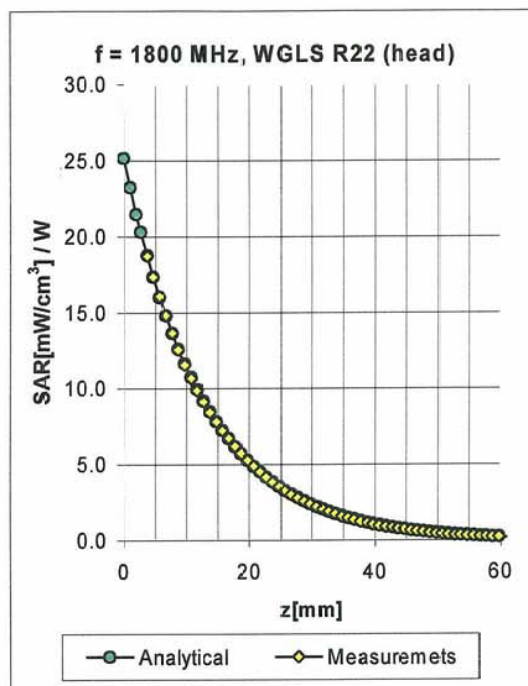
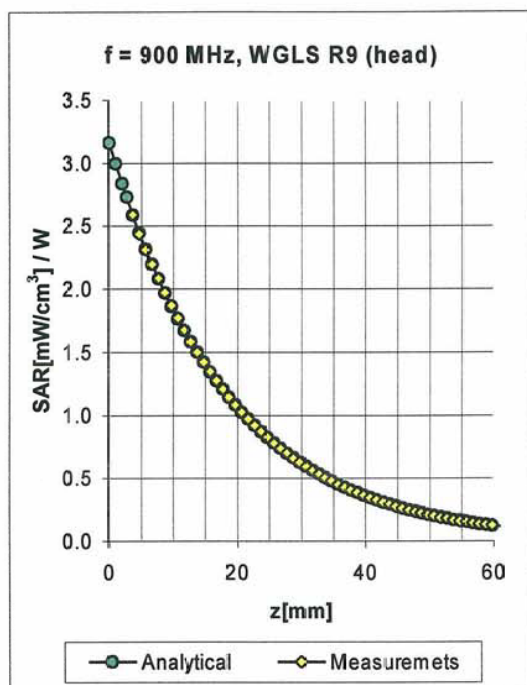


