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# PCI Express-compliant High speed GPIB (Low Profile) GPIB-F-LPE, GPIB-FL-LPE



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

Model	Name	Bus analyzer function
GPIB-F-LPE	High speed Multi function GPIB	O
GPIB-FL-LPE	High speed GPIB	None

### **Features**

#### Complies with the IEEE-488.2 standard

As the board complies with the IEEE-488.2 standard, you can control any external device that supports this standard.

#### Data transfer speed 1.5Mbyte/sec max.

The maximum data transfer speed for communications is 1.5Mbyte/sec.

### Supports bus master operation

The bus master data transfer function enables large quantities of data to be transferred between the board and PC without loading the CPU.

#### Internal 2Kbyte FIFO buffers for send and receive

The board has separate 2Kbyte FIFO buffers for sending and receiving data, allowing both small and large volumes of data to be transferred at high speed. Interface messages also use a FIFO to enable high-speed transmission.

### Built-in GPIB bus analyzer function [only GPIB-F-LPE]

The board features a bus analyzer function. This not only allows the signals on the GPIB bus to analyzed, but also permits signal analysis to be performed while this product is performing GPIB communications

# **Built-in SPAS event function**

In addition to the functions of the earlier GPIB controller ( $\mu$ PD7210), the board also supports the SPAS event generated when a serial poll occurs. This gives you a high level of flexibility in constructing your system.

#### Internal high-precision timer

The board includes a high-precision application timer to allow accurate time monitoring to be performed under Windows.

# Long term availability

As the board uses a high-speed GPIB controller developed by CONTEC (compatible with the  $\mu$ PD7210 register), reliable long term availability is ensured.

#### Diagnosis program

A diagnosis program is supplied to support system development. The diagnostic program can be used to check hardware operation (interrupts and I/O addresses) and to perform simple communication tests with connected devices.

This product is a PCI Express bus-compatible interface board with support for bus master operation and which complies with IEEE-488.1 and IEEE-488.2. This product can be used in a PC to control communications with devices that support the GPIB interface and read GPIB bus line data.

The GPIB-F-LPE can also analyze the signal on the GPIB bus using the built-in memory (GPIB bus analyzer function).

This product supports a low-profile size slot and, if replaced with the supplied bracket, supports a standard size slot, too.

You can use the supplied driver library to develop application software using any programming language that supports the Win32 API routines (such as Visual Basic or Visual C++), or using LabVIEW.

- \* The contents in this document are subject to change without notice.
- \* Visit the CONTEC website to check the latest details in the document.
- \* The information in the data sheets is as of August 2019.

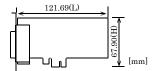
#### Other

Supports both Low Profile size slots and standard size slots (use the supplied bracket as an adaptor).

# Specifications

ltem	GPIB-F-LPE	GPIB-FL-LPE	
PIB			
Number of channel	1 channel Conforms to IEEE-488.1, 488.2(GPIB) standards		
Transfer format	8-bit parallel, 3-wire handshake system		
Transfer rate	1.5Mbyte/sec		
Data buffer size	2Kbyte send, 2Kbyte receive		
Signal logic	Negative logic L level: 0.8V or less, H level: 2.0V or more		
Cable length between device	4m or less		
Total cable length	20m or less		
Connectable number of device	15 devices		
Analyzer buffer size	64K data points (1 data point : Control signals + DIO1 - 8)	None	
us master section			
DMA channels	2 channels		
Transfer bus width	32-bit		
Transfer data length	8 PCI Words length (Max.)		
Transfer rate	80Mbyte/sec		
Scatter/Gather function	64Mbyte/ch		
iommon section			
I/O address	Any 128-byte boundary		
Interrupt 1 level use			
Consumed current (Max.)	3.3VDC 600mA		
Operating conditions	0 - 50°C, 10 - 90%RH (No condensation)		
Bus specification	PCI Express Base Specification Rev. 1.0a x1		
External dimensions (mm)	121.69(L) x 67.90(H)		
Connector used Micro ribbon connector (24-pin) 5555139-1 [made by AMP] or equivalent		ent	
Weight	80g		

#### **Board Dimensions**



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

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# **Support Software**

#### NOTE:

This hardware does not support Windows 95, Windows 98 and Windows NT 4.0/3.51.

#### Driver Library API-PAC(W32) [Bundled]

API-PAC(W32) is the library software that provides the commands for CONTEC hardware products in the form of Windows standard Win32 API functions (DLL). It makes it easy to create high-speed application software taking advantage of the CONTEC hardware using various programming languages that support Win32 API functions, such as Visual Basic and Visual C++. It can also be used by the installed diagnosis program to check hardware operations.

For more details on the supported OS, applicable language and new information, please visit the CONTEC's Web site.

# API-GPLV(W32) library supporting LabVIEW [Stored on the bundledmedia driver library API-PAC(W32)]

API-GPLV(W32) is a driver created according to the National Instruments Corporation's GPIB function style. The driver is software to control the CONTEC GPIB board (PC Cards) using a LabVIEW-based GPIB system or existing application program. It can also be used by the installed diagnosis program to check hardware operations. CONTEC provides download services

For more details on the supported OS, applicable language and new information, please visit the CONTEC's Web site.

# Linux version of general-purpose count driver: API-GPIB(LNX) [Stored on the bundledmedia driver library API-PAC(W32)]

This driver is used to control CONTEC GPIB boards (PC Cards) from within Linux. You can control CONTEC GPIB boards easily using the shared library called from the user application, the device driver (module) for each kernel version, and the board (PC Cards) configuration program (config). CONTEC provides download services

For more details on the supported OS, applicable language and new information, please visit the CONTEC's Web site.

# **Cable & Connector**

#### Cable (Option)

GPIB cable (2m) : PCN-T02
GPIB cable (4m) : PCN-T04

GPIB Connector : CN-GP/C \*1\*2

- \*1 Effective when the cable being plugged into the board interfere with the PC's main unit.
- \*2 The GPIB connector adapter [CN-GP/C] is bundled with this product as a standard feature.
- Check the CONTEC's Web site for more information on these options.

# **Packing List**

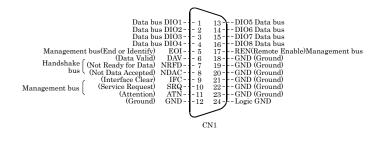
Board [GPIB-F-LPE, or GPIB-FL-LPE] ...1
First step guide ... 1
Disk \*1 [API-PAC(W32)] ...1
GPIB connector adapter [CN-GP/C] ...1

Product Registration Card & Warranty Certificate ...1

Serial number label ...1

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

# **Connector Pin Assignment**



GPIB-F-LPE, GPIB-FL-LPE