



Supports UEIDAQ Framework Data Acquisition Software Library for Windows, Linux and QNX drivers available. Visit our website for more details.

DNA/DNR-AI-202

PowerDNA/DNR Current Input Data Acquisition Boards

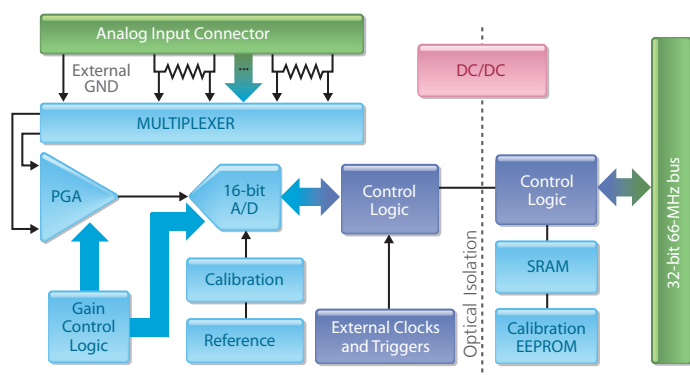
- DNA-AI-202 for "Cube" chassis
- DNR-AI-202 for RACKtangle chassis
- 12 differential current inputs
- 16-bit resolution
- 16 kS/s maximum sampling rate
- Input ranges ± 150 mA, ± 15 mA and ± 1.5 mA (covers industrial ranges: 0-20mA and 4-20mA)
- Entire analog front end isolated from digital circuitry

10-Year
Availability
Guarantee

General Description:

The DNA/DNR-AI-202 is a 12-channel current input A/D board. The DNA-boards are compatible with all of our popular "CUBE" series chassis while the DNR-series boards are used in the RACKtangle I/O series chassis. Both versions provide identical electrical specifications and performance including three current input ranges, 16-bit resolution and 16 kS/s resolution. The AI-202 data acquisition boards are fully isolated from the PowerDNA cube and are ideal A/D boards for a wide variety of high speed, high resolution current measurement applications.

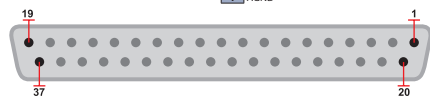
Block Diagram:



Pinout Diagram:

DB-37 (female)
37-pin connector:

AIN0-	37	19	AIN0+
AIN1-	36	18	AIN1+
AIN2-	35	17	AIN2+
AGND	34	16	AGND
AIN3-	33	15	AIN3+
AIN4-	32	14	AIN4+
AIN5-	31	13	AIN5+
AGND	30	12	AGND
AIN6-	29	11	AIN6+
AIN7-	28	10	AIN7+
AIN8-	27	9	AIN8+
COMP-	26	8	COMP+
AIN9-	25	7	AIN9+
AIN10-	24	6	AIN10+
AIN11-	23	5	AIN11+
CLK_OUT	22	4	TRIG_IN
+18V	21	3	EXT_CLK
-18V	20	2	AGND
	1	1	AGND



Technical Specifications:

Resolution	16 bits
Number of Channels: Differential	12
Maximum Sampling Rate	16 kS/s, aggregate
Onboard FIFO Size	512 samples
Input Ranges	± 1.5 mA, ± 15 mA, ± 150 mA (use when measuring 0-20mA or 4-20mA sensors)
Shunt Resistance	10 Ω 0.1%
Input Bias Current	± 15 nA
Input Overvoltage	± 40 V, 2000V ESD, powered or unpowered, 20mA max current
Isolation	1500Vrms
A/D Conversion Time	2 μ sec
A/D Settling Time	22 μ sec (± 150 mA scale), 100 μ sec (± 15 mA scale), 1 msec (± 1.5 mA scale)
Nonlinearity	1 LSB
System Noise	1.2 LSB
Effective Number of Bits	14.8
Total Harmonic Distortion+N onlinearity+Noise	91 dB
Channel Crosstalk	85 dB @ 1 kS/s
Power Consumption	1.8W
Operating Temp. (tested)	-40°C to +85°C
Operating Humidity	95%, non-condensing
Vibration IEC 60068-2-6 IEC 60068-2-64	5 g, 10-500 Hz, sinusoidal 5 g (rms), 10-500 Hz, broad-band random
Shock IEC 60068-2-27	50 g, 3 ms half sine, 18 shocks @ 6 orientations 30 g, 11 ms half sine, 18 shocks @ 6 orientations

Connection Options:

Cable Required	Screw Terminal Panel	Description
DNA-CBL-37S	DNA-STP-37	Shielded cable and 37 connector screw terminal panel
DNA-CBL-37	DNA-STP-37	Ribbon cable and 37 connector screw terminal panel.