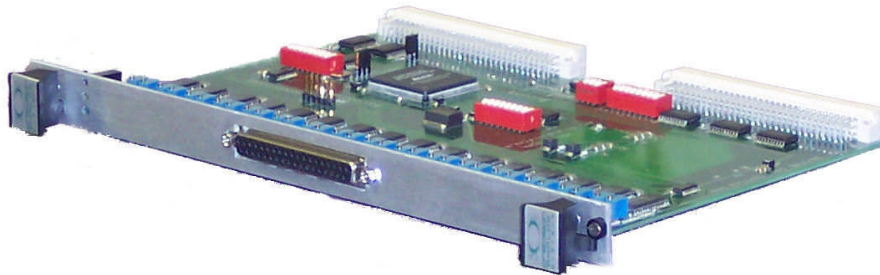


PAS 9716/AO

16 Channel 16 Bit VME Analog Output Card



GENERAL DESCRIPTION

The **PAS 9716/AO** provides sixteen programmable voltage output channels with sixteen bit resolution on a 6U VME card. Each channel consists of an independent Digital to Analog convertor (DAC) and associated gain and offset trim components. All DACs have precision +10 volt temperature compensated voltage references, +/-10 volt output amplifiers and sixteen bit data ports. Analog power for the DACs is provided by the +/-12 volt backplane voltage or from an optional DC to DC convertor. Three linearity grades of DACs are available. Refer to the product manual for ordering information.

The D to A convertors provide double buffered input latches. Simultaneous updating of all channels is supported by first writing data to all the DAC input registers and then using a software command to update all the DAC registers. Voltage output signals are available on a DB37F connector, mounted through the boards from panel.

This 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 configure the width of the address bus, and instruction type specifies the data bus width. Board identifier registers, control and status register and a 32 bit test register fill out the register set.



7540 N.W. 5th Street, Suite 2
Plantation, Florida 33317
(954) 587-0668 / fax 587- 0665
www.precisionanalog.com

Electrical Specifications

Number of Channels	16 Analog Outputs, 2 Digital Outputs
Resolution	16 bits
Output Voltage	+/- 10 Volts
LSB bit weight	305 uVolt
Output Current	+/- 5 mAmps
Slew Rate	10 V/uSec
Settling Time	6 uSec (typ), 10 uSec (max.)
Zero Error	+/- 2 LSB (adjustable to zero)
Gain Error	+/- 0.1 % FS (adjustable to zero)
DAC Type	DAC712U (Standard Grade)
DAC Integral Nonlinearity	+/- 4 LSB (max.)
DAC Differential Nonlinearity	+/- 4 LSB (max.)
Digital Outputs	2 Outputs, 74F125 Output Drivers
Low Level Output Voltage	0.40 V (typ), @ 64mA
High Level Output Voltage	3.1 V (typ), @ -15mA
Card Power Requirements (Backplane supplies +/- 12 V)	5 Volts @ 1 Amp, (typ) +12 Volts @ 350 mAmps, -12 Volts @ 500 mAmps

Features

Data Format: Binary Two's Complement data

DAC Writes: 2 DACs can be updated with a single longword write

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: VMEIDPAS9716AOC1 programmed in CPLD

DAC Power Supplies: On board +/- 15 V PS, or +/- 12V from VMEbus

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)



7540 N.W. 5th Street, Suite 2
Plantation, Florida 33317
(954) 587-0668 / fax 587- 0665
www.precisionanalog.com