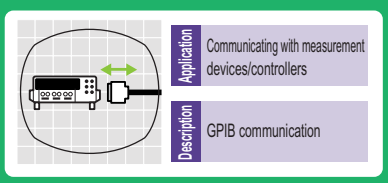
GPIB

GPIB COMMUNICATIONS

Provides PC with GPIB-compliant communication port(s). These can be used as the communication interface for measurement devices equipped with GPIB communication ports as well as various other controllers.



Product Lineup

You can choose from a variety of interface boards according to your desired bus and feature-set.

PCI

1.5Mbyte/sec	Timer	Bus Master Transfer	GPIB Bus Analyzer Function
1.2Mbyte/sec			GPIB Bus Analyzer Function
120Kbyte/sec	Timer		

Low Profile PCI

1.5Mbyte/sec	Timer	Bus Master Transfer	GPIB Bus Analyzer Function

Card Bus

1.5Mbyte/sec	Timer	Bus Master Transfer	GPIB Bus Analyzer Function

PCMCIA

50Kbyte/sec	

Compact PCI

1.5Mbyte/sec	Timer	Bus Master Transfer	GPIB Bus Analyzer Function

Media Converter

Transmission: 18Kbyte/sec Reception: 10Kbyte/sec		GPIB into Ethernet

ISA

Pictograms

Bus Specifications

PCI — Product is PCI standard-compliant and can be used in computer equipped with PCI bus expansion slot.

Low Profile PCI — Product is PCI standard / Low Profile - compliant. A bracket for standard PCI slot is provided.

Card Bus — Product supports CardBus / 32-bit PC card standard.

PCMCIA — Product supports 16-bit PC card standard.

Compact PCI — Product is Compact PCI - compliant and can be used in computer equipped with Compact PCI 3U expansion slot.

Support software

Windows Driver — API-TOOL Drivers for Windows are provided. This license-free driver software (both development and runtime) provides commands to interface boards using Windows standard Win32API functions (DLL).

Linux Diver — API-TOOL drivers for Linux are provided. This license-free driver software (both development and runtime) provides commands to interface boards using module-style device drivers and the shared library

MATLAB — API-GPLV(W32) for using CONTEC boards with The MathWorks MATLAB can be downloaded [no charge] from our Web site.

LabVIEW — Drivers that allow you to use CONTEC GPIB communication devices with National Instruments LabVIEW.
After installing this software, you can develop and operate programs on LabVIEW for CONTEC GPIB communication devices.

GPIB

Features of GPIB F Series - High-precision / High speed

CONTEC's new series of GPIB communication boards are IEEE-488.2 compliant and feature bus master high-speed data transmission and GPIB bus analysis.
The major features and functions of this series include:

- LowProfilePCI : GP-IB (LPCI) F, GP-IB (LPCI) FL
- PCI : GP-IB (PCI) F, GP-IB (PCI) FL
- CompactPC : GP-IB (CPCI) F
- CardBus : GP-IB (CB) F, GP-IB (CB) FL

1. 1.5Mbyte/sec - Maximum transfer speed

CONTEC's GPIB F Series devices can communicate at a maximum transfer speed of 1.5Mbyte/sec.

2. Bus master transfer

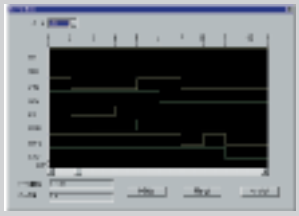
Bus master transfer allows bulk data to be transferred between the computer and board with no additional load on the CPU.

3. 2Kbyte FIFO for both transmission and reception

2Kbyte FIFO is provided for handling transmissions and receptions, furthering high-speed transmission of both small and large size data.
High-speed transmission is also possible using interface message with FIFO.

4. GPIB bus analyzer

F Series boards [excluding GPIB (PCI)FL], are capable of not only analyzing the signals that run along the GPIB bus but also of conducting a signal analysis while GPIB communication is in progress.



5. SPAS event (slave mode)

In addition to the conventional GPIB controller (PD7210), event (SPAS) is also provided at the time of serial poll, offering a highly flexible system configuration.

6. High-precision timer

A high-precision application timer is built-in enabling precise time monitoring under Windows.

7. Reliable, long-term availability

These boards feature a high-speed GPIB controller (compatible with PD7210 & up) developed by CONTEC assuring reliable long-term availability.

8. Diagnosis program

System configuration support is provided by a diagnosis program. This program can conduct hardware operation checks (interrupt / I/O access) and basic communication tests (between PC & external devices).

