

Digital Input Board for PCI Express DI-64T-PE



* Specifications, color and design of the products are subject to change without notice.

Features

Unisolated TTL level input

The < DI-64T-PE > has the 64ch of unisolated TTL level input whose response speed is 200nsec.

You can use 32 input signals as interrupt request signals.

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This product has a digital filter to prevent wrong recognition of input signals from carrying noise or a chattering.

This product has a digital filter to prevent wrong recognition of input signals from carrying noise or a chattering. All input terminals can be added a digital filter, and the setting can be performed by software.

Windows/Linux compatible driver libraries are attached.

Using the attached driver library API-PAC(W32) makes it possible to create applications of Window/Linux. In addition, a diagnostic program by which the operations of hardware can be checked is provided.

Functions and connectors are compatible with PCI compatible board DI-64T2-PCI

The < DI-64T-PE >: The functions same with PCI compatible board DI-64T2-PCI are provided. In addition, as there is compatibility in terms of connector shape and pin assignments, it is easy to migrate from the existing system.

LabVIEW is supported by a plug-in of dedicated library VI-DAQ.

Using the dedicated library VI-DAQ makes it possible to make a LabVIEW application.

This product is a PCI Express bus-compliant interface board used to provide a digital signal input function on a PC.

The < DI-64T-PE > features 64 unisolated TTL level inputs. You can use 32 input signals as interrupt inputs. In addition, the digital filter function to prevent wrong recognition of input signals is provided.

Windows/Linux driver is bundled with this product.

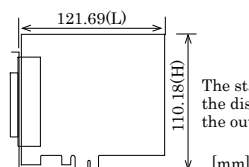
Possible to be used as a data recording device for LabVIEW, with dedicated libraries.

Specifications

Item	Specification
Input	
Input format	Unisolated TTL level input (Negative logic *1)
Number of input signal channels	64channels (32channels of them are available for interrupts) (1 common)
Input resistance	Pull up 10kΩ (1TTL load)
Interrupt	32 interrupt input signals are arranged into a single output of interrupt signal INTA. An interrupt is generated at the rising edge (HIGH-to-LOW transition) or falling edge (LOW-to-HIGH transition).
Response time	200nsec within
Common	
External supply capable current (Max.)	5VDC 350mA
Allowable distance of signal extension	Approx. 1.5m (depending on wiring environment)
I/O address	Any 32-byte boundary
Interrupt Level	1 level use
Max. board count for connection	16 boards including the master board
Power consumption (Max.)	3.3VDC 400mA
Operating condition	0 - 50°C, 10 - 90%RH (No condensation)
Bus specification	PCI Express Base Specification Rev. 1.0a x1
Dimension (mm)	121.69(L) x 110.18(H)
Connector	96 pin half pitch connector [M (male) type] PCR-E96LMD+ [HONDA TSUSHIN KOGYO CO., LTD.] equivalent to it
Weight	100g
Standard	VCCI Class A, RoHS Directive

*1 Data "0" and "1" correspond to the High and Low levels, respectively.

Board Dimensions



The standard outside dimension (L) is the distance from the end of the board to the outer surface of the slot cover.

[mm]

Support Software

Windows version of digital I/O driver API-DIO(WDM)/API-DIO(98/PC) [Stored on the bundledmedia driver library API-PAC(W32)]

The API-DIO(98/PC) is the Windows version driver library software that provides products in the form of Win32 API functions (DLL). Various sample programs such as Visual Basic and Visual C++, etc and diagnostic program useful for checking operation is provided.

For more details on the supported OS, applicable language and how to download the updated version, please visit the CONTEC's Web site (<http://www.contec.com/apipac/>).

Linux version of digital I/O driver API-DIO(LNX)

[Stored on the bundledmedia driver library API-PAC(W32)]

The API-DIO(LNX) is the Linux version driver software which provides device drivers (modules) by shared library and kernel version. Various sample programs of gcc are provided.

For more details on the supported OS, applicable language and how to download the updated version, please visit the CONTEC's Web site (<http://www.contec.com/apipac/>).

Data acquisition VI library for LabVIEW VI-DAQ (Available for downloading (free of charge) from the CONTEC web site.)

This is a VI library to use in National Instruments LabVIEW. VI-DAQ is created with a function form similar to that of LabVIEW's Data Acquisition VI, allowing you to use various devices without complicated settings.

See <http://www.contec.com/vidaq/> for details and download of VI-DAQ.

