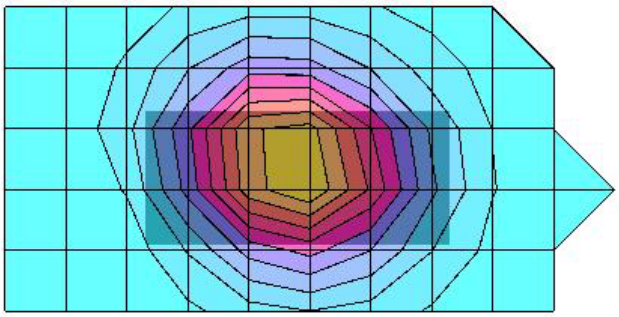
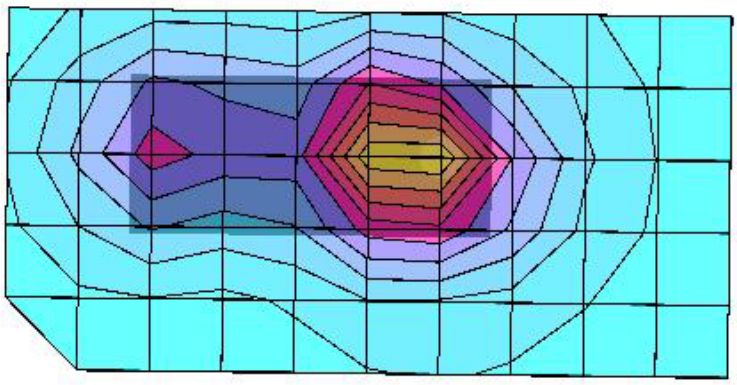
2004-06-16, GPRS850 (2 slots) Body 836MHz, Without Headset, Separation Distance 2.2cm

SAM 2 Phantom; Flat Section; Position: (90°,270°); Frequency: 836 MHz
Probe: ET3DV6 - SN1650; ConvF(6.23,6.23,6.23); Crest factor: 4.0; Body850MHz: σ = 0.93 mho/m ε_r = 55.6 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 1.06 mW/g, SAR (10g): 0.741 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.03 dB



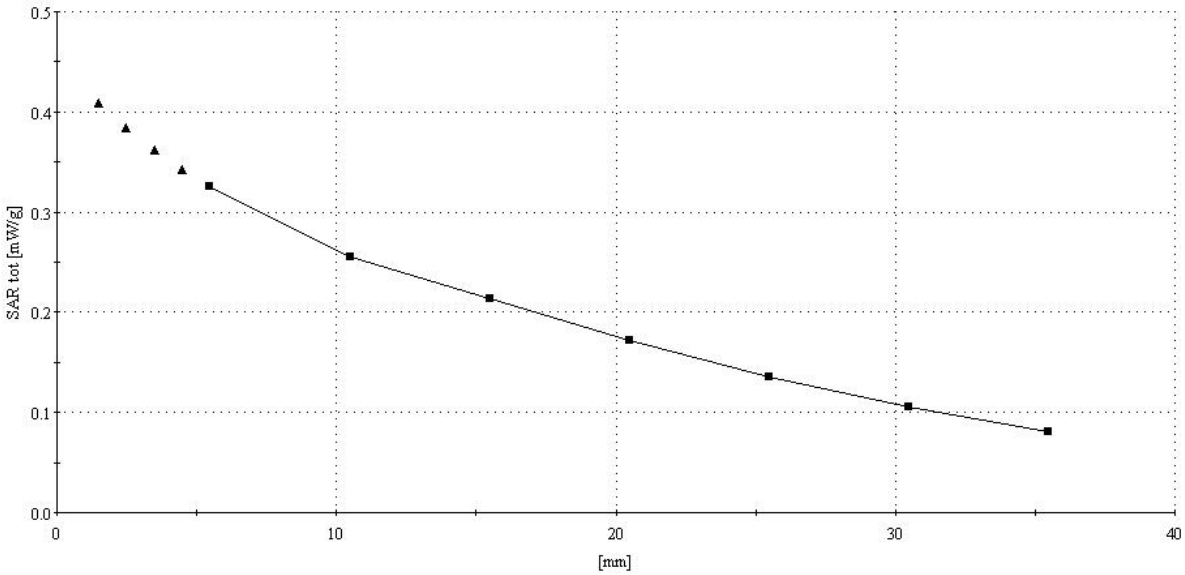
2004-05-27, GPRS1900 (2 slot), Body 1910MHz, With Headset HS-1C, Separation Distance 2.2cm

