SAFETY, ENVIRONMENTAL, AND REGULATORY INFORMATION

PXIe-1095

PXI Express 18-Slot (5 Hybrid Slots, 11 PXI Express Slots, 1 PXI Express System Timing Slot), Up to 24 GB/s PXI Chassis

Read this document and the documents listed in the *Additional Resources* section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Icons

Notice Take precautions to avoid data loss, loss of signal integrity, degradation of performance, or damage to the model.

Caution Take precautions to avoid injury. Consult the model documentation for cautionary statements when you see this icon printed on the model. Cautionary statements are localized into French for compliance with Canadian requirements.

Shock Warning Take precautions to avoid electrical shock.

Safety

Caution   Observe all instructions and cautions in the user documentation. Using the model in a manner not specified can damage the model and compromise the built-in safety protection. Return damaged models to NI for repair.

Attention   Suivez toutes les instructions et respectez toutes les mises en garde de la documentation utilisateur. L'utilisation d'un modèle de toute autre façon que celle spécifiée risque de l'endommager et de compromettre la protection de sécurité intégrée. Renvoyez les modèles endommagés à NI pour réparation.

Protective Earth Terminal Wiring

Warning   High leakage current is present when operating dual power supplies at 400 to 440 Hz. Connect the chassis to earth ground before connecting to AC power.

Warning   Un courant de fuite élevé est présent lors de l'utilisation d'une alimentation double à une fréquence de 400 à 440 Hz. Connectez le châssis à la terre avant de le brancher sur l'alimentation CA.

- The facility installation shall provide a means for connection to protective earth; *and*
- Qualified personnel shall install a protective earthing conductor from the chassis protective earth terminal (M4 x 0.7 screw) on the rear to the protective earth wire in the facility.

Grounding wire	2.1 mm^2 (14 AWG)
Ring lug	M4
Protective earth terminal torque	1.13 N · m (10 lb · in.)

EMC Guidelines

This product was tested and complies with the regulatory requirements and limits for electromagnetic compatibility (EMC) stated in the product specifications. These requirements and limits provide reasonable protection against harmful interference when the product is operated in the intended operational electromagnetic environment.

This product is intended for use in industrial locations. However, harmful interference may occur in some installations, when the product is connected to a peripheral device or test object, or if the product is used in residential or commercial areas. To minimize interference with radio and television reception and prevent unacceptable performance degradation, install and use this product in strict accordance with the instructions in the product documentation.

Furthermore, any changes or modifications to the product not expressly approved by NI could void your authority to operate it under your local regulatory rules.

Notice   To ensure the specified EMC performance, operate this product only with shielded cables and accessories.

Notice   To ensure the specified EMC performance when using a single power supply, install the power supply in bay 2. Refer to the *PXIe-1095 User Manual* for the correct locations of the power supply bays.

Electromagnetic Compatibility Standards

This product meets the requirements of the following EMC standards for electrical equipment for measurement, control, and laboratory use:

- EN 61326-1 (IEC 61326-1): Class A emissions; Basic immunity
- EN 55011 (CISPR 11): Group 1, Class A emissions
- AS/NZS CISPR 11: Group 1, Class A emissions
- FCC 47 CFR Part 15B: Class A emissions
- ICES-003: Class A emissions

Note Group 1 equipment (per CISPR 11) is any industrial, scientific, or medical equipment that does not intentionally generate radio frequency energy for the treatment of material or inspection/analysis purposes.

Note In the United States (per FCC 47 CFR), Class A equipment is intended for use in commercial, light-industrial, and heavy-industrial locations. In Europe, Canada, Australia and New Zealand (per CISPR 11) Class A equipment is intended for use only in heavy-industrial locations.

Environmental Guidelines

Notice This model is intended for use in indoor applications only.

Environmental Characteristics

Temperature and Humidity

Temperature			
	Operating		
		When all modules require ≤58 W cooling capacity per slot	0 °C to 55 °C
		When any module requires >58 W cooling capacity per slot	0 °C to 40 °C
	Storage		–40 °C to 71 °C
Humidity			
	Operating		10% to 90%, noncondensing
	Storage		5% to 95%, noncondensing
Pollution Degree			2
Maximum altitude			4,600 m (15,000 ft.), 570 mbar (at 25 °C ambient, high fan mode)

Shock and Vibration

Random vibration		
	Operating	5 Hz to 500 Hz, 0.3 g RMS
	Non-operating	5 Hz to 500 Hz, 2.4 g RMS
Operating shock		30 g, half-sine, 11 ms pulse

Environmental Management

NI is committed to designing and manufacturing products in an environmentally responsible manner. NI recognizes that eliminating certain hazardous substances from our products is beneficial to the environment and to NI customers.

For additional environmental information, refer to the *Commitment to the Environment* web page at *ni.com/environment*. This page contains the environmental regulations and directives with which NI complies, as well as other environmental information not included in this document.

Waste Electrical and Electronic Equipment (WEEE)

EU Customers At the end of the product life cycle, all NI products must be disposed of according to local laws and regulations. For more information about how to recycle NI products in your region, visit *ni.com/environment/weee*.

电子信息产品污染控制管理办法（中国 RoHS）

中国客户 National Instruments 符合中国电子信息产品中限制使用某些有害物质指令（RoHS）。关于 National Instruments 中国 RoHS 合规性信息，请登录 ni.com/environment/rohs_china。（For information about China RoHS compliance, go to ni.com/environment/rohs_china.)

