PXIe-8822/42/62 Specifications

2023-03-15

Contents

PXIe-8822/42/62 Specifications

Note Specifications are subject to change without notice.

Caution Using the PXIe-8822/42/62 controller in a manner not described in this user manual can impair the protection the controller provides.

Features

Table 1. PXIe-8822/42/62 Features

Model	PXIe-8822	PXIe-8842	PXIe-8862	PXIe-8862 Removable Drive
CPU	Intel® Core™ i3-11100HE	Intel® Core™ i5-11500HE	Intel® Core™ i7-11850HE	
Cache	8 MB Smart Cache	12 MB Smart Cache	24 MB Smart Cache	
Memory	8 GB standard (16 GB maximum), single channel DD4-3200 MHz, non-ECC SODIMM		2 x 8 GB standard (2 x 16 GB maximum), dual channel DD4-3200 MHz, non-ECC SODIMM	
Storage	512 GB (or greater) M.2, NVMe SSD		512 GB (or greater) M.2, NVMe SSD	960 GB U.2, NVMe SSD
Video	1 DisplayPort 1.4	1 DisplayPort 1.4	2 DisplayPort 1.4	
Ethernet	1 i225 port, 1588, 10M/100M/1000M/ 2.5G Base-T	2 i225 port, 1588, 10M/100M/1000M/ 2.5G Base-T	2 i225 port, 1588, 10M/100M/1000M/ 2.5G Base-T	
PCI Express Link Speed	2.5 GT/s	5.0 GT/s	8.0 GT/s	
PXI Express 4 Link Configuration	x4, x4, x4, x4			
PXI Express 2 Link Configuration	x8, x8			

Model	PXIe-8822	PXIe-8842	PXIe-8862	PXIe-8862 Removable Drive
GPIB (IEEE 488 Controller)	N/A	1 mini-GPIB	1 mini-GPIB	
Serial Port (RS-232)	1 DB-9			
Thunderbolt 4 Ports	N/A	1 Type-C	2 Type-C	
Hi-Speed USB (2.0) Ports	2 Type-A	4 Type-A	4 Type-A	
SuperSpeed USB (3.0) Ports	2 Type-A			
PXI Trigger Bus Input/Output	1 SMB			
Installed Operating System	Windows 10 IOT, Windows 11 IOT, or Linux RT			
Trusted Platform Module	Optional TPM 2.0 (Infineon/ST TPM for global market, NationsTech TPM for China market)			

Front Panel Dimensions

The following figures show the front panel layout and dimensions of the PXIe-8822/42/62. Dimensions are in inches (millimeters).

