SPECIFICATIONS

PXIe-8861

Note Specifications are subject to change without notice.

Caution Using the PXIe-8861 controller in a manner not described in this user manual can impair the protection the controller provides.

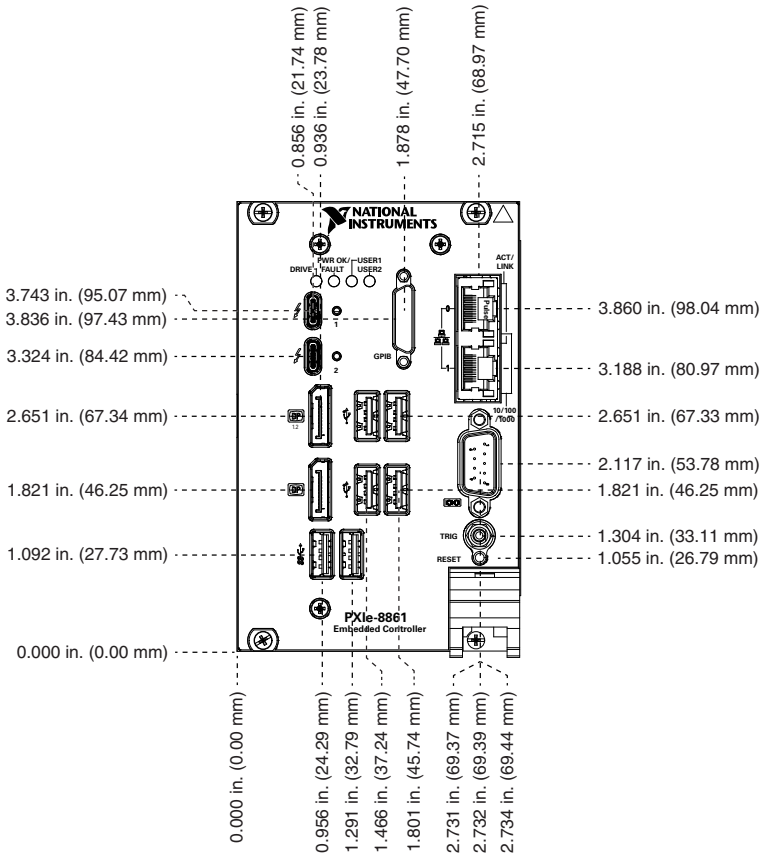
Features

PXIe-8861	
CPU	Intel® Xeon® Processor E3-1515M v5
Cache	8 MB SmartCache
Dual-Channel DDR4-2133 (PC-17000)	8 GB standard, 32 GB maximum
Storage	512 GB (or greater) solid-state, NVME
Video	1 DisplayPort 1.1, 1 DisplayPort 1.2
Ethernet	1 i219 port 1 i210 port, 1588, 10/100/1000 Base T
PXI Express 4 Link Configuration	x4, x4, x4, x4
PXI Express 2 Link Configuration	x8, x8
GPIB (IEEE 488 Controller)	1 mini-GPIB
Serial Port (RS-232)	1 DB-9
Thunderbolt 3 Ports	2 Type-C
Hi-Speed USB (2.0) Ports	4 Type-A
SuperSpeed USB (3.0) Ports	2 Type-A
PXI Trigger Bus Input/Output	1 SMB
Installed Operating System	Windows 10 Professional for Embedded Systems

Front Panel Dimensions

The following figure shows the front panel layout and dimensions of the PXIe-8861. Dimensions are in inches (millimeters).

Figure 1. PXIe-8861 Front Panel Layout and Dimensions



Electrical

Note Does not include any attached devices.

Voltage (V)	Current (Amps) Typical	Current (Amps) Maximum
+3.3 V	3.75 A	4.25 A
+5 V	2.0 A	2.5 A
+12 V	6.0 A	7.6 A
-12 V	0 A	0 A
+5 V_{Aux}	0.75 A	0.8 A

Note Power delivered to external loads through USB or Thunderbolt 3 ports should be included in system power budgets that include this controller module and peripheral modules.

Physical

Board dimensions	Four-wide 3U PXI Express module
Slot requirements	One system slot plus three controller expansion slots
Compatibility	Fully compatible with *PXI Express Specification* 1.0
Weight	1.2 kg (2.6 lb) typical

Environmental

Maximum altitude	4,600 m (570 mbar) (at 25 °C ambient)
Pollution Degree	2

Indoor use only.

Operating Environment

Caution The operating temperature must not be exceeded, even when used in a chassis with a higher temperature range.

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

Storage Environment

Ambient temperature range[1]	-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.)
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} (with solid-state hard drive)
Nonoperating[1]	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.)

[1] CPU performance may decrease for some workloads if a unit is stored at the extreme ambient temperature range and then subjected to max nonoperating random vibration limits.

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. 60101-1

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

CE Compliance CE

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/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*.

Battery Replacement and Disposal

Battery Directive This device contains a long-life coin cell battery. If you need to replace it, use the Return Material Authorization (RMA) process or contact an authorized National Instruments service representative. For more information about compliance with the EU Battery Directive 2006/66/EC 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）

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