21.9 dBm**	**20.2 dBm**
	Left	Cheek	-	0.109	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
2-slot GPRS	Left Cheek, BT active		-	0.432	-

1900MHz Head SAR results

Mode	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		26.7 dBm	31.2 dBm	31.9 dBm
	Left	Cheek	0.137	**0.257**	0.231
		Tilt	-	0.170	-
	Right	Cheek	-	0.156	-
		Tilt	-	0.113	-
2-slot GPRS	Power		23.4 dBm	28.0 dBm	28.3 dBm
	Left	Cheek	-	0.222	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
3-slot GPRS	Power		21.6 dBm	26.0 dBm	26.3 dBm
	Left	Cheek	-	0.207	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
1-slot 8PSK EGPRS	Power		22.4 dBm	25.6 dBm	25.7 dBm
	Left	Cheek	-	0.049	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
GSM	Left Cheek, BT active		-	0.217	-

2450MHz Head SAR results

Mode	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		21.7 dBm	22.7 dBm	18.7 dBm
	Left	Cheek	-	0.154	-
		Tilt	-	0.192	-
	Right	Cheek	0.248	**0.251**	0.154
		Tilt	-	0.180	-

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

850MHz Body SAR results

Mode	Test configuration	SAR, averaged over 1g (W/kg)		
		Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz
2-slot GPRS	Power	26.8 dBm	27.0 dBm	25.6 dBm
	Without headset	0.686	0.666	**0.693**
	Headset HS-43	0.483	0.460	0.492
2-slot GPRS	Without headset, BT active	-	-	0.687

1900MHz Body SAR results

Mode	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	26.7 dBm	31.2 dBm	31.9 dBm
	Without headset	0.171	0.253	**0.263**
	Headset HS-43	0.174	0.249	0.251
GSM	Without headset, BT active	-	-	0.254

2450MHz Body SAR results

Mode	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	21.7 dBm	22.7 dBm	18.7 dBm
	Without headset	0.066	**0.080**	0.074
	Headset HS-43	0.054	0.073	0.042

Simultaneous transmissions: Combined SAR results

Test configuration	Max. 1g SAR results			Combined 1g SAR values	
	WLAN	Cellular 850MHz band	Cellular 1900MHz band	WLAN + Cellular 850MHz band	WLAN + Cellular 1900MHz band
Head: Left, Cheek	0.154	0.483	0.257	0.637	**0.411**
Head: Left, Tilt	0.192	0.340	0.170	0.532	0.362
Head: Right, Cheek	0.251	0.443	0.156	**0.694**	0.407
Head: Right, Tilt	0.180	0.340	0.113	0.520	0.293
Body: Without Headset	0.080	0.693	0.263	**0.773**	**0.343**
Body: Headset HS-43	0.073	0.492	0.251	0.565	0.324

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

Date/Time: 2007-09-11 13:44:19

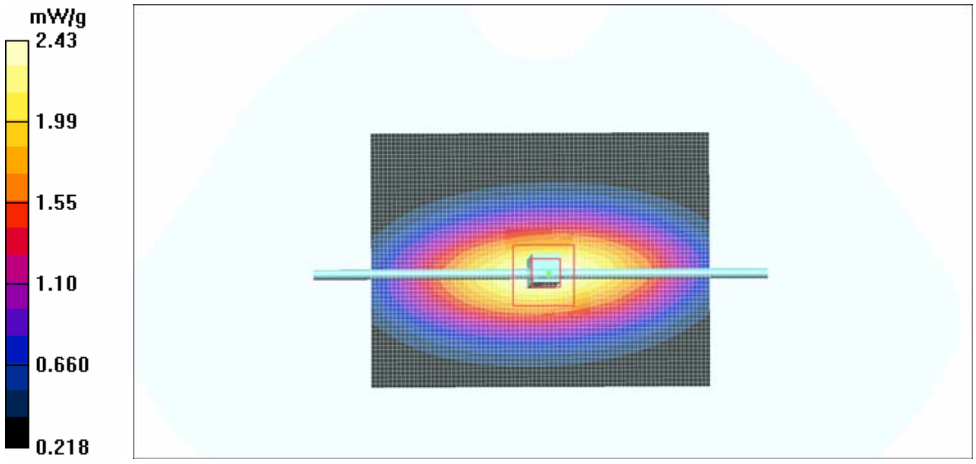
Test Laboratory: TCC Nokia
Type: D835V2; Serial: D835V2 - SN:480

Communication System: CW835
Frequency: 835 MHz; Duty Cycle: 1:1
Medium: HSL835 (070911); Medium Notes: t=20.6C
Medium parameters used: f = 835 MHz; σ = 0.898 mho/m; ε_r = 41.4; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396;
- ConvF(6.86, 6.86, 6.86); Calibrated: 2007-02-12
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.42 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.8 V/m
Peak SAR (extrapolated) = 3.38 W/kg
SAR(1 g) = 2.25 mW/g
SAR(10 g) = 1.47 mW/g
Power Drift = -0.015 dB
Maximum value of SAR (measured) = 2.43 mW/g



Date/Time: 2007-09-12 10:37:33

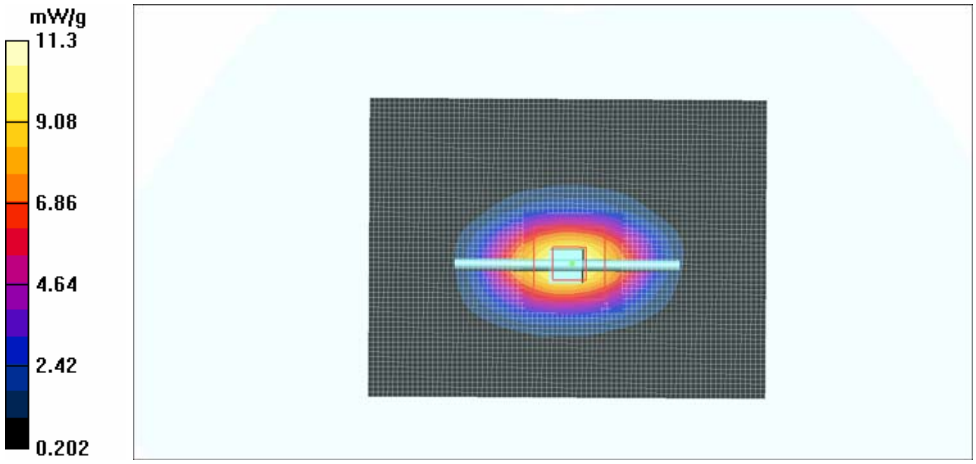
Test Laboratory: TCC Nokia
Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900
Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: HSL1900; Medium Notes: 20.6C
Medium parameters used: f = 1900 MHz; σ = 1.4 mho/m; ε_r = 40.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1766;
- ConvF(4.97, 4.97, 4.97); Calibrated: 2007-03-19
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 3; Type: SAM 4.0; Serial: 1272
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.6 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 95.5 V/m
Peak SAR (extrapolated) = 17.3 W/kg
SAR(1 g) = 9.95 mW/g
SAR(10 g) = 5.25 mW/g
Power Drift = -0.047 dB
Maximum value of SAR (measured) = 11.3 mW/g



Date/Time: 2007-09-17 09:07:12

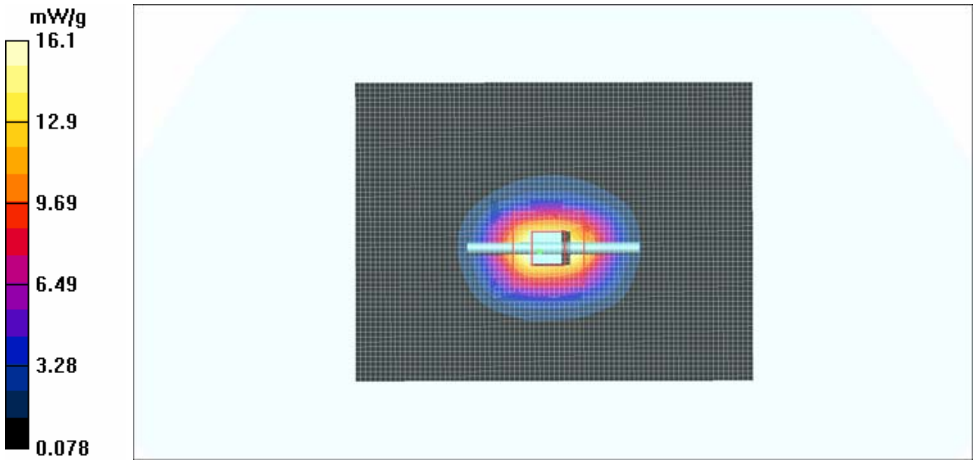
Test Laboratory: TCC Nokia
Type: D2450V2; Serial: D2450V2 - SN:749

Communication System: CW2450
Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: HSL2450 (070917); Medium Notes: T=20.8C
Medium parameters used: f = 2450 MHz; σ = 1.83 mho/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3131;
- ConvF(4.45, 4.45, 4.45); Calibrated: 2007-02-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 17.2 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 96.1 V/m
Peak SAR (extrapolated) = 30.2 W/kg
SAR(1 g) = 14.2 mW/g
SAR(10 g) = 6.51 mW/g
Power Drift = -0.041 dB
Maximum value of SAR (measured) = 16.1 mW/g



