TCC
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T117 (EN ISO/IEC 17025)

SAR Compliance Test Report

Test report no.:	Salo_SAR_0624_05	**Date of report:**	2006-06-20
Template version:	1.0	**Number of pages:**	42
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Measurements made by:	Janne Hirsimäki, Virpi Tuominen		
Tested devices:	RM-126		
FCC ID:	PPIRM-126H	**IC:**	661U-RM126
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 Techniques

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:

Digitally signed by Virpi Tuominen
DN: cn=Virpi Tuominen, c=FI, o=Nokia, ou=CertT, email=virpi.t.tuominen@nokia.com
Date: 2006.06.21 11:30:23 +03'00'

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1. SUMMARY OF SAR TEST REPORT

1.1 Test Details

Period of test	2006-06-08 to 2006-06-14
SN, HW and SW numbers of tested device	SN: 004400/85/172408/6, HW: 0573, SW: 3.13, DUT: 11300 SN: 004400/85/172480/5, HW: 0572, SW: 3.13, DUT: 11304
Batteries used in testing	BL-4C, DUT: 11194, 10662
Headsets used in testing	HS-6, DUT: 10624
Other accessories used in testing	Memory Card, Type: Micro SD, DUT: 11274
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
GSM850	251/848.8	30.3dBm ERP	Left, Cheek	0.791W/kg	**0.89W/kg**	1.6 W/kg	PASSED
GSM1900	810/1909.8	32.1dBm EIRP	Left, Cheek	0.514W/kg	**0.58W/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	190/836.6	27.6dBm ERP	2.2cm	0.753W/kg	**0.84W/kg**	1.6 W/kg	PASSED
2-slot GPRS1900	810/1909.8	32.2dBm EIRP	2.2cm	0.395W/kg	**0.44W/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	0.37 dB

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 and Bands of Operation	GSM 850 / 1900	GPRS 850 / 1900	EGPRS 850 / 1900	BT
Modulation Mode	GMSK	GMSK	GMSK / 8PSK	GFSK
Duty Cycle	1/8	1/8 to 2/8	1/8 to 2/8	
Transmitter Frequency Range (MHz)	824 - 849 1850 - 1910	824 - 849 1850 - 1910	824 - 849 1850 - 1910	2402-2480

Outside of USA and Canada, the transmitter of the device is capable of operating also in 900 / 1800 MHz bands, which are not part of this filing.

8PSK EGPRS mode was not measured, because maximum averaged output power is more than 3dB lower in 8PSK EGPRS mode than in GPRS mode.

2.1 Picture of the Device

Device with flip closed, HW 0572 and 0573.

Device with flip open, HW 0572 and 0573.

2.2 Description of the Antenna

The device has a internal antenna.

3. TEST CONDITIONS

3.1 Temperature and Humidity

Ambient temperature (°C):	21.0 to 22.8
Ambient humidity (RH %):	45 to 55

3.2 Test Signal, Frequencies and Output Power

The device was put into operation by using a call tester. 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 3	372	12 months	2006-08
E-field Probe ET3DV6	1396	12 months	2007-01
Dipole Validation Kit, D835V2	462	24 months	2006-07
Dipole Validation Kit, D1900V2	5d013	24 months	2006-07
DASY4 software	Version 4.6	-	-

Additional test equipment used in testing:

Test Equipment	Model	Serial Number	Calibration interval	Calibration expiry
Signal Generator	SML03	101265	12 months	2006-07
Amplifier	ZHL-42 (SMA)	N072095-5	12 months	2006-07
Power Meter	NRVS	849305/028	12 months	2006-07
Power Sensor	NRV-Z32	839176/020	12 months	2006-07
Call Tester	CMU 200	101111	-	-
Call Tester	CMU 200	100084	-	-
Vector Network Analyzer	8753E	US38432928	12 months	2006-10
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

4.2 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 recipes were used for Head and Body tissue simulants:

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

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]
			εr	σ [S/m]	
835	Reference result	2.45	41.8	0.92	
	± 10% window	2.21 – 2.69			
	2006-06-08	2.37	41.6	0.90	22.0
	2006-06-09	2.31	41.6	0.90	21.9
1900	Reference result	10.0	39.4	1.44	
	± 10% window	9.0 – 11.0			
	2006-06-14	9.28	39.1	1.41	22.1

System checking, body tissue simulant

f [MHz]	Description	SAR [W/kg], 1g	Dielectric Parameters		Temp [°C]
			εr	σ [S/m]	
835	Reference result	2.45	54.6	0.99	
	± 10% window	2.21 – 2.69			
	2006-06-12	2.44	55.6	0.97	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]
		εr	σ [S/m]	
836	Recommended value	41.5	0.90	
	± 5% window	39.4 – 43.6	0.86 – 0.95	
	2006-06-08	41.6	0.91	21.0
	2006-06-09	41.6	0.90	21.0
1880	Recommended value	40.0	1.40	
	± 5% window	38.0 – 42.0	1.33 – 1.47	
	2006-06-14	39.2	1.40	21.0

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	
	2006-06-09	55.6	0.97	21.0
	2006-06-12	55.6	0.97	21.0
1880	Recommended value	53.3	1.52	
	± 5% window	50.6 – 56.0	1.44 – 1.60	
	2006-06-14	53.6	1.52	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".

Photo of the device in “cheek” position

Photo of the device in “tilt” position

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	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

Hardware ID	Flip option	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**		**28.3dBm**	**29.3dBm**	**29.5dBm**
0573	Flip open	Left	Cheek	0.600	0.670	0.746
GSM		**Power**		**31.2dBm**	**30.7dBm**	**30.3dBm**
0572	Flip open	Left	Cheek	0.617	0.688	**0.773**
			Tilt	-	0.468	-
		Right	Cheek	-	0.658	-
			Tilt	-	0.508	-
0572	Flip open	Left Cheek with MC		-	-	0.739
0572	Flip open	Left Cheek, without MC, BT active		-	-	**0.791**

1900MHz Head SAR results

Hardware ID	Flip option	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**		**32.9dBm**	**29.0dBm**	**32.4dBm**
0573	Flip open	Left	Cheek	0.416	0.457	0.409
GSM		**Power**		**30.2dBm**	**31.5dBm**	**32.1dBm**
0572	Flip open	Left	Cheek	0.481	0.463	**0.514**
			Tilt	-	0.138	-
		Right	Cheek	-	0.448	-
			Tilt	-	0.085	-
0572	Flip open	Left Cheek with MC		-	-	0.501
0572	Flip open	Left Cheek without MC, BT active		-	-	0.486

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

850MHz, Body SAR results

Hardware ID	Flip option	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**	**28.7dBm**	**27.8dBm**	**28.2dBm**
0572	Flip closed	Without headset	0.376	-	-
2-slot GPRS		**Power**	**28.0dBm**	**27.6dBm**	**27.8dBm**
0572	Flip closed	Without headset	0.717	**0.753**	0.706
		Headset HS-6	0.459	0.518	0.507
2-slot GPRS		**Power**	**32.1dBm**	**31.7dBm**	**28.4dBm**
0573	Flip closed	Without headset	0.704	0.685	0.677
0572	2-slot GPRS Flip closed	Without headset, with MC	-	0.724	-
0572	2-slot GPRS Flip closed	Without headset, without MC, BT active	-	0.695	-

1900MHz, Body SAR results

Hardware ID	Flip option	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**	**29.2dBm**	**30.1dBm**	**32.2dBm**
0572	Flip closed	Without headset	-	0.180	-
2-slot GPRS		**Power**	**29.2dBm**	**30.1dBm**	**32.1dBm**
0572	Flip closed	Without headset	0.310	0.344	0.352
		Headset HS-6	0.295	0.322	**0.361**
2-slot GPRS		**Power**	**29.1dBm**	**29.0dBm**	**32.2dBm**
0573	Flip closed	Without headset	-	-	**0.395**
		Headset HS-6	0.257	0.292	0.351
0573	2-slot GPRS Flip closed	Without headset, with MC	-	-	0.370
0573	2-slot GPRS Flip closed	Without headset, BT active	-	-	0.362

Plots of the Measurement scans are given in Appendix B.

