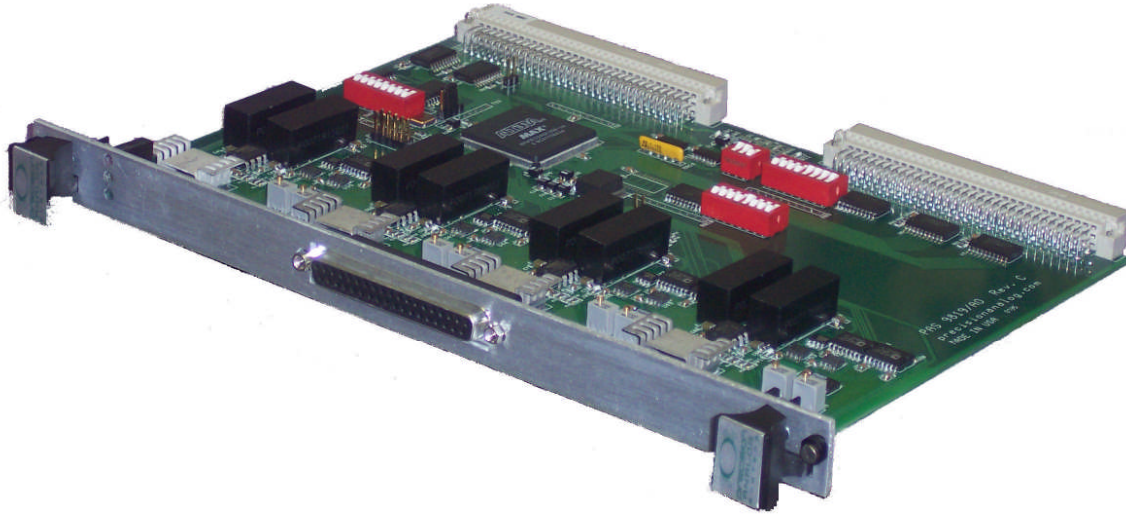


PAS 9819/AO

4 Channel 16 Bit VME Current Output Card



GENERAL DESCRIPTION

The **PAS 9819/AO** provides four, isolated, programmable, high current output channels with sixteen bit resolution on a 6U VME card. Each channel consists of a high speed Digital-to-Analog Converter (DAC), followed by a high power operational amplifier. The output amplifier is configured to provide an output current that is proportional to the output voltage from the DAC. Output current range is +/- 40 mAmps.

Each channel is electrically isolated from system ground and from each other. Separate +/-30 volt isolated power supplies are provided for each channel. Digital data and control signals for each DAC channel are transmitted through digital isolators in order to keep the two sides electrically separated.

The output channel connections are terminated on a DB37 connector mounted through the front panel.

The card can be used in VME systems with A16, A24, or A32 addressing, and data writes of 16 and 32 bits are supported. DIP switches are used to configure the width of the address bus, and the instruction type specifies the data bus width. A board identifier PROM, control and status register, and a 32-bit test register are also provided.

Electrical Specifications

Number of Channels	4 Analog Outputs
Resolution	16 bits
Output Current	+/- 40 mAmps
LSB bit weight	1.22 uAmp
Settling Time	400 uSec to 0.1%(typ)
Slew Rate	100 uAmps per uSec

Standard Card

DAC Integral Nonlinearity T min. to T max.	+/- 4 LSB (max.) +/- 5 LSB (max.)
DAC Differential Nonlinearity T min to T max.	+/- 3 LSB (max.) +/- 4 LSB (max.)

Zero Error	+/- 2 LSB (adjustable to zero)
Gain Error	+/- 0.05 % FS (adjustable to zero)

Card Power Requirements (Backplane power supplies)	5 Volts @ 4 Amps, (typ)
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Features

Data Format: Binary Two's Complement data

Data Read-Back: DACs have digital read back registers

Reset Value: DAC's reset to zero during power up or software reset

VME Interface: D32, D16, A32, A24, A16 Slave, no interrupts

Board Identifier: VMEIDPAS9819AOA0 programmed in CPLD

DAC Power Supplies: On board +/- 15 V and +/- 30 V isolated PS per channel

Simultaneous Update: Software update causes all DACs to update simultaneously

Status Indicators: Pass, Fail and Board Access LEDs on front panel

Environmental Specifications

Operating Temperature Range	0 to 60 degrees Celsius
Storage Temperature Range	-20 to 85 degrees Celsius
Relative Humidity Range	20% to 80%, non-condensing

Physical Specifications

Dimensions	233 mm X 160mm, 6U X 160 VME form factor
Weight	16 oz. (typ)
Connectors	2 ea. 96 position (VME bus connectors) 1 ea. DB37 female (Analog Output connector)