SAM 1 Phantom; Flat Section; Position: (90°,90°); Frequency: 1910 MHz
Probe: ET3DV6 - SN1650; ConvF(4.73,4.73,4.73); Crest factor: 4.0; Body1900MHz: σ = 1.57 mho/m ε_r = 52.7 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 0.449 mW/g, SAR (10g): 0.262 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.24 dB



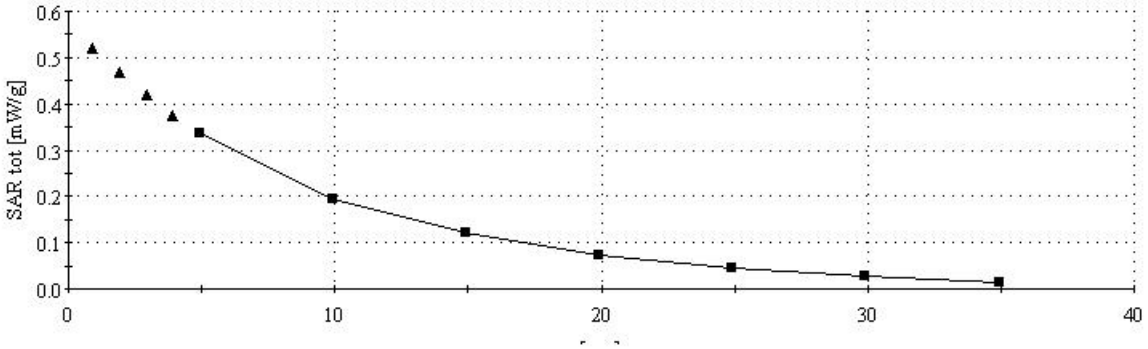
2004-06-14, GSM850 Head 836MHz, Right Cheek, Z-axis scan.

SAM 1 Phantom; Righ Hand Section; Position: (90°,300°); Frequency: 836 MHz
Probe: ET3DV6 - SN1650; ConvF(6.53,6.53,6.53); Crest factor: 8.0; Head850MHz: σ = 0.91 mho/m ε_r = 42.0 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 1.17 mW/g, SAR (10g): 0.715 mW/g, (Worst-case extrapolation)
Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0



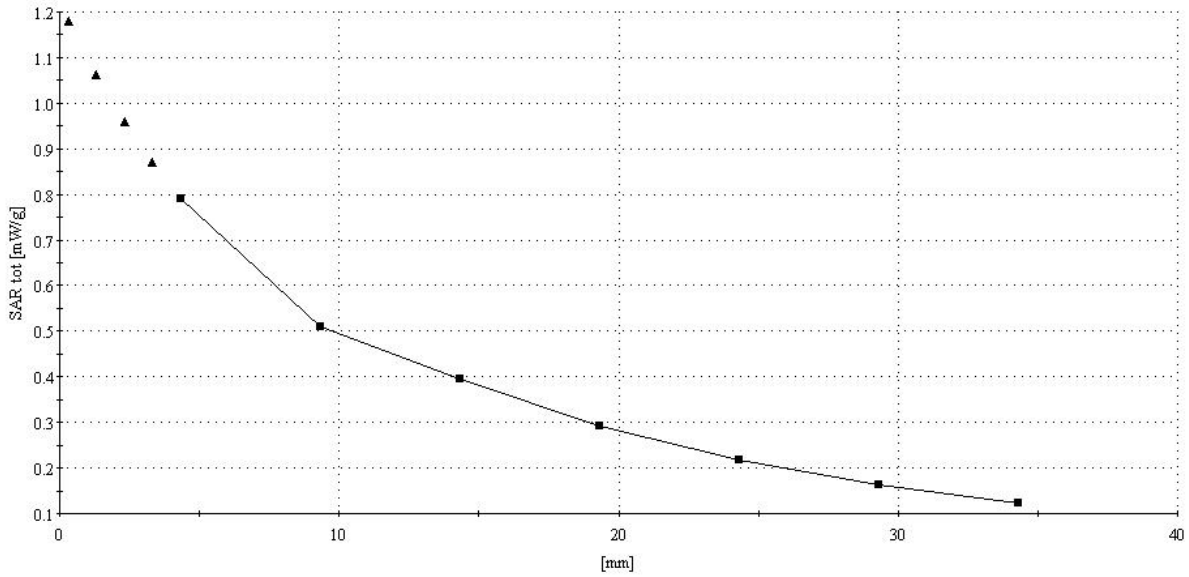
2004-06-15, GSM1900 Head 1910MHz, Right Cheek, Z-axis scan.

