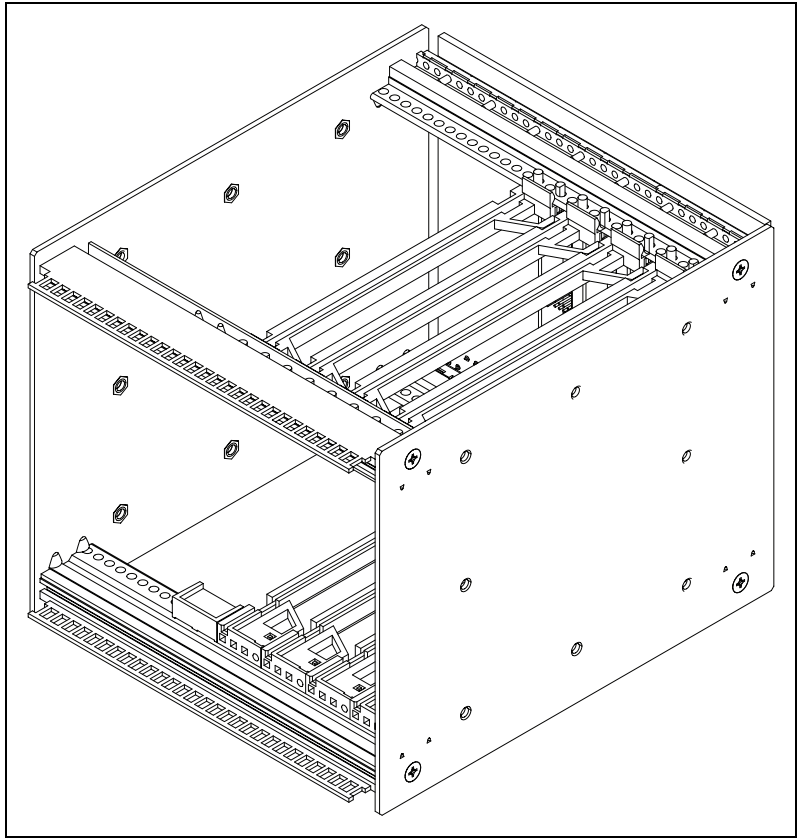


## INSTALLATION GUIDE

# 4-Slot PXI Cardcage

This guide describes installation requirements for the 4-slot PXI cardcage, shown in Figure 1.



**Figure 1.** 4-Slot PXI Cardcage

# Description

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The 4-slot PXI cardcage contains one PXI controller slot and three PXI peripheral slots. The cardcage is an inexpensive way to integrate PXI into a larger system.

The cardcage does not include a power supply or cooling solution. You must implement these features when installing the cardcage into your system.

# Mechanical Requirements

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## Handling



**Cautions** Be careful to avoid bending or otherwise damaging the pins on the backplane connectors. Bent pins may cause functional failures or damage when the backplane is powered. To protect both yourself and the backplane from electrical hazards, leave the card cage powered off until you finish installing the PXI controller and modules.

Electrostatic discharge can damage your equipment. To avoid such damage, discharge the static built up on your body by touching a grounded metal object before handling the PXI equipment.

## Mounting

Figure 2 shows the cardcage dimensions. There are eight 6-32 mounting holes on each side of the cardcage.

## Cooling

You should mount a fan below the cardcage. Airflow should be from the bottom to the top of the PXI modules. You must determine the airflow requirements for your system based on the *PXI Hardware Specification*.

