PXIe-6570 User Manual

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Contents

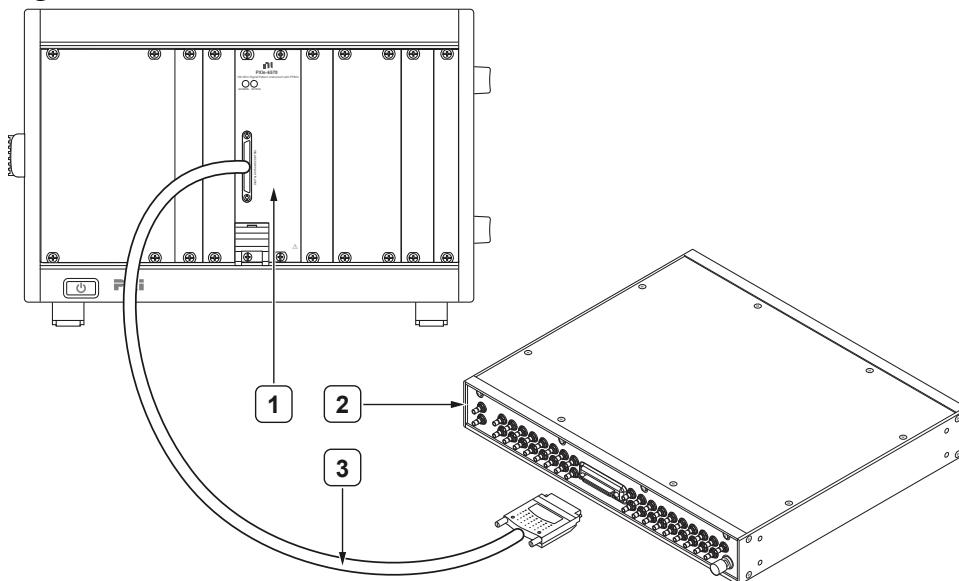# Installing the NI SMB-2163 on the PXIe-6570

The NI SMB-2163 (NI part number 778747-01) is an SMB breakout box for high-speed digital devices. This breakout box connects to other devices for testing and debugging by routing every DIO and control channel on a separate SMB coaxial connector.

Complete the following steps to install the NI SMB-2163 on a module and prepare signal connections.

> ⚠️ **Caution** Disconnect power from the device, accessory, and any other connected hardware before connecting the cable to prevent damage to the hardware and personal injury. NI is not liable for damage resulting from improper connections.