APPENDIX A: SYSTEM CHECKING SCANS

Date/Time: 2006-06-08 13:16:42

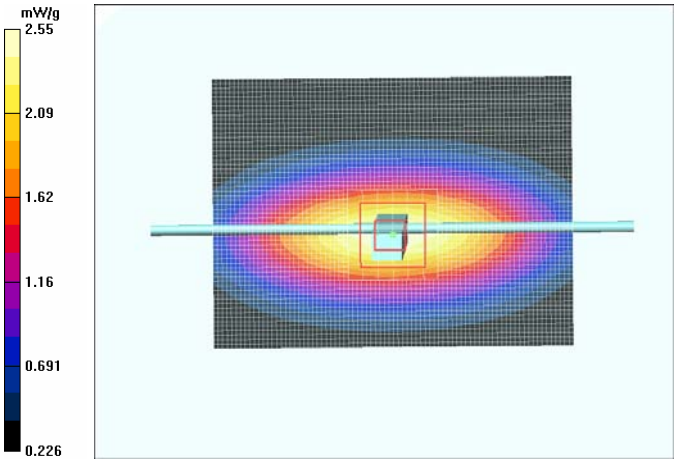
Test Laboratory: TCC Nokia Salo Laboratory
Type: D835V2; Serial: D835V2 – SN: 462

Communication System: CW
Frequency: 835 MHz; Duty Cycle: 1:1
Medium: HSL850; Medium Notes: 22.0C
Medium parameters used: f = 835 MHz; σ = 0.904 mho/m; ε_r = 41.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(6.79, 6.79, 6.79); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.53 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 54.3 V/m; Power Drift = 0.005 dB
Peak SAR (extrapolated) = 3.55 W/kg
SAR(1 g) = 2.37 mW/g; SAR(10 g) = 1.54 mW/g
Maximum value of SAR (measured) = 2.55 mW/g



Date/Time: 2006-06-09 11:36:46

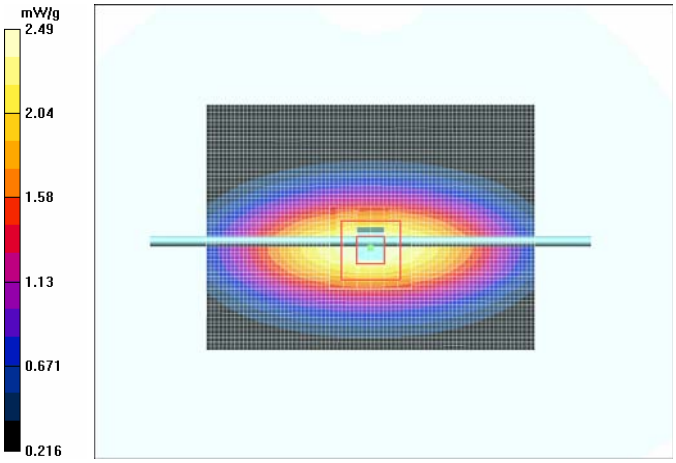
Test Laboratory: TCC Nokia Salo Laboratory
Type: D835V2; Serial: D835V2 - SN: 462

Communication System: CW
Frequency: 835 MHz; Duty Cycle: 1:1
Medium: HSL850; Medium Notes: 21.9C
Medium parameters used: f = 835 MHz; σ = 0.9 mho/m; ε_r = 41.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(6.79, 6.79, 6.79); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.48 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; Power Drift = -0.029 dB
Peak SAR (extrapolated) = 3.46 W/kg
SAR(1 g) = 2.31 mW/g; SAR(10 g) = 1.5 mW/g
Maximum value of SAR (measured) = 2.49 mW/g



Date/Time: 2006-06-14 08:39:34

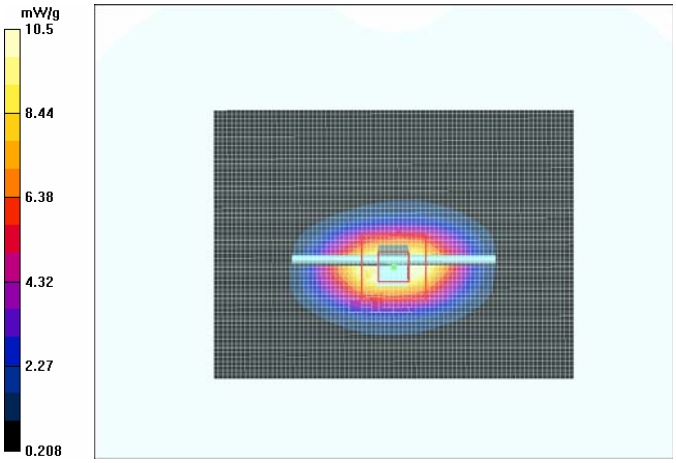
Test Laboratory: TCC Nokia Salo Laboratory
Type: D1900V2; Serial: D1900V2 - SN: 5d013

Communication System: CW
Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: HSL1900; Medium Notes: 22.1C
Medium parameters used: f = 1900 MHz; σ = 1.41 mho/m; ε_r = 39.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(5.37, 5.37, 5.37); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.3 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 89.3 V/m; Power Drift = -0.035 dB
Peak SAR (extrapolated) = 15.8 W/kg
SAR(1 g) = 9.28 mW/g; SAR(10 g) = 4.92 mW/g
Maximum value of SAR (measured) = 10.5 mW/g



Date/Time: 2006-06-12 10:33:44

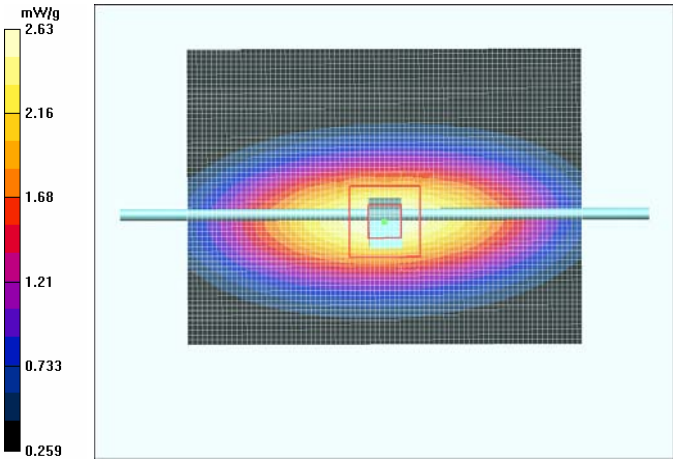
Test Laboratory: TCC Nokia Salo Laboratory
Type: D835V2; Serial: D835V2 - SN: 462

Communication System: CW
Frequency: 835 MHz; Duty Cycle: 1:1
Medium: M850; Medium Notes: 22.1C
Medium parameters used: f = 835 MHz; σ = 0.973 mho/m; ε_r = 55.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(6.41, 6.41, 6.41); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.63 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.4 V/m; Power Drift = 0.033 dB
Peak SAR (extrapolated) = 3.53 W/kg
SAR(1 g) = 2.44 mW/g; SAR(10 g) = 1.61 mW/g
Maximum value of SAR (measured) = 2.63 mW/g



APPENDIX B: MEASUREMENT SCANS

Date/Time: 2006-06-09 12:53:42

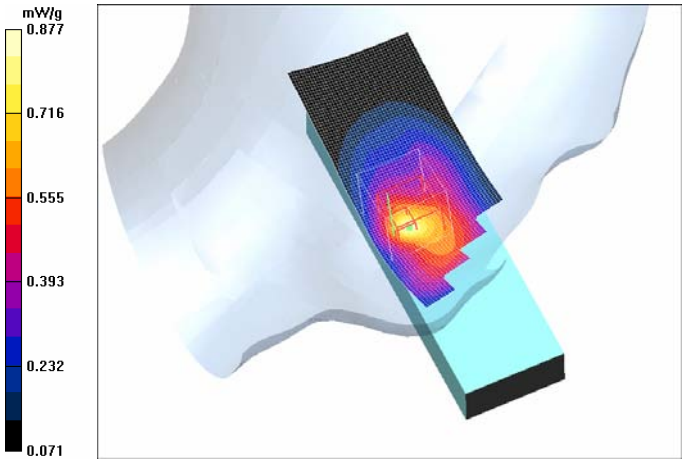
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0573; Serial: 004400/85/172408/6

Communication System: GSM850
Frequency: 848.8 MHz; Duty Cycle: 1:8.3
Medium: HSL850; Medium Notes: 21.7C
Medium parameters used: f = 849 MHz; σ = 0.91 mho/m; ε_r = 41.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(6.79, 6.79, 6.79); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Cheek position, High/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.848 mW/g

Cheek position, High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 10.7 V/m; Power Drift = -0.110 dB
Peak SAR (extrapolated) = 1.50 W/kg
SAR(1 g) = 0.746 mW/g; SAR(10 g) = 0.461 mW/g
Maximum value of SAR (measured) = 0.877 mW/g



Date/Time: 2006-06-08 18:21:47

Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0572; Serial: 004400/85/172480/5

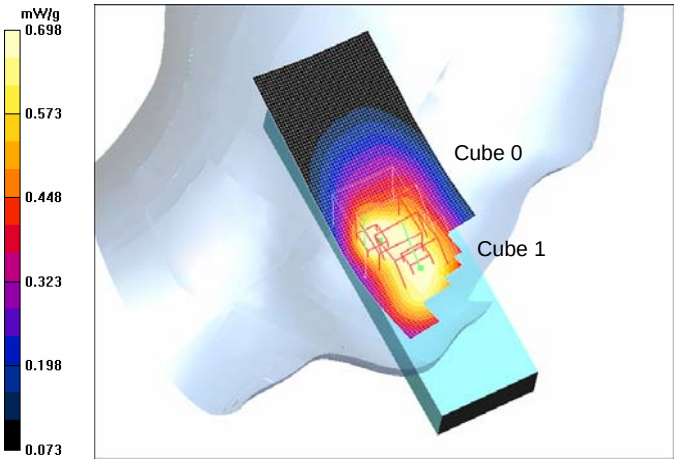
Communication System: GSM850
Frequency: 848.8 MHz; Duty Cycle: 1:8.3
Medium: HSL850; Medium Notes: 21.6C
Medium parameters used: f = 849 MHz; σ = 0.915 mho/m; ε_r = 41.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(6.79, 6.79, 6.79); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Cheek position, High/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.914 mW/g

