
PXle-8301

Specifications

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This document lists the PXIe-8301 specifications



Note Specifications are subject to change without notice.



Caution Using the PXIe-8301 in a manner not described in this document can impair the protection the controller provides.

Physical

Dimensions	10.7 cm × 17.5 cm (4.4 in. × 6.9 in.)
Slot requirements	One system slot (PXI Express)
Compatibility	Fully compatible with the PXI Express Hardware Specification , Revision 2.0, PICMG CompactPCI Express EXP.0 R2.0 Specification , and Intel Thunderbolt 3
Weight	0.16 kg (0.35 lb) typical

Power Requirements

Power Rail	Typical Current	Maximum Current
+3.3 V	480 mA	600 mA
+5 V	420 mA	500 mA

Power Rail	Typical Current	Maximum Current
+12 V	850 mA	4.2 A
+5 V _{AUX}	160 mA	200 mA

Environmental

Maximum altitude	2,000 m (800 mbar) (at 25 °C ambient)
Pollution Degree	2

Indoor use only.

Operating Environment

Ambient temperature range		
Passive cable	0 °C to 55 °C (Tested in accordance with IEC-60068-2-1 and IEC-60068-2-2. Meets MIL-PRF-28800F Class 3 low temperature limit and MIL-PRF-28800F Class 2 high temperature limit.)	
Active cable	10 °C to 35 °C (Tested in accordance with IEC-60068-2-1 and IEC-60068-2-2. Meets MIL-PRF-28800F Class 4 low temperature limit.)	
Relative humidity range	10% to 90%, noncondensing (Tested in accordance with IEC-60068-2-56.)	

Storage Environment

Ambient temperature range	-40 °C to 71 °C (Tested in accordance with IEC-60068-2-1 and IEC-60068-2-2. Meets MIL-PRF-28800F Class 3 limits.)
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Relative humidity range	5% to 95%, noncondensing (Tested in accordance with IEC-60068-2-56.)
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Note Clean the PXle-8301 with a soft nonmetallic brush. Make sure that the device is completely dry and free from contaminants before returning it to service.

Shock and Vibration

Operating shock	30 g peak, half-sine, 11 ms pulse (Tested in accordance with IEC-60068-2-27. Meets MIL-PRF-28800F Class 2 limits.)
Random vibration	
Operating	5 Hz to 500 Hz, 0.3 grms
Nonoperating	5 Hz to 500 Hz, 2.4 grms (Tested in accordance with IEC-60068-2-64. Nonoperating test profile exceeds the requirements of MIL-PRF-28800F, Class 3.)

Safety

This product is designed to meet the requirements of the following standards of safety for information technology equipment:

- IEC 61010-1, EN 61010-1
- UL 61010-1, CSA C22.2 No. 61010-1



Note For UL and other safety certifications, refer to the product label or the [Online Product Certification](#) section.

Electromagnetic Compatibility

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-001: Class A emissions



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.



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 For EMC declarations and certifications, and additional information, refer to the **Online Product Certification** section.

CE Compliance

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)
- 2014/53/EU; Radio Equipment Directive (RED)
- 2014/34/EU; Potentially Explosive Atmospheres (ATEX)

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.

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 ***Engineering a Healthy Planet*** 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.

EU and UK Customers

-  **Waste Electrical and Electronic Equipment (WEEE)**—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RoHS**—NI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NI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.)