DAE 3 SN: 579 DATE: 15.08.2003

3. Common mode sensitivity

DASY measurement parameters:

Auto Zero Time: 3 sec,

Measuring time:

3 sec

High/Low Range

in μV	Common mode Input Voltage	High Range Reading	Low Range Reading
Channel X	200mV	5.15	5.17
	- 200mV	-4.35	-4.88
Channel Y	200mV	9.00	8.70
to accompany to the control of the c	- 200mV	-10.57	-10.21
Channel Z	200mV	8.93	8.00
	- 200mV	-10.74	-10.51

4. Channel separation

DASY measurement parameters:

Auto Zero Time:

3 sec,

Measuring time:

3 sec

3 sec

High Range

in μV	Input Voltage	Channel X	Channel Y	Channel Z
Channel X	200mV	-	0.87	-0.39
Channel Y	200mV	0.80	€ =	2.29
Channel Z	200mV	-2.73	-0.30	-

5. AD-Converter Values with inputs shorted

in LSB	Low Range	High Range
Channel X	16102	16311
Channel Y	16055	16139
Channel Z	15811	15833

6. Input Offset Measurement

DASY measurement parameters:

Auto Zero Time: 3 sec,

Measuring time:

Number of measurements:

100, Low Range

Input $10M\Omega$

in μV	Average	min. Offset	max. Offset	Std. Deviation
Channel X	0.25	-1.75	1.20	0.43
Channel Y	-1.47	-2.17	0.46	0.35
Channel Z	-1.64	-2.78	0.28	0.45

DAE 3 SN: 579 DATE: 15.08.2003

6. Input Offset Measurement (cont'd) Input shorted

in μV	Average	min. Offset	max. Offset	Std. Deviation
Channel X	-0.02	-0.85	0.97	0.27
Channel Y	-0.69	-2.12	0.97	0.35
Channel Z	-0.96	-2.39	0.43	0.35

7. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

8. Input Resistance

In MOhm	Calibrating	Measuring
Channel X	0.2001	199.9
Channel Y	0.1999	203.3
Channel Z	0.2000	200.4

9. Low Battery Alarm Voltage

in V	Alarm Level	
Supply (+ Vcc)	7.72	
Supply (- Vcc)	7.55	

10. Power Consumption

in mA	Switched off	Stand by	Transmitting
Supply (+ Vcc)	0.00	8.71	14.4
Supply (- Vcc)	-0.01	-8.03	-9.20



D4: 900MHz SYSTEM VALIDATION DIPOLE

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

Client

Auden > Chunghwa Telecom

Object(s) D900V2 - SN:191 Calibration procedure(s) QA CAL-05.v2 Calibration procedure for dipole validation kits Calibration date: August 26, 2003 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 RF generator R&S SML-03 100698 27-Mar-2002 (R&S, No. 20-92389) In house check: Mar-05 Power sensor HP 8481A MY41092317 18-Oct-02 (Agient, No. 2021018) Oct-04 Power sensor HP 8481A US37292783 30-Oct-02 (METAS, No. 252-0236) Oct-03 Power meter EPM E442 GB37480704 30-Oct-02 (METAS, No. 252-0236) Oct-03 Network Analyzer HP 8753E US37390585 18-Oct-01 (Agilent, No. 24BR1033101) In house check: Oct 03 Name Function Signature Judith Mueller Technician Calibrated by: Calibratory Director Date issued: August 28, 200	CALIBRATION	CERTIFICA		
Calibration procedure for dipole validation kits Calibration date: August 26, 2003 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 RF generator R&S SML-03 100698 27-Mar-2002 (R&S, No. 20-92389) In house check: Mar-05 Power sensor HP 8481A WY41092317 18-Oct-02 (Agilent, No. 2021018) Oct-04 Power sensor HP 8481A US37292783 30-Oct-02 (METAS, No. 252-0236) Oct-03 Power meter EPM E442 GB37480704 30-Oct-02 (METAS, No. 252-0236) Oct-03 Network Analyzer HP 8753E US37390585 18-Oct-01 (Agilent, No. 24BR1033101) In house check: Oct 03 Name Function Signature Calibrated by: Katja Pokovic Laboratory Director Katja Pokovic Laboratory Director	Object(s)	D900V2 - SN	:191	
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Approved by: Katja Pokovic Leboratory Director Approved by:		Desire Company and Company	Function	Signature
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Monic Water				
Date issued: August 28, 200	Approved by:	Katja Pokovic	Laboratory Director	Morie lety
				Date issued: August 28, 2003

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.

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DASY

Dipole Validation Kit

Type: D900V2

Serial: 191

Manufactured:

June 13, 2003

Calibrated:

August 26, 2003

1. Measurement Conditions

The measurements were performed in the flat section of the SAM twin phantom filled with **head** simulating solution of the following electrical parameters at 900 MHz:

Relative Dielectricity 42.6 $\pm 5\%$ Conductivity 0.97 mho/m $\pm 5\%$

The DASY4 System with a dosimetric E-field probe ET3DV6 (SN:1507, Conversion factor 6.6 at 900 MHz) was used for the measurements.

The dipole was mounted on the small tripod so that the dipole feedpoint was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 15mm from dipole center to the solution surface. The included distance spacer was used during measurements for accurate distance positioning.

The coarse grid with a grid spacing of 15mm was aligned with the dipole. The 7x7x7 fine cube was chosen for cube integration.

The dipole input power (forward power) was $250 \text{mW} \pm 3 \%$. The results are normalized to 1W input power.

2. SAR Measurement with DASY4 System

Standard SAR-measurements were performed according to the measurement conditions described in section 1. The results (see figure supplied) have been normalized to a dipole input power of 1W (forward power). The resulting averaged SAR-values measured with the dosimetric probe ET3DV6 SN:1507 and applying the <u>advanced extrapolation</u> are:

averaged over 1 cm³ (1 g) of tissue: $10.5 \text{ mW/g} \pm 16.8 \% (k=2)^1$

averaged over 10 cm³ (10 g) of tissue: **6.72 mW/g** \pm 16.2 % (k=2)¹

¹ validation uncertainty