Conversion Factor Assessment

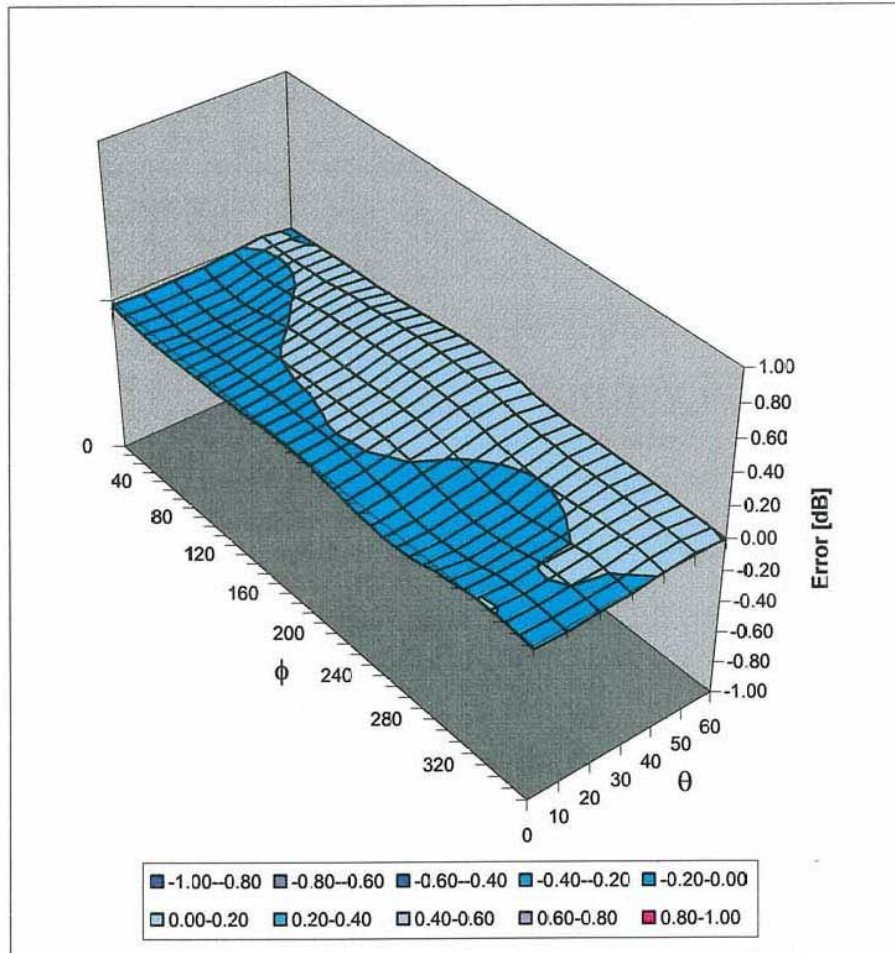


f [MHz]	Validity [MHz] ^B	Tissue	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
900	800-1000	Head	41.5 ± 5%	0.97 ± 5%	0.38	2.58	6.34 ± 11.3% (k=2)
1800	1710-1910	Head	40.0 ± 5%	1.40 ± 5%	0.46	2.71	5.16 ± 11.7% (k=2)
2450	2400-2500	Head	39.2 ± 5%	1.80 ± 5%	0.90	1.93	4.41 ± 9.7% (k=2)
900	800-1000	Body	55.0 ± 5%	1.05 ± 5%	0.52	2.10	6.06 ± 11.3% (k=2)
1800	1710-1910	Body	53.3 ± 5%	1.52 ± 5%	0.52	2.88	4.54 ± 11.7% (k=2)
2450	2400-2500	Body	52.7 ± 5%	1.95 ± 5%	1.04	1.62	4.23 ± 9.7% (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.

Deviation from Isotropy in HSL

Error (θ, ϕ), $f = 900$ MHz



Spherical Isotropy Error $< \pm 0.4$ dB

D3: DAE SN: 510

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

Client

Auden ADT

CALIBRATION CERTIFICATE

Object(s) **DAE3 - SD 000 D03 AA - SN: 510**

Calibration procedure(s) **QA CAL-06.v7**
Calibration procedure for the data acquisition unit (DAE)

Calibration date: **17.08.2004**

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	Scheduled Calibration
Fluke Process Calibrator Type 702	SN: 6295803	8-Sep-03	Sep-04

	Name	Function	Signature
Calibrated by:	Philipp Storchenegger	Technician	
Approved by:	Fin Bomholt	R&D Director	

Date issued: 17.08.2004

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.

1. DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1 μ V, full range = -100...+300 mV
 Low Range: 1LSB = 61nV, full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	403.405	403.470	403.844
Low Range	3.95588	3.93301	3.95923
Connector Angle to be used	in DASY System 43 °		

High Range	Input (μ V)	Reading (μ V)	Error (%)
Channel X + Input	200000	199999.5	0.00
Channel X + Input	20000	20004.1	0.02
Channel X - Input	20000	-19988.8	-0.06
Channel Y + Input	200000	199999.9	0.00
Channel Y + Input	20000	19999.3	0.00
Channel Y - Input	20000	-19993.8	-0.03
Channel Z + Input	200000	199999.6	0.00
Channel Z + Input	20000	20005.6	0.03
Channel Z - Input	20000	-19995.4	-0.02

Low Range	Input (μ V)	Reading (μ V)	Error (%)
Channel X + Input	2000	1999.96	0.00
Channel X + Input	200	200.00	0.00
Channel X - Input	200	-200.34	0.17
Channel Y + Input	2000	2000.03	0.00
Channel Y + Input	200	199.39	-0.31
Channel Y - Input	200	-200.81	-0.41
Channel Z + Input	2000	2000.07	0.00
Channel Z + Input	200	199.29	-0.36
Channel Z - Input	200	-201.07	0.53

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Reading (μ V)	Low Range Reading (μ V)
Channel X	200	17.42	16.88
	- 200	-17.00	-17.10
Channel Y	200	14.86	14.26
	- 200	-15.53	-16.14
Channel Z	200	-8.63	-8.44
	- 200	7.15	7.51