Environmental Standards

This product meets the requirements of the following environmental standards for electrical equipment.

- IEC 60068-2-1 Cold
- IEC 60068-2-2 Dry heat

- IEC 60068-2-78 Damp heat (steady state)
- IEC 60068-2-64 Random operating vibration
- IEC 60068-2-27 Operating shock
- MIL-PRF-28800F
  - Low temperature limits for operation Class 3, for storage Class 3
  - High temperature limits for operation Class 2, for storage Class 3
  - High temperature limits for operation Class 4, for storage Class 3
  - Random vibration for non-operating Class 3
  - Shock for operating Class 2

Note To verify marine approval certification for a product, refer to the product label or visit *ni.com/certification* and search for the certificate.

Power Requirements

Input rating[1]	100 VAC to 240 VAC, 50/60 Hz, 15 A to 7.5 A; 100 VAC to 120 VAC, 440 Hz, 15 A
Operating voltage range[2]	90 VAC to 264 VAC
Nominal input frequency	50/60 Hz/400 Hz[3]
Maximum power consumption	
Single power supply	900 W
Dual power supplies	1644 W
PXI module	58 W; 82 W at reduced environmental ambient temperature
Main power disconnect	The AC power cable provides main power disconnect. Do not position the equipment so that it is difficult to disconnect the power cord. The front-panel power switch causes the internal chassis power supply to provide DC power to the PXI Express backplane.
Required power cord	You must use a suitably rated and certified power cord, minimum 300 VAC, 18 AWG for 220-240 V MAINs, and up to 14 AWG for use at maximum power at 100-120 V MAINs. Do not replace the power cord with an inadequately rated cord. Contact NI for availability of suitable cords.

Notice Connection to the supplemental, rear protective earth terminal is not required at 50/60 Hz input frequencies. A connection is required if the attachment plug or facilities socket outlet does not have a protective earth terminal.

Preparing the Environment

Use the PXIe-1095 chassis in an environment that meets the following specifications.

Ambient temperature	0 °C to 55 °C; 0 °C to 40 °C for 82 W PXI module operation
Relative humidity range	10% to 90%, noncondensing
Cooling	
Module	Forced air circulation (positive pressurization) through three 210 CFM fans
Secondary cooling	Forced air circulation (positive pressurization) through one 70 CFM fan
Power supply(s)	Forced air circulation through two integrated fans
Minimum chassis cooling clearances (refer to the *PXIe-1095 User Manual* for more information about cooling clearances)	
Above	44.45 mm (1.75 in.)
Rear	101.60 mm (4.00 in.)
Sides	44.45 mm (1.75 in.)

Maintenance

Clean the hardware with a soft, nonmetallic brush. Make sure that the hardware is completely dry and free from contaminants before returning it to service.

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[1]   Be careful not to exceed the current rating of the branch circuit providing power to the chassis. For high power configurations with dual power supplies, separate branch circuits may need to power the supplies.
[2]   The operating range is guaranteed by design.
[3]   400 Hz operation supported only from 100 VAC to 120 VAC.

CE Compliance C E

This product meets the essential requirements of applicable European Directives, as follows:
- 2014/35/EU; Low-Voltage Directive (safety)
- 2014/30/EU; Electromagnetic Compatibility Directive (EMC)
- 2011/65/EU; Restriction of Hazardous Substances (RoHS)

Export Compliance

This model is subject to control under the U.S. Export Administration Regulations (15 CFR Part 730 et. seq.) administered by the U.S. Department of Commerce's Bureau of Industry and Security (BIS) (*www.bis.doc.gov*) and other applicable U.S. export control laws and sanctions regulations. This model may also be subject to additional license requirements of other countries' regulations.

Additionally, this model may also require export licensing before being returned to NI. The issuance of a Return Material Authorization (RMA) by NI does not constitute export authorization. The user must comply with all applicable export laws prior to exporting or re-exporting this model. See *ni.com/legal/export-compliance* for more information and to request relevant import classification codes (e.g. HTS), export classification codes (e.g. ECCN), and other import/export data.

Product Certifications and Declarations

Refer to the product Declaration of Conformity (DoC) for additional regulatory compliance information. To obtain product certifications and the DoC for NI products, visit *ni.com/product-certifications*, search by model number, and click the appropriate link.

Additional Resources

Visit *ni.com/manuals* for more information about your model, including specifications, pinouts, and instructions for connecting, installing, and configuring your system.

Worldwide Support and Services

The NI website is your complete resource for technical support. At *ni.com/support*, you have access to everything from troubleshooting and application development self-help resources to email and phone assistance from NI Application Engineers.

Visit *ni.com/services* for information about the services NI offers.

Visit *ni.com/register* to register your NI product. Product registration facilitates technical support and ensures that you receive important information updates from NI.

NI corporate headquarters is located at 11500 North Mopac Expressway, Austin, Texas, 78759-3504. NI also has offices located around the world. For support in the United States, create your service request at *ni.com/support* or dial 1 866 ASK MYNI (275 6964). For support outside the United States, visit the *Worldwide Offices* section of *ni.com/niglobal* to access the branch office websites, which provide up-to-date contact information.