PAS 9796/DIO : 160 Channel VME Digital Input/Output Card

Precision Analog Systems' 9796/DIO card provides 160 TTL level, Digital Input / Output channels on the 6U VMEbus format. One hundred twenty eight of the channels are arranged as 16 byte wide bi-directional data ports. Each port consists of an eight bit output data register with output enable, and an eight bit input buffer. Individual data ports can be programmed for input or output by clearing or setting the appropriate bits in the output enable registers. When the data port is configured as an output the state of the output lines can be read back with the input register.

Sixteen flag I/O channels are available that can either be used as interrupt acknowledge lines or as general purpose I/O. Sixteen interrupt lines are provided to allow externally connected devices to generate VMEbus interrupts. I/O lines are divided into four blocks of 40 channels. Each block consist of four byte wide bi-directional data ports, four flag I/O lines and four interrupt input lines terminated on a 50 position shrouded header at the cards front panel.

VME systems with A16, A24, or A32 addressing and data bus widths of 8, 16 and 32 bits are supported. Thirty-two bit transfers allow an entire block of channels to be updated with one VMEbus transfer. Additional features include a board identifier PROM, Control and Status register and interrupt control registers.

Key Features

- 160 TTL level I/O lines: 128 Data, 16 Flag, and 16 Interrupt
- Data I/O arranged as 16 byte wide bi-directional data ports
- Flag I/O arranged as two byte wide bi-directional data ports
- Flag I/O configurable as output only for interrupt handshake
- Interrupt Latch inputs arranged as two byte wide input ports
- All output signal lines have 64 mA sink current capability
- Interrupt edge detection is jumper selectable per bit
- Interrupt circuits latch rising or falling edges of interrupts
- Interrupts are mask able on a per bit basis
- All interrupt and input lines are pulled up with 10 K Ohms
- VME SYSFAIL asserts on power up, jumper selectable
- VME 6U form factor; 233 mm x 160 mm card size.