# Dimensions

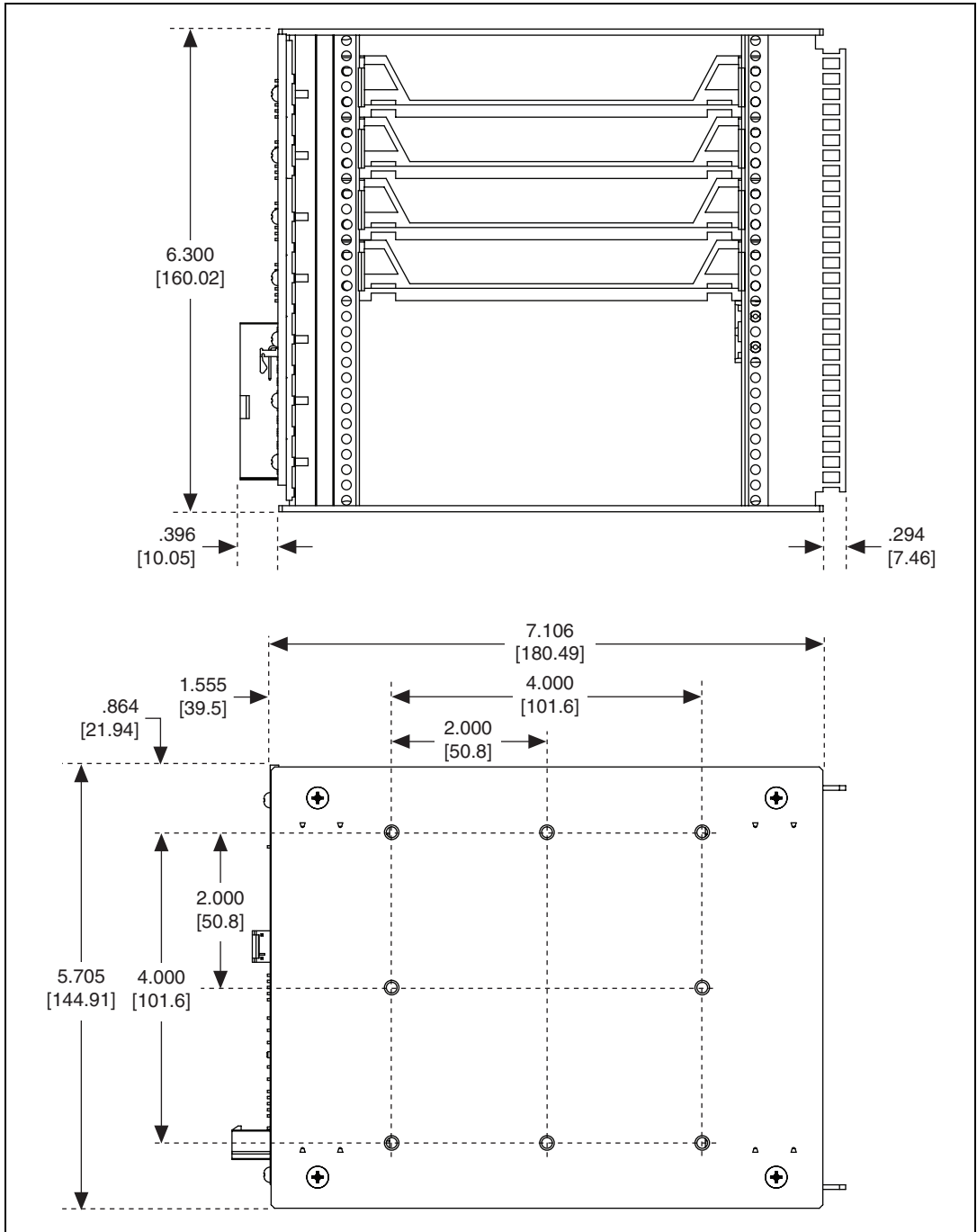


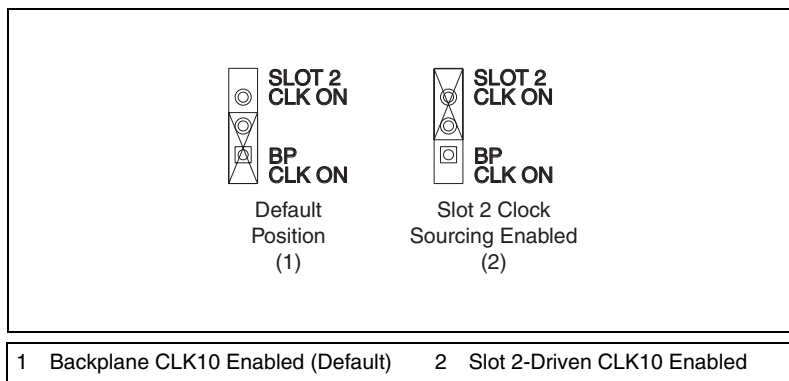
Figure 2. Dimensions

# Electrical Requirements

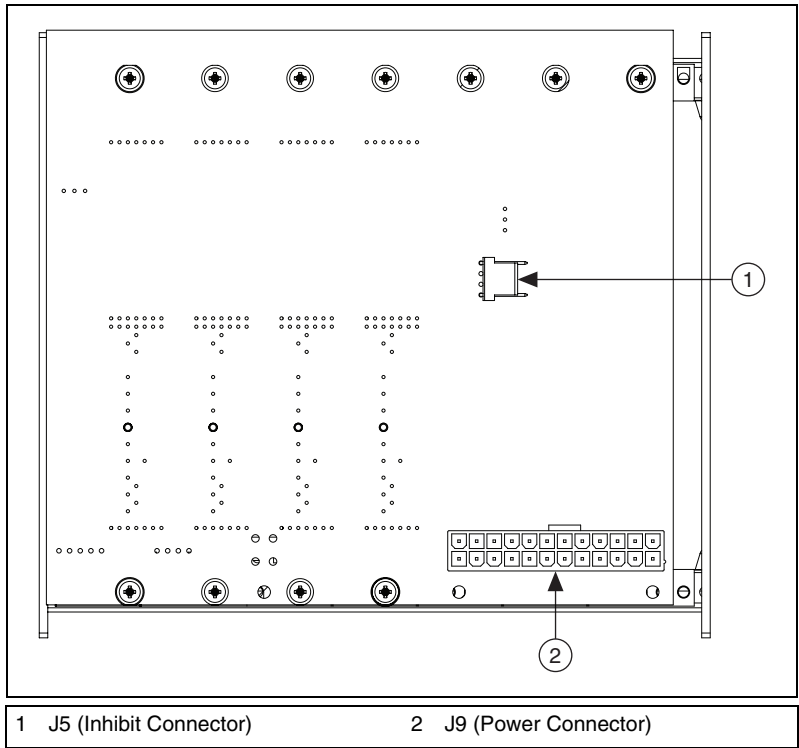
## System Reference Clock

By default, the backplane's onboard oscillator provides the 10 MHz clock to be distributed with individual drivers to each peripheral slot's PXI\_CLK10 pin.

If you want a better reference clock for PXI\_CLK10, you can drive a 10 MHz clock onto the PXI\_CLK10\_IN pin of slot 2 to replace the backplane's oscillator. To configure the backplane to use this clock, power off the system and remove the system controller. Change the jumper on header S1 from its default position to Slot 2 CLK ON as shown in Figure 3. Reinstall the system controller and power on the system. The backplane circuitry now buffers and distributes the 10 MHz clock from slot 2 to the peripheral slots, and the backplane 10 MHz oscillator is disabled.



**Figure 3.** Clock Sourcing Options Through the S1 Jumper



**Figure 4.** Cardcage Connectors

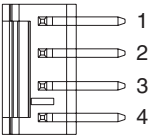
## Power

Please refer to the *PXI Hardware Specification* for power requirements, and to the specifications for the chosen power supply to determine the minimum load required.

### Connector J5

Connector J5 is for turning the power supply on or off. Connecting J5 pin 3 to pin 2 turns on the power supply. Refer to Table 1 for the pin descriptions.