Cheek position, High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 9.12 V/m; Power Drift = -0.273 dB
Peak SAR (extrapolated) = 1.54 W/kg
SAR(1 g) = 0.773 mW/g; SAR(10 g) = 0.498 mW/g
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) = 0.941 mW/g

Cheek position, High/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 9.12 V/m; Power Drift = -0.273 dB
Peak SAR (extrapolated) = 0.854 W/kg
SAR(1 g) = 0.660 mW/g; SAR(10 g) = 0.483 mW/g
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) = 0.698 mW/g



Date/Time: 2006-06-08 16:25:04

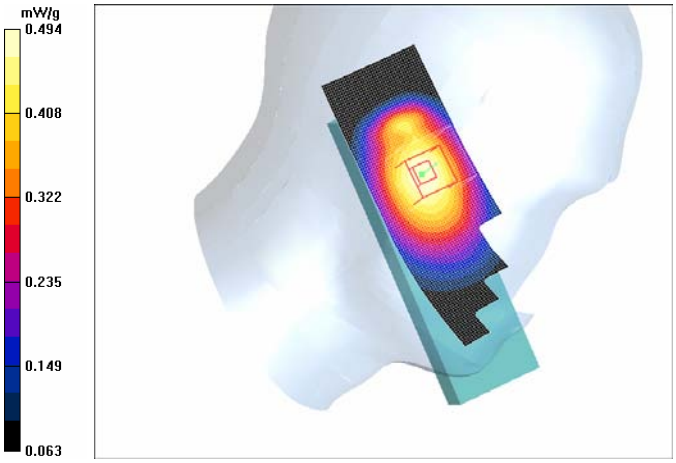
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0572; Serial: 004400/85/172480/5

Communication System: GSM850
Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium: HSL850; Medium Notes: 21.6C
Medium parameters used: f = 837 MHz; σ = 0.908 mho/m; ε_r = 41.6; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(6.79, 6.79, 6.79); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Tilt position, Middle/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.496 mW/g

Tilt position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 19.0 V/m; Power Drift = -0.087 dB
Peak SAR (extrapolated) = 0.586 W/kg
SAR(1 g) = 0.468 mW/g; SAR(10 g) = 0.348 mW/g
Maximum value of SAR (measured) = 0.494 mW/g



Date/Time: 2006-06-08 16:52:47

Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0572; Serial: 004400/85/172480/5

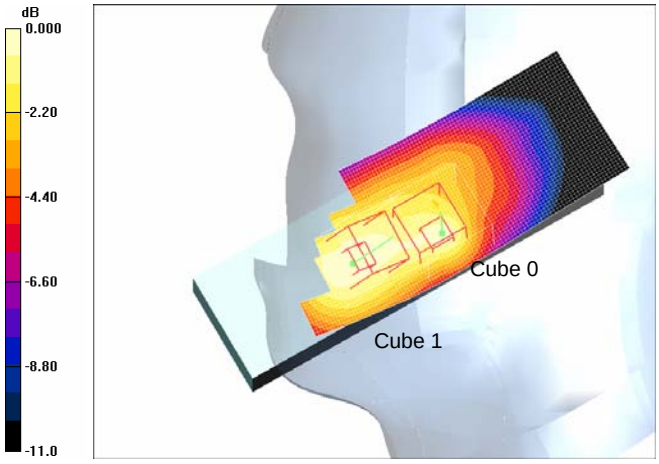
Communication System: GSM850
Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium: HSL850; Medium Notes: 21.1C
Medium parameters used: f = 837 MHz; σ = 0.908 mho/m; ε_r = 41.6; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(6.79, 6.79, 6.79); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Cheek position, Middle/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.709 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 9.78 V/m; Power Drift = -0.177 dB
Peak SAR (extrapolated) = 0.909 W/kg
SAR(1 g) = 0.655 mW/g; SAR(10 g) = 0.482 mW/g
Maximum value of SAR (measured) = 0.693 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 9.78 V/m; Power Drift = -0.177 dB
Peak SAR (extrapolated) = 1.32 W/kg
SAR(1 g) = 0.658 mW/g; SAR(10 g) = 0.414 mW/g
Maximum value of SAR (measured) = 0.753 mW/g



Date/Time: 2006-06-08 17:28:39

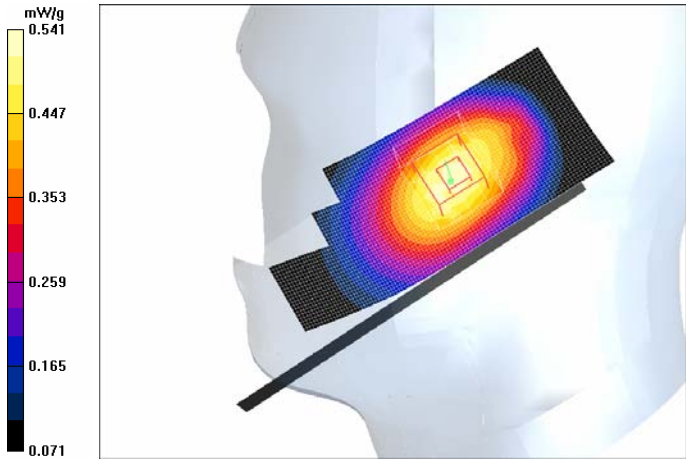
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0572; Serial: 004400/85/172480/5

Communication System: GSM850
Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium: HSL850; Medium Notes: 21.1C
Medium parameters used: f = 837 MHz; σ = 0.908 mho/m; ε_r = 41.6; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(6.79, 6.79, 6.79); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Tilt position, Middle/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.532 mW/g

Tilt position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 20.3 V/m; Power Drift = -0.113 dB
Peak SAR (extrapolated) = 0.638 W/kg
SAR(1 g) = 0.508 mW/g; SAR(10 g) = 0.375 mW/g
Maximum value of SAR (measured) = 0.541 mW/g



Date/Time: 2006-06-09 14:49:36

Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0572; Serial: 004400/85/172480/5

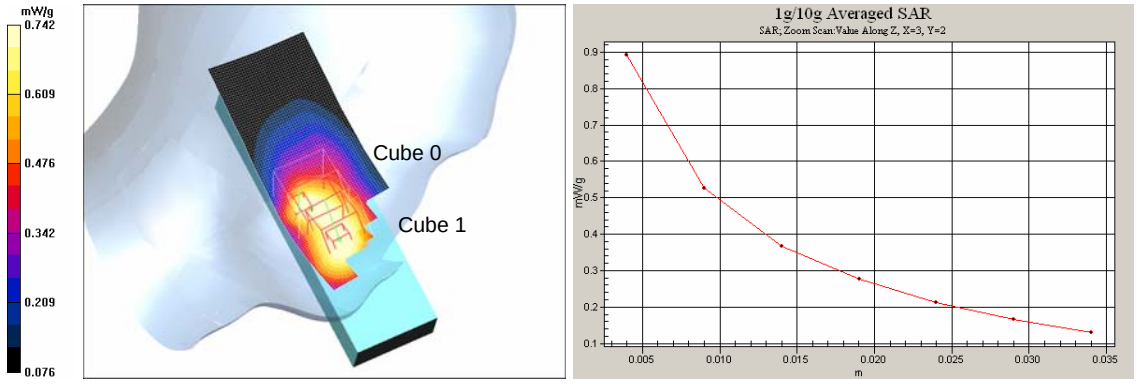
Communication System: GSM850
Frequency: 848.8 MHz; Duty Cycle: 1:8.3
Medium: HSL850; Medium Notes: 21.2C
Medium parameters used: f = 849 MHz; σ = 0.91 mho/m; ε_r = 41.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(6.79, 6.79, 6.79); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Cheek position, High, BT/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.860 mW/g

Cheek position, High, BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 9.29 V/m; Power Drift = -0.292 dB
Peak SAR (extrapolated) = 1.61 W/kg
SAR(1 g) = 0.791 mW/g; SAR(10 g) = 0.506 mW/g
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) = 0.891 mW/g

Cheek position, High, BT/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 9.29 V/m; Power Drift = -0.292 dB
Peak SAR (extrapolated) = 0.934 W/kg
SAR(1 g) = 0.697 mW/g; SAR(10 g) = 0.508 mW/g
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) = 0.742 mW/g



