PXES-2301

PXIe Chassis, 6-Slot, All Hybrid

FEATURES

- PXI-Express Chassis, All Hybrid
- 6-Slots (3U)
  - 5 Hybrid (Fit Both PXIe and PXI Hybrid Modules)
  - 1 System (Fits Internal or Remote Controller)
- Up to 8 GB/s System Bandwidth
- Up to 2 GB/s Peripheral Slot Bandwidth
- PXI™-5 PXI Express HW Specification Rev 1.0 Compliant
- 38 W Per Slot Cooling Capacity
- 320 W Usable Power
- 0°C to 50°C Extended Operating Temperature Range
- Intelligent Chassis Management
  - Automatic Fan Speed Control
  - Chassis Status Monitoring and Reporting
- Power, Temperature, and Fan Monitoring LEDs

PXI-Express Standard

PXI and PXI-Express (PXIe) are industry standards. Any hybrid PXI, PXIe, Compact PCI (cPCI), or Compact PCI Express (cPCIe) module from any manufacturer will work properly in the 5 hybrid slots of this chassis.
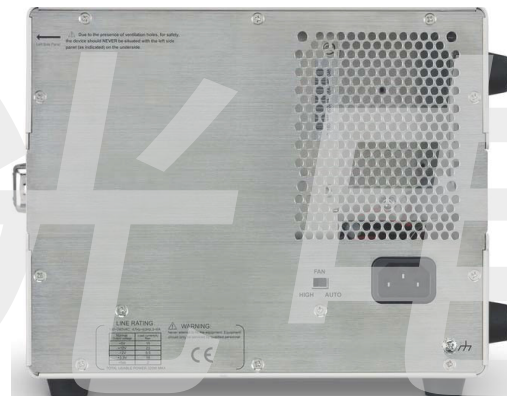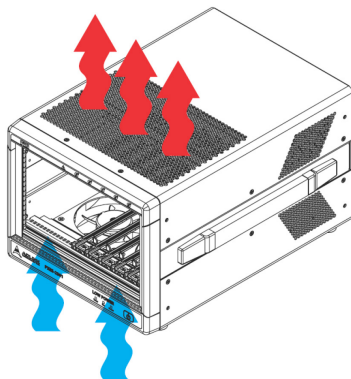
Slot 1 is for a System Controller (computer) which can be up to 3 slots wide, or you can install a remote controller module which connects through a cable to an external PC or laptop, such as the PXIe-8301 from National Instruments.

High Bandwidth

The PXES-2301 is a 4-link PXIe chassis with 8 GB/s total system bandwidth. Three slots have dedicated 2 GB/s bandwidth and two slots share a 2 GB/s link (see the switch fabric diagram below).

Power and Cooling

Equipped with an industrial grade AC power supply, the PXES-2301 still provides 320W under 50°C and delivers superior cooling capacity, from two 120 mm cooling fans on the bottom of the chassis.
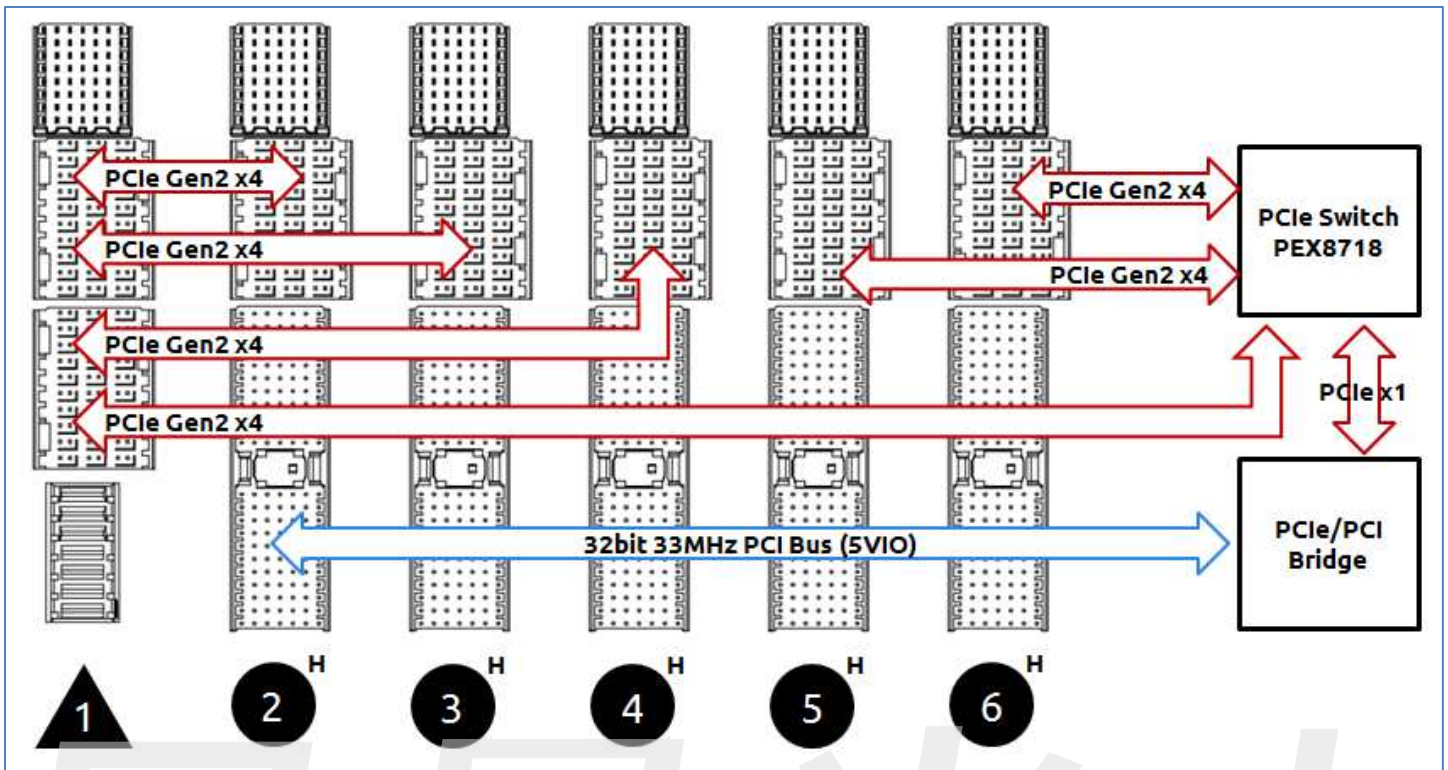