SAM 1 Phantom; Righ Hand Section; Position: (90°,300°); Frequency: 1910 MHz
Probe: ET3DV6 - SN1650; ConvF(5.36,5.36,5.36); Crest factor: 8.0; Head 1900 MHz: σ = 1.33 mho/m ε_r = 39.0 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.628 mW/g, SAR (10g): 0.300 mW/g, (Worst-case extrapolation)
Cube 7x7x7: Dx = 5.0, Dy = 5.0, Dz = 5.0



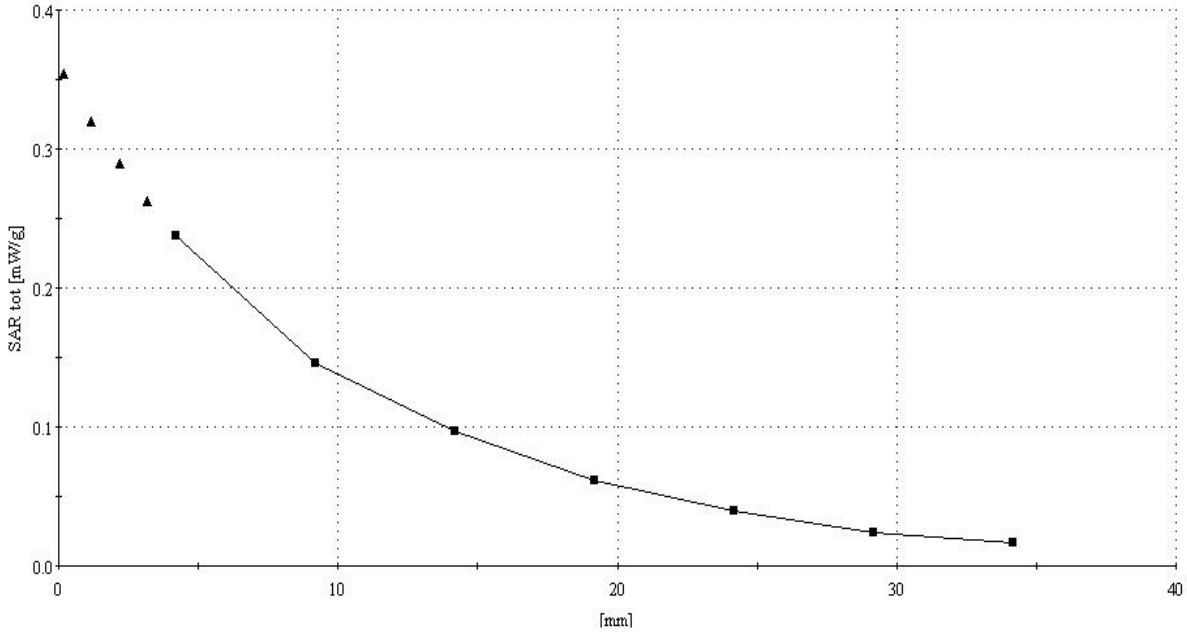
2004-06-16, GPRS850 (2 slots) Body 836MHz, Without Headset, Separation Distance 2.2cm, Z-axis scan.

SAM 2 Phantom; Flat Section; Position: (90°,270°); Frequency: 836 MHz
Probe: ET3DV6 - SN1650; ConvF(6.23,6.23,6.23); Crest factor: 4.0; Body850MHz: σ = 0.93 mho/m ε_r = 55.6 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 1.06 mW/g, SAR (10g): 0.741 mW/g, (Worst-case extrapolation)
Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0



2004-05-27, GPRS1900 (2 slot) Body 1910MHz, With Headset HS-1C, Separation Distance 2.2cm, Z-axis scan.

SAM 1 Phantom; Flat Section; Position: (90°,90°); Frequency: 1910 MHz
Probe: ET3DV6 - SN1650; ConvF(4.73,4.73,4.73); Crest factor: 4.0; Body1900MHz: σ = 1.57 mho/m ε_r = 52.7 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 0.449 mW/g, SAR (10g): 0.262 mW/g, (Worst-case extrapolation)
Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0



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

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

Client **Nokia China**

CALIBRATION CERTIFICATE

Object(s)	ET3DV6 - SN:1650
Calibration procedure(s)	QA CAL-01.v2 Calibration procedure for dosimetric E-field probes
Calibration date:	March 23, 2004
Condition of the calibrated item	In Tolerance (according to the specific calibration document)