Date/Time: 2006-06-14 12:59:31

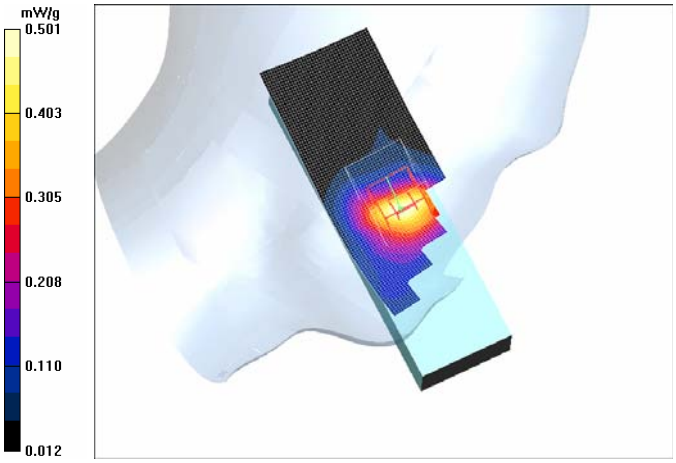
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0573; Serial: 004400/85/172408/6

Communication System: GSM1900
Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: HSL1900; Medium Notes: 21.3 C
Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(5.37, 5.37, 5.37); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Cheek position, Middle/Area Scan (41x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.511 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 2.73 V/m; Power Drift = -0.089 dB
Peak SAR (extrapolated) = 0.660 W/kg
SAR(1 g) = 0.457 mW/g; SAR(10 g) = 0.283 mW/g
Maximum value of SAR (measured) = 0.501 mW/g



Date/Time: 2006-06-14 11:43:24

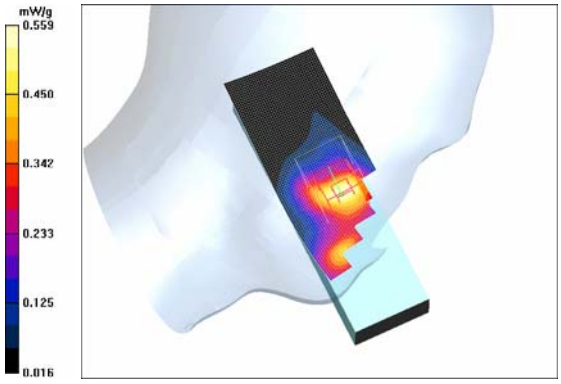
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0572; Serial: 004400/85/172480/5

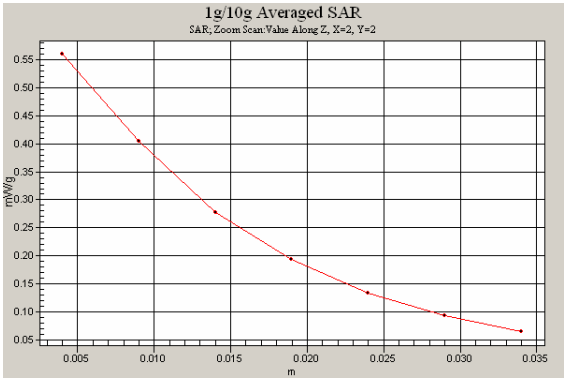
Communication System: GSM1900
Frequency: 1909.8 MHz; Duty Cycle: 1:8.3
Medium: HSL1900; Medium Notes: 21.4 C
Medium parameters used: f = 1910 MHz; σ = 1.42 mho/m; ε_r = 39.1; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(5.37, 5.37, 5.37); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Cheek position, High/Area Scan (41x111x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.561 mW/g

Cheek position, High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 3.78 V/m; Power Drift = -0.111 dB
Peak SAR (extrapolated) = 0.722 W/kg
SAR(1 g) = 0.514 mW/g; SAR(10 g) = 0.324 mW/g
Maximum value of SAR (measured) = 0.559 mW/g





Date/Time: 2006-06-14 10:06:15

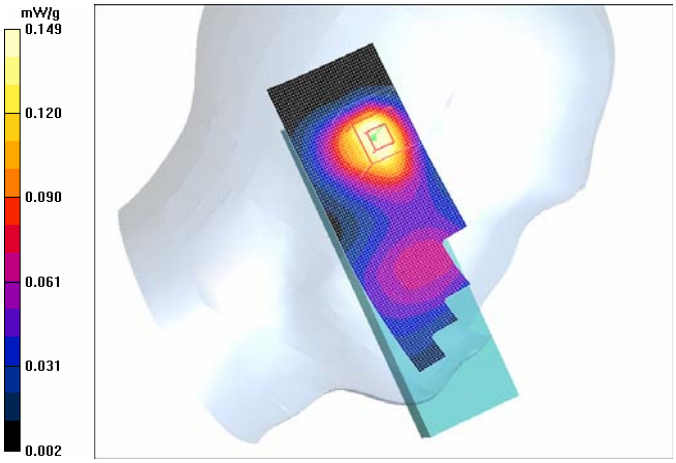
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0572; Serial: 004400/85/172480/5

Communication System: GSM1900
Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: HSL1900; Medium Notes: 21.8 C
Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(5.37, 5.37, 5.37); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Tilt position, Middle/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.169 mW/g

Tilt position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 8.04 V/m; Power Drift = -0.033 dB
Peak SAR (extrapolated) = 0.202 W/kg
SAR(1 g) = 0.138 mW/g; SAR(10 g) = 0.085 mW/g
Maximum value of SAR (measured) = 0.149 mW/g



Date/Time: 2006-06-14 10:36:04

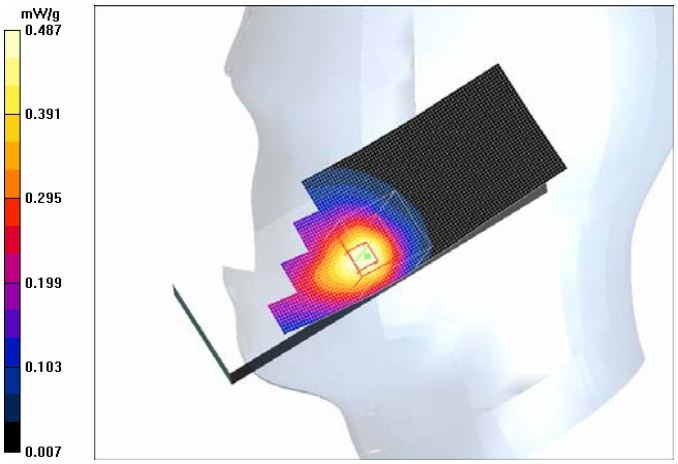
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0572; Serial: 004400/85/172480/5

Communication System: GSM1900
Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: HSL1900; Medium Notes: 22.1C
Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(5.37, 5.37, 5.37); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Cheek position, Middle/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.517 mW/g

Cheek position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 2.19 V/m; Power Drift = 0.100 dB
Peak SAR (extrapolated) = 0.677 W/kg
SAR(1 g) = 0.448 mW/g; SAR(10 g) = 0.282 mW/g
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) = 0.487 mW/g



Date/Time: 2006-06-14 11:03:16

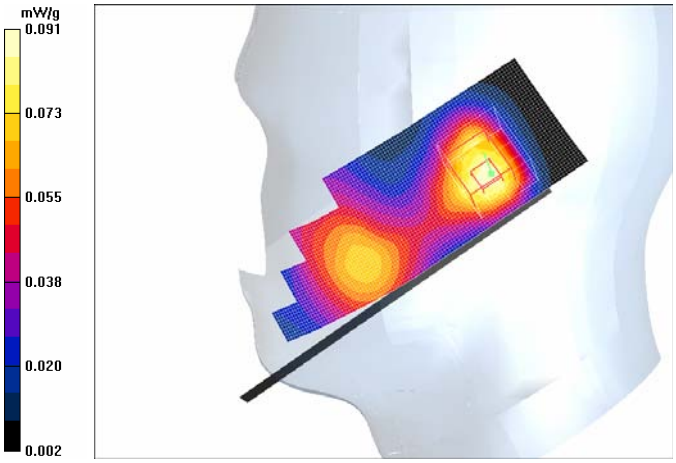
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0572; Serial: 004400/85/172480/5

Communication System: GSM1900
Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: HSL1900; Medium Notes: 21.6 C
Medium parameters used: f = 1880 MHz; σ = 1.4 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(5.37, 5.37, 5.37); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Tilt position, Middle/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.106 mW/g

Tilt position, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 7.67 V/m; Power Drift = -0.056 dB
Peak SAR (extrapolated) = 0.119 W/kg
SAR(1 g) = 0.085 mW/g; SAR(10 g) = 0.055 mW/g
Maximum value of SAR (measured) = 0.091 mW/g



Date/Time: 2006-06-09 15:37:07

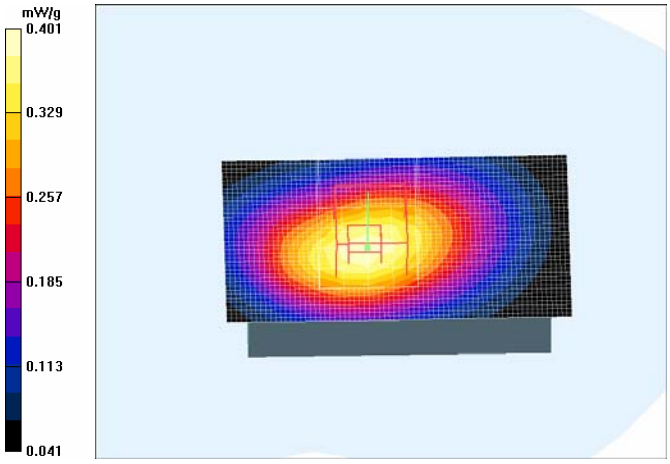
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0572; Serial: 004400/85/172480/5