Date/Time: 2007-09-13 12:32:10

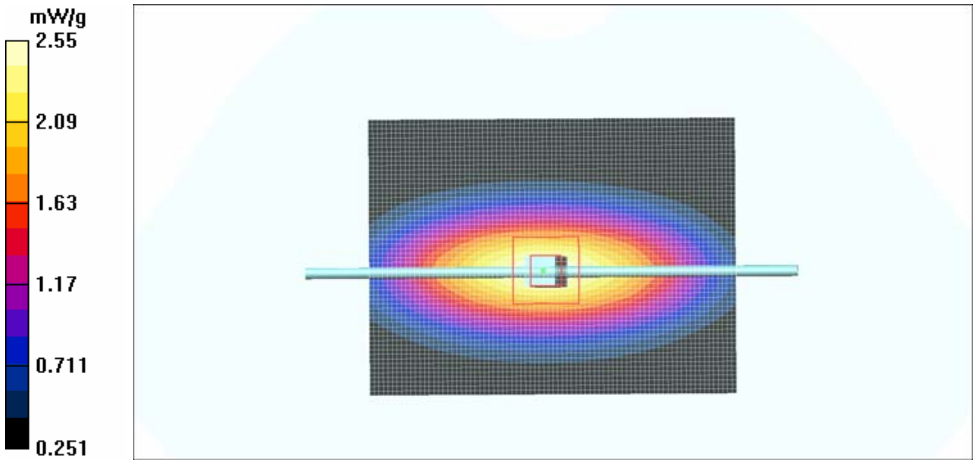
Test Laboratory: TCC Nokia
Type: D835V2; Serial: D835V2 - SN:480

Communication System: CW835
Frequency: 835 MHz; Duty Cycle: 1:1
Medium: BSL900; Medium Notes: t=21.0C
Medium parameters used: f = 835 MHz; σ = 0.982 mho/m; ε_r = 54.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396;
- ConvF(6.62, 6.62, 6.62); Calibrated: 2007-02-12
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2007-02-13
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.52 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 52.3 V/m
Peak SAR (extrapolated) = 3.36 W/kg
SAR(1 g) = 2.34 mW/g
SAR(10 g) = 1.55 mW/g
Power Drift = 0.007 dB
Maximum value of SAR (measured) = 2.55 mW/g



Date/Time: 2007-09-14 06:39:05

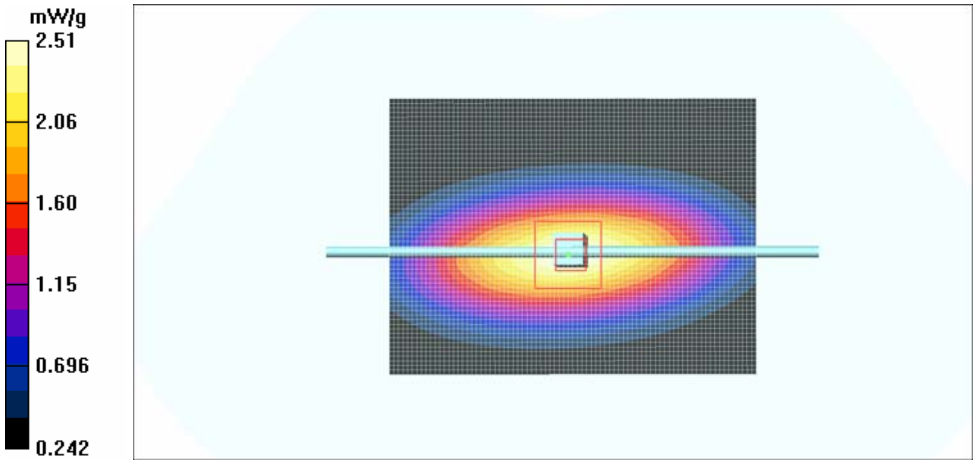
Test Laboratory: TCC Nokia
Type: D835V2; Serial: D835V2 - SN:480

Communication System: CW835
Frequency: 835 MHz; Duty Cycle: 1:1
Medium: BSL800; Medium Notes: t=21.0C
Medium parameters used: f = 835 MHz; σ = 0.975 mho/m; ε_r = 54.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396;
- ConvF(6.62, 6.62, 6.62); Calibrated: 2007-02-12
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2007-02-13
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.50 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 52.4 V/m
Peak SAR (extrapolated) = 3.34 W/kg
SAR(1 g) = 2.31 mW/g
SAR(10 g) = 1.53 mW/g
Power Drift = 0.000 dB
Maximum value of SAR (measured) = 2.51 mW/g



Date/Time: 2007-09-13 09:37:14

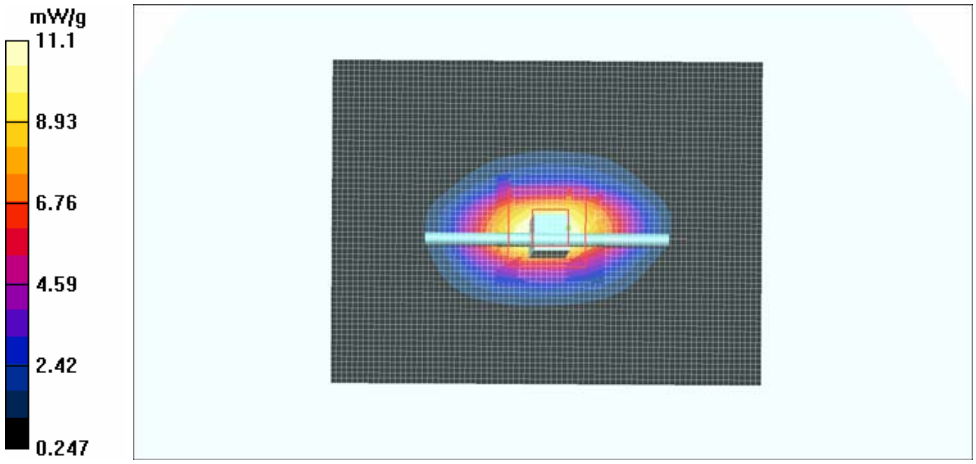
Test Laboratory: TCC Nokia
Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900
Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: BSL1900(070913); Medium Notes: 21.0C
Medium parameters used: f = 1900 MHz; σ = 1.55 mho/m; ε_r = 52.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1766;
- ConvF(4.68, 4.68, 4.68); Calibrated: 2007-03-19
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.4 mW/g

d=15mm, Pin=250mW/Zoom Scan 2 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 88.4 V/m
Peak SAR (extrapolated) = 16.5 W/kg
SAR(1 g) = 9.79 mW/g
SAR(10 g) = 5.24 mW/g
Power Drift = -0.005 dB
Maximum value of SAR (measured) = 11.1 mW/g



Date/Time: 2007-09-18 07:36:07

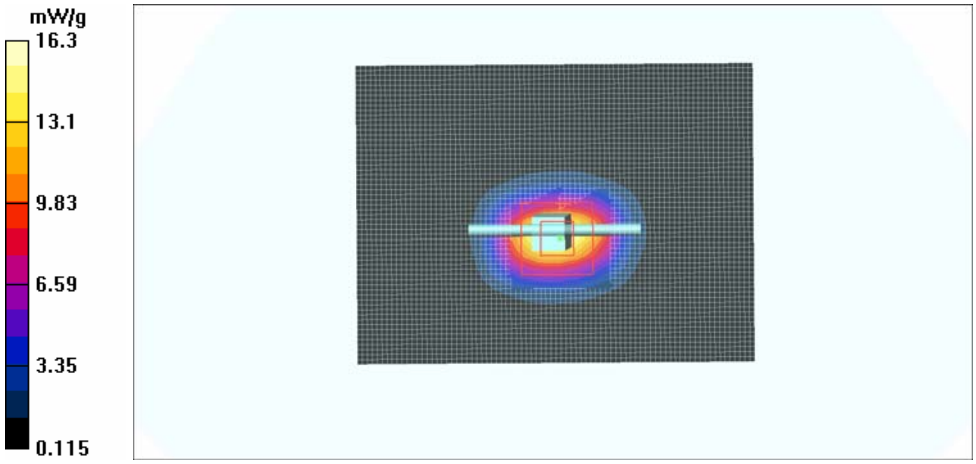
Test Laboratory: TCC Nokia
Type: D2450V2; Serial: D2450V2 - SN:749

Communication System: CW2450
Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: BSL2450 (070918); Medium Notes: T=21.2C
Medium parameters used: f = 2450 MHz; σ = 1.98 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3131;
- ConvF(4.1, 4.1, 4.1); Calibrated: 2007-02-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 3; Type: SAM 4.0; Serial: 1272
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 16.3 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 91.3 V/m
Peak SAR (extrapolated) = 29.2 W/kg
SAR(1 g) = 14.1 mW/g
SAR(10 g) = 6.51 mW/g
Power Drift = -0.105 dB
Maximum value of SAR (measured) = 16.3 mW/g



APPENDIX B: MEASUREMENT SCANS

Date/Time: 2007-09-11 14:38:46

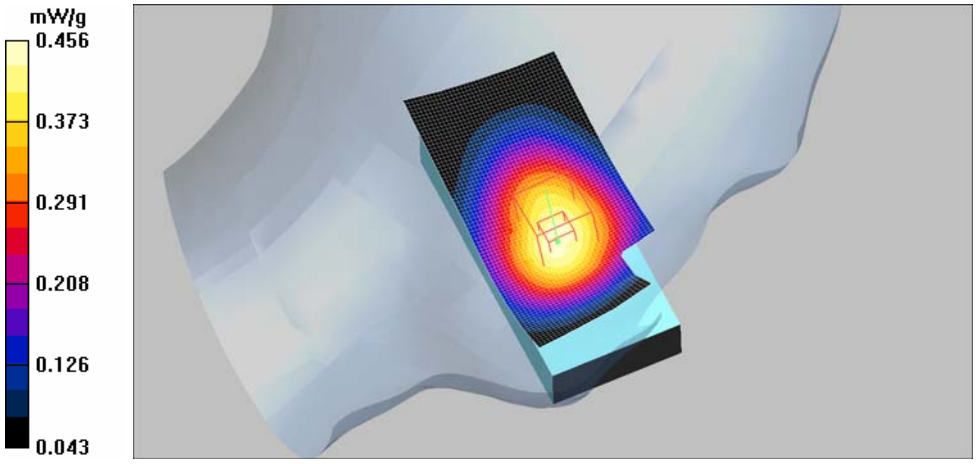
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: GSM850
Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium: HSL835 (070911); Medium Notes: t=20.6C
Medium parameters used: f = 837 MHz; σ = 0.898 mho/m; ε_r = 41.4; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396;
- ConvF(6.86, 6.86, 6.86); Calibrated: 2007-02-12
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.450 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 8.80 V/m
Peak SAR (extrapolated) = 0.568 W/kg
SAR(1 g) = 0.428 mW/g
SAR(10 g) = 0.304 mW/g
Power Drift = -0.141 dB
Maximum value of SAR (measured) = 0.456 mW/g



