PXIe-3900-TL Series

3U 11th Generation Intel® Xeon®/ Core™ i7/i5/i3 Processor based PXI Express Controller



Features

- 11th Generation Intel® Xeon® / Core™ i7/i5/i3 Processors (Tiger Lake)
- Up to 64GB Dual Channel DDR4 3200 MHz (non-ECC)
- Maximum system throughput up to 16 GB/s by PCI Express 3.0 Bus
- Supports four x4 or two x8 link PXI Express link capability to PXI express chassis
- 512 GB (or greater) SSD
- Dual GbE, Four USB 2.0, Dual USB 3.0, GPIB (IEEE488) controller
- Dual DisplayPort connectors, one RS-232/422/485 D-sub 9-pin connector
- Trigger I/O for advanced PXI trigger functions

Introduction

The ADLINK PXIe-3900-TL Series PXI Express embedded controller is based on the 11th Generation Intel® Xeon® / Core™ i7/i5/i3 Processors. It is designed specifically for hybrid PXI Express-based testing systems, providing maximum computing power for a wide range of testing and measurement applications.

The PXIe-3900-TL Series utilizes separate computing engines on a single processor, which allows for the execution of numerous independent tasks simultaneously in a multi-tasking environment. With auto-configured PCIe switches, this controller can support four x4 or two x8 link PXI Express link capability, with maximum system throughput up to 16 GB/s by PCI Express 3.0 bus.

Equipped with up to 64GB of DDR4 memory, and state-of-the-art 11th Generation Intel® Xeon® W-11865MRE/Core™ i7-11850HE/ i5-11500HE/ i3-11100HE processors, the ADLINK PXIe-3900-TL Series is a high-performance solution for a variety of testing and measurement applications.

The ADLINK PXIe-3900-TL Series offers a variety of interface options, including two DisplayPort connectors for connecting to two monitors, dual USB 3.0 connections for high-speed peripheral devices, dual Gigabit Ethernet ports (Dual GbE ports, available for LAN connectivity and LAN-based instrument), four USB 2.0 ports for peripheral devices and USB instrument control, and a Micro-D GPIB connector for GPIB instrument connection, allowing for control of hybrid PXI-based testing systems.

Equipped with a built-in BGA291 SSD and optional SATA 6.0 Gb/s port, as well as a reserved SATA interface, the PXIe-3900-TL Series provides ample storage capacity for applications and data.

The ADLINK PXIe-3900-TL Series supports a variety of operating systems, including Windows 11 IoT Enterprise, Windows 10 IoT Enterprise, Linux, CentOS, and Ubuntu. It also features TPM 2.0 for security and complies with various EMC standards to ensure reliability. This 3U/4-slot PXI standard controller includes one system slot and three controller expansion slots.