Communication System: GSM850
Frequency: 824.2 MHz; Duty Cycle: 1:8.3
Medium: M835; Medium Notes: t=22.1 C
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.959 mho/m; ε_r = 55.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(6.41, 6.41, 6.41); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Body Measurement, Low/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.410 mW/g

Body Measurement, Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 18.5 V/m; Power Drift = -0.050 dB
Peak SAR (extrapolated) = 0.514 W/kg
SAR(1 g) = 0.376 mW/g; SAR(10 g) = 0.261 mW/g
Maximum value of SAR (measured) = 0.401 mW/g



Date/Time: 2006-06-12 11:17:16

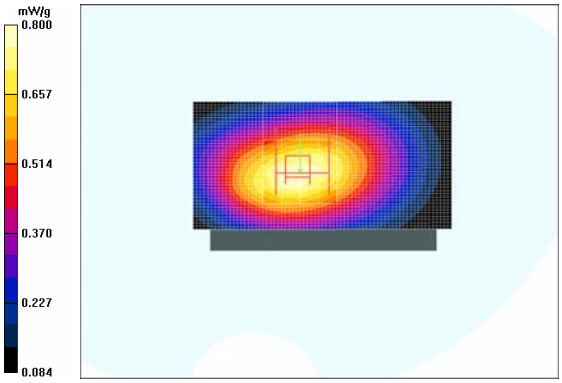
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0572; Serial: 004400/85/172480/5

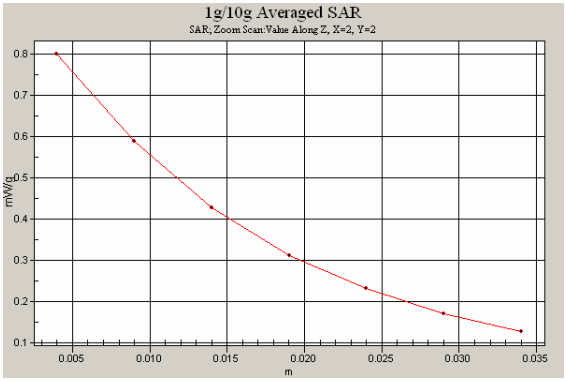
Communication System: 2-slot GPRS850
Frequency: 836.6 MHz; Duty Cycle: 1:4.2
Medium: M850; Medium Notes: 21.8C
Medium parameters used: f = 837 MHz; σ = 0.974 mho/m; ε_r = 55.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(6.41, 6.41, 6.41); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Body Measurement, Middle/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.818 mW/g

Body Measurement, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 26.6 V/m; Power Drift = -0.219 dB
Peak SAR (extrapolated) = 1.03 W/kg
SAR(1 g) = 0.753 mW/g; SAR(10 g) = 0.524 mW/g
Maximum value of SAR (measured) = 0.800 mW/g





Date/Time: 2006-06-12 11:39:30

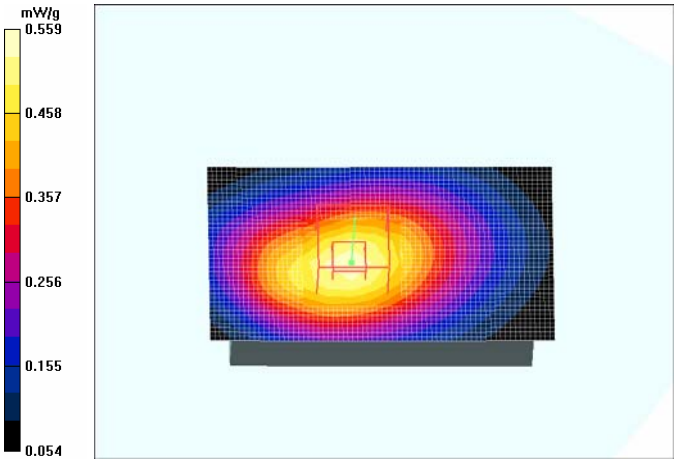
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0572; Serial: 004400/85/172480/5

Communication System: 2-slot GPRS850
Frequency: 836.6 MHz; Duty Cycle: 1:4.2
Medium: M850; Medium Notes: 21.8C
Medium parameters used: f = 837 MHz; σ = 0.974 mho/m; ε_r = 55.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(6.41, 6.41, 6.41); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Body Measurement, Middle, HS-6/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.554 mW/g

Body Measurement, Middle, HS-6/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 21.8 V/m; Power Drift = -0.118 dB
Peak SAR (extrapolated) = 0.705 W/kg
SAR(1 g) = 0.518 mW/g; SAR(10 g) = 0.357 mW/g
Maximum value of SAR (measured) = 0.559 mW/g



Date/Time: 2006-06-12 13:23:10

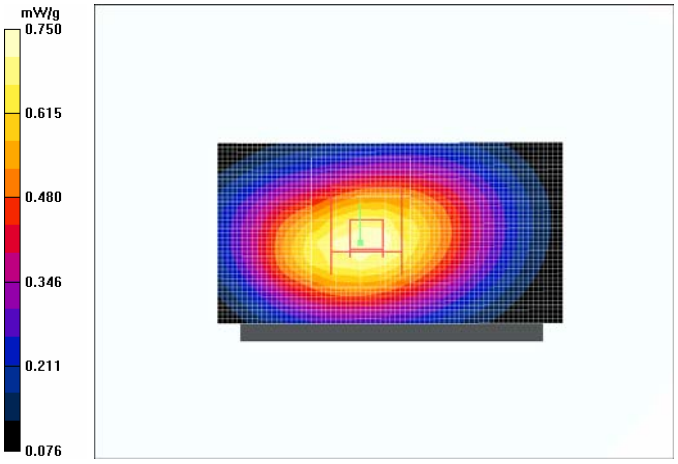
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0573; Serial: 004400/85/172408/6

Communication System: 2-slot GPRS850
Frequency: 824.2 MHz; Duty Cycle: 1:4.2
Medium: M850; Medium Notes: 21.4C
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.966 mho/m; ε_r = 55.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(6.41, 6.41, 6.41); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Body Measurement, Low/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.748 mW/g

Body Measurement, Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 25.3 V/m; Power Drift = -0.077 dB
Peak SAR (extrapolated) = 0.947 W/kg
SAR(1 g) = 0.704 mW/g; SAR(10 g) = 0.490 mW/g
Maximum value of SAR (measured) = 0.750 mW/g



Date/Time: 2006-06-14 14:50:42

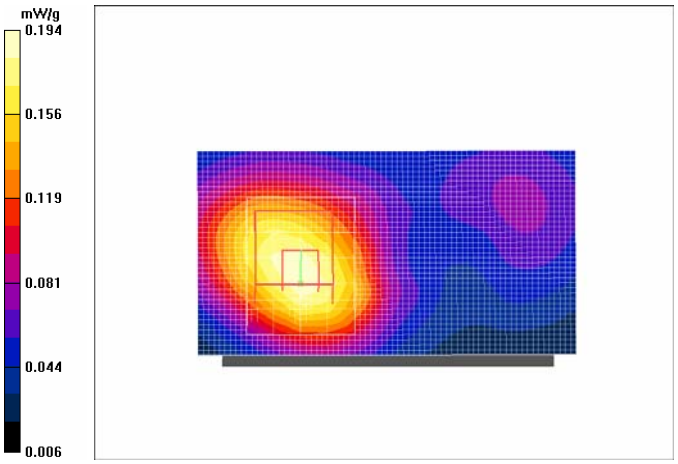
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0572; Serial: 004400/85/172480/5

Communication System: GSM1900
Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: M1900; Medium Notes: t=22.0 C
Medium parameters used: f = 1880 MHz; σ = 1.52 mho/m; ε_r = 53.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(4.58, 4.58, 4.58); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Body Measurement, Middle/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.198 mW/g

Body Measurement, Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 12.0 V/m; Power Drift = -0.004 dB
Peak SAR (extrapolated) = 0.273 W/kg
SAR(1 g) = 0.180 mW/g; SAR(10 g) = 0.115 mW/g
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) = 0.194 mW/g



