

Schweizerischer Kalibrierdienst

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# Accreditation No.: SCS 0108

Client Auden

Certificate No: AM1DV3-3067 Dec17

# **CALIBRATION CERTIFICATE**

	AM1DV3 - SN		
Calibration procedure(s)	QA CAL-24.v4		
	Calibration pro audio range	es and TMFS in the	
Calibration date:	December 12, 2017		
This calibration certificate document	ts the traceability to	national standards, which realize the physical units	of measurements (SI).
The measurements and the uncerta	unties with confidenc	ce probability are given on the following pages and a	are part of the certificate.
All calibrations have been conducte	d in the closed labor	ratory facility: environment temperature (22 $\pm$ 3)°C a	and humidity = 70%
		alory racinty. environment temperature (22 ± 5) C a	and humanly < 70%.
Calibration Equipment used (M&TE	critical for calibration	n)	
Primary Standards	D #		1
Keithley Multimeter Type 2001	SN: 0810278	Cal Date (Certificate No.) 31-Aug-17 (No. 21092)	Scheduled Calibration
Reference Probe AM1DV3	SN: 3000	24-Aug-17 (No. AM1DV3-3000_Aug17)	Aug-18 Aug-18
	0.1. 0000		
DAE4	SN: 781		
	SN: 781	13-Jul-17 (No. DAE4-781_Jul17)	Jul-18
DAE4	SN: 781	13-Jul-17 (No. DAE4-781_Jul17)	Jul-18
		13-Jul-17 (No. DAE4-781_Jul17) Check Date (in house)	Jul-18 Scheduled Check
DAE4 Secondary Standards	ID # SN: 1050	13-Jul-17 (No. DAE4-781_Jul17)	Jul-18
DAE4 Secondary Standards AMCC	ID # SN: 1050	13-Jul-17 (No. DAE4-781_Jul17) Check Date (in house) 01-Oct-13 (in house check Oct-17)	Jul-18 Scheduled Check Oct-19
DAE4 Secondary Standards AMCC	ID # SN: 1050 SN: 1062	13-Jul-17 (No. DAE4-781_Jul17) Check Date (in house) 01-Oct-13 (in house check Oct-17) 26-Sep-12 (in house check Oct-17)	Jul-18 Scheduled Check Oct-19 Oct-19
DAE4 Secondary Standards AMCC AMMI Audio Measuring Instrument	ID # SN: 1050 SN: 1062 Name	13-Jul-17 (No. DAE4-781_Jul17) Check Date (in house) 01-Oct-13 (in house check Oct-17) 26-Sep-12 (in house check Oct-17) Function	Jul-18 Scheduled Check Oct-19
DAE4 Secondary Standards AMCC	ID # SN: 1050 SN: 1062	13-Jul-17 (No. DAE4-781_Jul17) Check Date (in house) 01-Oct-13 (in house check Oct-17) 26-Sep-12 (in house check Oct-17)	Jul-18 Scheduled Check Oct-19 Oct-19
DAE4 Secondary Standards AMCC AMMI Audio Measuring Instrument	ID # SN: 1050 SN: 1062 Name Jeton Kastrati	13-Jul-17 (No. DAE4-781_Jul17) Check Date (in house) 01-Oct-13 (in house check Oct-17) 26-Sep-12 (in house check Oct-17) Function Laboratory Technician	Jul-18 Scheduled Check Oct-19 Oct-19
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#### [References

- [1] ANSI-C63.19-2007 American National Standard for Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids.
- [2] ANSI-C63.19-2011 American National Standard, Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids.
- [3] DASY5 manual, Chapter: Hearing Aid Compatibility (HAC) T-Coil Extension

#### Description of the AM1D probe

The AM1D Audio Magnetic Field Probe is a fully shielded magnetic field probe for the frequency range from 100 Hz to 20 kHz. The pickup coil is compliant with the dimensional requirements of [1+2]. The probe includes a symmetric low noise amplifier for the signal available at the shielded 3 pin connector at the side. Power is supplied via the same connector (phantom power supply) and monitored via the LED near the connector. The 7 pin connector at the end of the probe does not carry any signals, but determines the angle of the sensor when mounted on the DAE. The probe supports mechanical detection of the surface.