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 +/- 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 E4419B	GB41293874	2-Apr-03 (METAS, No 252-0250)	Apr-04
Power sensor E4412A	MY41495277	2-Apr-03 (METAS, No 252-0250)	Apr-04
Reference 20 dB Attenuator	SN: 5086 (20b)	3-Apr-03 (METAS, No. 251-0340)	Apr-04
Fluke Process Calibrator Type 702	SN: 6295803	8-Sep-03 (Sintrel SCS No. E-030020)	Sep-04
Power sensor HP 8481A	MY41092180	18-Sep-02 (SPEAG, in house check Oct-03)	In house check: Oct 05
RF generator HP 8684C	US3642U01700	4-Aug-99 (SPEAG, in house check Aug-02)	In house check: Aug-05
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Oct-03)	In house check: Oct 05

	Name	Function	Signature
Calibrated by:	Nico Vetterli	Technician	
Approved by:	Katja Pokovic	Laboratory Director	

Date issued: March 23, 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.

DASY - Parameters of Probe: ET3DV6 SN:1650

Sensitivity in Free Space

Diode Compression[A]

NormX	**1.82** $\mu V/(V/m)^2$	DCP X	**97**	mV
NormY	**1.88** $\mu V/(V/m)^2$	DCP Y	**97**	mV
NormZ	**1.78** $\mu V/(V/m)^2$	DCP Z	**97**	mV

Sensitivity in Tissue Simulating Liquid (Conversion Factors)

Plese see Page 7.

Boundary Effect

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

Sensor Cener to Phantom Surface Distance		**3.7 mm**	**4.7 mm**
SAR_{be} [%]	Without Correction Algorithm	8.6	4.2
SAR_{be} [%]	With Correction Algorithm	0.0	0.1

Head **1800 MHz** **Typical SAR gradient: 10 % per mm**

Sensor to Surface Distance		**3.7 mm**	**4.7 mm**
SAR_{be} [%]	Without Correction Algorithm	12.8	8.7
SAR_{be} [%]	With Correction Algorithm	0.2	0.2

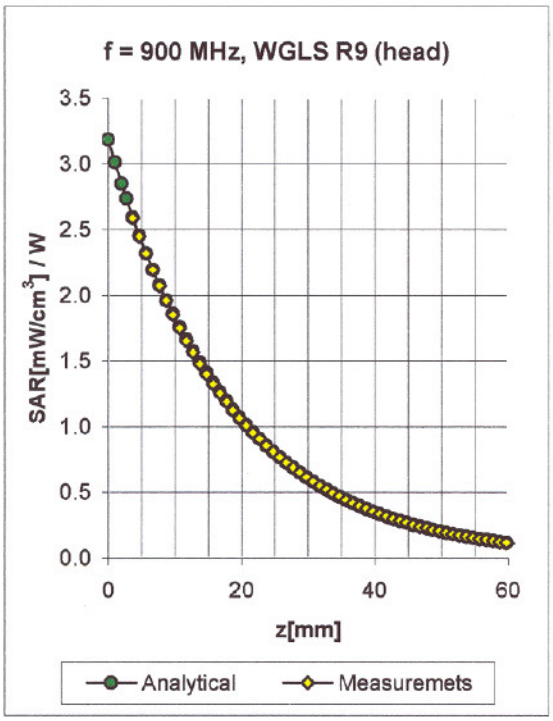
Sensor Offset

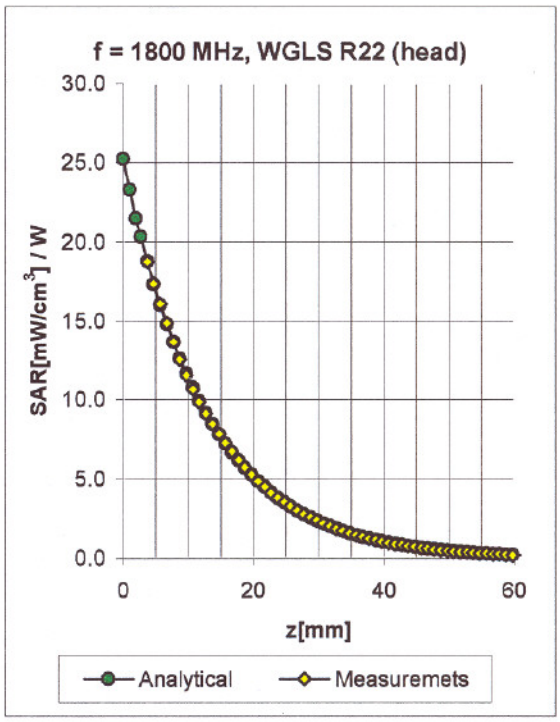
Probe Tip to Sensor Center	**2.7** mm
Optical Surface Detection	**in tolerance**