**Table 1.** Connector J5 Pin Descriptions

Connector	Pin	Description
	1	Reserved
	2	PS_ON#
	3	Ground
	4	Reserved

## Connector J9

Connector J9 is for connecting to an ATX power supply. Refer to Table 2 for the pin descriptions.

**Table 2.** Connector J9 Pin Descriptions

Connector	Pin	Description	Pin	Description
	1	P3V3PS	13	GND
	2	P3V3PS	14	PS_ON
	3	GND	15	GND
	4	P5V	16	GND
	5	GND	17	GND
	6	P5V	18	M5V
	7	GND	19	P5V
	8	PWROK	20	P5V
	9	5VSTDBY	21	N/A
	10	P12V	22	N/A
	11	P3V3PS	23	N/A
	12	M12V	24	N/A

# Specifications

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## Backplane

Size.....	3U-sized; one system slot (with three system expansion slots) and three peripheral slots. Compliant with IEEE 1101.10 mechanical packaging. <i>PXI Hardware Specification</i> , Revision 2.2 compliant. Accepts both PXI and CompactPCI 3U modules.
V(I/O) <sup>1</sup> .....	+5 V
Backplane bare-board material .....	UL 94 V-0 recognized
Backplane connectors .....	Conform to IEC 917 and IEC 1076-4-101, and are UL 94 V-0 rated

## 10 MHz System Reference Clock (10 MHz REF)

Maximum clock skew between slots .....	250 ps
Built-in 10 MHz clock Accuracy .....	±25 ppm (guaranteed over the operating temperature range)

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<sup>1</sup> V(I/O) is connected to the +5 V DC power plane, so the same specifications apply to V(I/O) and +5 V.



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