The single sensor in the probe is arranged in a tilt angle allowing measurement of 3 orthogonal field components when rotating the probe by 120° around its axis. It is aligned with the perpendicular component of the field, if the probe axis is tilted nominally 35.3° above the measurement plane, using the connector rotation and sensor angle stated below.

The probe is fully RF shielded when operated with the matching signal cable (shielded) and allows measurement of audio magnetic fields in the close vicinity of RF emitting wireless devices according to [1+2] without additional shielding.

#### Handling of the item

The probe is manufactured from stainless steel. In order to maintain the performance and calibration of the probe, it must not be opened. The probe is designed for operation in air and shall not be exposed to humidity or liquids. For proper operation of the surface detection and emergency stop functions in a DASY system, the probe must be operated with the special probe cup provided (larger diameter).

- *Coordinate System:* The AM1D probe is mounted in the DASY system for operation with a HAC Test Arch phantom with AMCC Helmholtz calibration coil according to [3], with the tip pointing to "southwest" orientation.
- Functional Test: The functional test preceding calibration includes test of Noise level RF immunity (1kHz AM modulated signal). The shield of the probe cable must be well connected. Frequency response verification from 100 Hz to 10 kHz.
- Connector Rotation: The connector at the end of the probe does not carry any signals and is used for fixation to the DAE only. The probe is operated in the center of the AMCC Helmholtz coil using a 1 kHz magnetic field signal. Its angle is determined from the two minima at nominally +120° and – 120° rotation, so the sensor in the tip of the probe is aligned to the vertical plane in z-direction, corresponding to the field maximum in the AMCC Helmholtz calibration coil.
- Sensor Angle: The sensor tilting in the vertical plane from the ideal vertical direction is determined from the two minima at nominally +120° and -120°. DASY system uses this angle to align the sensor for radial measurements to the x and y axis in the horizontal plane.
- Sensitivity: With the probe sensor aligned to the z-field in the AMCC, the output of the probe is compared to the magnetic field in the AMCC at 1 kHz. The field in the AMCC Helmholtz coil is given by the geometry and the current through the coil, which is monitored on the precision shunt resistor of the coil.

## AM1D probe identification and configuration data

Item	AM1DV3 Audio Magnetic 1D Field Probe
Туре No	SP AM1 001 BA
Serial No	3067

Overall length	296 mm
Tip diameter	6.0 mm (at the tip)
Sensor offset	3.0 mm (centre of sensor from tip)
Internal Amplifier	20 dB

Manufacturer / Origin	Schmid & Partner Engineering AG, Zürich, Switzerland
Manufacturing date	February 17, 2009
Last calibration date	January 06, 2017

#### **Calibration data**

Connector rotation angle	(in DASY system)	<b>266.6</b> °	+/- 3.6 ° (k=2)
Sensor angle	(in DASY system)	1.19 °	+/- 0.5 ° (k=2)
Sensitivity at 1 kHz	(in DASY system)	0.00738 V / (A/m)	+/- 2.2 % (k=2)

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%.



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Client Sporton

Certificate No: AM1DV3-3130\_Nov18

# **CALIBRATION CERTIFICATE**

Object	AM1DV3 - SN: 3130			
	QA CAL-24.v4 Calibration procedure for AM1D magnetic field probes and TMFS in the audio range			
Calibration date:	November 20, 2018			
The measurements and the uncerta	inties with confidenc	national standards, which realize the physical unit be probability are given on the following pages and atory facility: environment temperature ( $22 \pm 3$ )°C n)	are part of the certificate.	
Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration	
Keithley Multimeter Type 2001 Reference Probe AM1DV2 DAE4	SN: 0810278 SN: 1008 SN: 781	03-Sep-18 (No. 23488) 03-Jan-18 (No. AM1DV2-1008_Jan18) 17-Jan-18 (No. DAE4-781_Jan18)	Sep-19 Jan-19 Jan-19	
Secondary Standards	ID #	Check Date (in house)	Scheduled Check	
AMCC AMMI Audio Measuring Instrument	SN: 1050	01-Oct-13 (in house check Oct-17) 26-Sep-12 (in house check Oct-17)	Oct-19 Oct-19	
	Name	Function	Signature	
Calibrated by:	Leif Klysner	Laboratory Technician	Selle	
Approved by:	Katja Pokovic	Technical Manager	Sel My	
			Issued: November 20, 2018	

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

#### [References

- [1] ANSI-C63.19-2007 American National Standard for Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids.
- [2] ANSI-C63.19-2011 American National Standard, Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids.
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The single sensor in the probe is arranged in a tilt angle allowing measurement of 3 orthogonal field components when rotating the probe by 120° around its axis. It is aligned with the perpendicular component of the field, if the probe axis is tilted nominally 35.3° above the measurement plane, using the connector rotation and sensor angle stated below. The probe is fully RF shielded when operated with the matching signal cable (shielded) and allows measurement of audio magnetic fields in the close vicinity of RF emitting wireless devices according to [1+2] without additional shielding.