Date/Time: 2006-06-14 16:30:11

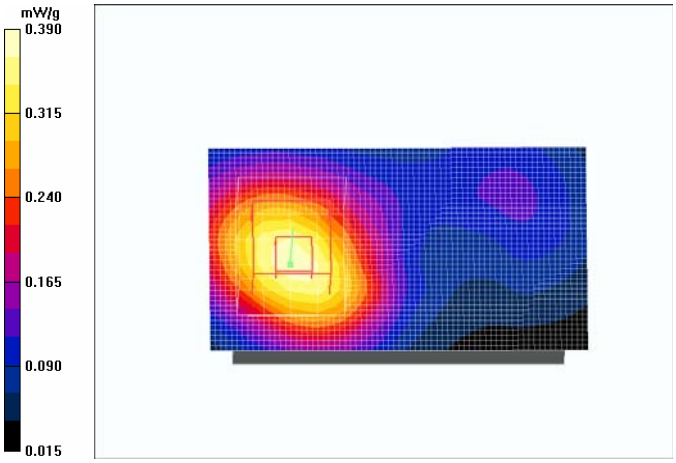
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0572; Serial: 004400/85/172480/5

Communication System: 2-slot GPRS1900
Frequency: 1909.8 MHz; Duty Cycle: 1:4.2
Medium: M1900; Medium Notes: t=22.0 C
Medium parameters used: f = 1910 MHz; σ = 1.55 mho/m; ε_r = 53.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(4.58, 4.58, 4.58); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Body Measurement,High, HS-6/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.399 mW/g

Body Measurement,High, HS-6/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 16.8 V/m; Power Drift = -0.109 dB
Peak SAR (extrapolated) = 0.548 W/kg
SAR(1 g) = 0.361 mW/g; SAR(10 g) = 0.229 mW/g
Maximum value of SAR (measured) = 0.390 mW/g



Date/Time: 2006-06-14 18:29:12

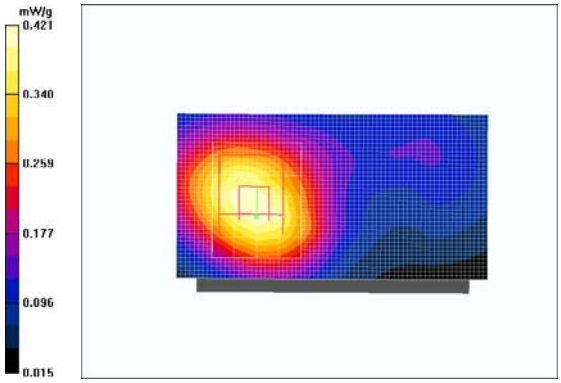
Test Laboratory: TCC Nokia Salo Laboratory
Type: RM-126, HW: 0573; Serial: 004400/85/172408/6

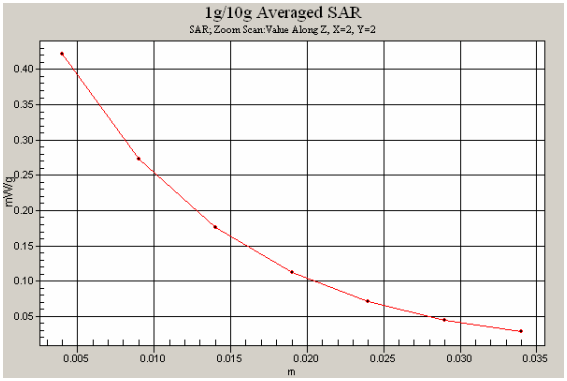
Communication System: 2-slot GPRS1900
Frequency: 1909.8 MHz; Duty Cycle: 1:4.2
Medium: M1900; Medium Notes: t=21.6 C
Medium parameters used: f = 1910 MHz; σ = 1.55 mho/m; ε_r = 53.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1396; Probe Notes: Advanced extrapolation
- ConvF(4.58, 4.58, 4.58); Calibrated: 2006-01-24
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn372; Calibrated: 2005-08-18
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Body Measurement,High/Area Scan (41x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.434 mW/g

Body Measurement,High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 17.8 V/m; Power Drift = -0.052 dB
Peak SAR (extrapolated) = 0.602 W/kg
SAR(1 g) = 0.395 mW/g; SAR(10 g) = 0.251 mW/g
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) = 0.421 mW/g





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

E-field probe ET3DV6, SN: 1396
See the next three pages.

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss 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 Salo TCC

Certificate No: ET3-1396_Jan06

CALIBRATION CERTIFICATE

Object	ET3DV6 - SN:1396
Calibration procedure(s)	QA CAL-01.v5 and QA CAL-12.v4 Calibration procedure for dosimetric E-field probes
Calibration date:	January 24, 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 E4419B	GB41293874	3-May-05 (METAS, No. 251-00466)	May-06
Power sensor E4412A	MY41495277	3-May-05 (METAS, No. 251-00466)	May-06
Power sensor E4412A	MY41498087	3-May-05 (METAS, No. 251-00466)	May-06
Reference 3 dB Attenuator	SN: S5054 (3c)	11-Aug-05 (METAS, No. 251-00499)	Aug-06
Reference 20 dB Attenuator	SN: S5086 (20b)	3-May-05 (METAS, No. 251-00467)	May-06
Reference 30 dB Attenuator	SN: S5129 (30b)	11-Aug-05 (METAS, No. 251-00500)	Aug-06
Reference Probe ES3DV2	SN: 3013	2-Jan-06 (SPEAG, No. ES3-3013_Jan06)	Jan-07
DAE4	SN: 654	27-Oct-05 (SPEAG, No. DAE4-654_Oct05)	Oct-06

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 Nov-05)	In house check: Nov 06

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

Issued: January 24, 2006

DASY - Parameters of Probe: ET3DV6 SN:1396

Sensitivity in Free Space[A] Diode Compression[B]

NormX	**1.83** ± 10.1%	$\mu V/(V/m)^2$	DCP X	**91** mV
NormY	**1.82** ± 10.1%	$\mu V/(V/m)^2$	DCP Y	**91** mV
NormZ	**1.95** ± 10.1%	$\mu V/(V/m)^2$	DCP Z	**91** mV

Sensitivity in Tissue Simulating Liquid (Conversion Factors)

Please see Page 8.

Boundary Effect

TSL **900 MHz** **Typical SAR gradient: 5 % per mm**

Sensor Center to Phantom Surface Distance		**3.7 mm**	**4.7 mm**
SAR_{be} [%]	Without Correction Algorithm	7.3	3.8
SAR_{be} [%]	With Correction Algorithm	0.1	0.1

TSL **1750 MHz** **Typical SAR gradient: 10 % per mm**

Sensor Center to Phantom Surface Distance		**3.7 mm**	**4.7 mm**
SAR_{be} [%]	Without Correction Algorithm	7.1	4.1
SAR_{be} [%]	With Correction Algorithm	0.2	0.2

Sensor Offset

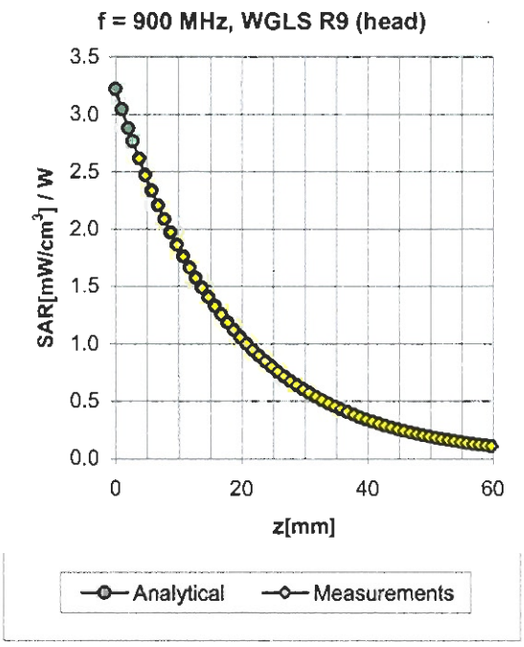
Probe Tip to Sensor Center	**2.7** mm

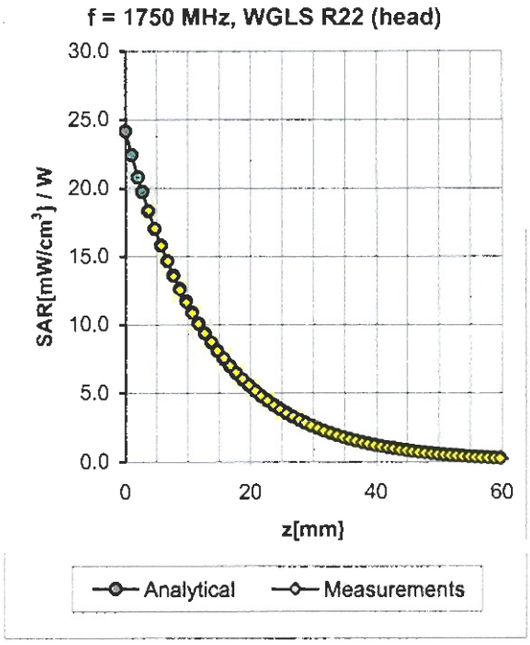
The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

[A] The uncertainties of NormX,Y,Z do not affect the E^2-field uncertainty inside TSL (see Page 8).

[B] Numerical linearization parameter: uncertainty not required.

