

PCI-D64HU

**Universal PCI, 40 MB/s High-Speed 32-ch D/I and
32-ch D/O Board**



Features ►►►

- Universal PCI (3.3 V/5 V) interface
 - 32-ch 5 V TTL digital output
 - Data transfer rate up to 40 MB/s for each DMA channel
 - Onboard 1 k/2 k DWORD FIFO for DI/DO respectively
 - DO FIFO supports ring buffer mode
 - No bus loading in repetitive pattern generation application
 - 32-ch 5 V TTL digital input
 - 2-ch bus mastering scatter/gather DMA
 - Data transfer modes:
 - Direct program control, Internal timer pacer
 - External clock (D/I only), Handshaking



❑ Introduction

The 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. The PCI-D64HU also features programmable digital filter for all input signals including handshaking and trigger signals.

The PCI-D64HU is a reliable and cost-effective connection interface that works on your computer system to control high-speed peripherals.

 Software

- Supports 32-bit Windows 2000/XP/2003/Visat/7
 - VB/VC/BCB sample programs with source code

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment	Pin Assignment	Terminal No.	Pin Assignment
DI_0	01	20 DO_0	DI_16	01	O O 02 DO_16
DI_1	02	21 DO_1	DI_17	03	O O 04 DO_17
DI_2	03	22 DO_2	DI_18	05	O O 06 DO_18
DI_3	04	23 DO_3	DI_19	07	O O 08 DO_19
DI_4	05	24 DO_4	DI_20	09	O O 10 DO_20
DI_5	06	25 DO_5	DI_21	11	O O 12 DO_21
DI_6	07	26 DO_6	DI_22	13	O O 14 DO_22
DI_7	08	27 DO_7	DI_23	15	O O 16 DO_23
DI_8	09	28 DO_8	DI_24	17	O O 18 DO_24
DI_9	10	29 DO_9	DI_25	19	O O 20 DO_25
DI_10	11	30 DO_10	DI_26	21	O O 22 DO_26
DI_11	12	31 DO_11	DI_27	23	O O 24 DO_27
DI_12	13	32 DO_12	DI_28	25	O O 26 DO_28
DI_13	14	33 DO_13	DI_29	27	O O 28 DO_29
DI_14	15	34 DO_14	DI_30	29	O O 30 DO_30
DI_15	16	35 DO_15	DI_31	31	O O 32 DO_31
+5V	17	36 GND	+5V	33	O O 34 GND
I_ACK	18	37 I_TRG	O_ACK	35	O O 36 O_TRG
I_REQ	19		O_REQ	37	O O 38 N.C.
			N.C.	39	O O 40 N.C.
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Hardware Specifications

Digital Input	
Channels	32-ch, 5V/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-ch, 5V/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.)
On Board FIFO	
Size	1 k DWORD (32-bit) for DI; 2 k DWORD (32-bit) for DO
General	
Bus Type	Universal PCI, 32-bit, 33 MHz
Connectors	Female DB-37 x 1, 40-pin Box header x 1
Power Consumption	200 mA @ +5 V typical (output no load)
Operating Temperature	0 °C ~ +60 °C
Humidity	5 ~ 85% RH, non-condensing

Ordering Information

PCI-D64HU CR	Universal PCI, 40 MB/s High-speed 32-ch DI and 32-ch DO (RoHS). Includes one CA-4037W cable and two CA-4002 D-Sub connectors.
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