

General-Purpose 4-Slot Chassis for PXI

NI PXI-1031

- Accepts both 3U PXI and 3U CompactPCI modules
- Low acoustic noise emissions
- 400 W universal AC power supply
- HALT tested
- Auto/High temperature controlled fan speed
- Software configuration of chassis/system

Options

- Rack-mount/wall-mount kit
- Handle and rubber feet kit
- Slot blockers for improved cooling performance
- Factory Installation Services



Overview

The National Instruments PXI-1031 is a 4-slot PXI chassis designed for a wide range of desktop, rack-mounted, and portable applications. With its enhanced cooling capability, 400 W universal AC power supply, and HALT-tested chassis design, the NI PXI-1031 meets the demanding cooling and power requirements of today's high-performance PXI applications.

Low Acoustic Noise Emissions

The PXI-1031 chassis is equipped with an Auto/High fan switch for quiet operation in office, laboratory, and educational environments. Acoustic noise emissions as low as 35 dBA are realized at the lowest fan speed (sound pressure measured according to ISO 7779 at operator position). In environments with fluctuating temperatures, an onboard temperature-sensing device automatically increases/decreases fan speed when the switch is set to Auto, thus ensuring sufficient cooling of the PXI chassis and peripheral devices.

Software System Configuration

Configure the PXI-1031 with NI Measurement & Automation Explorer (MAX). With this software configuration tool, you can easily configure PXI-1031-based systems without time-consuming manual installation of initialization files. MAX creates the pxisys.ini file that defines the layout and parameters of your PXI system including chassis, controller, and plug-in devices.

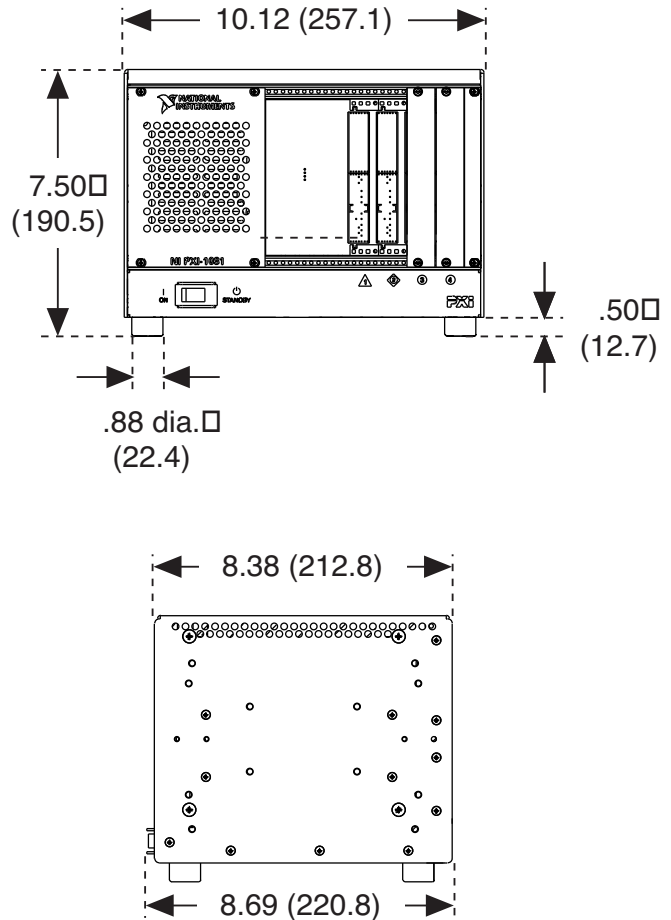


Figure 1. PXI-1031 Dimensions (front and side) in Inches (mm)

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PXI-1031 Optional Accessories

The PXI-1031 has several optional accessories for optimized chassis functionality. A front rack-mount kit is available for 19 in. rack-mounted systems or wall-mounted systems. Use the handle and rubber feet kit for portable and desktop applications. You can insert slot blockers into empty slots of the PXI-1031 to improve the overall cooling performance of the chassis.

