

Digital Output Board for PCI Express DO-64T-PE



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

Features

Unisolated open-collector output

The < DO-64T-PE > has the 64ch of unisolated open-collector output whose response speed is 200nsec. The output rating is max. 30VDC, 40mA per ch.

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 DO-64T2-PCI

The < DO-64T-PE >: The functions same with PCI compatible board DO-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 output function on a PC.

The < DO-64T-PE > features 64 unisolated open-collector outputs.

Windows/Linux driver is bundled with this product.

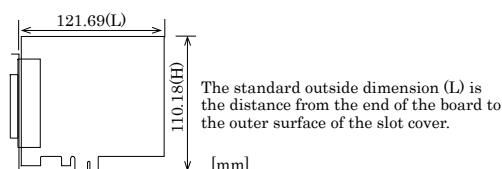
Possible to be used as a data recording device for LabVIEW, with dedicated libraries.

Specifications

Item	Specification
Output	
Output format	Unisolated open collector output (Negative logic *1)
Number of output signal channels	64channels (1 common)
Output rating	Output voltage
	30VDC (Max)
	Output current
	40mA (per channel) (Max)
Response time	Within 200nsec (change by pull-up resistor value)
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	None
Max. board count for connection	16 boards including the master board
Power consumption (Max)	3.3VDC 800mA
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



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.

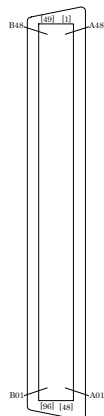
Packing List

Board [DO-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

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



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

O-00 - O-77	64 output signal pins. Connect these pins to the input signal pins of the external device.
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.