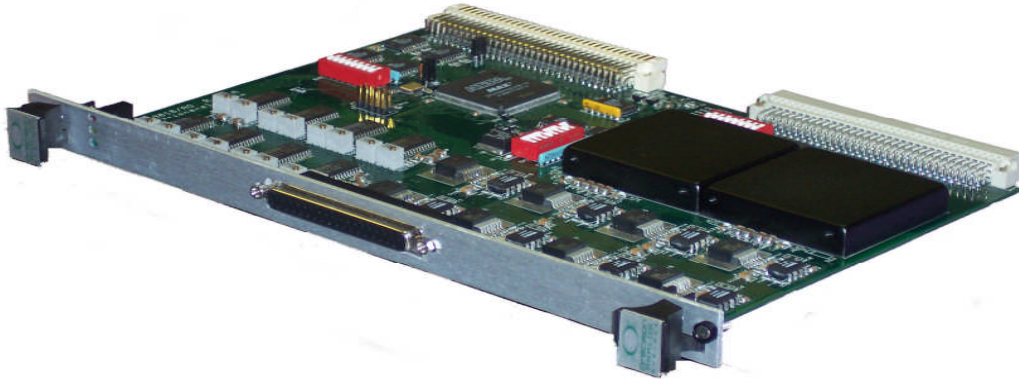


PAS 9818/AO

8 Channel 16 Bit 40mA VME Analog Output Card



GENERAL DESCRIPTION

The **PAS 9818/AO** provides eight programmable 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. The output current range is +/- 40 mAmps. Each amplifier provides a flag indicator that sets when the amplifier is in an over-current fault condition. Power to the output amplifiers can either be provided externally, or by on-board DC-to-DC converters.

All of the output channels and the external power supply connections can be terminated on the P2 connector of the VME backplane. A DB37 connector mounted through the front panel is available as an option for terminating the output and power supply signals. Refer to the product manual for ordering information.

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. Board identifier registers, fast ID register, control and status register, flag register, and a 32-bit test register fill out the register set.

Electrical Specifications

Number of Channels	8 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 uA per u sec
DAC Integral Nonlinearity T min. to T max.	+/- 4 LSB (max.)
DAC Differential Nonlinearity T min to T max.	+/- 5 LSB (max.)
Zero Error	+/- 3 LSB (max.)
Gain Error	+/- 4 LSB (max.)
	+/- 4 LSB (adjustable to zero)
	+/- 0.05 % FS (adjustable to zero)

Card Power Requirements (Backplane power supplies)	5 Volts @ 1 Amp, (typ) +12 Volts @ 120 mAmps -12 Volts @ 200 mAmps
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External Power Supply Voltage	+/- 10 Volts (min), +/- 40 Volts (max)
Amplifier Quiescent Current	100 mA (typ.), 150 mA (max)

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: VMEIDPAS9818AOA0 programmed in CPLD

DAC Power Supplies: On board +/- 30 V PS or external PS

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)