PXES-2301 Chassis

Optional Accessories

- Rackmount Kit for mounting a single unit in 19" rack
- Rackmount Kit for mounting two units in 19" rack

System Monitoring

The PXES-2301 is implemented with smart system monitoring, reporting full chassis status, including fan speed, system voltages, and internal temperature.

SPECIFICATIONS

General

- Warranty: 1 year
- Complies with PXI™-5 PXI Express HW Specification Rev 1.0 and accepts all modules compliant with the PXI™-5, Compact and PICMG 2.0 specification.

Power Supply

- AC Input
  - ♦ Input voltage range: 100 to 240 VAC
  - ♦ Operating voltage range: 85 to 264 VAC
  - ♦ Input voltage frequency: 50 to 60 Hz
  - ♦ Operating voltage frequency 47 to 63 Hz
- DC Output
  - ♦ Maximum total usable power: 320 W

Voltage	Max Current	Load Regulation	Max Ripple and Noise
+5V	19 A	±5%	50 mV
+12V	24 A	±5%	120 mV
+3.3V	21 A	±5%	50 mV
-12V	1.25 A	±5%	120 mV
+5 Vaux	1 A	±5%	50 mV

Switch Fabric (See Diagram)

- System Controller Slot:
  - ♦ Four Gen2 x4 PCIe links (2 GB/s each)
- Peripheral slots:
  - ♦ For PXIe and cPCIe peripherals
    - ▫ Slots 2, 3 and 4 each have one dedicated Gen2 x4 PCIe link (2 GB/s)
    - ▫ Slots 5 and 6 share one Gen2 x4 PCIe link (2 GB/s)
  - ♦ For hybrid PXI and cPCI peripherals
    - ▫ All slots share one 5V, 33 MHz, 32-bit PCI bus (132 MB/s)

Rear Panel I/O and Switches

- Fan control switch: Auto or High

System Clocks

- 10 MHz system clock (PXI_CLK10)
  - ♦ Frequency accuracy: ±25 ppm
  - ♦ Slot to slot skew: 300 ps max
- 100 MHz system clock (PXIe_CLK100):
  - ♦ Frequency accuracy: ±25 ppm
  - ♦ Slot to slot skew: 100 ps max

Cooling

- Two 100 CFM fans
- Per-slot cooling capacity: 38.2 W (verified by 50°C chamber test)

Physical

- Slots: 6
  - ♦ 1 System slot for controller (computer)
  - ♦ 5 Hybrid peripheral slots (both PXI and PXIe modules)
- Dimensions (W x H x D):
  - ♦ 220.8 x 177.8 x 319.6 mm
  - ♦ 8.7 x 7 x 12.58 in
- Weight: 5.85 kg (12.9 lb.)

Environmental

- Storage:
  - ♦ Temperature: -20°C to 70°C
  - ♦ Humidity: 10% to 90% noncondensing
- Operating:
  - ♦ Temperature: 0°C to 50°C
  - ♦ Humidity: 20% to 80% noncondensing
- Functional shock: 30 G, half sine, 11 ms pulse duration
- Random vibration:
  - ♦ Operating: 5 to 500 Hz, 0.21 Grms, 3 axes
  - ♦ Non-operating: 5 to 500 Hz, 2.46 Grms, 3 axes

Certification

- Emissions:
  - ♦ FCC/ICES-003 (USA / Canada): Class A - EN 61326-1
  - ♦ CE (Europe): Class A - EN 61326-1
- Safety:
  - ♦ CE/LVD (Europe, mandatory for devices with supply voltage exceeding 50VAC/75VDC): EN 61010-1

Ordering Information

PN	Description
PXES-2301	6-slot PXIe chassis
Rackmount Kit, Single	Optional, for one unit in 19" rack
Rackmount Kit, Dual	Optional, for two units in 19" rack