Figure 1. PXIe-8822 Front Panel Layout and Dimensions

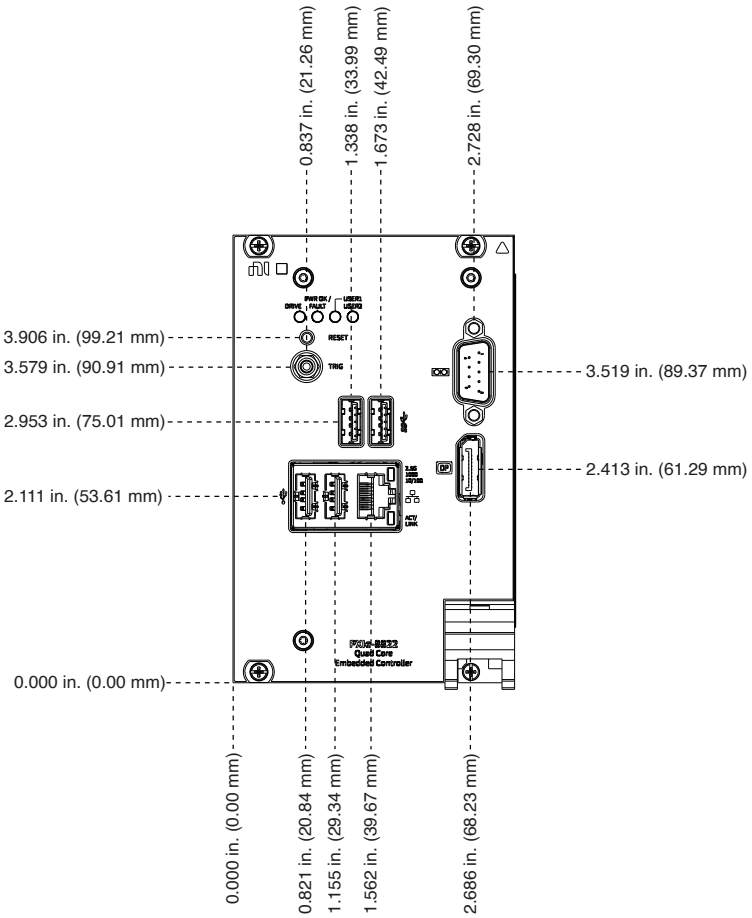


Figure 2. PXIe-8842 Front Panel Layout and Dimensions

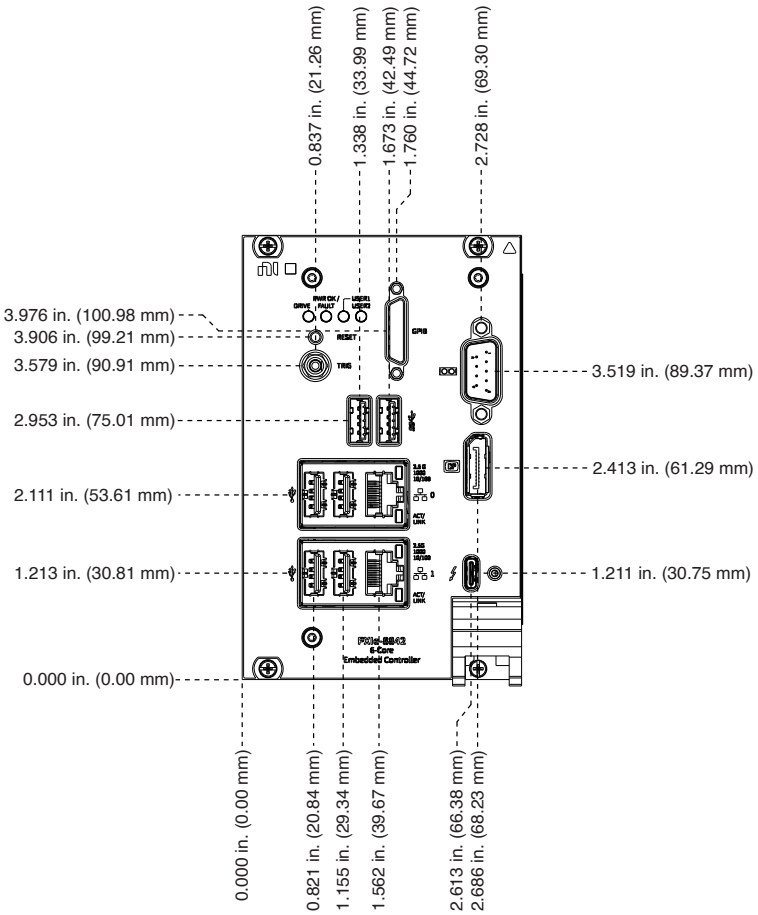


Figure 3. PXIe-8862 Front Panel Layout and Dimensions

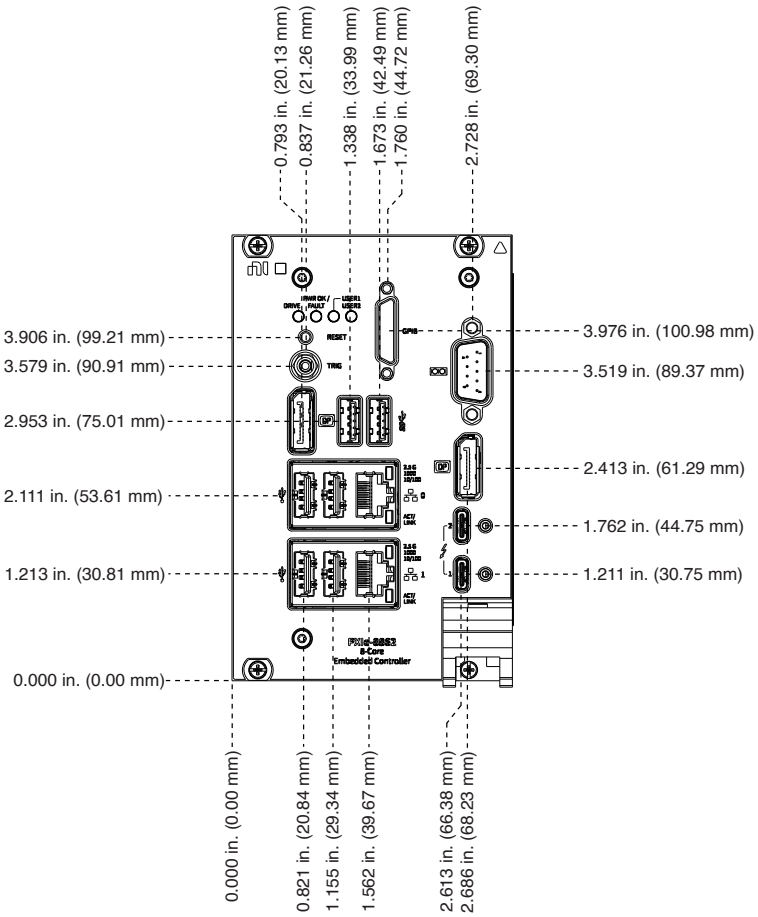
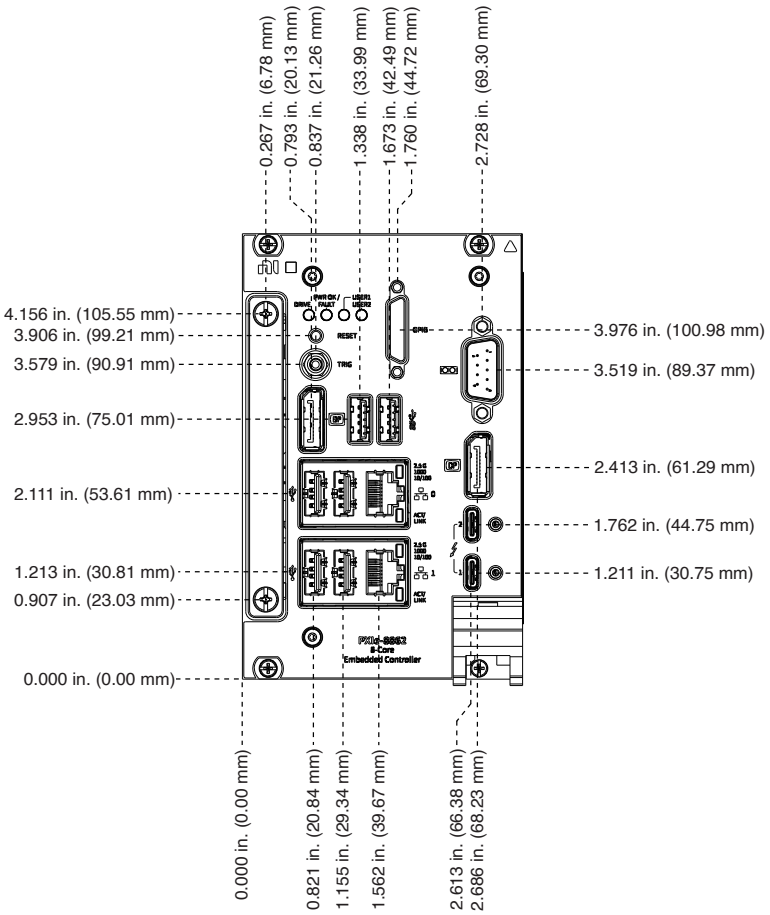


Figure 4. PXIe-8862 with Removable Drive Front Panel Layout and Dimensions



Electrical

Notice These specifications do not include any attached devices.

PXIe-8822

Voltage (V)	Current (Amps) Typical	Current (Amps) Maximum
+3.3 V	1.2 A	2.6 A
+5 V	0.5 A	2.5 A
+12 V	4.5 A	7 A
+5 Vaux	0.3 A	0.6 A

PXIe-8842

Voltage (V)	Current (Amps) Typical	Current (Amps) Maximum
+3.3 V	1.2 A	2.6 A
+5 V	0.9 A	3 A
+12 V	5.1 A	7.1 A
+5 Vaux	0.4 A	0.7 A

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Voltage (V)	Current (Amps) Typical	Current (Amps) Maximum
+3.3 V	1.4 A	3.3 A
+5 V	1.2 A	3 A
+12 V	7.1 A	8.5 A
+5 Vaux	0.4 A	0.9 A

PXIe-8862 with removable drive

Voltage (V)	Current (Amps) Typical	Current (Amps) Maximum
+3.3 V	0.7 A	1.7 A
+5 V	1.2 A	3 A
+12 V	7.7 A	8.5 A
+5 Vaux	0.4 A	0.9 A

Notice Power delivered to external loads though USB and Thunderbolt 4 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	
PXIe-8822	728 g (1.60 lb) typical
PXIe-8842	753 g (1.66 lb) typical
PXIe-8862	783 g (1.73 lb) typical
PXIe-8862 with removable drive	906 g (2.00 lb) typical

Environmental

Maximum altitude	4,600 m (570 mbar) (at 25°C ambient) with chassis fans on high
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

Relative humidity range	10% to 90%, noncondensing

Storage Environment

Ambient temperature range[1]	-40 °C to 71 °C
Relative humidity range	5% to 95%, noncondensing

Shock and Vibration

Operating shock	30 g peak, half-sine, 11 ms pulse
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}

[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.