1. DC Voltage Measurement

DA - Converter Values from DAE

High Range:	1LSB =	6.1μV ,	full range =	400 mV
Low Range:	1LSB =	61nV ,	full range =	4 mV

Software Set-up: Calibration time: 3 sec Measuring time: 3 sec

Setup	X	Y	Z
High Range	406.1567946	406.2287709	405.1934136
Low Range	3.95682	3.94645	3.95043
Connector Position	77 °		

High Range	Input	Reading in μV	% Error
Channel X + Input	200mV	200001	0.00
	20mV	19998.7	-0.01
Channel X - Input	20mV	-19996	-0.02
Channel Y + Input	200mV	200000	0.00
	20mV	19998.8	-0.01
Channel Y - Input	20mV	-19995.3	-0.02
Channel Z + Input	200mV	200001	0.00
	20mV	19996.1	-0.02
Channel Z - Input	20mV	-19998.4	-0.01

Low Range	Input	Reading in μV	% Error
Channel X + Input	2mV	1999.9	0.00
	0.2mV	200.3	0.15
Channel X - Input	0.2mV	-200.65	0.33
Channel Y + Input	2mV	1999.9	0.00
	0.2mV	199.83	-0.08
Channel Y - Input	0.2mV	-200.69	0.34
Channel Z + Input	2mV	1999.9	0.00
	0.2mV	198.46	-0.77
Channel Z - Input	0.2mV	-201.3	0.65

2. Common mode sensitivity

Software Set-up
Calibration 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	-5.3807	-6.0055
	- 200mV	7.2138	6.8691
Channel Y	200mV	6.7947	7.3255
	- 200mV	-8.2084	-8.8095
Channel Z	200mV	8.9017	8.6519
	- 200mV	-10.436	-10.703

3. Channel separation

Software Set-up
Calibration time: 3 sec, Measuring time: 3 sec
High Range

in μV	Input Voltage	Channel X	Channel Y	Channel Z
Channel X	200mV	-	0.11682	0.64524
Channel Y	200mV	1.0687	-	1.9222
Channel Z	200mV	-4.2564	1.0633	-

4. AD-Converter Values with inputs shorted

in LSB	Low Range	High Range
Channel X	16152	15578
Channel Y	16120	15700
Channel Z	17838	16527

5. Input Offset Measurement

Measured after 15 min warm-up time of the Data Acquisition Electronic.
Every Measurement is preceded by a calibration cycle.

Software set-up:

Calibration time:	3 sec
Measuring time:	3 sec
Number of measurements:	100, Low Range

Input 10MΩ

in μV	Average	min. Offset	max. Offset	Std. Deviation
Channel X	-0.21	-1.73	1.20	0.39
Channel Y	-2.22	-3.40	-1.48	0.29
Channel Z	-1.88	-3.53	-0.72	0.34

Input shorted

in μV	Average	min. Offset	max. Offset	Std. Deviation
Channel X	0.07	-1.85	1.43	0.35
Channel Y	-0.66	-2.08	-0.07	0.24
Channel Z	-0.99	-2.56	0.25	0.28

6. Input Offset Current

in fA	Input Offset Current
Channel X	< 25
Channel Y	< 25
Channel Z	< 25

7. Input Resistance

	Calibrating	Measuring
Channel X	200.1 kΩ	197.2 MΩ
Channel Y	200 kΩ	196.2 MΩ
Channel Z	199.9 kΩ	201.5 MΩ

8. Low Battery Alarm Voltage

in V	Alarm Level
Supply (+ Vcc)	7.70 V
Supply (- Vcc)	-7.57 V

9. Power Consumption

in mA	Switched off	Stand by	Transmitting
Supply (+ Vcc)	0.000	5.87	13.9
Supply (- Vcc)	-0.011	-7.90	-9.20

10. Functional test

Touch async pulse 1	ok
Touch async pulse 2	ok
Touch status bit 1	ok
Touch status bit 2	ok
Remote power off	ok
Remote analog Power control	ok
Modification Status	B – C

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

Client **Qualcomm**

CALIBRATION CERTIFICATE

Object(s) D1800V2 - SN:269

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

Calibration date: July 16, 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 (Agilent, No. 20021018)	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:	Judith Mueller	Technician	
Approved by:	Katja Pokovic	Laboratory Director	

Date issued: July 17, 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.