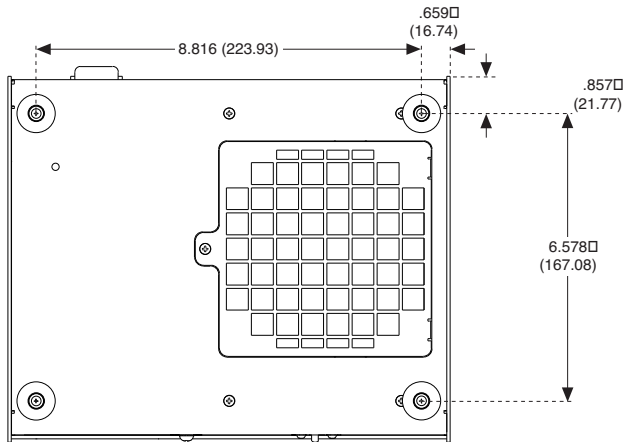
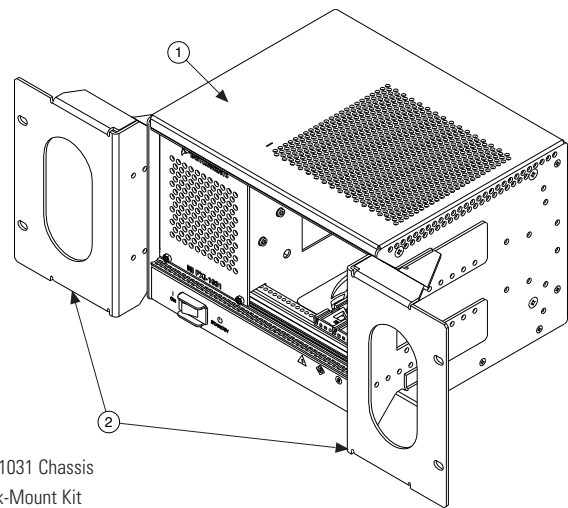


Figure 2. PXI-1031 Dimensions (bottom) in Inches (mm)

PXI Factory Installation Services and Global Technical Support

With National Instruments Factory Installation Services (FIS), you receive complete system-level functional testing of the PXI chassis, controller, and all peripheral devices, as well as installation of all device drivers and software programs (such as NI LabVIEW). After purchasing FIS, you can use PXI systems right out of the box with little or no installation and configuration of hardware or software. In addition, National Instruments offers global technical support for all PXI systems and provides access to a wealth of online Web support information. See ni.com/pxiadvisor and ni.com/support for more information on FIS and technical support resources.



¹PXI-1031 Chassis
²Rack-Mount Kit

Figure 3. PXI-1031 Rack-Mount Configuration

Ordering Information

Step 1. Select your chassis.

NI PXI-1031778932-01

Step 2. Select one or more power cords.

U.S. 120 VAC763000-01
 Japan 100 VAC763000-01
 United Kingdom 240 VAC763064-01
 Swiss 220 VAC763065-01
 Australian 240 VAC763066-01
 Universal Euro 240 VAC763067-01
 North American 240 VAC763068-01

Step 3. Select additional accessories.

Rack-mount/wall-mount kit778948-01
 Filler panel kit (4-slot)¹778933-01
 Handle and feet kit778949-01

¹Every NI PXI-1031 includes a filler panel kit.

BUY NOW!

For complete product specifications, pricing, and accessory information, call 800 813 3693 (U.S.) or go to ni.com/pxi.

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Specifications

Complies with PXI Specification, Revision 2.1.
Accepts modules compliant with CompactPCI, PICMG 2.0 Specification.

Electrical

AC Input

Input voltage range	100 to 240 VAC
Operating voltage range ¹	90 to 264 VAC
Input frequency	50/60 Hz
Operating frequency range ¹	47 to 63 Hz
Input current rating	4 to 2 A
Overcurrent protection	5 A fuse in power supply

¹Guaranteed by design

DC Output

DC Current Capacity (0 to 50 °C)

Voltage (V)	Current (A)
+3.3	12
+5	17
+12	2
-12	0.8

Chassis Cooling

Per-slot cooling capacity	25 W
Fan	86 cfm

Environmental

Operating location	Indoor use
Maximum altitude	2000 m
Installation category	II

Acoustic Emissions

Sound pressure level – L_p (at Operator Position)
(tested in accordance with ISO 7779)

Auto Fan (at 25 °C ambient temperature)	35 dBA
High Fan	50 dBA

Sound Power – L_w
(tested in accordance with ISO 7779)

Auto Fan (at 25 °C ambient temperature)	51.8 dBA
High Fan	57.5 dBA

Operating Environment

Ambient temperature range	0 to 50 °C (tested in accordance with IEC-60068-2-1 and IEC-60068-2-2)
Relative humidity range	20 to 80%, noncondensing (tested in accordance with IEC-60068-2-56)

