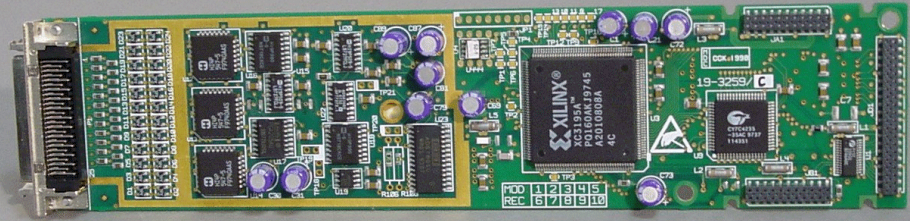


3410 INPUT PROTECTED ADC FUNCTION CARD



- 24 Fully Differential Channels
- 16-bit Resolution
- 100 kHz Aggregate Conversion Rate
- 70V Input Protection (Higher Protection optional)
- Programmable Filtering
- Programmable Gain
- Accuracy better than 0.03%
- Less than 1 μ V RMS Noise
- 2 kWord FIFO, 16 kWord optional
- Up to 192 Differential ADC Channels per VXIbus Slot

POWER

The ProDAQ 3410 Input-Protected Analog-to-Digital Converter Function Card is one of the ProDAQ high density cards, which can be fitted into the ProDAQ Motherboards. ProDAQ modules are the most versatile VXIbus modules in the market. They provide the user with the highest channel density and functionality available today.

The ProDAQ 3410 ADC Function Card contains a 100 kHz Analog-to-Digital Converter with 24 fully differential inputs, each having a ± 10 V max. range. This results in a remarkable number of 192 fully differential input channels, if eight ADC function cards are fitted to one ProDAQ Motherboard.

The gain is programmable from 1 to 800, providing the user with voltage ranges from ± 10 V to ± 12.5 mV. Three different filter bandwidth and bypass can be selected by software.

The voltage from the ProDAQ 3201 Programmable Voltage Reference Card can be switched directly to the programmable gain amplifier for calibration "on-the-fly" or self-test purposes. The achievable accuracy is better than 0.03%, when the voltage reference is used. The RMS noise is less than 1V at a gain of 800. Inputs are protected up to 70V (pk-to-pk), and a diode clamp network ensures no latch-up conditions.

The ProDAQ 3410 ADC Function Card is supplied with VXIplug&play drivers, that can be used with all popular software packages. The driver automatically detects and initializes all the function cards installed in one of the ProDAQ motherboard modules, removing any possibility of configuration errors.

The ProDAQ modules allow the user to safely and simply expand their existing hardware and software systems.



Number of Input Channels	24	Thermal Drift	±1 LSB / 10° C
Input Type	Differential	Noise	< 1µV RMS (gain 800, 10Hz Filter)
Input Voltage Range	max. ±10V min. 12.5 mV	Trigger Input	Motherboard or Front-Panel Connector
Gain Selection	1, 2, 4, 8, 10, 20, 40, 80, 100, 200, 400, 800	Trigger Output	Motherboard or Front-Panel Connector
Sensitivity	0.305mV / bit (at gain 1) 0.381µV / bit (at gain 800)	FIFO	2 kSamples or 16 kSamples
Filter Selection	1000Hz, 100Hz, 10Hz 2-pole Butterworth and Bypass	Operating Temperature	0° C to 50° C
Filter Bandwidth	6kHz @ 20V _{pp} 10kHz @ 16V _{pp}	Storage Temperature	-40° C to 70° C
Dynamic Range	92dB	Input Connector	50-pin SCSI Female
Integral Linearity Error	Typ. ±0.01% Max. ±0.02%	Dimensions	235 x 53mm (2.1 x 9.1 inch)
Diff. Linearity Error	Max. +1.5 LSB Min. -1 LSB	Weight	< 100g
Total Full Scale Error	< 0.2% uncalibrated < 0.03% cal. with V _{ref} Note: @ 25° ±1° C	Current Consumption	Voltage (V) Current (mA) +15 20 -15 10 +12 40 +5 190 Note: ±15V derived from VXIbus ±24V
Sampling Rate	100kHz/N (N = # of Channels)	Power Consumption	< 1.9 Watts
Settling Time	51 µsec to 0.01% (gain 1, filter bypass)	Warm-up Time	< 30 Min.
Input Impedance	> 10MΩ / 25pF	Software Support	VXI <i>plug&play</i> driver for the WIN95 and WINNT frameworks
Input Protection	±35V	Configuration	Cards can be factory installed or field installed by user
Input Coupling	DC	Warranty Period	12 month standard (Extended periods available at additional cost)
Input Offset Voltage	max. ±5mV typ. ±1mV (gain 1) ±50µV (gain 800)		
CMRR	110dB typ. @ 1kHz 80db min. @ 1kHz		

Ordering Information

- 3410-AA 24 Ch. Input-Protected ADC with 2 kWord FIFO
- 3410-AB 24 Ch. Input-Protected ADC with 16 kWord FIFO

Related Products:

- 3120-AA Standard Motherboard
- 3150-AA High-Performance Motherboard
- 3201-AA Voltage Reference Card
- 5010-AA Signal Conditioning Unit
- 5421-AA Terminal Card, Direct Input
- 5422-AA Current Input Card
- 5423-AA Attenuator Card 10:1
- 5424-AA Filter Card
- 8010-AA 0.5 Meter SCSI Cable

This datasheet is copyright of Bustec Production Ltd. All trademarks and registrations are acknowledged. The technical information herein is subject to change without notice.

Bustec Production Ltd.
World Aviation Park
Shannon, Co. Clare
Rep. of Ireland
t +353 61 707 100
f +353 61 707 106
e sales@bustec.ie



Visit our WEB pages at www.bustec.ie !