9. Line monitoring

Able to read total control line (IFC, ATN, SRQ, REN, EOI, DAV, NRFD, NDAC) status as well as latch data. Also capable of reading data line (DIO1 - DIO8) status [excluding GP-IB(PCI)FL].

Points

- XX byte/sec — Maximum transfer speed
- FIFO Memory — You can transmit/receive data using the onboard FIFO memory. Since the communication is controlled by the board, high-speed communication can be achieved regardless of computer CPU speed.
- Timer — Built-in application timer provides precise time monitoring in Windows.
- Bus Analyzer — Onboard memory allows analysis of the status change of all lines on the GPIB cable. (64K data (max) reception)
- Bus Master — Bus master transfer allows the transfer of large amounts of data between the PC and board without putting an additional load on CPU.

Options for GPIB

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

Double Shielded UL

The exclusive connection cable is of high electricity resistance and reliability that is compatible with GPIB.

GPIB connector adapter
CN-GP/C

The connector adapter is best to be equipped in high noisy environments such as on the Extension Slot of PC or cable from an adjoining board.

K-02

GPIB

High performance F series

K-03

PCI | F series | 1.5M byte/sec | Timer | Bus Analyzer | Bus Master | CE | Windows Driver | Linux Diver | MATLAB | LabVIEW

High performance IEEE488.2/GPIB
GP-IB(PCI)F

- IEEE-488.1 / IEEE-488.2 -compliant
- 1.5Mbyte/sec transmission speed (max)
- Bus Master provides high-speed transfer of bulk data without applying any additional load on the CPU
- 2Kbyte I/O (transmission and reception) FIFO
- GPIB Bus Analyzer function
- Equipped with GPIB controller developed by CONTEC assuring reliable long-term availability

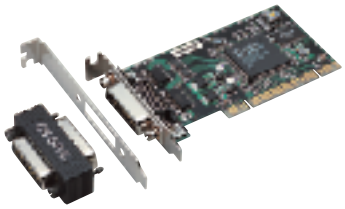
PCI | F series | 1.5M byte/sec | Timer | Bus Master | CE | Windows Driver | Linux Diver | MATLAB | LabVIEW

Low-cost High performance IEEE488.2/GPIB
GP-IB(PCI)FL

- IEEE-488.1 / IEEE-488.2 -compliant
- 1.5Mbyte/sec transmission speed (max)
- Bus Master provides high-speed transfer of bulk data without applying any additional load on the CPU
- 2Kbyte I/O (transmission and reception) FIFO
- Equipped with GPIB controller developed by CONTEC assuring reliable long-term availability

Low Profile PCI | F series | 1.5M byte/sec | Timer | Bus Analyzer | Bus Master | CE | Windows Driver | Linux Diver | MATLAB | LabVIEW

High performance IEEE488.2/GPIB
GP-IB(LPCI)F

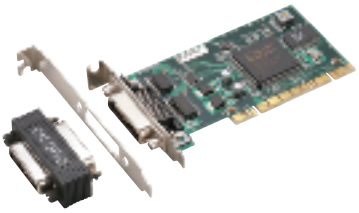


- IEEE-488.1 / IEEE-488.2 -compliant
- 1.5Mbyte/sec transmission speed (max)
- Bus Master provides high-speed transfer of bulk data without applying any additional load on the CPU
- 2Kbyte I/O (transmission and reception) FIFO
- GPIB Bus Analyzer function
- Equipped with GPIB controller developed by CONTEC assuring reliable long-term availability

Low Profile PCI | F series | 1.5M byte/sec | Timer | Bus Master | Windows Driver | Linux Diver | MATLAB | LabVIEW

Low-cost High performance IEEE488.2/GPIB
GP-IB(LPCI)FL

NEW



- IEEE-488.1 / IEEE-488.2 -compliant
- 1.5Mbyte/sec transmission speed (max)
- Bus Master provides high-speed transfer of bulk data without applying any additional load on the CPU
- 2Kbyte I/O (transmission and reception) FIFO
- Equipped with GPIB controller developed by CONTEC assuring reliable long-term availability

Model		GP-IB(PCI)F	GP-IB(PCI)FL	GP-IB(LPCI)F	GP-IB(LPCI)FL
Interface type		IEEE-488.1, IEEE-488.2			
Number of Channels		1			
Speed		1.5Mbyte/sec (Max.)			
Data type		8 parallel lines, 3 handshake lines			
Signal Logic		Negative Logic: <Low Level> 0.8V or less, <High level> 2.0V or more			
Interrupts		1 interrupt request signal as INTA			
I/O Address		Any of 128-byte boundary			
Wiring Distance		4m (Max.)			
Total cable length		20m (Max.)			
Connectable Devices		15			
Power Consumption (Max.)		5VDC 400mA			
Bus / Dimensions (mm)		PCI (32bit, 33MHz, 5V or 3.3V*1) / 121.69(L) × 63.41(H)			
Connector		24-pin Ribbon Connector, 555139-1 [AMP] or equivalent			
Options	Software	-			
	Accessories	CN-GP/C			
	Cables / Connectors	PCN-T02, PCN-T04			
Note:		*1: +5V power must be supplied from PCI bus slot.			