Cable & Connector

Cable (Option)

Shield Cable with 96-Pin Half-Pitch Connectors at Both Ends
: PCB96PS-0.5P (0.5m), PCB96PS-1.5P (1.5m)

Flat Cable with 96-Pin Half-Pitch Connectors at Both Ends
: PCB96P-1.5 (1.5m)

Shield Cable with 96-Pin Half-Pitch Connectors at One End
: PCA96PS-0.5P (0.5m), PCA96PS-1.5P (1.5m)

Flat Cable with 96-Pin Half-Pitch Connectors at One End
: PCA96P-1.5 (1.5m), PCA96P-3 (3m)

Distribution shield cable with 96-Pin Half-Pitch Connectors
(96P→37P x 2)
: PCB96WS-1.5P (1.5m)

Accessories

Accessories (Option)

Screw Terminal	: EPD-96A *1*2
Screw Terminal	: EPD-96 *1
Digital I/O 64CH Series Terminal Panel	: DTP-64A *1
Signal Monitor for Digital I/O (64Bits)	: CM-64L *1
Screw Terminal (M3 x 37P)	: EPD-37A *3
Screw Terminal (M3.5 x 37P)	: EPD-37 *3
General Purpose Terminal	: DTP-3A *3
Screw Terminal	: DTP-4C *3
Signal Monitor for Digital I/O	: CM-32L *3
Connection Conversion Board (96-Pin → 37-Pin x 2)	: CCB-96 *4

*1 A PCB96P or PCB96PS optional cable is required separately.

*2 "Spring-up" type terminal is used to prevent terminal screws from falling off.

*3 A PCB96WS optional cable is required separately.

*4 Option cable PCB96P or PCB96PS, and the cable for 37-pin D-SUB are required separately.

* Check the CONTEC's Web site for more information on these options.

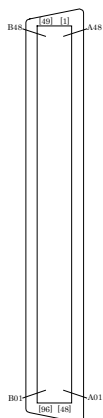
Packing List

Board [DI-64T-PE] ...1
First step guide ... 1
Disk *1 [API-PAC(W32)] ...1
Product Registration Card & Warranty Certificate ...1
Serial number label ...1

*1 The Disk contains the driver software and User's Guide

Connector Pin Assignment

+5V	Vcc	B48		A48	Vcc	+5V
	Vcc	B47		A47	Vcc	
	I-77	B46		A46	I-37	
	I-76	B45		A45	I-36	
	I-75	B44		A44	I-35	
	I-74	B43		A43	I-34	
	I-73	B42		A42	I-33	
	I-72	B41		A41	I-32	
	I-71	B40		A40	I-31	
	I-70	B39		A39	I-30	
	I-67	B38		A38	I-27	
	I-66	B37		A37	I-26	
	I-65	B36		A36	I-25	
	I-64	B35		A35	I-24	
	I-63	B34		A34	I-23	
	I-62	B33		A33	I-22	
	I-61	B32		A32	I-21	
	I-60	B31		A31	I-20	
Signal common	GND	B30		A30	GND	Signal common
	GND	B29		A29	GND	
	N.C.	B28		A28	N.C.	
	N.C.	B27		A27	N.C.	
	N.C.	B26		A26	N.C.	
	N.C.	B25		A25	N.C.	
	N.C.	B24		A24	N.C.	
	N.C.	B23		A23	N.C.	
	N.C.	B22		A22	N.C.	
	N.C.	B21		A21	N.C.	
+5V	Vcc	B20		A20	Vcc	+5V
	Vcc	B19		A19	Vcc	
	I-57	B18		A18	I-17	
	I-56	B17		A17	I-16	
	I-55	B16		A16	I-15	
	I-54	B15		A15	I-14	
	I-53	B14		A14	I-13	
	I-52	B13		A13	I-12	
	I-51	B12		A12	I-11	
	I-50	B11		A11	I-10	
	I-47	B10		A10	I-07	
	I-46	B09		A09	I-06	
	I-45	B08		A08	I-05	
	I-44	B07		A07	I-04	
	I-43	B06		A06	I-03	
	I-42	B05		A05	I-02	
	I-41	B04		A04	I-01	
	I-40	B03		A03	I-00	
Signal common	GND	B02		A02	GND	Signal common
	GND	B01		A01	GND	



* I-00 - I-37 can be used as interrupt signal.

* The numbers in square brackets [] are pin numbers designated by HONDA TSUSHIN KOGYO CO, LTD.

I-00 - I-77	64 input signal pins. Connect output signals from the external device to these pins.
Vcc	Output +5V. Max. electrical current is 350mA.
GND	This pin is connected to GND in the slot.
N.C.	This pin is left unconnected.