Date/Time: 2007-09-11 15:16:10

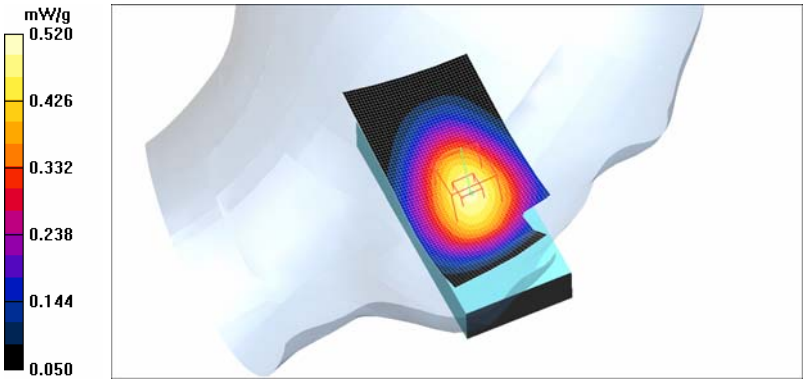
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

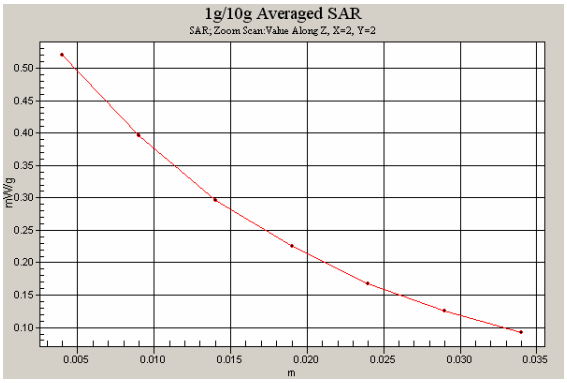
Communication System: 2-slot GPRS850
Frequency: 836.6 MHz; Duty Cycle: 1:4.2
Medium: HSL835 (070911); Medium Notes: t=20.6C
Medium parameters used: f = 837 MHz; σ = 0.898 mho/m; ε_r = 41.4; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396;
- ConvF(6.86, 6.86, 6.86); Calibrated: 2007-02-12
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.496 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 9.42 V/m
Peak SAR (extrapolated) = 0.628 W/kg
SAR(1 g) = 0.483 mW/g
SAR(10 g) = 0.341 mW/g
Power Drift = -0.219 dB
Maximum value of SAR (measured) = 0.520 mW/g





Date/Time: 2007-09-11 15:57:12

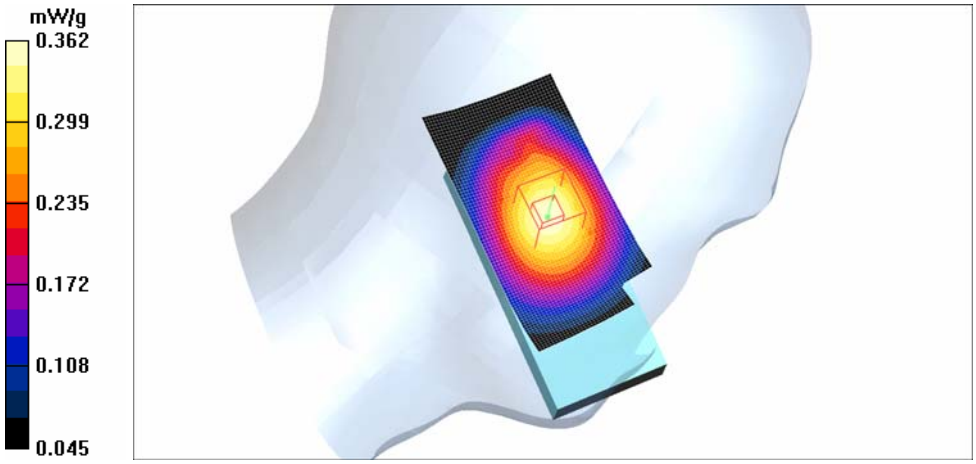
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: 2-slot GPRS850
Frequency: 836.6 MHz; Duty Cycle: 1:4.2
Medium: HSL835 (070911); Medium Notes: t=20.5C
Medium parameters used: f = 837 MHz; σ = 0.898 mho/m; ε_r = 41.4; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396;
- ConvF(6.86, 6.86, 6.86); Calibrated: 2007-02-12
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Tilt position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.362 mW/g

Tilt position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 15.9 V/m
Peak SAR (extrapolated) = 0.450 W/kg
SAR(1 g) = 0.340 mW/g
SAR(10 g) = 0.245 mW/g
Power Drift = -0.052 dB
Maximum value of SAR (measured) = 0.362 mW/g



Date/Time: 2007-09-11 17:07:07

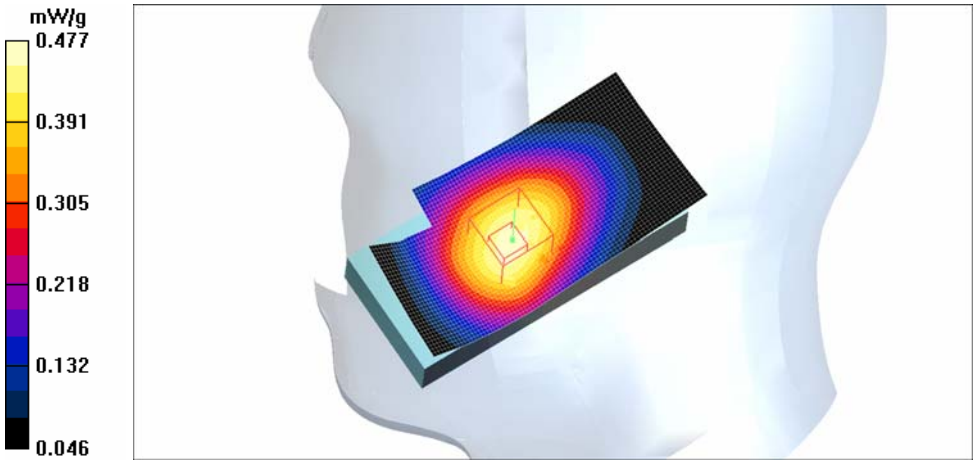
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: 2-slot GPRS850
Frequency: 836.6 MHz; Duty Cycle: 1:4.2
Medium: HSL835 (070911); Medium Notes: t=20.5C
Medium parameters used: f = 837 MHz; σ = 0.898 mho/m; ε_r = 41.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396;
- ConvF(6.86, 6.86, 6.86); Calibrated: 2007-02-12
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.465 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 9.73 V/m
Peak SAR (extrapolated) = 0.579 W/kg
SAR(1 g) = 0.443 mW/g
SAR(10 g) = 0.316 mW/g
Power Drift = -0.103 dB
Maximum value of SAR (measured) = 0.477 mW/g



Date/Time: 2007-09-11 17:19:59

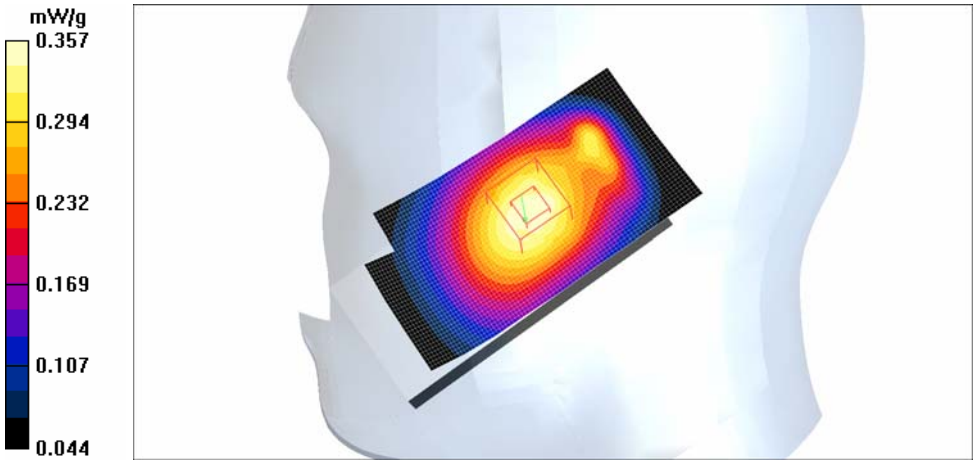
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: 2-slot GPRS850
Frequency: 836.6 MHz; Duty Cycle: 1:4.2
Medium: HSL835 (070911); Medium Notes: t=20.5C
Medium parameters used: f = 837 MHz; σ = 0.898 mho/m; ε_r = 41.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396;
- ConvF(6.86, 6.86, 6.86); Calibrated: 2007-02-12
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Tilt position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.358 mW/g

Tilt position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 16.5 V/m
Peak SAR (extrapolated) = 0.454 W/kg
SAR(1 g) = 0.340 mW/g
SAR(10 g) = 0.245 mW/g
Power Drift = -0.156 dB
Maximum value of SAR (measured) = 0.357 mW/g