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Ordering Information

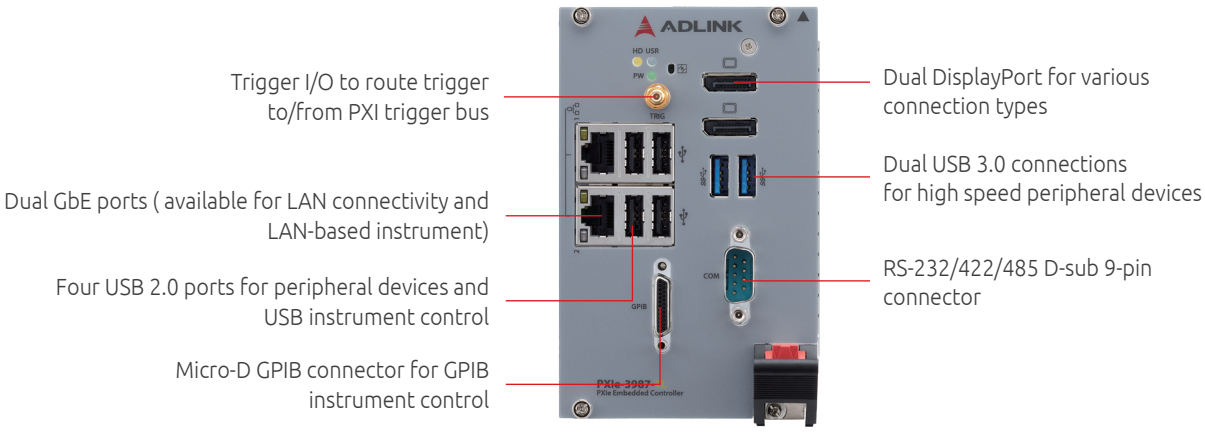
- **PXIe-3988-TL/16GB/SSD/GPIB**
  3U PXI Intel® Xeon® W-11865MRE, DDR4 3200 16 GB, NVMe 512 GB SSD, GPIB port
- **PXIe-3987-TL/16GB/SSD/GPIB**
  3U PXI Intel® Core™ i7-11850HE, DDR4 3200 16 GB, NVMe 512 GB SSD, GPIB port
- **PXIe-3977-TL/16GB/SSD/GPIB**
  3U PXI Intel® Core™ i5-11500HE, DDR4 3200 16 GB, NVMe 512 GB SSD, GPIB port
- **PXIe-3937-TL/16G/SSD/GPIB**
  3U PXI Intel® Core™ i3-11100HE, DDR4 3200 16GB, NVMe 512 GB SSD, GPIB port

Accessories

- **ACL-IEEE488-MD1-A**
  25-pin Micro-D to GPIB cable, 1M
- **DisplayPort to VGA cable**
  Displayport (Plug) to D-sub 15-pin (F) cable, 150mm
- **DisplayPort to HDMI cable**
  Displayport (Plug) to HDMI (F) cable, 150mm

*One DisplayPort to HDMI cable ships with the ADLINK PXIe-3987-TL / PXIe-3977-TL / PXIe-3937-TL unit

Product Illustration



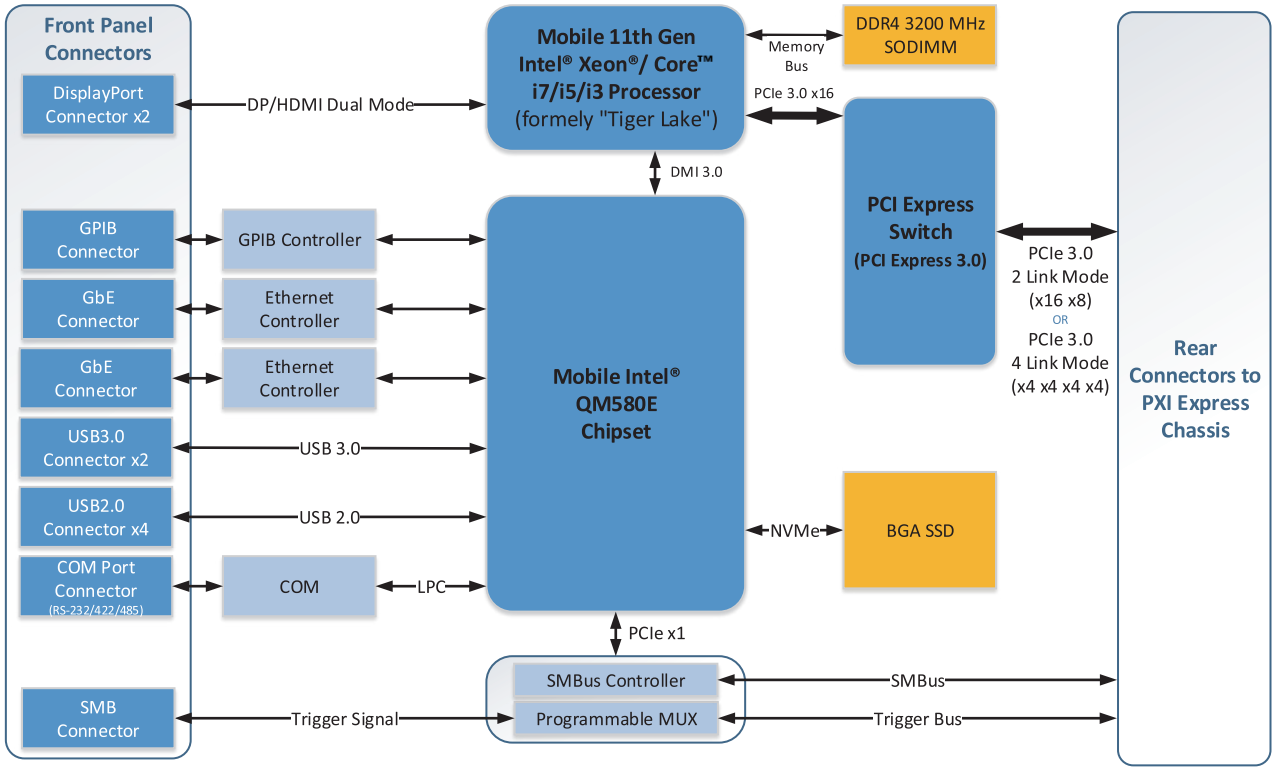
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Specifications

