PCI-GPIB Getting Started

Contents

PCI-GPIB

The PCI-GPIB is a plug-and-play IEEE 488 interface for PCs and workstations with PCI expansion slots. The PCI-GPIB can sustain data transfer rates of more than 1.5 MB/s using the IEEE 488.1 three-wire interlocked handshake. It also implements the high-speed IEEE 488.1 noninterlocked handshake (HS488) for benchmarked data transfers at more than 7.7 MB/s. The onboard bus master DMA controller means that there are no microprocessor interruptions in data transfer.

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Installation

> **(!) Notice** Electrostatic discharge can damage several components on your GPIB board. To avoid such damage in handling your board, touch the antistatic plastic package to a metal part of your computer chassis before removing the board from the package.

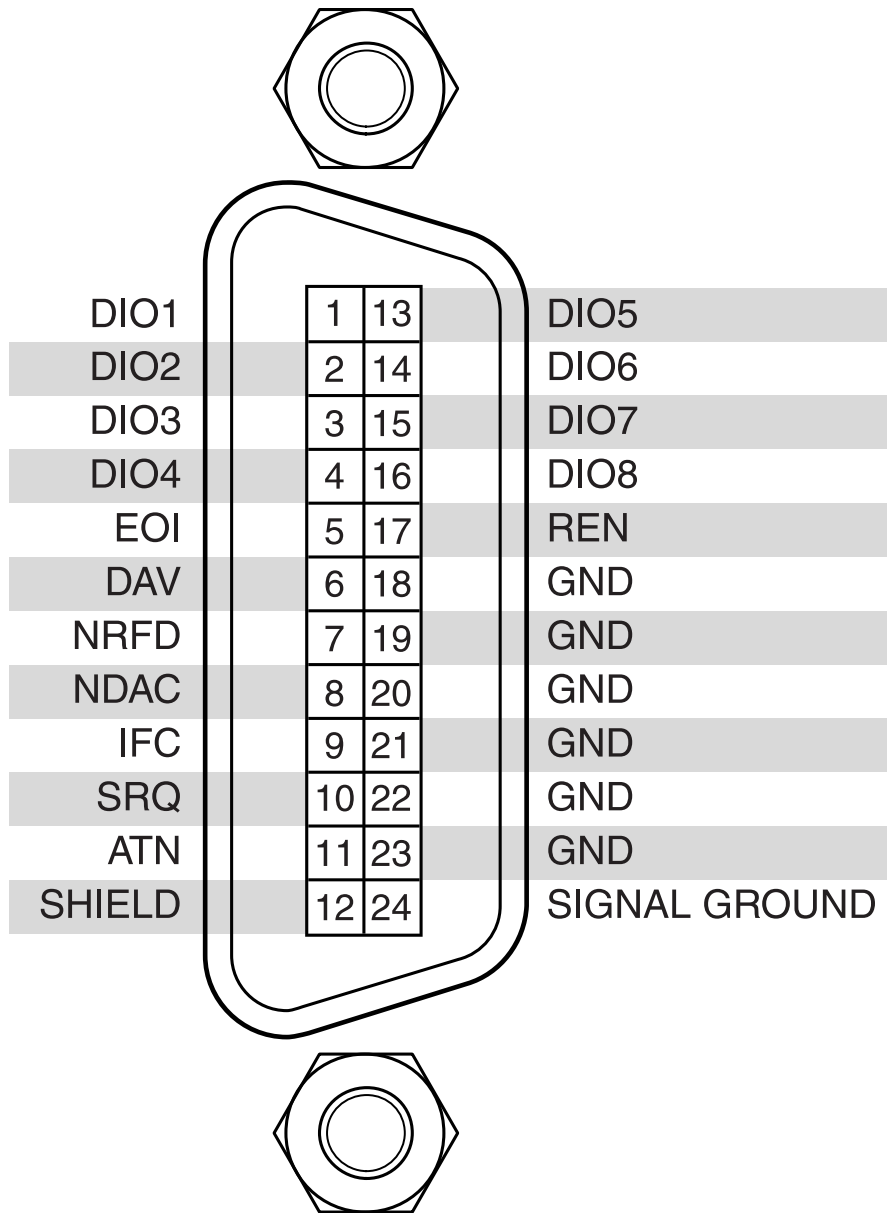Complete the following steps to install your interface:

1. Make sure that your computer is powered off. Keep the computer plugged in so that it remains grounded while you install the GPIB hardware.
2. Remove the top cover (or other access panels) to gain access to the computer expansion slots.
3. Find an unused expansion slot in your computer. Your PCI board can be plugged into either a 3.3 V or 5 V, 32- or 64-bit PCI slot.
4. Remove the corresponding slot cover on the back panel of the computer.
5. Insert the GPIB board into the slot with the GPIB connector sticking out of the opening on the back panel, as shown in the following figure. It might be a tight fit, but do not force the board into place.
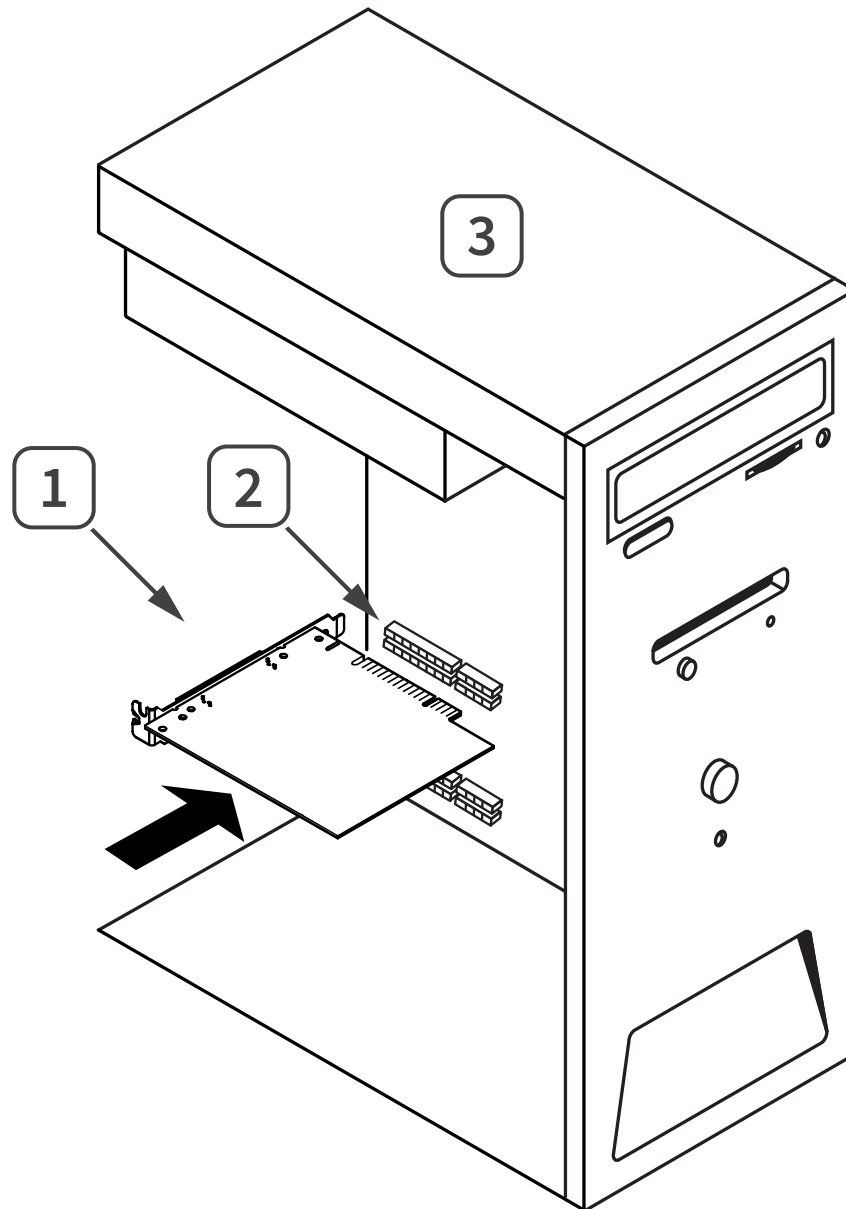
1 PCI Express Board
2 PCI Express Slot
3 Computer

6. Screw the mounting bracket of the GPIB board to the back panel rail of the computer.

7. Replace the top cover (or the access panel to the expansion slot).

8. Power on your computer.
   The GPIB hardware installation is now complete.

GPIB Pinout

DIO1	1	13	DIO5
DIO2	2	14	DIO6
DIO3	3	15	DIO7
DIO4	4	16	DIO8
EOI	5	17	REN
DAV	6	18	GND
NRFD	7	19	GND
NDAC	8	20	GND
IFC	9	21	GND
SRQ	10	22	GND
ATN	11	23	GND
SHIELD	12	24	SIGNAL GROUND

Table 1. Signal Descriptions

Signal	Terminal	Description
DIO1	1	Data Input/Output Bit.
DIO2	2	Data Input/Output Bit.

Signal	Terminal	Description
DIO3	3	Data Input/Output Bit.
DIO4	4	Data Input/Output Bit.
EOI	5	End-Or-Identify.
DAV	6	Data Valid.
NRFD	7	Not Ready For Data.
NDAC	8	Not Data Accepted.
IFC	9	Interface Clear.
SRQ	10	Service Request.
ATN	11	Attention.
SHIELD	12	Shield.
DIO5	13	Data Input/Output Bit.
DIO6	14	Data Input/Output Bit.
DIO7	15	Data Input/Output Bit.
DIO8	16	Data Input/Output Bit.
REN	17	Remote Enable.
GND	18	Ground—Wire twisted with DAV.
GND	19	Ground—Wire twisted with NRFD.
GND	20	Ground—Wire twisted with NDAC.
GND	21	Ground—Wire twisted with IFC.
GND	22	Ground—Wire twisted with SRQ.
GND	23	Ground—Wire twisted with ATN.
SIGNAL GROUND	24	Logic Ground.