PXES-2590

9-Slot 3U PXI Express Chassis with AC – Up to 8 GB/s, All Hybrid

Features

- PXI™-5 PXI Express hardware specification Rev.1.0 compliant
- 9-slot PXI Express chassis with one system slot, one system timing slot, and seven hybrid peripheral slots
- Four-link PXI Express chassis
- Up to 8 GB/s system bandwidth
- Up to 2 GB/s peripheral bandwidth for all slots
- 0°C to 55°C extended operating temperature range
- Intelligent chassis management
  - Automatic fan speed control
  - Chassis status monitoring and reporting
  - Remote chassis power on/off control
- BNC connectors for 10 MHz clock input/output
- Maximum total usable power is 400 W under 55°C
- Power, temperature, and fan monitoring LEDs



Introduction

The ADLINK PXES-2590 is a 9-slot PXI Express chassis equipped with advanced features and functions. Compliant with PXI Express and cPCI Express specifications, the PXES-2590 offers one system slot, one system timing slot, and seven hybrid peripheral slots for versatile test and measurement applications requiring enhanced bandwidth. The hybrid-slot design accepts installation of CompactPCI, PXI, CompactPCI Express, and PXI Express modules into any peripheral slots in PXES-2590, maximizing flexibility. The PXES-2590 is built on a four-link PXI express chassis with 8 GB/s system bandwidth, and 2 GB/s slot bandwidth for all peripheral slots.

The PXES-2590 is implemented with a smart system monitoring controller, reporting full chassis status, including fan speed, system voltages, and internal temperature.

Equipped with an industrial grade AC power supply, the PXES-2590 still provides 400 W under 55°C, and delivers superior cooling capacity, from two 120 mm cooling fans on the rear of the chassis. Two BNC connectors for 10 MHz clock input/output on the rear panel increase chassis flexibility, enabling synchronization with supplementary devices. All in all, PXES-2590 is the best PXI Express platform choice for testing and measurement requirements.

Ordering Information

- **PXES-2590**
  3U 9-slot PXI Express chassis with all-hybrid peripheral slots and universal AC power supply
- **PXES-2590/PMK-1524 with Trolley Case**
  3U 9-slot PXI Express chassis with all hybrid slots with factory-mounted 15” 24-bit monitor/keyboard kit, pre-installed in trolley case for

Optional Accessories

- **PMK-1524**
  Portable LCD monitor/keyboard accessory kit for PXES-2590
- **Trolley Case**
  Trolley case for PXES-2590/PMK-1524, 570 x 270 x 390 mm, 5 kg
- **PXES-2590 Rack-mount Kit**
  Flexible rack-mount kit for PXES-2590

Highlights

Portable LCD Monitor/Keyboard Accessory

In further support of the portability requirements of PXI/PXIe measurement systems, the PXES-2590 also provides an optional portable LCD monitor/keyboard accessory kit, allowing rack-cabinet PXI systems to be easily converted to fully portable PXI systems.

Accessory kit includes:

- 15 in. touch screen LCD monitor with 1024 x 768 resolution
- English keyboard and touchpad
- ADLINK factory or user installation
- VGA video connection
- No requirement for external power

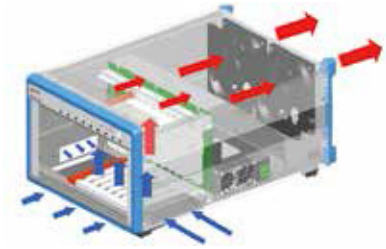




Innovative Cooling Mechanism

The ADLINK PXES-2590 features an innovative heat dissipation solution. Two 185.9CFM cooling fans in the rear section of the chassis draw cool air through lower apertures, which is then exhausted through the back. This design generates uniform airflow for each PXI slot, delivering exceptional cooling.

When installed in a rack, the cooling design minimizes intake of hot air from the rear side, separating airflow for modules and power supplies, while isolating noise source (fan) from modules and maintaining a steady internal temperature.