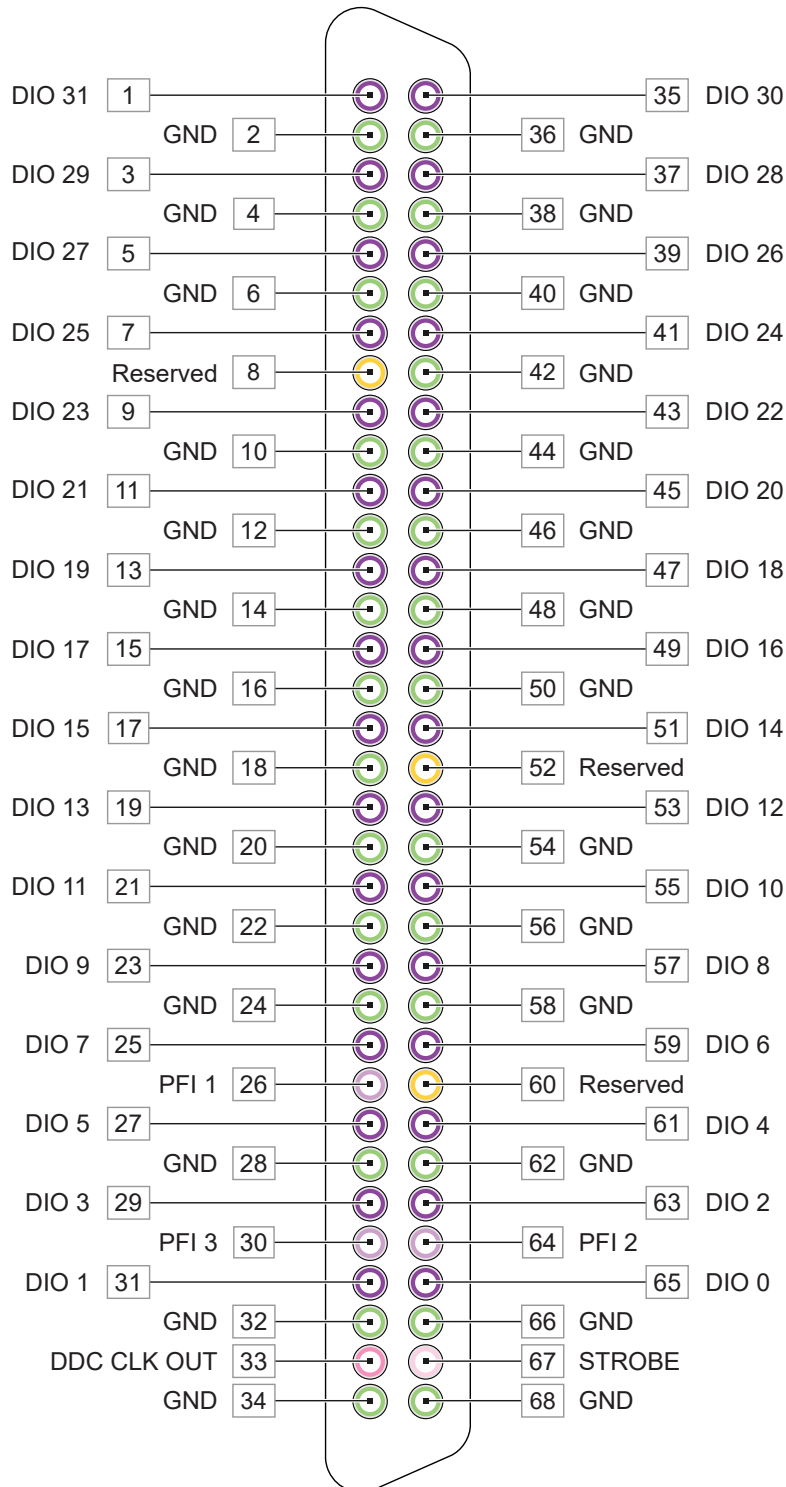**Figure 9.** NI SMB-2163 Installation with a PXIe-6570

1. Chassis with the PXIe-6570 Installed
2. NI SMB-2163
3. NI SHC68-C68-D4

1. Attach either end of the NI SHC68-C68-D4 shielded cable to the VHDCI DDC connector of on the front panel of the PXIe-6570 and secure the cable with the

captive screws on the cable connector.

2. Attach the other end of the cable to the DDC connector of the NI SMB-2163 and secure the cable with the captive screws on the cable connector.

3. Make signal connections by connecting SMB cables to NI SMB-2163 signal terminals.

Figure 10. NI SMB-2163 DDC Connector Pinout

Item	DDC Pin	Signal Description
1	STROBE	Bidirectional digital data channels 0 through 31.
2	DDC CLK OUT	External Sample clock source for pattern acquisition.
3	DIO <0..31>	Exported Sample clock signal.
4	68-Pin Digital Data & Control (DDC) Connector	Programmable function interface channels 1 through 3.
5	Programmable Function Interface (PFI) <1..3>	Ground reference for signals.
6	Shield Ground Lug	These channels are reserved for system use. Do not connect signals to these channels.

⚠️ **Caution** Connections that exceed any of the maximum ratings for the NI SMB-2163 or the digital pattern instrument can damage the device and the computer. NI is not liable for any damages resulting from such signal connections. Refer to *NI SMB-2163 User Guide* at ni.com/docs for details about the maximum input ratings.

✏️ **Note** To ensure a solid ground connection, tighten the SMB connectors by gently snapping them into place.

✏️ **Note** For additional shielding, you can connect the shield ground connector on the NI SMB-2163 to earth/hard ground. This terminal is connected to the shielded enclosure ground.