Date/Time: 2007-09-11 15:33:25

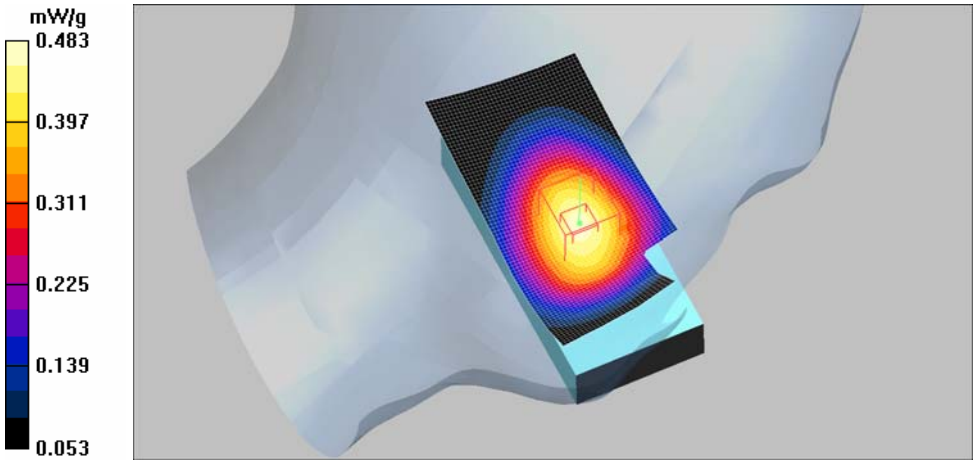
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: 3-slot GPRS850
Frequency: 836.6 MHz; Duty Cycle: 1:2.8
Medium: HSL835 (070911); Medium Notes: t=20.6C
Medium parameters used: f = 837 MHz; σ = 0.898 mho/m; ε_r = 41.4; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396;:
- ConvF(6.86, 6.86, 6.86); Calibrated: 2007-02-12
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.469 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 9.05 V/m
Peak SAR (extrapolated) = 0.585 W/kg
SAR(1 g) = 0.454 mW/g
SAR(10 g) = 0.323 mW/g
Power Drift = -0.011 dB
Maximum value of SAR (measured) = 0.483 mW/g



Date/Time: 2007-09-11 18:34:52

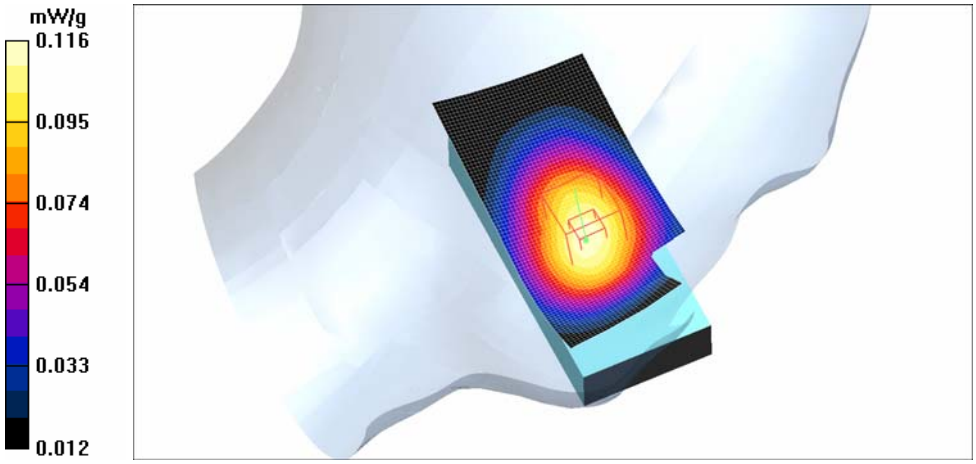
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: 2-slot 8PSK EGPRS850
Frequency: 836 MHz; Duty Cycle: 1:4.2
Medium: HSL835 (070911); Medium Notes: t=20.3C
Medium parameters used: f = 837 MHz; σ = 0.898 mho/m; ε_r = 41.4; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396;
- ConvF(6.86, 6.86, 6.86); Calibrated: 2007-02-12
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.114 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.47 V/m
Peak SAR (extrapolated) = 0.141 W/kg
SAR(1 g) = 0.109 mW/g
SAR(10 g) = 0.078 mW/g
Power Drift = -0.008 dB
Maximum value of SAR (measured) = 0.116 mW/g



Date/Time: 2007-09-11 18:16:57

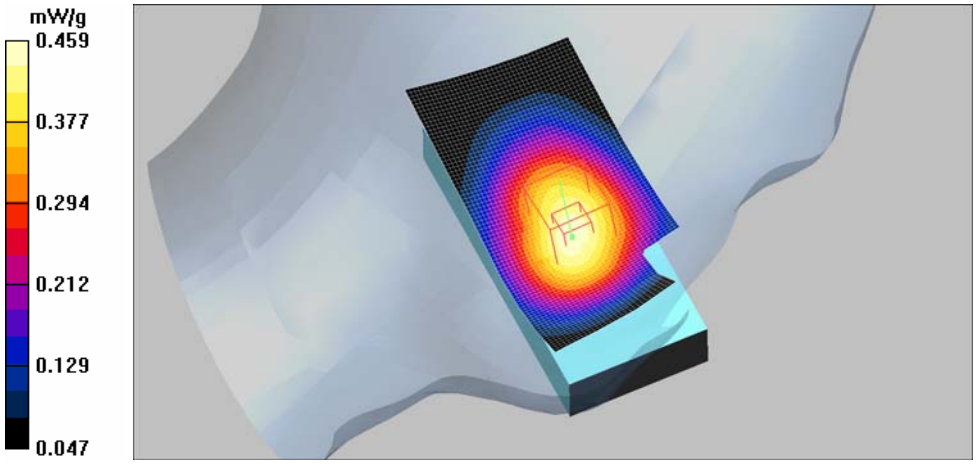
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: 2-slot GPRS850
Frequency: 836.6 MHz; Duty Cycle: 1:4.2
Medium: HSL835 (070911); Medium Notes: t=20.3C
Medium parameters used: f = 837 MHz; σ = 0.898 mho/m; ε_r = 41.4; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396;
- ConvF(6.86, 6.86, 6.86); Calibrated: 2007-02-12
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek position, Middle, BT/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.452 mW/g

Cheek position, Middle, BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 8.99 V/m
Peak SAR (extrapolated) = 0.561 W/kg
SAR(1 g) = 0.432 mW/g
SAR(10 g) = 0.309 mW/g
Power Drift = -0.136 dB
Maximum value of SAR (measured) = 0.459 mW/g



Date/Time: 2007-09-12 11:33:35

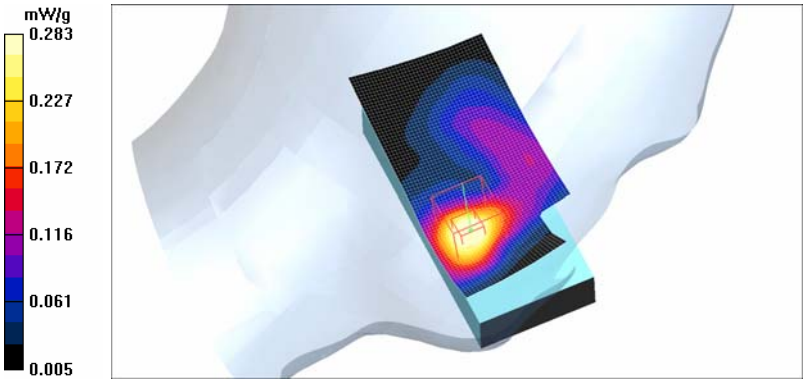
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

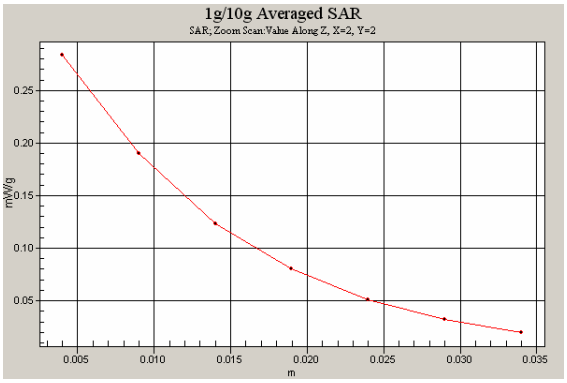
Communication System: GSM1900
Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: HSL1900(070912); Medium Notes: 20.6C
Medium parameters used: f = 1880 MHz; σ = 1.39 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1766;
- ConvF(4.97, 4.97, 4.97); Calibrated: 2007-03-19
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 3; Type: SAM 4.0; Serial: 1272
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.327 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.40 V/m
Peak SAR (extrapolated) = 0.387 W/kg
SAR(1 g) = 0.257 mW/g
SAR(10 g) = 0.151 mW/g
Power Drift = -0.133 dB
Maximum value of SAR (measured) = 0.283 mW/g





Date/Time: 2007-09-12 13:11:42

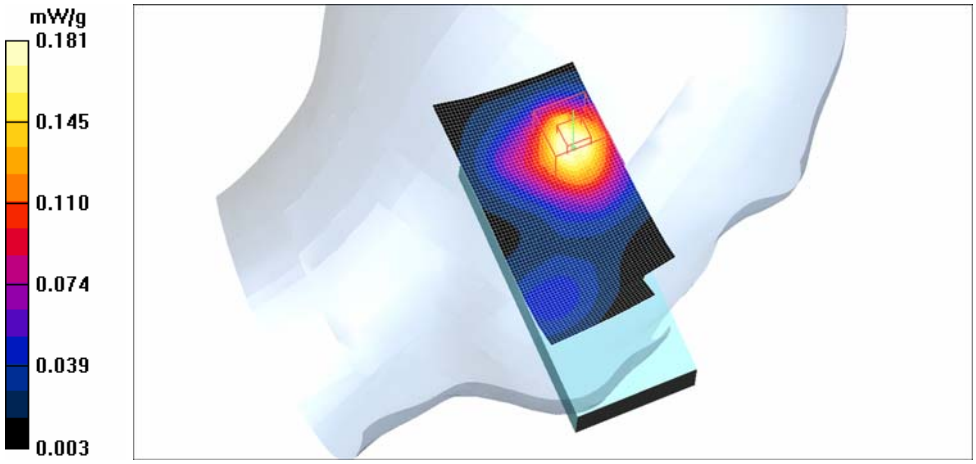
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: GSM1900
Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: HSL1900(070912); Medium Notes: 20.6C
Medium parameters used: f = 1880 MHz; σ = 1.39 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1766;
- ConvF(4.97, 4.97, 4.97); Calibrated: 2007-03-19
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 3; Type: SAM 4.0; Serial: 1272
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Tilt position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.192 mW/g