Conversion Factor Assessment





f [MHz]	Validity [MHz][C]	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
450	± 50 / ± 100	Head	43.5 ± 5%	0.87 ± 5%	0.27	3.22	6.97 ± 13.3% (k=2)
835	± 50 / ± 100	Head	41.5 ± 5%	0.90 ± 5%	0.47	1.91	6.79 ± 11.0% (k=2)
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.57	1.75	6.55 ± 11.0% (k=2)
1750	± 50 / ± 100	Head	40.1 ± 5%	1.37 ± 5%	0.51	1.79	5.52 ± 11.0% (k=2)
1900	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.56	1.71	5.37 ± 11.0% (k=2)
1950	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.61	1.69	5.02 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.72	1.28	4.58 ± 11.8% (k=2)
450	± 50 / ± 100	Body	56.7 ± 5%	0.94 ± 5%	0.24	4.42	7.36 ± 13.3% (k=2)
835	± 50 / ± 100	Body	55.2 ± 5%	0.97 ± 5%	0.48	1.99	6.41 ± 11.0% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.48	2.08	6.29 ± 11.0% (k=2)
1750	± 50 / ± 100	Body	53.4 ± 5%	1.49 ± 5%	0.66	1.97	4.79 ± 11.0% (k=2)
1900	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.64	2.12	4.58 ± 11.0% (k=2)
1950	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.55	2.61	4.33 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.57	1.58	4.22 ± 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)

Dipole D835V2, SN: 462
Dipole D1900V2, SN: 5d013
See the next six pages.

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Client **Nokia Salo TCC**

CALIBRATION CERTIFICATE

Object(s)	D835V2 - SN:462
Calibration procedure(s)	QA CAL-05.v2 Calibration procedure for dipole validation kits
Calibration date:	July 14, 2004
Condition of the calibrated item	In Tolerance (according to the specific calibration document)

This calibration statement documents traceability of M&TE used in the calibration procedures and conformity of the procedures with the ISO/IEC 17025 international standard.

All calibrations have been conducted in the closed laboratory facility: environment temperature 22 +/- 2 degrees Celsius and humidity < 75%.

Calibration Equipment used (M&TE critical for calibration)

Model Type	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM E442	GB37480704	6-Nov-03 (METAS, No. 252-0254)	Nov-04
Power sensor HP 8481A	US37292783	6-Nov-03 (METAS, No. 252-0254)	Nov-04
Power sensor HP 8481A	MY41092317	18-Oct-02 (Agilent, No. 20021018)	Oct-04
RF generator R&S SML-03	100698	27-Mar-2002 (R&S, No. 20-92389)	In house check: Mar-05
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Nov-03)	In house check: Oct 05

	Name	Function	Signature
Calibrated by:	Judith Mueller	Technician	
Approved by:	Katja Pokovic	Laboratory Director	

Date issued: July 15, 2004

This calibration certificate is issued as an intermediate solution until the accreditation process (based on ISO/IEC 17025 International Standard) for Calibration Laboratory of Schmid & Partner Engineering AG is completed.

Date/Time: 07/12/04 11:28:47

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN462

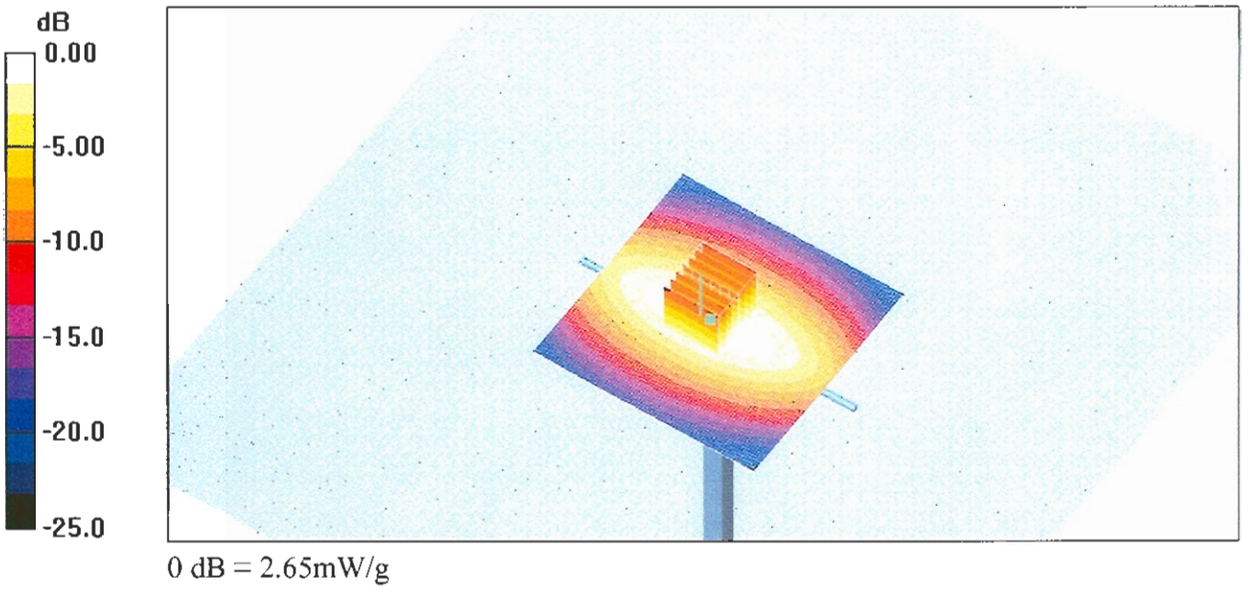
Communication System: CW-835; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: HSL 835 MHz;
Medium parameters used: f = 835 MHz; σ = 0.92 mho/m; ε_r = 41.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(6.3, 6.3, 6.3); Calibrated: 1/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn903; Calibrated: 2/19/2004
- Phantom: Flat Phantom half size; Type: QD000P49AA; Serial: SN:1001;
- Measurement SW: DASY4, V4.3 Build 8; Postprocessing SW: SEMCAD, V1.8 Build 117

Pin = 250 mW; d = 15 mm/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.62 mW/g

Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.1 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 3.72 W/kg
SAR(1 g) = 2.45 mW/g; SAR(10 g) = 1.59 mW/g
Maximum value of SAR (measured) = 2.65 mW/g



0 dB = 2.65mW/g

Date/Time: 07/14/04 13:16:14

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN462

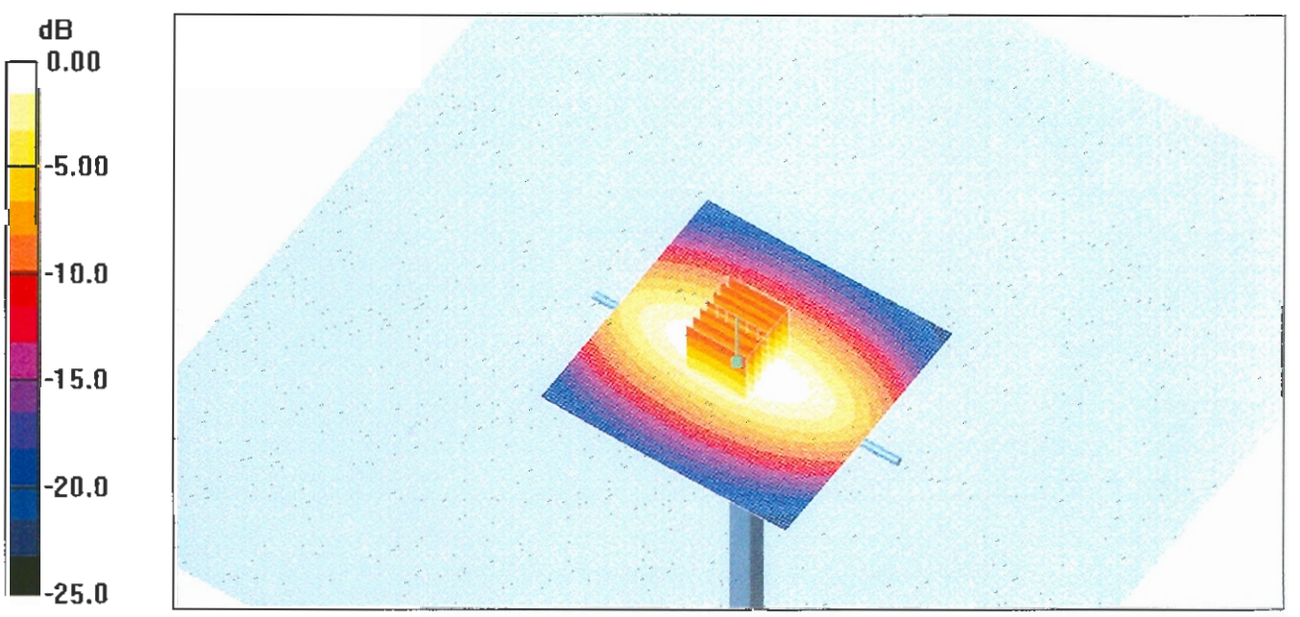
Communication System: CW-835; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: Muscle 835 MHz;
Medium parameters used: f = 835 MHz; σ = 0.99 mho/m; ε_r = 54.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(6.13, 6.13, 6.13); Calibrated: 1/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn903; Calibrated: 2/19/2004
- Phantom: Flat Phantom half size; Type: QD000P49AA; Serial: SN:1001;
- Measurement SW: DASY4, V4.3 Build 8; Postprocessing SW: SEMCAD, V1.8 Build 117

Pin = 250 mW; d = 15 mm/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.64 mW/g

Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.6 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 3.59 W/kg
SAR(1 g) = 2.45 mW/g; SAR(10 g) = 1.61 mW/g
Maximum value of SAR (measured) = 2.66 mW/g



0 dB = 2.66mW/g

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Client **Nokia Salo TCC**

CALIBRATION CERTIFICATE

Object(s)	D1900V2 - SN:5d013
Calibration procedure(s)	QA CAL-05.v2 Calibration procedure for dipole validation kits
Calibration date:	July 13, 2004
Condition of the calibrated item	In Tolerance (according to the specific calibration document)

This calibration statement documents traceability of M&TE used in the calibration procedures and conformity of the procedures with the ISO/IEC 17025 international standard.