Card Bus | F series | 1.5M byte/sec | Timer | Bus Analyzer | Bus Master | CE | Windows Driver | Linux Diver | MATLAB | LabVIEW

High performance IEEE488.2/GPIB
GP-IB(CB)F

- IEEE-488.1 / IEEE-488.2 -compliant
- 1.5Mbyte/sec transmission speed (max)
- Bus Master provides high-speed transfer of bulk data without applying any additional load on the CPU
- 2Kbyte I/O (transmission and reception) FIFO
- GPIB Bus Analyzer function
- Equipped with GPIB controller developed by CONTEC assuring reliable long-term availability

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Card Bus | F series | 1.5M byte/sec | Timer | Bus Master | Windows Driver | Linux Diver | MATLAB | LabVIEW

High performance IEEE488.2/GPIB
GP-IB(CB)FL

NEW

- IEEE-488.1 / IEEE-488.2 -compliant
- 1.5Mbyte/sec transmission speed (max)
- Bus Master provides high-speed transfer of bulk data without applying any additional load on the CPU
- 2Kbyte I/O (transmission and reception) FIFO
- Equipped with GPIB controller developed by CONTEC assuring reliable long-term availability

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Compact PCI | F series | 1.5M byte/sec | Timer | Bus Analyzer | Bus Master | Windows Driver | Linux Diver | MATLAB | LabVIEW

High performance IEEE488.2/GPIB
GP-IB(CPCI)F

- IEEE-488.1 / IEEE-488.2 -compliant
- 1.5Mbyte/sec transmission speed (max)
- Bus Master provides high-speed transfer of bulk data without applying any additional load on the CPU
- 2Kbyte I/O (transmission and reception) FIFO
- GPIB Bus Analyzer function
- Equipped with GPIB controller developed by CONTEC assuring reliable long-term availability

Model		GP-IB(CB)F	GP-IB(CB)FL	GP-IB(CPCI)F	
Interface type		IEEE-488.1, IEEE-488.2			
Number of Channels		1ch			
Speed		1.5Mbyte/sec (Max.)			
Data type		8 parallel lines, 3 handshake lines			
Signal Logic		Negative Logic: <Low Level> 0.8V or less, <High level> 2.0V or more			
Interrupts		1 interrupt request signal as INTA			
I/O Address		Any of 128-byte boundary			
Wiring Distance		4m (Max.)			
Total cable length		20m (Max.)			
Connectable Devices		15			
Power Consumption (Max.)		5VDC 400mA			
Bus / Dimensions (mm)		PC Card Standard CardBus / TYPE II		CompactPCI / 3U × 4HP	
Connector		24-pin Ribbon Connector RC40-24RR [HIROSE] or equivalent		24-pin Ribbon Connector 555139-1 [AMP] or equivalent	
Options	Software	-			
	Accessories	CN-GP/C			
	Cables / Connectors	PCN-T02, PCN-T04			
Note:					

GPIB Standard

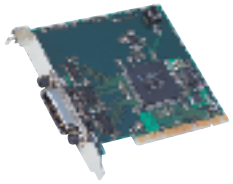
PCI | FIFO Memory | 1.2M byte/sec | Bus Analyzer | CE | Windows Driver | LabVIEW

IEEE488.2 / GPIB
GP-IB(PCI)

- 1MB I/O FIFO provided to attain 1.2MB communication rate (max.)
- IEEE-488.1 / IEEE-488.2 - compliant
- GPIB Bus Analyzer function can monitor bus line data Requires use of API-PAC(W32)
- Equipped with GPIB controller developed by CONTEC assuring reliable, long-term availability

PCI | 120K byte/sec | Timer | CE | Windows Driver | LabVIEW

IEEE488.2 / GPIB
GP-IB(PCI)L



- IEEE-488.1 / IEEE-488.2 -compliant
- Equipped with GPIB controller developed by CONTEC assuring reliable long-term availability
- GPIB control timer enables high-precision time management
- Monitors GPIB bus line supports IFC (latch function provided), SRQ and ATN