Tilt position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 8.64 V/m
Peak SAR (extrapolated) = 0.269 W/kg
SAR(1 g) = 0.170 mW/g
SAR(10 g) = 0.100 mW/g
Power Drift = -0.044 dB
Maximum value of SAR (measured) = 0.181 mW/g



Date/Time: 2007-09-12 13:38:37

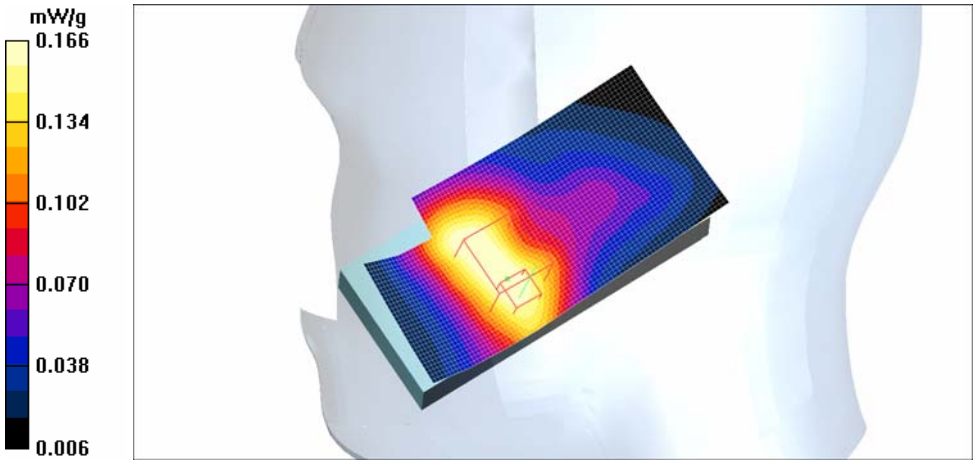
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: GSM1900
Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: HSL1900(070912); Medium Notes: 20.2C
Medium parameters used: f = 1880 MHz; σ = 1.39 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1766;
- ConvF(4.97, 4.97, 4.97); Calibrated: 2007-03-19
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 3; Type: SAM 4.0; Serial: 1272
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.171 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.17 V/m
Peak SAR (extrapolated) = 0.236 W/kg
SAR(1 g) = 0.156 mW/g
SAR(10 g) = 0.102 mW/g
Power Drift = -0.046 dB
Maximum value of SAR (measured) = 0.166 mW/g



Date/Time: 2007-09-12 13:54:00

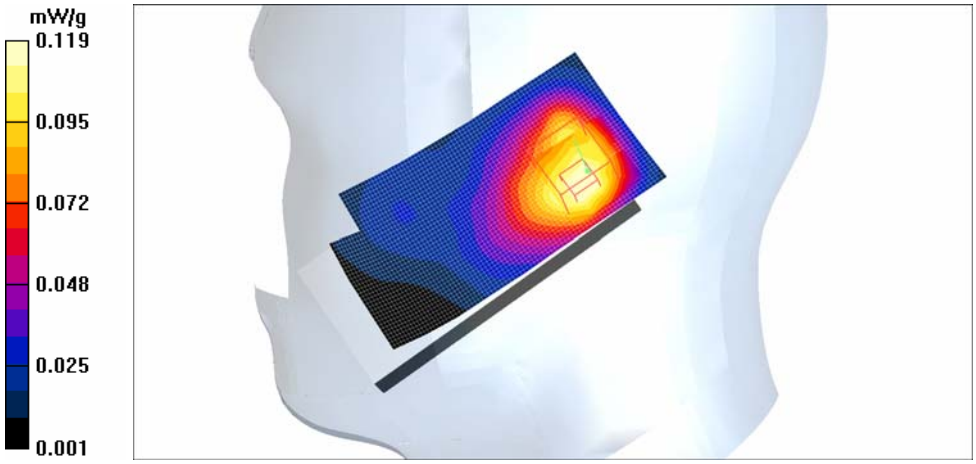
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: GSM1900
Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: HSL1900(070912); Medium Notes: 20.2C
Medium parameters used: f = 1880 MHz; σ = 1.39 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1766;
- ConvF(4.97, 4.97, 4.97); Calibrated: 2007-03-19
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 3; Type: SAM 4.0; Serial: 1272
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Tilt position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.133 mW/g

Tilt position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 8.88 V/m
Peak SAR (extrapolated) = 0.161 W/kg
SAR(1 g) = 0.113 mW/g
SAR(10 g) = 0.071 mW/g
Power Drift = 0.068 dB
Maximum value of SAR (measured) = 0.119 mW/g



Date/Time: 2007-09-12 11:48:51

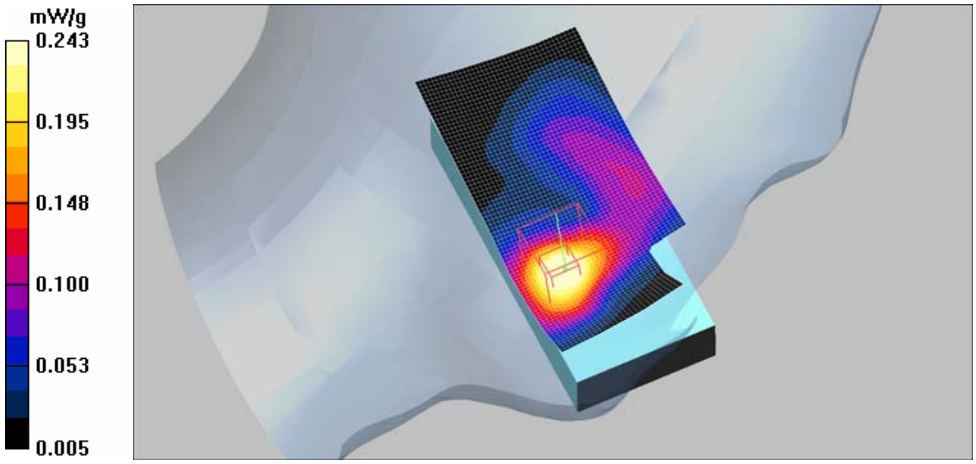
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: 2-slot GPRS1900
Frequency: 1880 MHz; Duty Cycle: 1:4.2
Medium: HSL1900(070912); Medium Notes: 20.6C
Medium parameters used: f = 1880 MHz; σ = 1.39 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1766;
- ConvF(4.97, 4.97, 4.97); Calibrated: 2007-03-19
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 3; Type: SAM 4.0; Serial: 1272
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.281 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.09 V/m
Peak SAR (extrapolated) = 0.330 W/kg
SAR(1 g) = 0.222 mW/g
SAR(10 g) = 0.131 mW/g
Power Drift = -0.197 dB
Maximum value of SAR (measured) = 0.243 mW/g



Date/Time: 2007-09-12 12:05:48

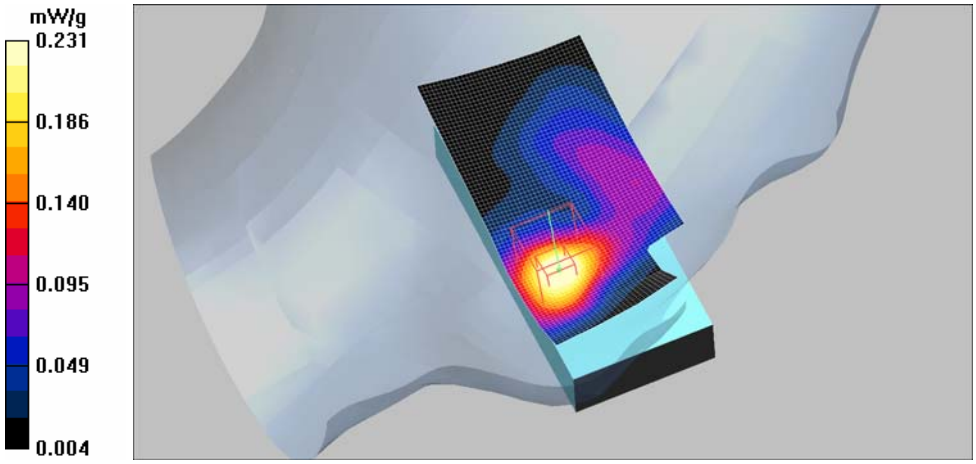
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: 3-slot GPRS1900
Frequency: 1880 MHz; Duty Cycle: 1:2.8
Medium: HSL1900(070912); Medium Notes: 20.6C
Medium parameters used: f = 1880 MHz; σ = 1.39 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1766;
- ConvF(4.97, 4.97, 4.97); Calibrated: 2007-03-19
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 3; Type: SAM 4.0; Serial: 1272
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.260 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.72 V/m
Peak SAR (extrapolated) = 0.313 W/kg
SAR(1 g) = 0.207 mW/g
SAR(10 g) = 0.121 mW/g
Power Drift = -0.199 dB
Maximum value of SAR (measured) = 0.231 mW/g



