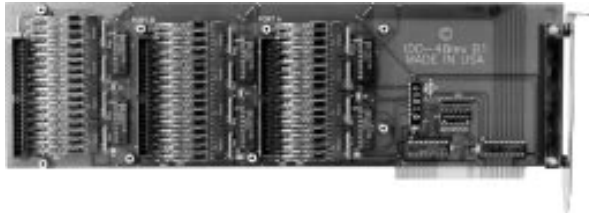


Model IDO48



Isolated Digital Output Card



FEATURES

- **Individually Isolated Digital Outputs for up to Three 16 Bit Groups**
- **All Solid-State Design Permits Higher Throughput Than Possible with Electromechanical Relays**
- **Load Voltages up to 60V**
- **Outputs at Zero Volts at Power-On and at Computer Reset**
- **On-Card Shields Prevent Accidental User Contact with Load Voltages**

DESCRIPTION

The IDOxx Series cards provide 16, 32 or 48 opto-isolated differential outputs. The card plugs into expansion slots of PC/XT/AT or compatible computers. Solid-state, P-channel FET switches are used as the output elements and provide both greater reliability and much faster turn-on and turn-off time than possible with electromechanical relays. User-supplied load voltages can be from 5V to 60V.

Output connections are via 50-wire ribbon cables that mate with headers on the card. A strain relief bar where the cables exit the card assures that the cables will not interfere with adjacent cards. The mating cable is the Model CAB50A-6. The Model UTB screw terminal card can be used to connect field wiring.

The card uses six bytes of I/O bus address space; one byte for each eight bits of output. Outputs of a programmable array logic chip enable data bytes to be clocked into latches. Outputs of the latches, in turn, are connected via opto isolators to the output P-channel FET drivers. The opto isolators are rated to 5kV and on-card isolation channel-to-channel and channel-to-computer exceeds 500Vrms. The P-channel FET drivers are capable of 1A steady-state current. (Note: Ribbon cable typically only provide 300Vrms isolation and are usually limited to a current of 0.5A). Diode are included across the load for inductive spike protection.

SPECIFICATIONS

Number of Channels

16, 32, or 48

Load Voltage Range

5V to 60V

Load Current per Channel

1A max steady state
2A pulse
(Cable could limit the current)

Isolation

On-Card: 500Vrms channel-channel & channel-computer
Cable: 300Vrms (typical ribbon cable dielectric strength)

Switching Time

Turn-On: 50msec
Turn-Off: 2msec, inductive spike protection via a diode

Switch Resistance

0.4W when saturated

Switch Leakage Current

1mA

Power Required

+5VDC @ 540mA (48 bits)

Temperature

Operating: 0° to 60°C
Storage: -20° to +100°C

Humidity

0% to 90% RHNC

Size

13.31" (338.1mm)

SOFTWARE

A disk is provided that includes a graphical Set-up & Calibration program, and a routine titled FINDBASE that helps select an I/O base address that will not conflict with other resources already installed in the computer. Another software feature included is Windows DLLs that are designed to work with any Windows language that allows calls to DLLs. These DLLs support Windows 3.1x, Windows 95 and Windows NT.

Operating Systems Supported

DOS 3.3 and higher
Windows 3.1x
Windows 95
Windows NT

Languages Supported

Quick BASIC V4.5
Visual BASIC V3.0 (16-bit DLL)
Visual BASIC V4.0 (32-bit DLL)
Turbo C V2.0
Borland C++ V3.1 or higher
Turbo Pascal V6.0 or higher

Demo/Example Programs Included

Examples in BASIC, C, and Pascal as well as Windows sample programs in Visual BASIC and C.

Drivers Provided

Software drivers are not provided because direct register I/O is the fastest way to communicate and can be used with ease. Most high-level languages provide means for output statements and the user manual contains complete details about register assignments.

ORDERING GUIDE

Model IDO48

48 channel card, manual, software

Model IDO32

32 channel card, manual, software

Model IDO16

16 channel card, manual, software



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