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The probe is manufactured from stainless steel. In order to maintain the performance and calibration of the probe, it must not be opened. The probe is designed for operation in air and shall not be exposed to humidity or liquids. For proper operation of the surface detection and emergency stop functions in a DASY system, the probe must be operated with the special probe cup provided (larger diameter).

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- Sensitivity: With the probe sensor aligned to the z-field in the AMCC, the output of the probe is compared to the magnetic field in the AMCC at 1 kHz. The field in the AMCC Helmholtz coil is given by the geometry and the current through the coil, which is monitored on the precision shunt resistor of the coil.

#### AM1D probe identification and configuration data

Item	AM1DV3 Audio Magnetic 1D Field Probe
Type No	SP AM1 001 BA
Serial No	3130

Overall length	296 mm
Tip diameter	6.0 mm (at the tip)
Sensor offset	3.0 mm (centre of sensor from tip)
Internal Amplifier	20 dB

Manufacturer /	Origin	Schmid & Partne	r Engineering AG	, Zurich, Switzerland
			¥	

#### **Calibration data**

Connector rotation angle	(in DASY system)	80.9°	+/- 3.6 ° (k=2)
Sensor angle	(in DASY system)	1.06 °	+/- 0.5 ° (k=2)
Sensitivity at 1 kHz	(in DASY system)	0.00743 V / (A/m)	+/- 2.2 % (k=2)

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%.

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#### Certificate No: DAE4-853\_Jul18

Accreditation No.: SCS 0108

#### CALIBRATION CERTIFICATE DAE4 - SD 000 D04 BM - SN: 853 Object QA CAL-06.v29 Calibration procedure(s) Calibration procedure for the data acquisition electronics (DAE) July 24, 2018 Calibration date: 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) Scheduled Calibration Cal Date (Certificate No.) ID # **Primary Standards** Aug-18 SN: 0810278 31-Aug-17 (No:21092) Keithley Multimeter Type 2001 Check Date (in house) Scheduled Check ID # Secondary Standards In house check: Jan-19 SE UWS 053 AA 1001 04-Jan-18 (in house check) Auto DAE Calibration Unit In house check: Jan-19 Calibrator Box V2.1 SE UMS 006 AA 1002 04-Jan-18 (in house check) Signature Function Name Laboratory Technician Calibrated by: **Dominique Steffen Deputy Manager** Sven Kühn Approved by: Issued: July 24, 2018 This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

## **Calibration Laboratory of**

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





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#### Glossary

DAE data acquisition electronics Connector angle information used in DASY system to align probe sensor X to the robot coordinate system.

- DC Voltage Measurement: Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle*: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
  - DC Voltage Measurement Linearity: Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
  - Common mode sensitivity: Influence of a positive or negative common mode voltage on the differential measurement.
  - *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
  - AD Converter Values with inputs shorted: Values on the internal AD converter corresponding to zero input voltage
  - Input Offset Measurement. Output voltage and statistical results over a large number of zero voltage measurements.
  - Input Offset Current: Typical value for information; Maximum channel input offset current, not considering the input resistance.
  - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
  - Low Battery Alarm Voltage: Typical value for information. Below this voltage, a battery alarm signal is generated.
  - *Power consumption:* Typical value for information. Supply currents in various operating modes.