Date/Time: 2007-09-12 15:40:02

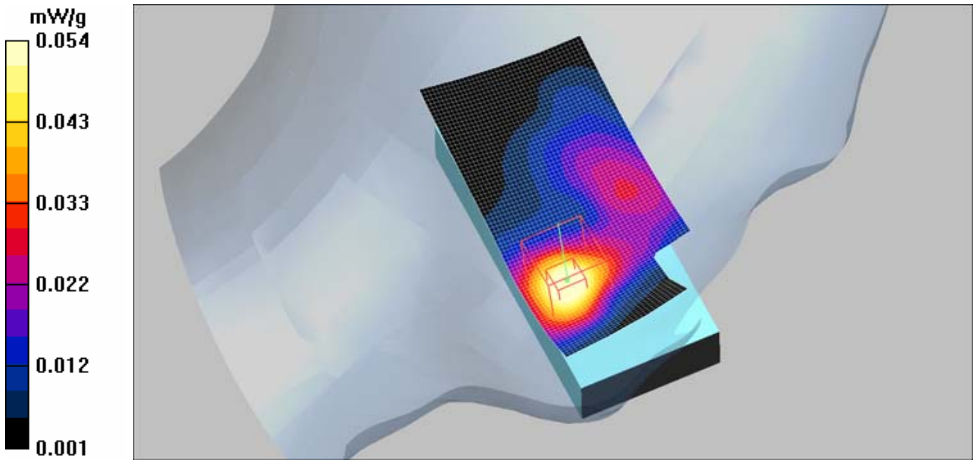
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: 1-slot 8PSK EGPRS1900
Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: HSL1900(070912); Medium Notes: 20.2C
Medium parameters used: f = 1880 MHz; σ = 1.39 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1766;
- ConvF(4.97, 4.97, 4.97); Calibrated: 2007-03-19
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 3; Type: SAM 4.0; Serial: 1272
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.059 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 1.40 V/m
Peak SAR (extrapolated) = 0.077 W/kg
SAR(1 g) = 0.049 mW/g
SAR(10 g) = 0.029 mW/g
Power Drift = -0.085 dB
Maximum value of SAR (measured) = 0.054 mW/g



Date/Time: 2007-09-12 15:13:14

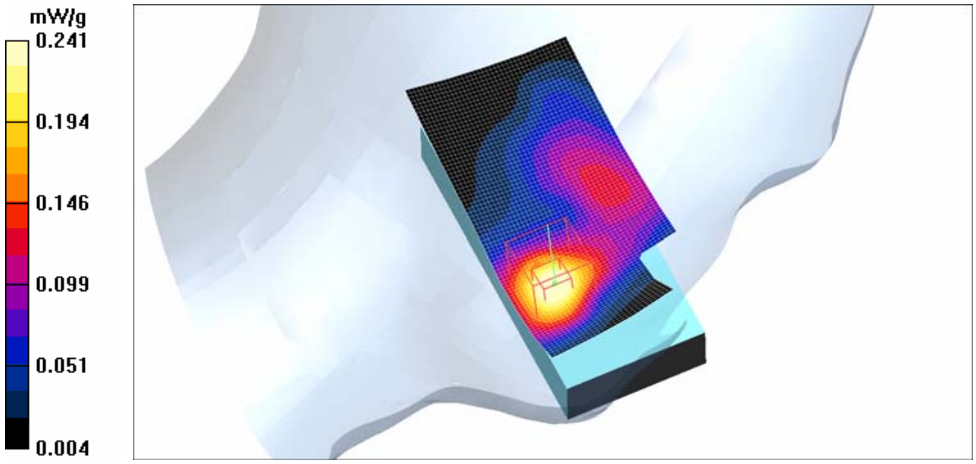
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: GSM1900
Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: HSL1900(070912); Medium Notes: 20.6C
Medium parameters used: f = 1880 MHz; σ = 1.39 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1766;
- ConvF(4.97, 4.97, 4.97); Calibrated: 2007-03-19
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 3; Type: SAM 4.0; Serial: 1272
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek position, Middle, BT/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.254 mW/g

Cheek position, Middle, BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.50 V/m
Peak SAR (extrapolated) = 0.327 W/kg
SAR(1 g) = 0.217 mW/g
SAR(10 g) = 0.126 mW/g
Power Drift = -0.309 dB
Maximum value of SAR (measured) = 0.241 mW/g



Date/Time: 2007-09-17 11:07:38

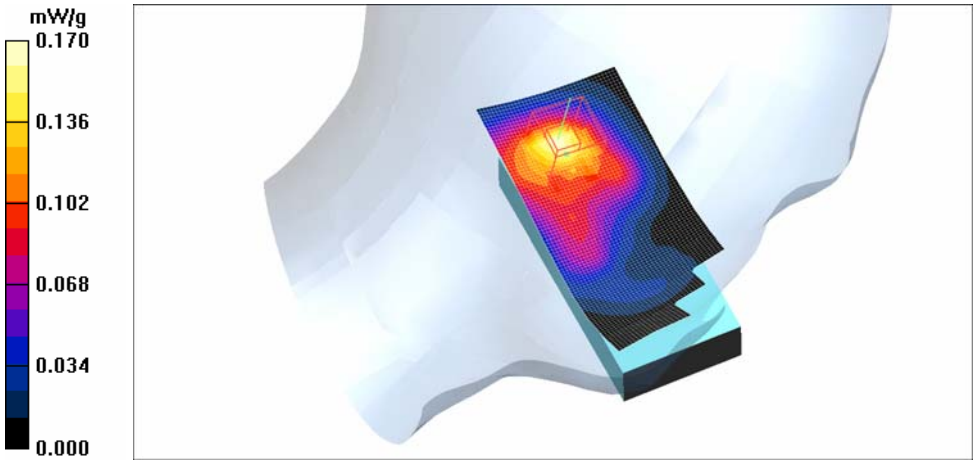
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: WLAN2450
Frequency: 2442 MHz; Duty Cycle: 1:1
Medium: HSL2450 (070917); Medium Notes: T=20.8C
Medium parameters used: f = 2442 MHz; σ = 1.82 mho/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3131;
- ConvF(4.45, 4.45, 4.45); Calibrated: 2007-02-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek position, Middle/Area Scan (41x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.153 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 9.45 V/m
Peak SAR (extrapolated) = 0.296 W/kg
SAR(1 g) = 0.154 mW/g
SAR(10 g) = 0.078 mW/g
Power Drift = -0.009 dB
Maximum value of SAR (measured) = 0.170 mW/g



Date/Time: 2007-09-17 10:55:27

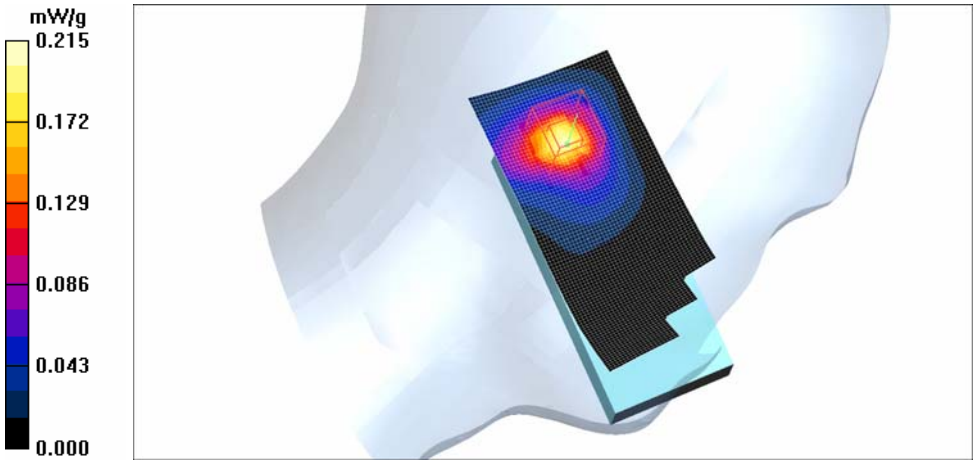
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: WLAN2450
Frequency: 2442 MHz; Duty Cycle: 1:1
Medium: HSL2450 (070917); Medium Notes: T=20.8C
Medium parameters used: f = 2442 MHz; σ = 1.82 mho/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3131;
- ConvF(4.45, 4.45, 4.45); Calibrated: 2007-02-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Tilt position, Middle/Area Scan (41x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.219 mW/g

Tilt position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 11.3 V/m
Peak SAR (extrapolated) = 0.390 W/kg
SAR(1 g) = 0.192 mW/g
SAR(10 g) = 0.090 mW/g
Power Drift = -0.146 dB
Maximum value of SAR (measured) = 0.215 mW/g



Date/Time: 2007-09-17 12:28:21

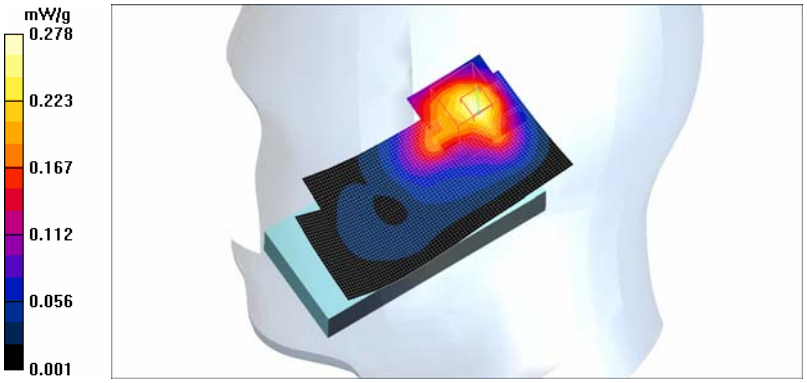
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

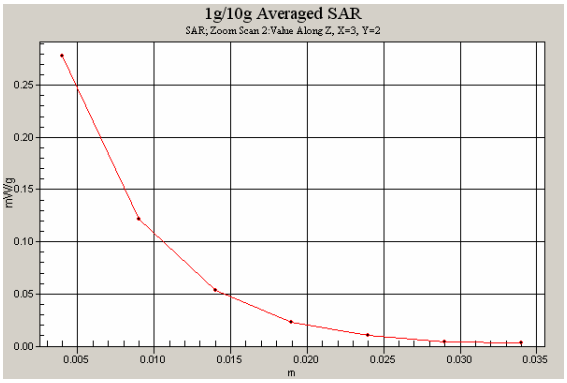
Communication System: WLAN2450
Frequency: 2442 MHz; Duty Cycle: 1:1
Medium: HSL2450 (070917); Medium Notes: T=20.0C
Medium parameters used: f = 2442 MHz; σ = 1.82 mho/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3131;
- ConvF(4.45, 4.45, 4.45); Calibrated: 2007-02-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.287 mW/g

