PXIe-8240 Specifications

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Contents

PXIe-8240 Specifications

This document lists the electrical, mechanical, and environmental specifications of the PXIe-8240 dual-port 40 Gigabit Ethernet peripheral module.

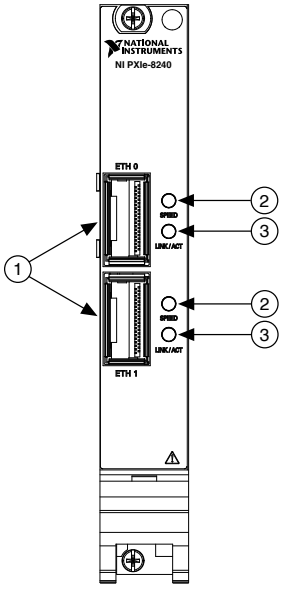
Features

PXIe-8240	
Ethernet Connectivity	Two QSFP+ ports support 40GBASE-SR4 optic and Copper Direct Attach physical media
Data rate supported per port	Up to 40 GbE
PXI Express Link Configuration	Gen3 x8 PCI Express connection (maximum throughput is achievable with PXI Express Gen3 x8)
Slot Requirement	One peripheral slot
LED Indicators	LINK SPEED (green = 40 Gbps; yellow = 10 Gbps) LINK (solid) and ACTIVITY (blinking)

PXIe-8240 Front Panel

The following figure shows the front panel layout of the PXIe-8240.

Figure 1. PXIe-8240 Front Panel



1. Ethernet Connector
2. SPEED LED
3. LINK/ACT LED

Front Panel Connectors

The following table lists various peripherals and their corresponding PXIe-8240 external connectors, bus interfaces, and functions.

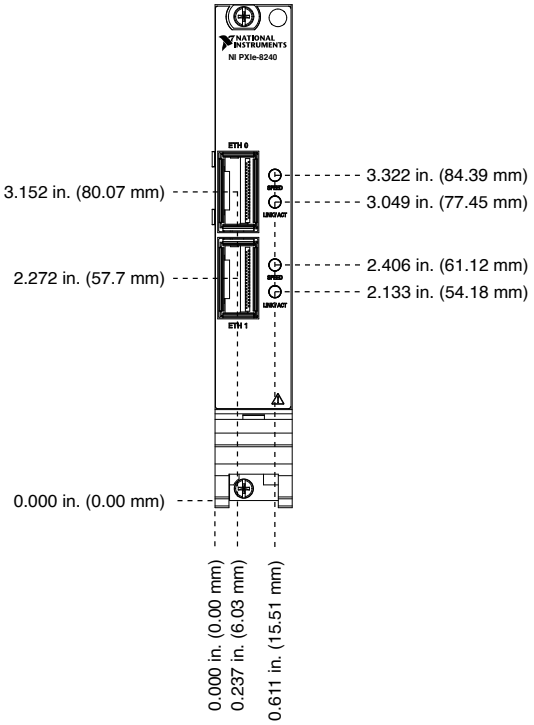
Peripheral	External Connector	Description
Ethernet Port	QSFP+	10 Gb/40 Gb Ethernet based on Intel XL710 40 GbE controller

Note For optimum performance, the chassis must have at minimum a Gen3 x8 peripheral slot (for example, the PXIe-1085).

Front Panel Dimensions

The following figure shows the front panel layout and dimensions of the PXIe-8240. Dimensions are in inches (millimeters).

Figure 2. PXIe-8240 Front Panel Layout and Dimensions



Electrical

Power Rail	Typical Value	Max Value
+3.3 VDC	0.64 A	0.96 A
+12 VDC	1.1 A	1.65 A
Total Power	15.31 W	22.97 W

Physical

Board dimensions	1-slot 3U PXI Express peripheral module
Compatibility	Fully compatible with ***PXI Express Specification*** 1.0
Weight	246.2 g (0.54 lb) typical

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

Environmental

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.)
Maximum altitude	2,000 m (800 mbar)
Pollution Degree	2

Indoor use only.

Storage Environment

Ambient temperature range	-40 °C to 71 °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

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 g_{rms}
Nonoperating	5 Hz 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.)

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 Product Certifications and Declarations 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 and certifications, and additional information, refer to the ***Online Product Certification*** section.

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.

Battery Replacement and Disposal

- **Battery Directive**—This product contains a long-life coin cell battery. If you need to replace it, use the Return Material Authorization (RMA) process or contact an authorized NI service representative. For more information about compliance with the EU Battery Directive 2023/1542 about Batteries and Accumulators and Waste Batteries and Accumulators, visit ni.com/environment/batterydirective.

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`.)