

PXle-3137b

3U PXle Intel Core Ultra 7 255H System Controller



PXle-3137b

Introduction

The JYTEK PXle-3137b PXI Express embedded controller is powered by the high-performance Intel Core Ultra 7 255H processor, specifically designed for PXI Express-based testing systems. This robust controller delivers efficient computing power, ideally suited for diverse testing and measurement applications. With the Intel Core Ultra 7 255H processor (16 cores, 16 threads, up to 5.1GHz) and up to 96 GB of dual-channel DDR5 memory at 6400 MT/s, the PXle-3137b effectively manages multiple concurrent tasks, ensuring reliable performance in demanding multitasking environments.

Featuring an integrated PCI Express switch, the PXle-3137b supports configurations of four links x4 or two links x8 x16 PXI Express, achieving a maximum system throughput of up to 16 GB/s via the PCI Express 3.0 bus.

The PXle-3137b offers comprehensive interface flexibility, including a DisplayPort connector for dual-monitor setups, a USB4 port (Thunderbolt 3 compatible), two high-speed USB 3.2 Gen2 ports for efficient peripheral device connectivity, one 2.5GbE and one 1GbE Ethernet port for reliable network communications, four USB 2.0 ports, The COM port supports RS232/RS422/RS485, and advanced Trigger I/O capability for precision PXI triggering.

Features

- Intel Core Ultra 7 255H processor (16 cores, 16 threads, up to 5.1GHz)
- Up to 96 GB dual-channel DDR5 memory at 6400 MT/s (non-ECC memory)
- Maximum system throughput of 16 GB/s via PCI Express 3.0
- Supports four links x4 or two links x8 x16 PXI Express configurations
- Integrated I/O
 - 2 USB 3.2 Gen2 (10Gbps)
 - 1 USB4 (Thunderbolt 3 compatible)
 - 4 USB 2.0
 - 2 Ethernet ports (2.5GbE, 1GbE)
 - Supports RS232/RS422/RS485
 - Trigger I/O for advanced PXI trigger functionality
- Operating System
 - Windows 10 Enterprise LTSC 64-bit
 - Linux 64-bit
 - Kylin V10

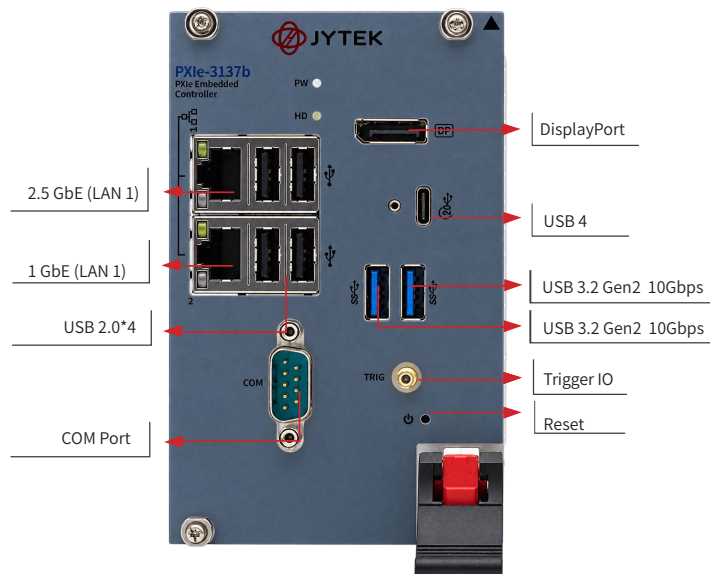
Special Operating Restriction

- For display connections, it is recommended that customers first use a DP (3137b end) to DP (display end) cable. If this is not possible, consider using a DP (3137b end) to HDMI (display end) cable, or a DP (3137b end) to VGA (display end) cable.

Ordering Information

- PXle-3137b (PN : JY4687248-01)
3U Intel Core Ultra 7 255H PXle Gen3 Controller with 16GB memory & 1TB NVMe SSD, Windows 10 Enterprise LTSC 64-bit

Product Illustration



Specifications

Model Name	PXIe-3137b
Core Features	
CPU	Intel Core Ultra 7 255H, up to 5.1GHz, 16 cores, 16 threads
Memory	Up to 96 GB dual-channel DDR5 at 6400 MT/s (non-ECC memory)
Display	
DisplayPort	One DisplayPort connectors supporting resolutions up to 3840x2160 @60Hz
PXI Express Chassis I/O	
Bus	PCI Express 3.0, up to 16GB/s System Bandwidth
System Bandwidth	Up to 16 GB/s
PXIe Link Configuration	2 Link Mode: x8 x16; 4 Link Mode: x4 x4 x4 x4
I/O Connectivity	
Storage	One NVME M.2 SSD
Ethernet	Intel Ethernet controller I210AT (1GbE) and I226LM (2.5GbE)
USB	1 x USB4, 2 x USB 3.2 Gen2 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 (2.2 lbs)
Operating Temp.	0°C to 55°C (32°F to 131°F) w/ SSD
Storage Temp.	-20°C to 70°C (-4°F to 158°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
Operating System	Windows 10, Linux 64-bit

Functional Block Diagram