Model Name	PXIe-3988-TL	PXIe-3987-TL	PXIe-3977-TL	PXIe-3937-TL
Core Features				
CPU	Intel® Xeon® W-11865MRE (2.6/4.7GHz)	Intel® Core™ i7-11850HE (2.6/4.7GHz)	Intel® Core™ i5-11500HE (2.6/4.5GHz)	Intel® Core™ i3-11100HE (2.4/4.4GHz)
Memory	Supports up to 64GB DDR4 3200MHz dual-channel. 1 x SO-DIMM socket for expansion (supports non-ECC memory)			
Display				
DisplayPort	3840 x 2160 @ 60 Hz DisplayPort adapters to other standards are available, w/ max. resolution dependent on adapter			
PXI Express Chassis I/O				
Bus	PCI Express 3.0 (backward compatible with 2.x and 1.x)			
System Bandwidth	Up to 16GB/s			
PXIe Link Configuration	2 Link Mode: x8 x8 4 Link Mode: x4 x4 x4 x4			
I/O Connectivity				
Storage	Built-in BGA291 NVMe SSD. Reserved SATA port for optional 2.5" SSD			
Ethernet	2 x Intel® Ethernet controller 10/100/1000 Mbps Full/Half-Duplex Auto Negotiation			
USB	2 x USB 3.0 and 4 x USB 2.0			
GPIB	Onboard IEEE488 GPIB controller Micro-D 25-pin connector (ACL-IEEE488-MD1-A cable required) -			
Trigger I/O	SMB connector to route an external trigger signal to/from PXI trigger bus			
COM	RS-232/422/485 D-sub 9-pin connector			
Mechanical and Environmental				
Dimensions	3U/4-slot PXI standard			
Slot Requirements	1 system slot plus 3 controller expansion slots			
Weight	1 kg (2.2 lbs)			
Operating Temp.	0°C to 55°C (32˚F to 131˚F) (w/ SSD)			
Storage Temp.	-40°C to 71°C (-4˚F to 159.8˚F)			
Relative Humidity	5% to 95%, non-condensing			
Shock	30 G, half-sine, 11 ms pulse duration			
Vibration	Operating: 5 to 500 Hz, 0.21 GRMS, 3 axes Non-operating: 5 to 500 Hz, 2.46 GRMS, 3 axes			
Emissions Compliance	EN 61326-1, FCC Class A			
CE Compliance	Immunity: EN 61326-1			
Operating Systems	Windows 10 64-bit, Windows 11 64-bit, CentOS, Ubuntu			

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PXIe-3900-TL Block Diagram



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