Storage Environment

Ambient temperature range	-20 to 70 °C (tested in accordance with IEC-60068-2-1 and IEC-60068-2-2)
Relative humidity range	10 to 95%, noncondensing (tested in accordance with IEC-60068-2-56)

Shock and Vibration

Operational shock	30 g peak, half-sine, 11 ms pulse (tested in accordance with IEC-60068-2-27; test profile developed in accordance with MIL-PRF-28800F)
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Random vibration

Operating	5 to 500 Hz, 0.3 g _{rms}
Nonoperating	5 to 500 Hz, 2.4 g _{rms} (tested in accordance with IEC-60068-2-64; nonoperating test profile exceeds the requirements of MIL-PRF-28800F, Class 3)

Mechanical

Overall dimensions (standard chassis)

Height	177 mm (6.97 in.) ¹
Width	257.1 mm (10.12 in.)
Depth	212.8 mm (8.38 in.)
Weight	5 kg (11.0 lbs)

Chassis materials

Sheet aluminum, extruded aluminum, cold rolled steel, nylon
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¹12.7 mm (0.50 in.) is added to height when feet are installed.

Safety

The PXI-1031 is designed to meet the requirements of the following standards for safety and electrical equipment for measurement, control, and laboratory use:

- EN 61010-1, IEC 61010-1
- UL 61010-1, CSA 61010-1

Note: For UL and other safety certifications, refer to the product label, or visit ni.com/certification, search by model number or product line, and click the appropriate link in the Certification column.

Electromagnetic Compatibility

This product is designed to meet the requirements of the following standards for EMC for electrical equipment for measurement, control, and laboratory use:

- EN 61326 EMC requirements, Minimum Immunity
- EN 55011 Emissions; Group 1, Class A
- CE, C-Tick, ICES, and FCC Part 15 Emissions; Class A

Note: For EMC compliance, operate this device with shielded cabling. In addition, all covers and filler panels must be installed.

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CE Compliance

This product meets the essential requirements of applicable European Directives, as amended for CE marking, as follows:

- 73/23/EEC; Low-Voltage Directive (safety)
- 89/336/EEC; Electromagnetic Compatibility Directive (EMC)

Note: Refer to the Declaration of Conformity (DoC) for this product for any additional regulatory compliance information. To obtain the DoC for this product, visit ni.com/certification, search by model number or product line, and click the appropriate link in the Certification column.

NI Services and Support



NI has the services and support to meet your needs around the globe and through the application life cycle – from planning and development through deployment and ongoing maintenance. We offer services and service levels to meet customer requirements in research, design, validation, and manufacturing. Visit ni.com/services.

Training and Certification

NI training is the fastest, most certain route to productivity with our products. NI training can shorten your learning curve, save development time, and reduce maintenance costs over the application life cycle. We schedule instructor-led courses in cities worldwide, or we can hold a course at your facility. We also offer a professional certification program that identifies individuals who have high levels of skill and knowledge on using NI products. Visit ni.com/training.

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integrators. Services range from start-up assistance to turnkey system integration.

Visit ni.com/alliance.



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We offer design-in consulting and product integration assistance if you want to use our products for OEM applications. For information about special pricing and services for OEM customers, visit ni.com/oem.

Local Sales and Technical Support

In offices worldwide, our staff is local to the country, giving you access to engineers who speak your language. NI delivers industry-leading technical support through online knowledge bases, our applications engineers, and access to 14,000 measurement and automation professionals within NI Developer Exchange forums. Find immediate answers to your questions at ni.com/support.

We also offer service programs that provide automatic upgrades to your application development environment and higher levels of technical support. Visit ni.com/ssp.

Hardware Services

NI Factory Installation Services

NI Factory Installation Services (FIS) is the fastest and easiest way to use your PXI or PXI/SCXI combination systems right out of the box. Trained NI technicians install the software and hardware and configure the system to your specifications. NI extends the standard warranty by one year on hardware components (controllers, chassis, modules) purchased with FIS. To use FIS, simply configure your system online with ni.com/pxiadvisor.

Calibration Services

NI recognizes the need to maintain properly calibrated devices for high-accuracy measurements. We provide manual calibration procedures, services to recalibrate your products, and automated calibration software specifically designed for use by metrology laboratories. Visit ni.com/calibration.

Repair and Extended Warranty

NI provides complete repair services for our products. Express repair and advance replacement services are also available. We offer extended warranties to help you meet project life-cycle requirements. Visit ni.com/services.



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