PXIe-3127a/3125a

3U Intel Core™ 11th i7-11850HE/i5-11500HE processor based PXI Express Controller

PXIe-3127a/3125a

Introduction

The JYTEK PXIe-3127a/3125a PXI Express embedded controller is based on the 11th generation Intel® Core™ i7/i5/ processor. 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-3127a/3125a 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 64 GB of DDR4 memory, and state-of-the-art 11th Generation Intel® Core™ i7-11850HE/i5-11500HE processors, the JYTEK PXIe-3127a/3125a is a high-performance solution for a variety of testing and measurement applications.

The JYTEK PXIe-3127a/3125a 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(one for LAN connection and the other for controlling LXI instruments), four USB 2.0 ports for peripheral devices and USB instrument control.

The JYTEK PXIe-3127a/3125a 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.

In high-stakes testing scenarios, where precision and dependability are paramount, the PXIe-3127a/3125a excels. Whether managing high-speed LAN connections, controlling LXI instruments, or handling peripheral devices, this embedded controller is a reliable companion, combining cutting-edge technology with unwavering performance to meet the stringent demands of professionals in the field of testing and measurement.

Features

- 11th Gen Intel Core™ i7-11850HE processor (codename “Tiger Lake”, Base Frequency 2.6 GHz, Max Turbo Frequency 4.7 GHz)（PXIe-3127a）
  11th Gen Intel Core™ i5-11500HE processor (codename “Tiger Lake”, Base Frequency 2.6 GHz, Max Turbo Frequency 4.5 GHz)（PXIe-3125a）
- 8 cores and 16 threads（PXIe-3127a）；6 cores and 12 threads（PXIe-3125a）
- Up to 64 GB dual channel DDR4 memory at 2400 MHz（non-ECC memory）
- Maximum system throughput up to 16 GB/s by PCI Express 3.0 bus
- Supports four links x4 or two links x8 and x16 PXI Express link indent to PXI Express chassis
- Integrated I/O
  - 2 USB 3.2 Gen1 5Gbps port
  - 4 USB 2.0
  - Dual Ethernet port: 2.5GbE port and GbE port
  - 1 RS-232 port
  - Trigger I/O for advanced PXI trigger functions

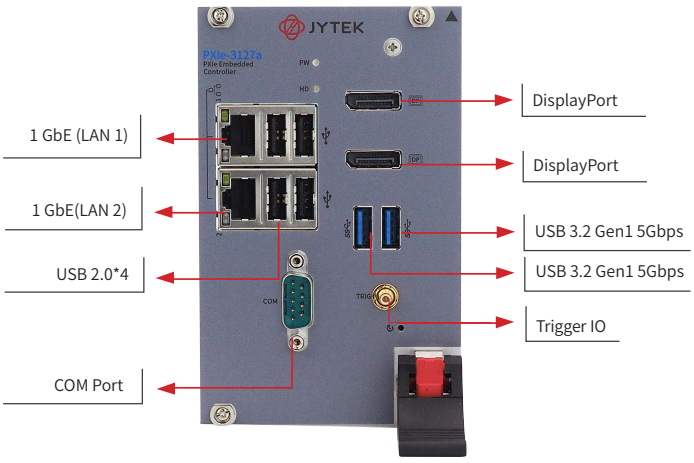
Operating System

- Windows 7, Windows 10
- Linux 64-bit

Ordering Information

- PXIe-3127a (PN : JY5936231-01)
  3U Intel Core™ i7-11850HE PXIe Gen3 Controller with 16GB memory & 500GB NVMe SSD, Windows 10 Enterprise LTSC 64-bit
- PXIe-3125a （PN : JY6185939-01）
  3U Intel Core™ i5-11500HE PXIe Gen3 Controller with 16GB memory & 500GB NVMe SSD, Windows 10 Enterprise LTSC 64-bit

