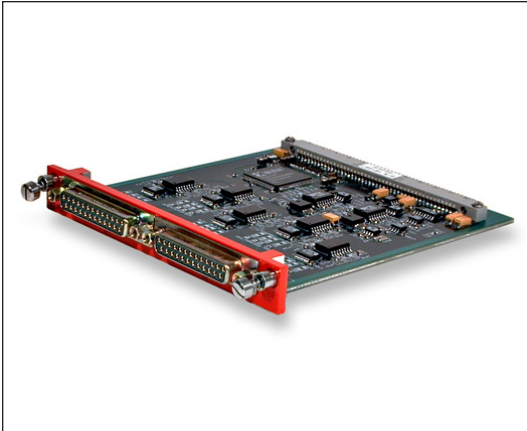


### 16-Channel Differential Analog Multiplexer with A/D Conversion



#### Applications

- Flight test instrumentation
- Factory automation and process control
- Measurement of pre-conditioned analog signals, battery voltages, ...
- Research measurements and experiments

#### Features

- Software programmable analog inputs, differential or single-ended per channel
- 16 channels per card
- Per channel programmable averaging
- On-card A/D conversion, up to 12-bit resolution
- Per-channel, factory set attenuation
- Per-channel, programmable from 1 to 1,000 in >10,000 steps
- Automatic parasitic offset correction on power-up and ZCAL (this feature can be disabled)
- Per-channel, programmable offset, up to +/-50% RTO offset in 4,096 steps
- Programmable constant voltage excitation - 2 sources per card
- Zero and voltage substitution calibration
- >1,000 MOhms input impedance (power on)
- ± 0.5% system accuracy
- Windows software included

#### Description

The AMD-116A is a 16-channel differential analog multiplexer card for use in TTC's EDAU-20XX or CDAU-20XX series products. Each channel provides raw or average data, programmable gain (1 to 1,000), programmable offset, programmable differential / single-ended input and fixed pre-sample filtering. Zero calibration and voltage substitution are provided. The conditioned analog signal is digitized at up to 12-bit resolution for transmission in the system PCM output format. Additionally, two status bits are available to indicate overflow and underflow conditions encountered during the averaging function. The card can accept voltages from various system sources including sensors, transducers, batteries, and other pre-conditioned analog voltages. The unit also provides constant voltage excitation that is programmable to +10 VDC or + 5 VDC.

Revision 05/27/2010

#### AMD-116A Datasheet

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 Specifications subject to change without notice.

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CAIS  
Compatible



Management  
System  
AS9100C  
ISO 9001:2008

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