SAR Test Report No: R1803A0116-S1V1

# DC Voltage Measurement

A/D - Converter Resolution nominal

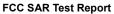
<b>Calibration Factors</b>	х	Y	Z
High Range	402.531 ± 0.02% (k=2)	403.204 ± 0.02% (k=2)	403.118 ± 0.02% (k=2)
Low Range	3.97419 ± 1.50% (k=2)	3.97827 ± 1.50% (k=2)	3.97437 ± 1.50% (k=2)

#### **Connector Angle**

Connector Angle to be used in DASY system	309.5°±1°
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Appendix (Additional assessments outside the scope of SCS0108)

#### 1. DC Voltage Linearity

High Range	Reading (μV)	Difference (μV)	Error (%)
Channel X + Input	200033.09	-1.13	-0.00
Channel X + Input	20005.24	0.43	0.00
Channel X - Input	-20002.50	2.70	-0.01
Channel Y + Input	200031.52	-2.54	-0.00
Channel Y + Input	20002.99	-1.90	-0.01
Channel Y - Input	-20005.78	-0.47	0.00
Channel Z + Input	200033.14	-0.98	-0.00
Channel Z + Input	20001.98	-2.75	-0.01
Channel Z - Input	-20006.08	-0.65	0.00

Low Range		Reading (μV)	Difference (μV)	Error (%)
Channel X + In	put	2001.76	0.75	0.04
Channel X + In	put	201.56	0.40	0.20
Channel X - Inp	out	-198.62	0.27	-0.14
Channel Y + In	put	2001.35	0.49	0.02
Channel Y + In	put	202.20	1.16	0.57
Channel Y - Inp	out	-200.25	-1.24	0.62
Channel Z + In	put	2000.49	-0.37	-0.02
Channel Z + In	out	200.01	-0.98	-0.49
Channel Z - Inp	ut	-200.38	-1.21	0.61

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	9.58	7.76
	- 200	-6.07	-8.06
Channel Y	200	13.34	13.80
9	- 200	-15.13	-15.41
Channel Z	200	-16.12	-16.97
	- 200	14.39	14.53

#### 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	-	0.30	-3.79
Channel Y	200	6.95	-	0.36
Channel Z	200	10.83	4.52	

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## 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	16119	16474
Channel Y	15930	16813
Channel Z	16170	16434

#### 5. Input Offset Measurement

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

	Average (μV)	min. Offset (μV)	max. Offset (μV)	Std. Deviation (μV)
Channel X	0.93	-0.36	2.05	0.49
Channel Y	-0.05	-1.46	0.88	0.48
Channel Z	-1.03	-2.76	1.81	0.59

### 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

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