Product Illustration

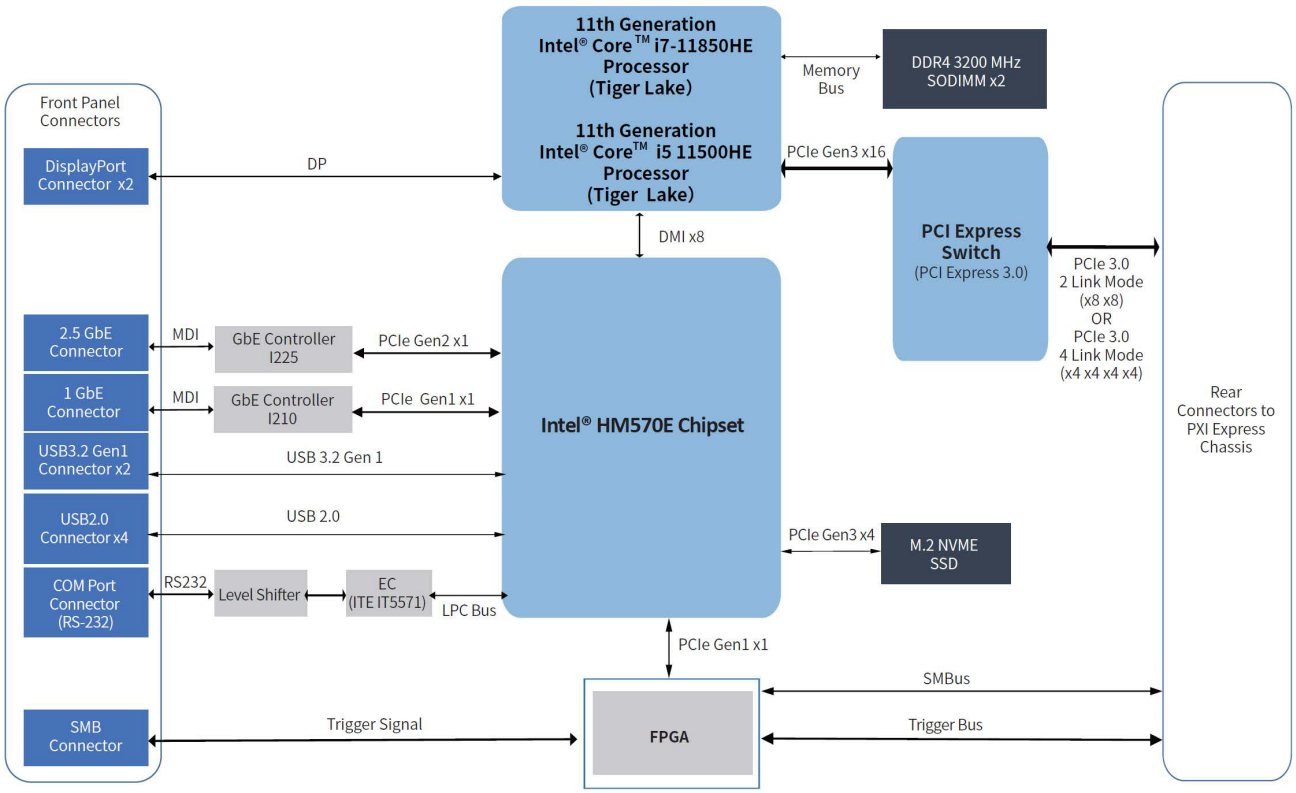


*The interfaces of the 3125a are the same as those of the 3127a

Specifications

Model Name	PXIe-3127a	PXIe-3125a
Core Features		
CPU	Intel® CoreTM i7-11850HE (Trubo 4.7 GHz)	Intel® CoreTM i5-11500HE (Trubo 4.5 GHz)
DMI	DMI 3.0 4 GT/s	
Chipset	Intel® QM370	
Memory	Up to 64 GB dual channel DDR4 memory at 2400 MHz（non-ECC memory)	
System hard drive	read speed > 3400MB/s, write speed > 3200MB/s	
Display		
DisplayPort	3840 x 2160 @60Hz DisplayPort adapters to other standards are available,w/max.resolution dependent on adapter. Support only DisplayPort to HDMI and VGA.	
PXI Express Chassis I/O		
Bus	PCI Express 3.0(backwards compatible with 2.x and 1.x)	
System Bandwidth	Up to 16 GB/s	
PXIe Link Configuration	2 Link Mode: x8 x8 4 Link Mode: x4 x4 x4 x4	
I/O Connectivity		
Storage	One NVME M.2 500 GB SSD	
Ethernet	Intel® Ethernet controller I219LM,I210AT	
USB	2 x USB 3.2 Gen1 and 4 x USB 2.0,front-mounted	
Trigger I/O	SMB connector,front-mounted,to route an external trigger signal to/from PXI trigger bus	
Mechanical and Environmental		
Dimensions	3U/4-slot PXI standard	
Slot Requirements	1 system slot plus 3 controller expansion slots	
Weight	0.9 kg	
Operating Temp.	0°C ~ 55°C	
Storage Temp.	-20°C ~ 70°C	
Relative Humidity	5% to 95%,non-condensing	
Shock	30 G,half-sine,11ms pulse duration	
Vibration	Operating: 5 to 500 Hz,0.21 GRMS, 3 axes Non-operation: 5 to 500 Hz,2.46 GRMS, 3 axes	
Operating Systems	Win10, Win7, Linux	

Block Diagram



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