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] numerical linearization parameter: uncertainty not required

Conversion Factor Assessment





f [MHz]	Validity [MHz][B]	Tissue	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
900	800-1000	Head	41.5 ± 5%	0.97 ± 5%	0.86	1.56	6.53 ± 11.3% (k=2)
1800	1710-1910	Head	40.0 ± 5%	1.40 ± 5%	0.48	2.58	5.36 ± 11.7% (k=2)
900	800-1000	Body	55.0 ± 5%	1.05 ± 5%	0.68	1.79	6.23 ± 11.3% (k=2)
1800	1710-1910	Body	53.3 ± 5%	1.52 ± 5%	0.58	2.71	4.73 ± 11.7% (k=2)

[B] The total standard uncertainty is calculated as root-sum-square of standard uncertainty of the Conversion Factor at calibration frequency and the standard uncertainty for the indicated frequency band.

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

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

Client Nokia China

CALIBRATION CERTIFICATE

Object(s) D900V2 - SN 136

Calibration procedure(s) QA CAL-05 v2
Calibration procedure for dipole validation kits

Calibration date: March 16, 2004 (calibration for Body tissue)

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: March 18, 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: 03/16/04 12:23:45

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN136

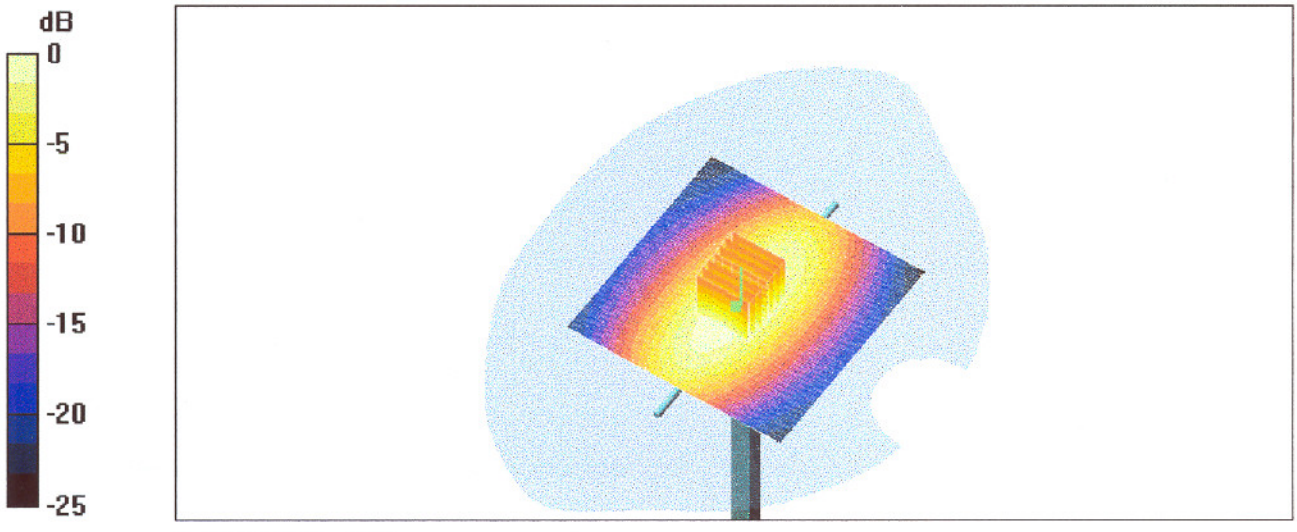
Communication System: CW-900; Frequency: 900 MHz;Duty Cycle: 1:1
Medium: Muscle 900 MHz;
Medium parameters used: f = 900 MHz; σ = 1.05 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(6.02, 6.02, 6.02); Calibrated: 1/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn411; Calibrated: 11/6/2003
- Phantom: SAM with CRP - TP1006; Type: SAM 4.0; Serial: TP:1006;
- Measurement SW: DASY4, V4.2 Build 37; Postprocessing SW: SEMCAD, V1.8 Build 112

Pin = 250 mW; d = 15 mm/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 55.4 V/m; Power Drift = 0.008 dB
Maximum value of SAR (interpolated) = 2.97 mW/g

Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.4 V/m; Power Drift = 0.008 dB
Maximum value of SAR (measured) = 2.95 mW/g
Peak SAR (extrapolated) = 4.04 W/kg
SAR(1 g) = 2.74 mW/g; SAR(10 g) = 1.78 mW/g



0 dB = 2.95mW/g