

High-speed IEEE-488.2 GPIB communication board for Low Profile PCI

GP-IB(LPCI)F, GP-IB(LPCI)FL



| Model | Name | Bus analyzer function |
|---------------|---|-----------------------|
| GP-IB(LPCI)F | High-performance high-speed IEEE-488.2 GPIB communication board | ○ |
| GP-IB(LPCI)FL | Low-price high-speed IEEE-488.2 GPIB communication board | None |

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

Features

Complies with the IEEE-488.2 standard

As the card 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

The board features a bus analyzer function. [GP-IB(LPCI)F] This not only allows the signals on the GPIB bus to analyzed, but also permits signal analysis to be performed while the board is performing GPIB communications

Built-in SPAS event function

In addition to the functions of the earlier GPIB controller (μ 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 (upwardly compatible with the μ PD7210), reliable long term availability is ensured.

Diagnostic program

A diagnostic 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.

These products are Low Profile size PCI bus-compliant interface board with support for bus master operation and which complies with IEEE-488.1 and IEEE-488.2. The card can be used in a PC to control communications with devices that support the GPIB interface and perform GPIB bus line data analysis.

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.

Other

A function is provided to read all control lines and data lines. This enables various operations to be performed from the application. [Includes control line latch function. Data lines are only supported on the GP-IB(LPCI)F.]

Support for both of Low Profile size and standard size slots (interchangeable with a bundled bracket).

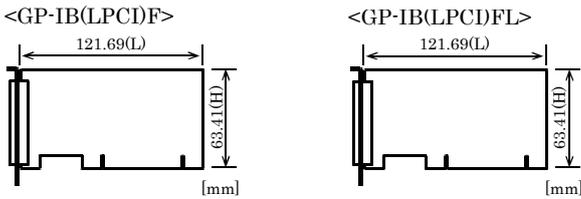
Specification

Encoder Input Section

| Item | GP-IB(LPCI)F | GP-IB(LPCI)FL |
|------------------------------|---|---------------|
| GPIB | | |
| Number of channel | 1ch 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 (Max.) | |
| Analyzer buffer size | 64K data points (1 data point: Control signals + DIO1 to 8) | None |
| Bus master section | | |
| DMA channels | 2ch | |
| Transfer bus width | 32-bit | |
| Transfer data length | 8 PCI Words length (Max.) | |
| Transfer rate | 80Mbyte/sec | |
| Scatter/Gather function | 64Mbyte/ch | |
| Common section | | |
| I/O address | Any 128-byte boundary | |
| Interrupt | 1 level use | |
| Consumed current | 5VDC 400mA (Max.) | |
| Operating conditions | 0 - 50°C, 10 - 90%RH (No condensation) | |
| PCI bus specification | 32-bit, 33MHz, Universal key shapes supported *1 | |
| Physical dimensions(mm) | 121.69(L) x 63.41(H) | |
| Weight | 110g | |

*1 This board requires power supply at +5 V from an expansion slot (it does not work on a machine with a +3.3 V power supply alone).

Board Dimensions



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

Support Software

NOTE:

This hardware does not support Windows 95 and Windows NT4.0/3.51.

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.

CONTEC provides download services (at <http://www.contec.com/apipac/>) to supply the updated drivers and differential files.

For details, read Help on the bundled CD-ROM or visit the CONTEC's Web site.

< Operating environment >

OS Windows XP, Server 2003, 2000, Me, 98, etc..

Adaptation language Visual C++ .NET, Visual C# .NET, Visual Basic .NET, Visual C++, Visual Basic, Delphi, C++Builder, etc..

API-GPLV(W32) library supporting LabVIEW (Supplied: Stored on the API-PAC(W32) CD-ROM)

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 (at <http://www.contec.com/gplv/>) to supply the updated drivers and differential files.

For details, read Help on the bundled CD-ROM or visit the CONTEC's Web site.

< Operating environment >

OS Windows XP, Server 2003, 2000, Me, 98, etc..

Adaptation language LabVIEW, Visual C++ .NET, Visual C# .NET, Visual Basic .NET, Visual C++, Visual Basic, Delphi, C++Builder, etc..

Linux version of general-purpose count driver:

API-GPIB(LNX) (Supplied: Stored on the API-PAC(W32) CD-ROM)

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 (at <http://www.contec.com/apipac/>) to supply the updated drivers and differential files.

For details, read Help on the bundled CD-ROM or visit the CONTEC's Web site.

< Operating environment >

OS RedHatLinux, TurboLinux, etc.. (For details on supported distributions, refer to Help available after installation.)

Adaptation language gcc, etc..

Cable & Connector

Cable (Option)

GPIB cable (2m) : PCN-T02

GPIB cable (4m) : PCN-T04

Connector (Option)

GPIB Connector : CN-GP/C

Effective when the cable being plugged into the board interfere with the PC's main unit.

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

Packing List

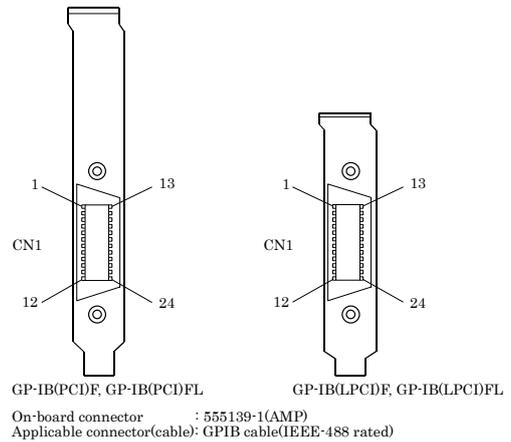
- Board (One of the following) [GP-IB(LPCI)F, or GP-IB(LPCI)FL] ...1
- First step guide ... 1
- CD-ROM *1 [API-PAC(W32)] ...1
- GPIB Connector [CN-GP/C] ...1
- Standard-sized bracket...1

*1 The CD-ROM contains the driver software and User's Guide.

How to connect the connectors

Connector shape

To connect an external device to this board, plug the cable from the device into the interface connector (CN1) shown below.



* Please refer to page 2 for more information on the supported cable and accessories.

Connector shape