# DC Voltage Measurement A/D - Converter Resolution nominal

High Range:	1LSB =	6.1µV ,	full range =	-100+300 mV
Low Range:	1LSB =	61nV,	full range =	-1+3mV
DASY measurement	parameters: Aut	o Zero Time: 3	sec; Measuring t	time: 3 sec

Calibration Factors	X	Y	Z
Hìgh Range	402.653 ± 0.02% (k=2)	403.319 ± 0.02% (k=2)	403.479 ± 0.02% (k=2)
Low Range	3.95632 ± 1.50% (k=2)	3.96571 ± 1.50% (k=2)	3.96767 ± 1.50% (k=2)

# **Connector Angle**

Γ

Connector Angle to be used in DASY system	133.5 ° ± 1 °

# Appendix (Additional assessments outside the scope of SCS0108)

#### 1. DC Voltage Linearity

High Range	Reading (μV)	Difference (µV)	Error (%)
Channel X + Input	199996.99	1.42	0.00
Channel X + Input	20003.62	1.84	0.01
Channel X - Input	-20000.02	1.12	-0.01
Channel Y + Input	199996.86	1.15	0.00
Channel Y + Input	20003.13	1.35	0.01
Channel Y - Input	-20002.42	-1.42	0.01
Channel Z + Input	199995.34	-0.26	-0.00
Channel Z + Input	20000.34	-1.41	-0.01
Channel Z - Input	-20002.42	-1.26	0.01

Low Range		Reading (µV)	Difference (µV)	Error (%)
Channel X	+ input	2002.06	0.81	0.04
Channel X	+ Input	201.69	0.01	0.00
Channel X	- Input	-197.81	0.40	-0.20
Channel Y	+ İnput	2001.19	-0.07	-0.00
Channel Y	+ Input	201.32	-0.28	-0.14
Channel Y	- Input	-198.71	-0.48	0.24
Channel Z	+ Input	2001.01	-0.10	-0.01
Channel Z	+ Input	200.73	-0.78	-0.39
Channel Z	- Input	-198.74	-0.39	0.19

# 2. Common mode sensitivity

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

	Common mode Input Voltage (mV)	High Range Average Reading (µV)	Low Range Average Reading (µV)
Channel X	200	-6.54	-8.40
	- 200	10.04	8.25
Channel Y	200	4.94	4.77
	- 200	-5.28	-5.77
Channel Z	200	1.16	1.46
	- 200	-3.62	-3.50

#### 3. Channel separation

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

	Input Voltage (mV)	Channel X (μV)	Channel Y (µV)	Channel Z (µV)
Channel X	200	-	8.01	2.30
Channel Y	200	11.72		8.82
Channel Z	200	14.69	9.44	-

#### 4. AD-Converter Values with inputs shorted

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

	High Range (LSB)	Low Range (LSB)
Channel X	16243	16610
Channel Y	16089	16674
Channel Z	16234	15819

#### 5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec Input 10MΩ

	Average (μV)	min. Offset (μV)	max. Offset (μV)	Std. Deviation (µV)
Channel X	0.29	-0.41	1.44	0.33
Channel Y	-0,17	-1.64	0.77	0.39
Channel Z	0.76	-0.87	2.49	0.52

#### 6. Input Offset Current

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

#### 7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

#### 8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

#### 9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)	
Supply (+ Vcc)	+0.01	+6	+14	
Supply (- Vcc)	-0.01	-8	. <b>~9</b> .	



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#### Client Sporton

Certificate No: DAE4-854\_Jun18

# CALIBRATION CERTIFICATE

Object	DAE4 - SD 000 D	04 BM - SN: 854	
Calibration procedure(s)	QA CAL-06.v29 Calibration procee	dure for the data acquisition elec	ctronics (DAE)
Calibration date:	June 14, 2018		
The measurements and the unce	rtainties with confidence pro	chail standards, which realize the physical un obability are given on the following pages an officility: environment temperature $(22 \pm 3)^{\circ}$ Cal Date (Certificate No.)	nd are part of the certificate. C and humidity < 70%.
Keithley Multimeter Type 2001	SN: 0810278	31-Aug-17 (No:21092)	Scheduled Calibration Aug-18
Secondary Standards Auto DAE Calibration Unit Calibrator Box V2.1	ID # SE UWS 053 AA 1001 SE UMS 006 AA 1002	Check Date (in house)	Scheduled Check In house check: Jan-19 In house check: Jan-19
Calibrated by:	Name Eric Hainfeld	Function Laboratory Technician	Signature
Approved by:	Sven Kühn	Deputy Manager	i.V. Rumus
			1 Issued: June 14, 2018

## **Calibration Laboratory of**

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





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#### Glossary

DAE Connector angle

#### data acquisition electronics

information used in DASY system to align probe sensor X to the robot coordinate system.

