

DEVICE SPECIFICATIONS

NI PXI-2800

Carrier for the NI SwitchBlock

This document lists specifications for the PXI-2800. The PXI-2800 is a carrier for the NI SwitchBlock. All specifications are subject to change without notice.

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PXI-2800 Specifications

Specifications characterize the warranted performance of the instrument under the stated operating conditions. Data in this document are *Specifications* unless otherwise noted.

Typical Specifications are specifications met by the majority of the instrument under the stated operating conditions and are tested at 23 °C ambient temperature. Typical specifications are not warranted.

All voltages are specified in DC, AC_{pk}, or a combination unless otherwise specified.



Caution The protection provided by the PXI-2800 can be impaired if it is used in a manner not described in this document.

Analog Bus Characteristics

Maximum voltage (channel-to-ground)	150 V , CAT I
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Caution This module is rated for Measurement Category I. It is intended to carry signal voltages no greater than 100 V RMS, 150 V PK, or 150 V DC. This module can withstand up to 800 V impulse voltage. Do not use this module for connection to

signals or for measurements within Categories II, III, or IV. Do not connect MAINS supply circuits (for example, wall outlets) of 115 V AC or 230 V AC.



Caution When hazardous voltages (>42.4 V PK/60 V DC) are present on any relay terminal, safety low-voltage (≤ 42.4 V PK /60 V DC) cannot be connected to any other relay terminal. This includes all cards in the carrier and all cards in other carriers connected via the NI 2806 Expansion Bridge for NI SwitchBlock.



Caution The maximum voltage is limited to the lowest voltage of any component in the NI SwitchBlock system. Review the specifications of the NI SwitchBlock carrier and cards for this information.

Maximum current (per analog bus channel)	2 A
DC path resistance, analog bus	$<0.3 \Omega$
Power dissipation limit	Depends on installed cards



Note Power dissipation limits depend on the installed cards. Refer to the card specifications and choose the lower number. For more information, visit ni.com/info and enter the Info Code `sbpwr1im`.

Physical Characteristics

Power requirement	
PXI	5 W at 3.3 V 20 W at 5 V
Dimensions (L × W × H)	3U, four slot, PXI/cPCI module, PXIe compatible, 18.7 cm × 8.1 cm × 12.9 cm (7.4 in. × 3.2 in. × 5.1 in.)
Weight	560 g (1 lb 4 oz)

Environment

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

Indoor use only.

Operating Environment

Ambient temperature range	0 °C 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	-20 °C 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-sine, 11 ms pulse (Tested in accordance with IEC 60068-2-27. Test profile developed in accordance with MIL-PRF-28800F.)
Random vibration	
Operating	5 Hz to 500 Hz, 0.31 g _{rms} (Tested in accordance with IEC 60068-2-64.)
Nonoperating	5 Hz to 500 Hz, 2.46 g _{rms} (Tested in accordance with IEC 60068-2-64. Test profile exceeds the requirements of MIL-PRF-28800F, Class 3.)

Compliance and Certifications

Safety

This product is designed to meet the requirements of the following electrical equipment safety standards 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 61326-1 (IEC 61326-1): Class A emissions; Basic immunity
- EN 55011 (CISPR 11): Group 1, Class A emissions
- EN 55022 (CISPR 22): Class A emissions
- EN 55024 (CISPR 24): Immunity
- AS/NZS CISPR 11: Group 1, Class A emissions
- AS/NZS CISPR 22: 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, 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)

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

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 *Minimize Our Environmental Impact* 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.)

Accessories

Visit ni.com for more information about the following accessories.

Table 1. NI Accessory for the PXI-2800

Accessory	Part Number
NI 2806 Expansion Bridge for NI SwitchBlock	781420-06

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