

PCI-D64HU

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

**Features ►►►**

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| <ul style="list-style-type: none"> ■ 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 | <ul style="list-style-type: none"> ■ 32-ch 5 V TTL digital input ■ 2-ch bus mastering scatter/gather DMA ■ Data transfer modes: <ul style="list-style-type: none"> □ Direct program control, Internal timer pacer □ External clock (D/I only), Handshaking |
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**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

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

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment	Pin Assignment	Terminal No.	Pin Assignment
DI_0	01	20	DO_0	02	DO_16
DI_1	02	21	DO_1	03	DO_17
DI_2	03	22	DO_2	05	DO_18
DI_3	04	23	DO_3	07	DO_19
DI_4	05	24	DO_4	09	DO_20
DI_5	06	25	DO_5	11	DO_21
DI_6	07	26	DO_6	13	DO_22
DI_7	08	27	DO_7	15	DO_23
DI_8	09	28	DO_8	17	DO_24
DI_9	10	29	DO_9	19	DO_25
DI_10	11	30	DO_10	21	DO_26
DI_11	12	31	DO_11	23	DO_27
DI_12	13	32	DO_12	25	DO_28
DI_13	14	33	DO_13	27	DO_29
DI_14	15	34	DO_14	29	DO_30
DI_15	16	35	DO_15	31	DO_31
+5V	17	36	GND	33	GND
I_ACK	18	37	I_TRG	35	O_TRG
I_REQ	19			37	O_REQ
				39	N.C.
					N.C.
				CON2	

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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