Model		GP-IB(PCI)	GP-IB(PCI)L	
Interface type		IEEE-488.1, IEEE-488.2		
Number of Channels		1ch		
Speed		1.2Mbyte/sec (Max.)	120Kbyte/sec (Max.)	
Data type		8 parallel lines, 3 handshake lines		
Signal Logic		Negative Logic: <Low Level> 0.8V or less, <High level> 2.0V or more		
Interrupts		1 interrupt request signal as INTA		
I/O Address		Any of 16-byte boundary	Any of 32-byte boundary	
Wiring Distance		4m (Max.)		
Total cable length		20m (Max.)		
Connectable Devices		15		
Power Consumption (Max.)		5VDC 970mA	5VDC 300mA	
Bus / Dimensions (mm)		32bit, 33MHz, 5V / 121.69(L) × 106.68(H)		
Connector		24-pin Ribbon Connector 555139-1 [AMP] or equivalent	24-pin Ribbon Connector 555139-1 [AMP]	
Options	Software	-		
	Accessories	CN-GP/C		
	Cables / Connectors	PCN-T02, PCN-T04		

Note:

Standard **GPIB**

PCMCIA | 50K byte/sec | CE | Windows Driver | LabVIEW

IEEE488.2 / GPIB
GP-IB(PM)

FEATURES
- IEEE-488.1 and IEEE-488.2 compliant
- Equipped with GPIB controller developed by CONTEC assuring reliable, long-term availability

■ SPECIFICATIONS

Interface type	IEEE-488.1, IEEE-488.2
Number of Channels	1
Speed	50Kbyte/sec (Max.)
Data type	8 parallel lines, 3 handshake lines
Signal Logic	Negative Logic: <Low Level> 0.8V or less <High level> 2.0V or more
Interrupts	One of IRQ3~7, 9~12, 14 or 15
I/O Address	Any of 16-byte boundary
Wiring Distance	4m (Max.)
Total cable length	20m (Max.)
Connectable Devices	15 (Max.)

Power Consumption (Max.)		5VDC 100mA
Connector		24-pin Ribbon Connector
Bus / Dimensions (mm)		PCMCIA Rel.2.0/JEIDA 4.1 upper/ Type II
Option		
	Software	-
	Accessories	CN-GP/C
	Cables / Connectors	PCN-T02, PCN-T04

Media Converter

- Provides protocol conversion from GPIB (IEEE-488.1/IEEE-488.2) communication to Ethernet.
- With the included drivers installed on a Windows environment PC, devices can be remotely controlled as easy as if they were local.
- Supported operating systems: Windows XP, 2000, Me, 98SE, 98

GPIB Communication Media Converter

GPIB⇔Ethernet (Wire LAN) CE
RP-GPIB(FIT)GY

■ SPECIFICATIONS

GPIB		
	Standard	IEEE-488.1, IEEE-488.2
	GPIB mode	Master mode only
	Number of Channels	1
	Speed	Sender: 18Kbyte/sec (Max.) Receiver: 10Kbyte/sec (Max.)
	Data type	8 parallel lines, 3 handshake lines
	Signal Logic	Negative Logic: <Low Level> 0.8V or less <High level> 2.0V or more

Wire LAN		
	Ethernet Standard	IEEE802.3
	Data Speed	10Mbps
	Access Method	CSMA/CD
	Transmission Format	Half Duplex / Full Duplex
	Available Ports	1 (10BASE-T)
Power Supply		5VDC±5% (using attached AC Adapter)
Power Consumption (Max.)		0.6A
Dimensions (mm)		50.4(W) × 64.7(D) × 94.0(H) (Exclusive of any protrusion)
Weight		190g

ISA

Model

IEEE-488.2 GPIB Interface
GP-IB(PC)L

SPECIFICATIONS

Interface type		IEEE488.1, IEEE488.2
Channels		1ch
Speed		<DMA mode> 400Kbyte/sec (Max.)
Data type		8 parallel lines, 3 handshake lines
Signal Logic		Negative logic:<Low level> 0.8V or less <High level> 2.0V or more
DMA Channels		CH1~CH3 (software selectable)
Controller chip		CONTEC original FPGA (μPD7210C compatible)
Interrupts		1 interrupt request signal as INTA (software selectable)
I/O address		Any of 32-byte boundary
Wiring Distance		4m (Max.)
Total cable length		20m (Max.)
Connectable devices		15 (Max.)
Power consumption (Max.)		5VDC 350mA
Connector		555139-2 [AMP] or equivalent
Bus / Dimensions (mm)		AT Bus / 163.0(L) × 107.0(H)
Option	Software	API-PAC(W32)
	Accessories	CN-GP/C
	Cables / Connectors	PCN-T02, PCN-T04
CE marking		○