



PCI-D64HU

40 MB/s High-Speed 32-CH DI & 32-CH DO
Universal PCI DIO Card

Features

- Support 32-bit, 33 MHz Universal PCI bus
- 32-CH 5 V TTL Digital Inputs
- 32-CH 5 V TTL Digital Outputs
- 2-CH Bus Mastering Scatter/Gather DMA
 - Data Transfer Rate up to 40 MB/s for Each Channel
- Support 4 Data Transfer Modes:
 - Direct Program Control Mode
 - Internal Timer Pacer Mode
 - External Clock Mode (DI Only)
 - Handshaking Mode
- On Board 1 k/2 k DWORD FIFO for DI/DO Respectively
- DO FIFO Support Ring Buffer Mode
 - No Bus Loading in Repetitive Pattern Generation Application
- Programmable Input Digital Filter for All Input Signals
 - Including Handshaking and Trigger Signals



Introduction

PCI-D64HU is a high-speed digital I/O card consisting of 32 digital input channels and 32 digital output channels. High-performance designs make this card perfect for high-speed data transfer and pattern generation applications.

The PCI-D64HU performs high-speed data transfer by bus-mastering DMA via 32-bit PCI bus. The maximum data transfer rate can be up to 40 MB per second. Several digital I/O transfer modes are supported, such as direct programmed I/O control, timer pacer control, external clock mode and handshaking mode. It's a reliable and cost-effective connection interface that works on your computer system to control high-speed peripherals.

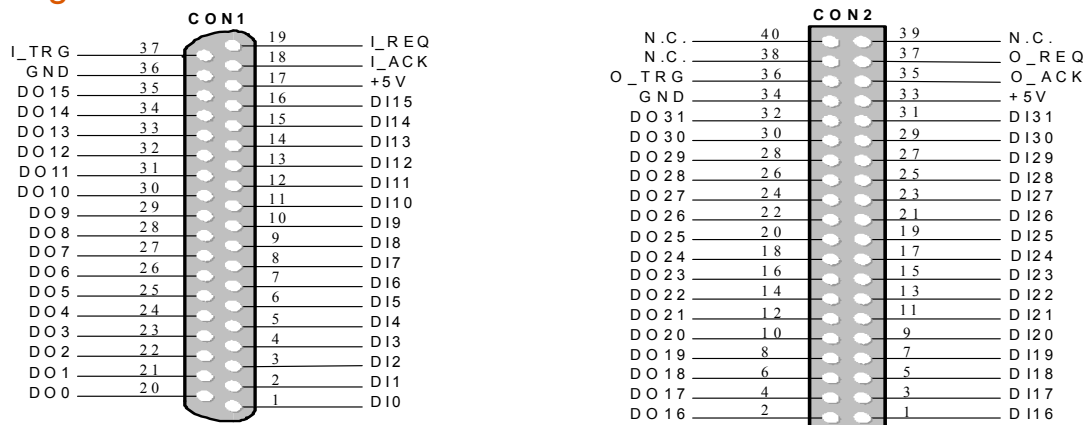
Software

- Driver for Windows 2000/XP
- Demo programs (With source code):
Visual Basic/Visual C++/Borland C++ Builder

Specifications

Digital Input	
Channels	32
Compatibility	5 V/TTL
Input Voltage	Logic 0: 0.8 V max./Logic 1: 2.0 V min.
Handshaking Signals	I_REQ input , I_ACK output , I_TRG input
Digital Output	
Channels	32
Compatibility	5 V/TTL
Output Voltage	Logic 0: 0.55 V max./Logic 1: 2.0 V min.
Output Capability	Sink: 64 mA @ 0.55 V/Source: -32 mA @ 2.0 V
Handshaking Signals	O_REQ output, O_ACK input, O_TRG output
Transfer Speed	40 MB/sec for DI and DO simultaneously (max.)
Programmable Digital Filter	
Applicable Signals	All input signals (including 32 DI signals, I_REQ, I_TRG and O_ACK)
Max. removable noise width	(1 ~ 127) x 25 ns
Programmable Pulse Extender	
Applicable Signals	O_REQ
Pulse width	(2 ~ 256) x 25 ns
Timer/Counter	
Channels	3
Resolution	16-bit
Input Frequency	2.5 ~ 20 MHz
Timer 0/Timer 1/Timer 2	Clock source of DI/Clock source of DO/Base clock of Timer 0 and Timer 1
Interrupt	
Sources	O_ACK, I_REQ, Timer 0, Timer 1 and Timer 2
On Board FIFO	
DI / DO	1 k DWORD (32-bit)/2 k DWORD (32-bit)
Size in Ring Buffer Mode	2 ~ 2 k DWORD (32-bit), DO only
General	
Bus Type	Universal PCI, 32-bit, 33 MHz
I/O Connector	Female DB37 x 1; 40-pin Box header x 1
Dimensions (L x W x D)	120 mm x 105 mm x 22 mm
Power Consumption	200 mA @ +5 V typical (output no load)
Operating Temperature	0 ~ 60 °C
Storage Temperature	-20 ~ 70 °C
Humidity	5 ~ 85% RH, non-condensing

Pin Assignments



Ordering Information

PCI-D64HU CR	40 MB/s High-speed 32-CH DI and 32-CH DO Universal PCI DIO Card (RoHS) One CA-4037W cable and two CA-4002 D-Sub connectors includes.
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Optional Accessories

CA-3710	DB-37 Male-Male D-sub cable 1 M Cable for Daughter Board (45°)
CA-3710DM	DB-37 Male-Male D-sub cable 1 M Cable for Daughter Board (180°)
DN-37	DIN Rail Mounting 37-pin Connector (Pitch=5.08 mm)
DN-37-381	DIN-Rail Mounting 37-pin Connector (Pitch=3.81 mm)
DB-37	Directly connect signal to D-sub 37-pin connector
CA-4002	37-pin Male D-sub connector with plastic cover
CA-4037W	40-pin flat & D-sub 37-pin Female cable 24 cm