Cheek position, Middle/Zoom Scan 2 (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 9.91 V/m
Peak SAR (extrapolated) = 0.585 W/kg
SAR(1 g) = 0.251 mW/g
SAR(10 g) = 0.121 mW/g
Power Drift = -0.084 dB
Maximum value of SAR (measured) = 0.278 mW/g





Date/Time: 2007-09-17 12:48:44

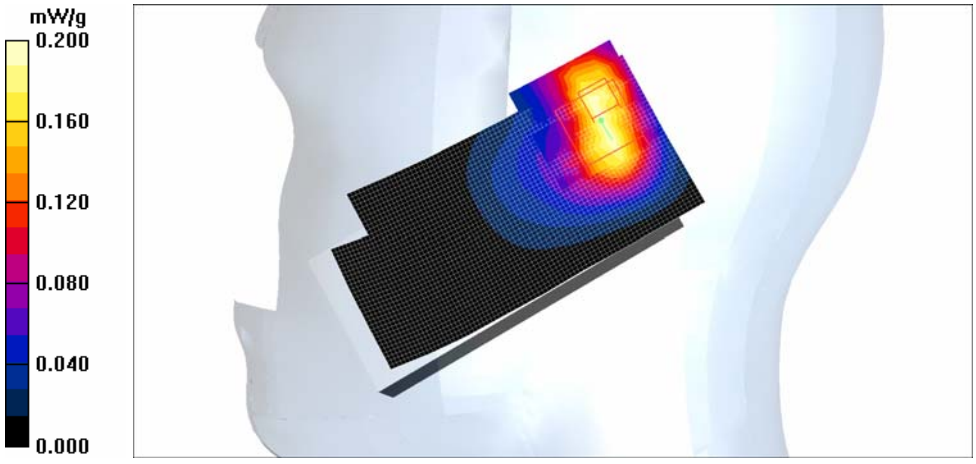
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: WLAN2450
Frequency: 2442 MHz; Duty Cycle: 1:1
Medium: HSL2450 (070917); Medium Notes: T=20.1C
Medium parameters used: f = 2442 MHz; σ = 1.82 mho/m; ε_r = 37.9; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3131;
- ConvF(4.45, 4.45, 4.45); Calibrated: 2007-02-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Tilt position, Middle/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.207 mW/g

Tilt position, Middle/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 10.6 V/m
Peak SAR (extrapolated) = 0.421 W/kg
SAR(1 g) = 0.180 mW/g
SAR(10 g) = 0.089 mW/g
Power Drift = -0.028 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) = 0.200 mW/g



Date/Time: 2007-09-13 14:41:17

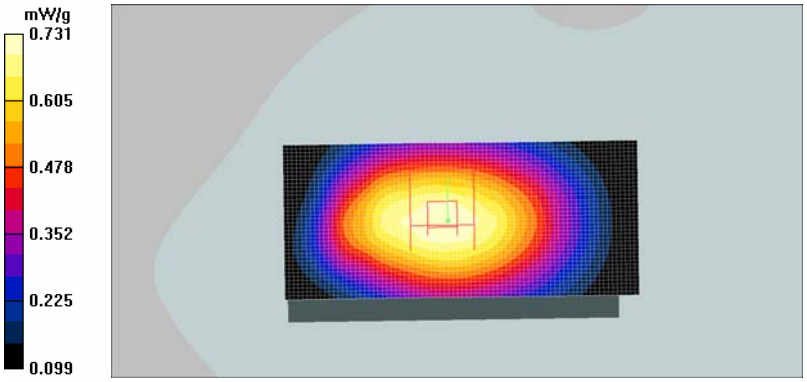
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

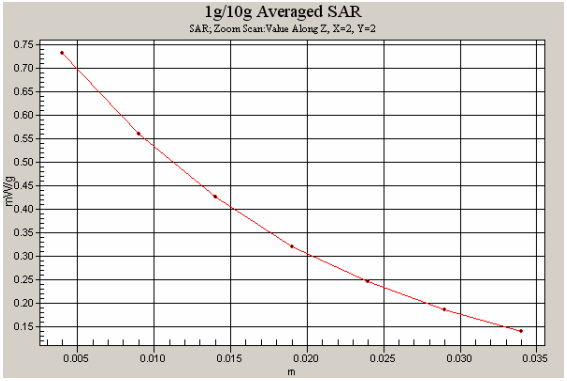
Communication System: 2-slot GPRS850
Frequency: 848.8 MHz; Duty Cycle: 1:4.2
Medium: BSL900; Medium Notes: t=20.3C
Medium parameters used: f = 849 MHz; σ = 0.99 mho/m; ε_r = 54.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396;
- ConvF(6.62, 6.62, 6.62); Calibrated: 2007-02-12
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2007-02-13
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Body Measurement, High, No accessory/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.738 mW/g

Body Measurement, High, No accessory/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 15.0 V/m
Peak SAR (extrapolated) = 0.877 W/kg
SAR(1 g) = 0.693 mW/g
SAR(10 g) = 0.510 mW/g
Power Drift = -0.033 dB
Maximum value of SAR (measured) = 0.731 mW/g





Date/Time: 2007-09-13 14:56:26

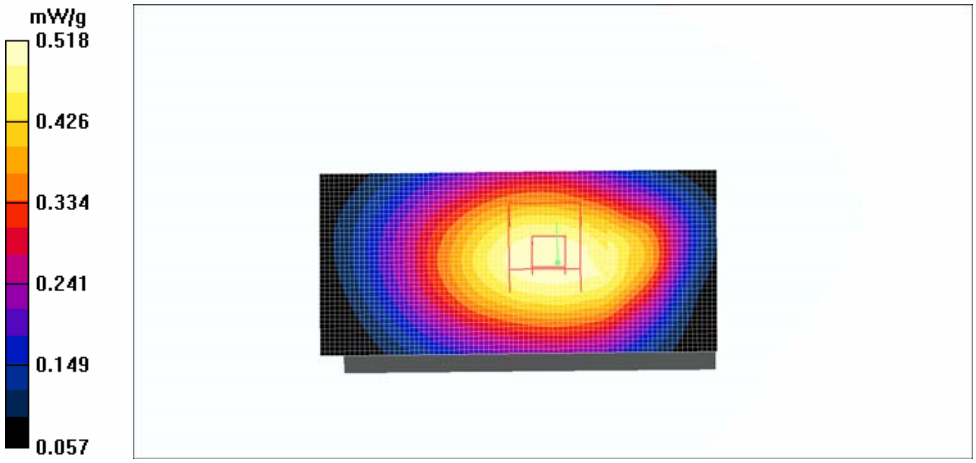
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: 2-slot GPRS850
Frequency: 848.8 MHz; Duty Cycle: 1:4.2
Medium: BSL900; Medium Notes: t=20.3C
Medium parameters used: f = 849 MHz; σ = 0.99 mho/m; ε_r = 54.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396;
- ConvF(6.62, 6.62, 6.62); Calibrated: 2007-02-12
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2007-02-13
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Body Measurement, High, HS-43/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.520 mW/g

Body Measurement, High, HS-43/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 12.9 V/m
Peak SAR (extrapolated) = 0.629 W/kg
SAR(1 g) = 0.492 mW/g
SAR(10 g) = 0.361 mW/g
Power Drift = -0.060 dB
Maximum value of SAR (measured) = 0.518 mW/g



Date/Time: 2007-09-14 07:51:59

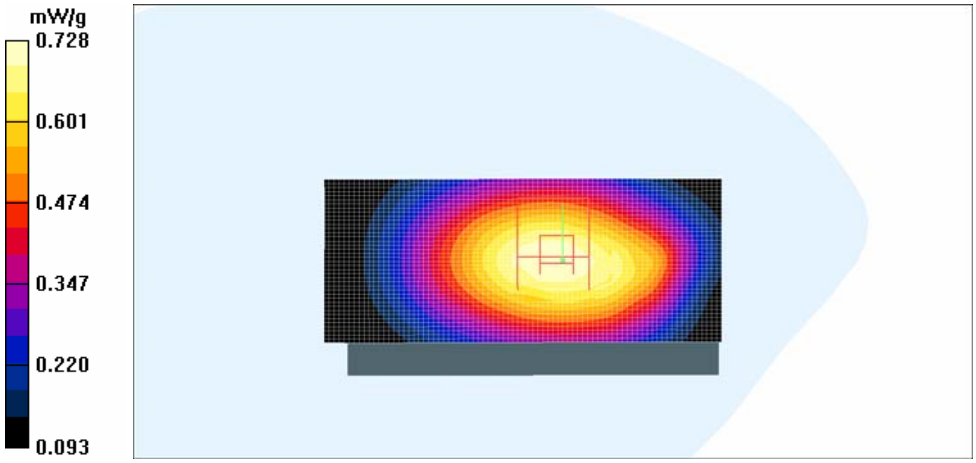
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: 2-slot GPRS850
Frequency: 848.8 MHz; Duty Cycle: 1:4.2
Medium: BSL800; Medium Notes: t=20.7C
Medium parameters used: f = 849 MHz; σ = 0.982 mho/m; ε_r = 54.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396;
- ConvF(6.62, 6.62, 6.62); Calibrated: 2007-02-12
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2007-02-13
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Body Measurement, High, No accessory, BT/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.735 mW/g

Body Measurement, High, No accessory, BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 13.6 V/m
Peak SAR (extrapolated) = 0.870 W/kg
SAR(1 g) = 0.687 mW/g
SAR(10 g) = 0.503 mW/g
Power Drift = -0.079 dB
Maximum value of SAR (measured) = 0.728 mW/g