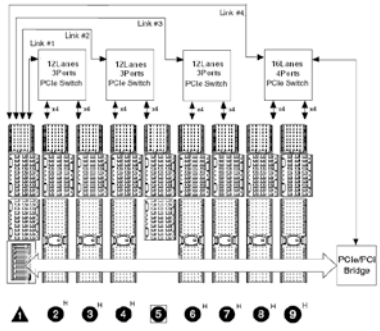


Intelligent Chassis Management

The PXES-2590 has a built-in system monitoring controller that monitors and manages full chassis status, including internal temperature, fan speed, and DC voltages.

All Hybrid Peripheral Slots Design*

The ADLINK PXES-2590 features an all-hybrid peripheral slot design, with PXI Express, cPCI Express, PXI, and CompactPCI modules compatible with every slot.



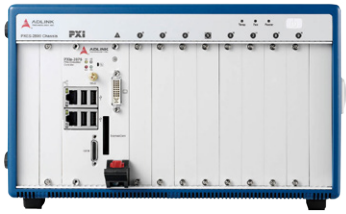
Backplane Link Configuration

Note:
1. ADLINK's PXI Express chassis accepts hybrid slot-compatible PXI-5 modules (with XJ4 connector). Legacy PXI-1 boards (with J2 connector) need to be upgraded to hybrid slot-compatible PXI modules. A detailed list of ADLINK PXI hybrid slot-compatible modules is available online at: http://www.adlinktech.com/PXI/pxi-breakthrough-bandwidth.php#FAQ

2. Contact your ADLINK sales representative for assistance in upgrading ADLINK legacy PXI modules. If the PXI modules were purchased from a third party, please contact the original vendor.

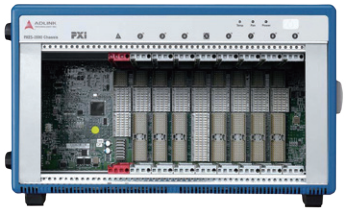
Product Illustration

PXES-2590 Front View



PXES-2590 Back View





PXES-2590 Hybrid Peripheral Slots

Specifications

Power Supply

- **AC Input**
  - Input voltage range: 100 to 240 VAC
  - Input voltage frequency: 50 to 60 Hz
- **DC Output**
  - Maximum total usable power is 400 W

VDC	Maximum	Load Regulation	Maximum Ripple & Noise
+5 V	23.0 A	±3%	50 mV
+12 V	27.0 A	±3%	50 mV
+3.3 V	33.0 A	±3%	50 mV
-12 V	1.75 A	±3%	50 mV

Bus Interface

- Four-link capacity PXI Express chassis
- Up to 8 GB/s system bandwidth
- Up to 2 GB/s peripheral bandwidth for all slots

IO/Switch on Rear Panel

- BNC connectors for 10MHz clock input/output
- Fan speed selector switch
- Inhibit mode selector switch
- D-SUB9 for voltage monitoring and remote inhibit

Cooling

- Fans: 2 x 185.9 CFM fans
- Per-slot cooling capacity: 30 W

Physical

- Number of slots:
  - 1 system slot + 1 system timing hybrid slot + 7 peripheral slots
- Dimensions:
  - 322 mm (W) x 190 mm (H) x 456 mm (D) (12.55” x 7.4” x 17.8”)
- Weight: 9 kg (19.8 lbs)

Operating Environment

- Ambient temperature: 0˚C to 55˚C (32˚F to 131˚F)
- Relative humidity: 10% to 90%, non-condensing

Storage Environment

- Ambient temperature: -20˚C to 70˚C (-4˚F to 158˚F)
- Relative humidity: 10% to 90%, non-condensing

Shock and Vibration

- Functional shock: 30 G, half-sine, 11 ms pulse duration
- Random vibration:
  - Operating: 5 to 500 Hz, 0.3 Grms, 3 axes
  - Non-operating: 5 to 500 Hz, 2.46 Grms, 3 axes

Emissions Compliance

- EN 61326-1
- FCC Class A

CE Compliance

- Safety: EN 61010-1
- Immunity: EN 61326-1

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