

Digital I/O Board for PCI Express Low Profile

DIO-1616L-LPE



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

Features

Opto-coupler isolated input (supporting current sink output) and opto-coupler isolated open-collector output (current sink type)

This product has the opto-coupler isolated input 16ch (supporting current sink output) whose response speed is 200μsec and opto-coupler isolated open-collector output 16ch (current sink type).

Common terminal provided per 16ch, capable of supporting a different external power supply
Supporting driver voltages of 12 - 24 VDC for I/O

Opto-coupler bus isolation

As the PCI Express bus (PC) is isolated from the input and output interfaces by opto-couplers, this product has excellent noise performance.

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Windows/Linux compatible driver libraries are attached.

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

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

This product has a digital filter to prevent 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.

Output circuits include zener diodes for surge voltage protection and overcurrent protection circuit.

Zener diodes are connected to the output circuits to protect against surge voltages. Similarly, overcurrent protection circuits are fitted to each group of 8ch outputs.

This product is a PCI Express bus-compliant interface board that extends the digital signal I/O functions of a PC.

This product is a 12 - 24VDC opto-coupler isolated type with opto-coupler isolated input 16ch and opto-coupler isolated open-collector output 16ch. You can use all of the input signals as interrupt inputs. Equipped with the digital filter function and output transistor protection circuit (surge voltage protection and overcurrent protection).

This product supports a Low Profile size slot and, if replaced with the supplied bracket, supports a standard size slot, too.

Windows/Linux driver is bundled with this product.

Using the dedicated library VI-DAQ makes it possible to create each application for LabVIEW.

Functions are compatible with PCI Express compatible board DIO-1616L-PE and PCI compatible board PIO-16/16L(PC)H.

The functions same with PCI Express compatible board DIO-1616L-PE and PCI compatible board PIO-16/16L(PC)H are provided.

Functions and connectors are compatible with PCI compatible board PIO-16/16L(LPCI)H series.

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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 create each application for LabVIEW.

Specification

Encoder Input Section

Item	Specification
Input	
Input format	Opto-coupler isolated input (Compatible with current sink output) (Negative logic *1)
Number of input channels	16ch (all available for interrupts) (1 common in 16ch)
Input resistance	4.7kΩ
Input ON current	2.0mA or more
Input OFF current	0.16mA or less
Interrupt	32bit, 33MHz, Universal key shapes supported *5
Response time	Within 200μsec
Output	
Output format	Opto-coupler isolated open collector output (current sink type) (Negative logic *1)
Number of output signal channels	16ch (1 common)
Output rating	Output voltage
	35VDC (Max.)
Output rating	Output current
	100mA (par channel) (Max.)
Residual voltage with output on	0.5V or less (Output current≤50mA), 1.0V or less (Output current≤100mA)
Surge protector	Zener diode RD47FM(NEC) or equivalent to it
Response time	Within 200μsec

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