Date/Time: 2007-09-13 13:13:58

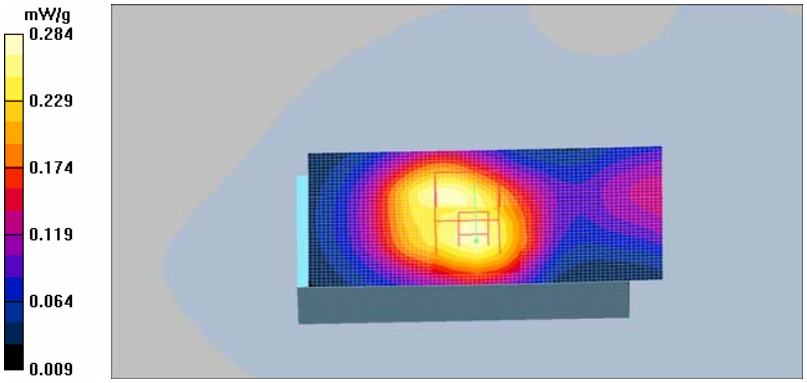
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

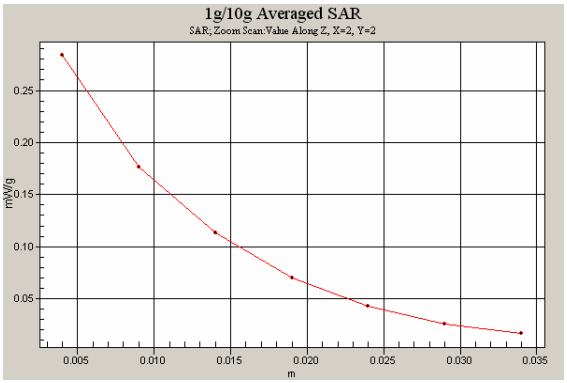
Communication System: GSM1900
Frequency: 1909.8 MHz; Duty Cycle: 1:8.3
Medium: BSL1900(070913); Medium Notes: 20.5C
Medium parameters used: f = 1910 MHz; σ = 1.56 mho/m; ε_r = 52.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1766;
- ConvF(4.68, 4.68, 4.68); Calibrated: 2007-03-19
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2006-02-16
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Body Measurement, High, No accessory/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.291 mW/g

Body Measurement, High, No accessory/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 8.28 V/m
Peak SAR (extrapolated) = 0.425 W/kg
SAR(1 g) = 0.263 mW/g
SAR(10 g) = 0.164 mW/g
Power Drift = -0.112 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) = 0.284 mW/g





Date/Time: 2007-09-13 13:47:49

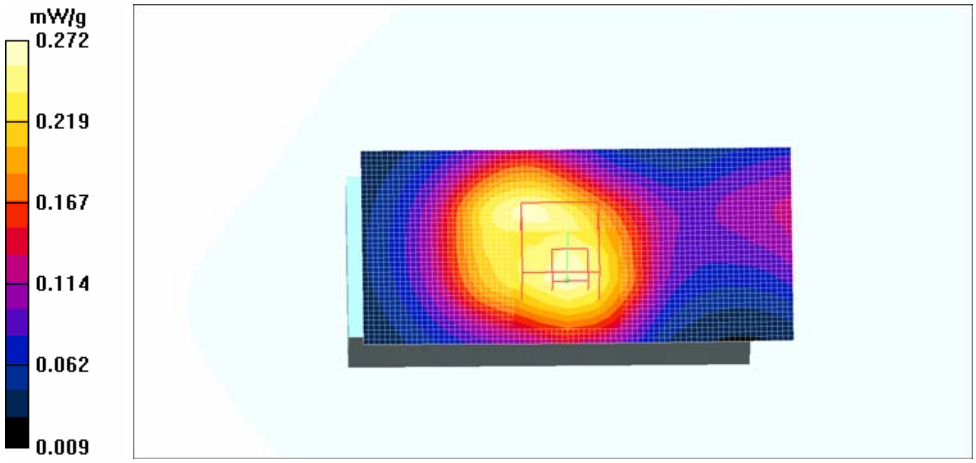
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: GSM1900
Frequency: 1909.8 MHz; Duty Cycle: 1:8.3
Medium: BSL1900(070913); Medium Notes: 20.6C
Medium parameters used: f = 1910 MHz; σ = 1.56 mho/m; ε_r = 52.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1766;
- ConvF(4.68, 4.68, 4.68); Calibrated: 2007-03-19
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2006-02-16
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Body Measurement, High, HS-43/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.277 mW/g

Body Measurement, High, HS-43/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 8.08 V/m
Peak SAR (extrapolated) = 0.398 W/kg
SAR(1 g) = 0.251 mW/g
SAR(10 g) = 0.157 mW/g
Power Drift = -0.048 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) = 0.272 mW/g



Date/Time: 2007-09-13 14:01:01

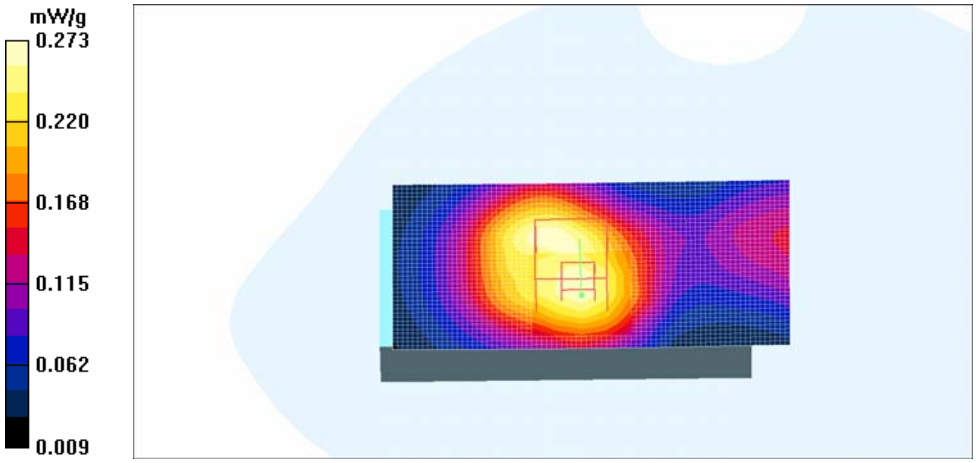
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: GSM1900
Frequency: 1909.8 MHz; Duty Cycle: 1:8.3
Medium: BSL1900(070913); Medium Notes: 20.5C
Medium parameters used: f = 1910 MHz; σ = 1.56 mho/m; ε_r = 52.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1766;
- ConvF(4.68, 4.68, 4.68); Calibrated: 2007-03-19
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2006-02-16
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Body Measurement, High, No accessory, BT/Area Scan (41x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.280 mW/g

Body Measurement, High, No accessory, BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 8.48 V/m
Peak SAR (extrapolated) = 0.406 W/kg
SAR(1 g) = 0.254 mW/g
SAR(10 g) = 0.159 mW/g
Power Drift = 0.001 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) = 0.273 mW/g



Date/Time: 2007-09-18 09:03:18

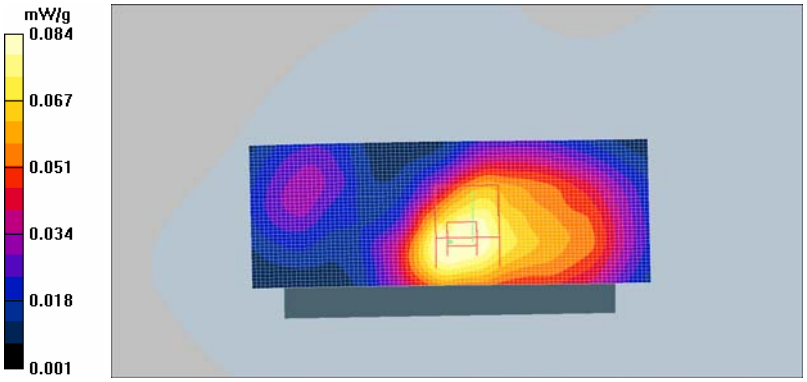
Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

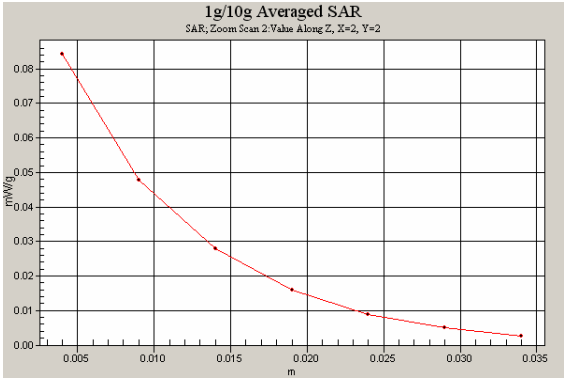
Communication System: WLAN2450
Frequency: 2442 MHz; Duty Cycle: 1:1
Medium: BSL2450 (070918); Medium Notes: T=20.9C
Medium parameters used: f = 2442 MHz; σ = 1.97 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3131;
- ConvF(4.1, 4.1, 4.1); Calibrated: 2007-02-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 3; Type: SAM 4.0; Serial: 1272
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Body Measurement, Middle, No accessory/Area Scan (41x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.087 mW/g

Body Measurement, Middle, No accessory/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.10 V/m
Peak SAR (extrapolated) = 0.138 W/kg
SAR(1 g) = 0.080 mW/g
SAR(10 g) = 0.047 mW/g
Power Drift = -0.133 dB
Maximum value of SAR (measured) = 0.084 mW/g





Date/Time: 2007-09-18 12:10:56

Test Laboratory: TCC Nokia
Type: RM-313; Serial: 004401/01/318014/2

Communication System: WLAN2450
Frequency: 2442 MHz; Duty Cycle: 1:1
Medium: BSL2450 (070918); Medium Notes: T=20.9C
Medium parameters used: f = 2442 MHz; σ = 1.97 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3131;
- ConvF(4.1, 4.1, 4.1); Calibrated: 2007-02-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2007-03-15
- Phantom: SAM 3; Type: SAM 4.0; Serial: 1272
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Body Measurement, Middle, HS-43/Area Scan (41x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.079 mW/g

Body Measurement, Middle, HS-43/Zoom Scan 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 5.22 V/m
Peak SAR (extrapolated) = 0.128 W/kg
SAR(1 g) = 0.073 mW/g
SAR(10 g) = 0.042 mW/g
Power Drift = -0.093 dB
Maximum value of SAR (measured) = 0.077 mW/g