All calibrations have been conducted in the closed laboratory facility: environment temperature 22 +/- 2 degrees Celsius and humidity < 75%.

Calibration Equipment used (M&TE critical for calibration)

Model Type	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM E442	GB37480704	6-Nov-03 (METAS, No. 252-0254)	Nov-04
Power sensor HP 8481A	US37292783	6-Nov-03 (METAS, No. 252-0254)	Nov-04
Power sensor HP 8481A	MY41092317	18-Oct-02 (Agilent, No. 20021018)	Oct-04
RF generator R&S SML-03	100698	27-Mar-2002 (R&S, No. 20-92389)	In house check: Mar-05
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Nov-03)	In house check: Oct 05

	Name	Function	Signature
Calibrated by:	Judith Mueller	Technician	
Approved by:	Katja Pokovic	Laboratory Director	

Date issued: July 15, 2004

This calibration certificate is issued as an intermediate solution until the accreditation process (based on ISO/IEC 17025 International Standard) for Calibration Laboratory of Schmid & Partner Engineering AG is completed.

Date/Time: 07/13/04 11:09:33

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN5d013

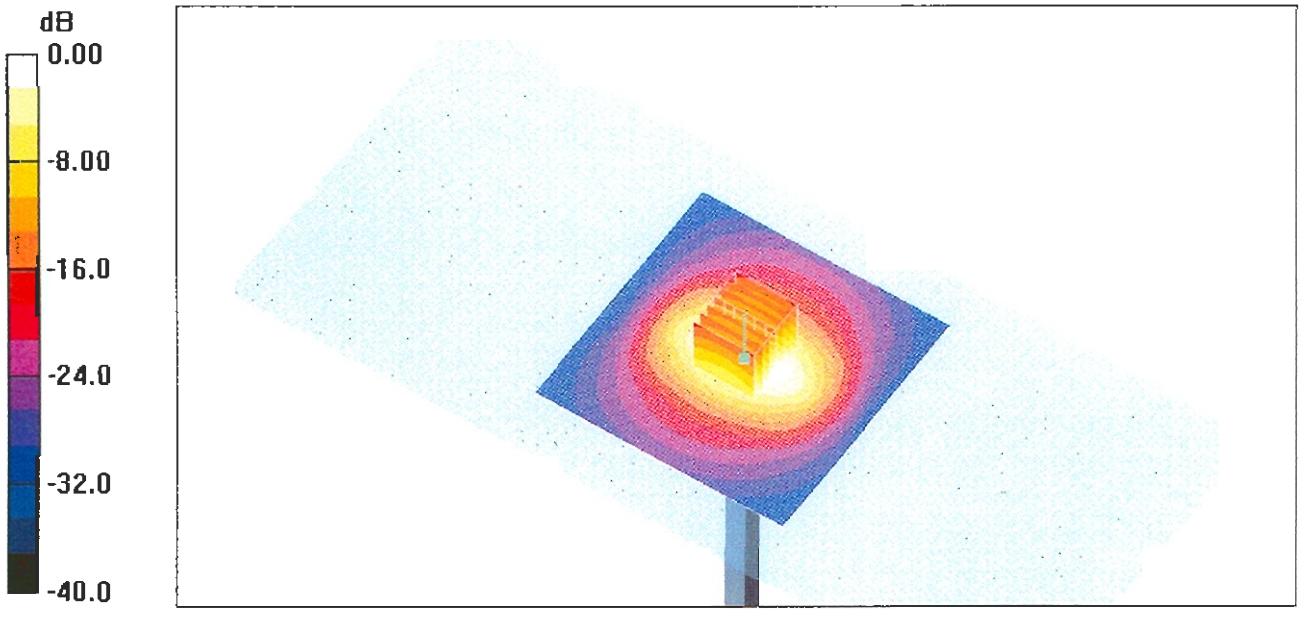
Communication System: CW-1900; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL 1900 MHz;
Medium parameters used: f = 1900 MHz; σ = 1.44 mho/m; ε_r = 39.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(4.96, 4.96, 4.96); Calibrated: 1/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn903; Calibrated: 2/19/2004
- Phantom: Flat Phantom quarter size; Type: QD000P50AA; Serial: SN:1002;
- Measurement SW: DASY4, V4.3 Build 8; Postprocessing SW: SEMCAD, V1.8 Build 117

Pin = 250 mW; d = 10 mm/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.4 mW/g

Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 93.6 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 17.9 W/kg
SAR(1 g) = 10 mW/g; SAR(10 g) = 5.24 mW/g
Maximum value of SAR (measured) = 11.4 mW/g



0 dB = 11.4mW/g

Date/Time: 07/07/04 17:18:35

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN5d013

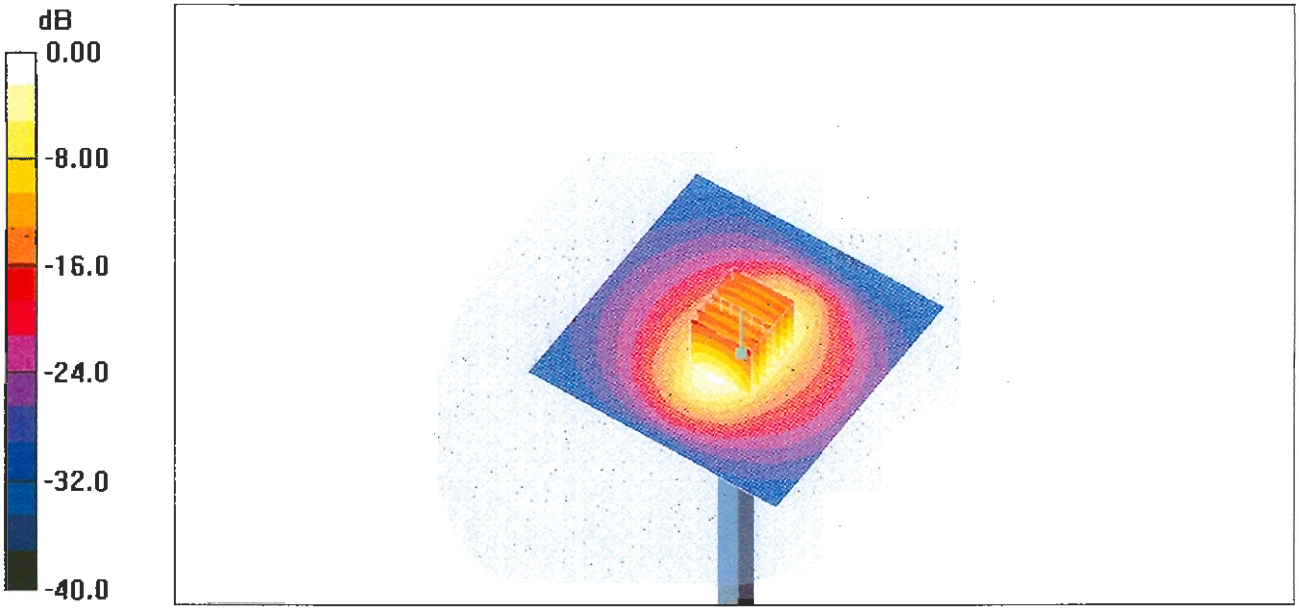
Communication System: CW-1900; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: Muscle 1900 MHz;
Medium parameters used: f = 1900 MHz; σ = 1.58 mho/m; ε_r = 52.2; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(4.57, 4.57, 4.57); Calibrated: 1/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn903; Calibrated: 2/19/2004
- Phantom: SAM with CRP - TP1006; Type: SAM 4.0; Serial: TP:1006;
- Measurement SW: DASY4, V4.3 Build 8; Postprocessing SW: SEMCAD, V1.8 Build 117

Pin = 250 mW; d = 10 mm/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 12.0 mW/g

Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 82.5 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 18.9 W/kg
SAR(1 g) = 10.4 mW/g; SAR(10 g) = 5.41 mW/g
Maximum value of SAR (measured) = 11.8 mW/g



0 dB = 11.8mW/g