

PXI-8430/8431 8-Channel Hardware Specifications

This document lists the specifications for the PXI-8430 and PXI-8431 8-channel boards.

Environment

Maximum altitude 2,000 m (at 25 °C ambient temperature)

Pollution Degree 2

Indoor use only.

Operating environment

Ambient temperature range 0 to 55 °C
(Tested in accordance with IEC-60068-2-1 and IEC-60068-2-2.)

Relative humidity range 10% to 90%, noncondensing
(Tested in accordance with IEC-60068-2-56.)

Storage environment

Ambient temperature range -40 to 70 °C
(Tested in accordance with IEC-60068-2-1 and IEC-60068-2-2.)

Relative humidity range 5% to 95%, noncondensing
(Tested in accordance with IEC-60068-2-56.)

Shock and vibration

Operational shock 30 g peak, half-sin, 11 ms pulse
(Tested in accordance with IEC-60068-2-27. Test profile developed in accordance with MIL-PRF-28800F.)

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.)

Other Specifications

Dimensions 16.0 × 10.0 cm (6.3 × 3.9 in.), 3u

IO connector 68-pin SCSI (68-pin SCSI to
eight DB-9 adapter cable
included)

Weight

PXI-8430/8 135 g

PXI-8431/8 137 g

Power requirement (from PCI bus)

PXI-8430/8

+5 VDC 1 A typical
1.5 A maximum

PXI-8431/8

+5 VDC 925 mA typical
1.4 A maximum

Maximum serial transfer rate¹

RS-485 3,000,000 bps

RS-232 1,000,000 bps

Maximum cable length

RS-485² 30 m (limited by EMC/surge)

RS-232 2,500 pF equivalent
(TIA-EIA-232-F 2.1.4)

Data line ESD protection (human body model)

RS-485 ± 15 kV

RS-232 ± 15 kV

¹ Actual speed may vary considerably from speed shown due to system and instrumentation capabilities.

² RS-485 is capable of 1.2 km (4,000 ft) without surge limitation.

Safety

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

- IEC 61010-1, EN 61010-1
- UL 61010-1, CSA 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 (IEC 61326): 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 For the standards applied to assess the EMC of this product, refer to the *Online Product Certification* section.



Note For EMC compliance, operate this device with shielded cabling.

CE Compliance

This product meets the essential requirements of applicable European Directives as follows:

- 2006/95/EC; Low-Voltage Directive (safety)
- 2004/108/EC; Electromagnetic Compatibility Directive (EMC)

Online Product Certification

Refer to the product Declaration of Conformity (DoC) for additional regulatory compliance information. To obtain product certifications and 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.

Environmental Management

National Instruments is committed to designing and manufacturing products in an environmentally responsible manner. NI recognizes that eliminating certain hazardous substances from our products is beneficial not only to the environment but also to NI customers.

For additional environmental information, refer to the *NI and 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 their life cycle, all products *must* be sent to a WEEE recycling center. For more information about WEEE recycling centers and National Instruments WEEE initiatives, visit ni.com/environment/weee.htm.

电子信息产品污染控制管理办法（中国 RoHS）



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