- DC Voltage Measurement: Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- Connector angle: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
  - DC Voltage Measurement Linearity: Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
  - Common mode sensitivity: Influence of a positive or negative common mode voltage on the differential measurement.
  - Channel separation: Influence of a voltage on the neighbor channels not subject to an • input voltage.
  - AD Converter Values with inputs shorted: Values on the internal AD converter • corresponding to zero input voltage
  - Input Offset Measurement: Output voltage and statistical results over a large number of zero voltage measurements.
  - Input Offset Current: Typical value for information; Maximum channel input offset current, not considering the input resistance.
  - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
  - Low Battery Alarm Voltage: Typical value for information. Below this voltage, a battery alarm signal is generated.
  - *Power consumption:* Typical value for information. Supply currents in various operating modes.

# DC Voltage Measurement A/D - Converter Resolution nominal

AU - Converter Resolution nominal High Range:  $1LSB = 6.1\mu V$ , full range = -100...+300 mVLow Range: 1LSB = 61nV, full range = -1.....+3mVDASY measurement parameters: Auto Zero Time: 3 sec: Measuring time: 3 sec

DASY	measurement	parameters:	Auto Zero	Time: 3	sec; N	leasuri	ng ti	me: 3	sec	

Calibration Factors	X	Y	Z
High Range	404.937 ± 0.02% (k=2)	404.730 ± 0.02% (k=2)	405.829 ± 0.02% (k=2)
Low Range	3.97284 ± 1.50% (k=2)	3.94535 ± 1.50% (k=2)	3.99553 ± 1.50% (k=2)

# **Connector Angle**

Connector Angle to be used in DASY system	325.0 ° ± 1 °

# Appendix (Additional assessments outside the scope of SCS0108)

High Range		Reading (μV)	Difference (µV)	Error (%)
Channel X	+ Input	200033.40	-4.54	-0.00
Channel X	+ Input	20004.28	-1.77	-0.01
Channel X	- Input	-20002.65	2.58	-0.01
Channel Y	+ Input	200036.32	-2.03	-0.00
Channel Y	+ Input	20002.05	-3.86	-0.02
Channel Y	- Input	-20005.10	0.28	-0.00
Channel Z	+ Input	200036.91	-1.46	-0.00
Channel Z	+ input	20003.85	-2.05	-0.01
Channel Z	- Input	-20005.17	0.36	-0.00

#### 1. DC Voltage Linearity

Low Range		Reading (μV)	Difference (µV)	Error (%)
Channel X	+ Input	2002.16	0.22	0.01
Channel X	+ Input	202.15	0.38	0.19
Channel X	- Input	-198.29	-0.31	0.16
Channel Y	+ Input	2001.95	0.27	0.01
Channel Y	+ Input	201.01	-0.63	-0.31
Channel Y	- Input	-198.91	-0.79	0.40
Channel Z	+ Input	2001.73	-0.08	-0.00
Channel Z	+ Input	200,57	-1.12	-0.56
Channel Z	- Input	-199.68	-1.47	0.74

#### 2. Common mode sensitivity

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

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	-11.94	-13.63
	- 200	15.47	13.71
Channel Y	200	-8.45	-8.32
	- 200	7.64	7.27
Channel Z	200	16.23	16.03
	- 200	-18.86	-19.07

# 3. Channel separation

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

	Input Voltage (mV)	Channel X (µV)	Channel Υ (μV)	Channel Z (µV)
Channel X	200	-	1.45	-3.45
Channel Y	200	7.54	-	3.39
Channel Z	200	9.04	5.14	-

## 4. AD-Converter Values with inputs shorted

DASY mea	urement parameters: Auto Zero Time: 3 sec; Me	asuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	16138	16479
Channel Y	16030	14603
Channel Z	15846	16180

#### 5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec Input  $10M\Omega$ 

	Average (μV)	min. Offset (μV)	max. Offset (μV)	Std. Deviation (µV)
Channel X	0.51	-0.22	1.41	0.30
Channel Y	1.02	-0.44	1.87	0.35
Channel Z	0.62	-0.69	1.46	0.38

#### 6. Input Offset Current .

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

# 7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

# 8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

#### 9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9