VMIACC-AD242X OPTO 22 Digital I/O Cable Adapter Boards

- Interfaces VMIC digital boards to the 16-, 24-, and 32-channel digital OPTO 22, Gordos, or Crydom mounting racks
- Allows VMIC digital input boards such as the VMIVME-1110, -1111, or -1181 to interface with OPTO 22, Gordos, or Crydom signal conditioning input modules
- Allows VMIC digital output boards such as the VMIVME-2120 or -2170A to interface with OPTO 22, Gordos, or Crydom signal conditioning input or output modules
- Allows VMIC digital I/O boards such as the VMIVME-2510B, -2532A, or -2534 to interface with OPTO 22, Gordos, or Crydom signal conditioning output modules
- Permits signal conditioning circuits in the signal conditioning backplane to be located close to the sensors or controls while the VMEbus chassis is more centrally located

APPLICATIONS

• Simplifies system wiring

INTRODUCTION — The VMIACC-AD242X series are cable adapter boards used to route signals from the Digital I/O mounting racks from OPTO 22, Gordos, or Crydom. This will simplify system wiring, which will reduce wiring errors. Since VMIC digital I/O boards can handle more channels than what one of these mounting racks can, cables are split between two of the I/O racks and the VMIC digital board. However, the rack signals are routed to the VMIC digital board in a systematic order.

Wherever possible, the channel assignments are the same as the module positions. Thus, channel 0 of a VMIC I/O board goes to Module 0 on the mounting racks; however, many VMIC I/O boards have more than 32 channels and use two or more I/O connectors. For example, the VMIVME-2528 has four DIN connectors and can connect to four PB32DEC or eight PB16H mounting racks. Figure 1 shows the channel assignments for a typical system using a VMIVME-2528 and four PB32DEC mounting racks. Figure 2 shows a part of a system where a 16-channel mounting rack (PB16H) is connected to one half of a connector that goes to a 64-channel VMIC I/O board. Figure 2 also shows the support equipment a system needs, such as a rack power supply. The VMIACC-AD242X is the board that goes between the mounting rack and the cable to the VMIC I/O board.

In Figure 3, there is a centrally located VMEbus chassis with I/O boards and a host terminal for user communication to the chassis. This terminal could be a mainframe computer with a program the floor system is to execute. No matter how the program gets loaded into the VMEbus chassis, the VMEbus communicates with the floor sensors and controls via the OPTO 22 modules installed in the PB32DEC backplanes located throughout the floor.

The modules have the sensors connected to it via screw terminals. The modules then route their backplane signals to a front panel connector. The adapter board (AD2421) plugs onto the backplane. A 64-conductor cable with a DIN connector plugs into the DIN header on the adapter board and then to the appropriate VMEbus I/O board in the VMEbus chassis.



TRADEMARKS

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Ordering Options				
February 16, 1997 800-802420-000 B				
VMIACC-AD242X				
Mounting Rack	Adapter Board	Interface Cable	Typical VMIC I/O Boards	Comments
OPTO 22	VMIACC-	VMICBL-	VMIVME-	Mixing of modules is not typically done
PB8	AD2423-000		2120, 2170A, 2510B, 2528	
PB8H PB8HE	AD2422-100		2120, 2170A, 2510B, 2528	Mixing of modules is not typically done
PB16A PB16C	AD2423-100	000-64-XXX*	2120, 2170A, 2510B, 2528	Mixing of modules is not typically done
PB16H, HC, HE, HQ, PB16J, K, L	AD2422-200		2120, 2170A, 2510B, 2528	Mixing of modules is not typically done
PB16T				Not directly supported
PB24	AD2423-200	000-64-XXX*	2120, 2170A, 2510B, 2528	Mixing of modules is not typically done
PB24HQ	AD2422-000		2120, 2170A, 2510B, 2528	Mixing of modules is not typically done
PB24Q	AD2423-200		2120, 2170A, 2510B, 2528	Mixing of modules is not typically done
PB32DEC	AD2421-000		2120, 2170A, 2510B, 2528	Mixing of modules is not typically done
G4PB32DEC	AD2421-001		2120, 2170A, 2510B, 2528	Mixing of modules is not typically done
PB32HQ	AD2424-000		2120, 2170A, 2510B, 2528	Mixing of modules is not typically done
Notes				
 * The -XXX in the table above is the length of the cable in feet. For example, a -025 option is a cable 25 feet long. ** The digital I/O products from VMIC are not bit (or channel) programmable. The smallest block of channels that can be programmed is eight as in 				
the VMIVME-2528. For Ordering Information, Call: 1-800-322-3616 or 1-256-880-0444 • FAX (256) 882-0859 E-mail: info@vmic.com Web Address: www.vmic.com Copyright © November 1993 by VMIC Specifications subject to change without notice.				









Figure 2. A Typical OPTO 22 Interface to a Digital Input Board





Figure 3. A Single-Point Digital I/O VMEbus System