PXES-2788 Series

18-Slot/21-Slot 3U 24 GB/s High Power PXI Express Chassis



Features

- Up to 102W power and cooling capacity per peripheral slot
- PXI Express system slot routed as x8 x16 2-link configuration
- Up to 24 GB/s system bandwidth (PCI Express 3.0 x8 x16 link)
- Up to 8 GB/s bandwidth for all peripheral slots (PCI Express 3.0 x8 link)
- 0°C to 55°C/50°C operating temperature range
- Two front panel SMA connectors for PXI 10MHz reference clock input and output
- Replaceable power supply unit
- Low-jitter internal 10 MHz reference clock for PXI/PXI Express slots with ±1 ppm stability
- Low-jitter internal 100 MHz reference clock for PXI Express slots with ±1 ppm stability
- Variable speed fan controller optimizes cooling and acoustic emissions
- Remote power button and voltage monitor via inhibit connector
- PXI-5 PXI Express hardware specification Rev.1.1 compliant

Introduction

Take your testing and measurement applications to the next level with the ADLINK PXES-2788 chassis. With its high-performance 18-slot PXI Express backplane, high-output power supply, and cooling capacity, the PXES-2788 is designed for heavy-duty and high port density applications. The modular design ensures a high level of maintainability, with replaceable power supplies for high-availability applications, resulting in a very low meantime to repair (MTTR).

Fully compliant with the PXI-5 PXI Express hardware specification, the PXES-2788 offers advanced timing and synchronization features for high clock accuracy, and external clock and trigger routing. Using PCI Express 3.0 technology, the chassis boasts a system bandwidth of up to 24 GB/s for high-throughput, peer-to-peer data transfer applications, and up to 8 GB/s bandwidth for all peripheral slots.

The PXES-2788 provides up to 102W power and cooling capacity per slot, allowing for higher power budgets for high-performance and power PXI modules. With a smart system monitoring controller that reports chassis status, including fan speed, system voltages, and internal temperature, you can be sure that your system is running at optimal performance. The smart fan function dynamically adjusts fan speed based on the embedded temperature sensor to achieve a balance between sufficient airflow and operating noise.

Experience the power and versatility of the ADLINK PXES-2788 chassis and take your testing and measurement applications to the next level.

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Ordering Information

- **PXES-2788/HP**
  PXI Express chassis, 18-slot Gen3, removable 2400W PSU, and US/EU power cord
- **PXES-2788E/HP**
  PXI Express chassis, 21-slot Gen3, removable 2400W PSU, and US/EU power cord
- **PXES-2788E**
  PXI Express chassis, 21-slot Gen3, removable 1300W PSU, and US/EU power cord

Accessories

- 19-inch rack-mount kit for PXES-2788/PXES-2785/PXES-2780
- PXI EMC filler panel kit: 3U3slot x1pc, 3U1slot x6pcs

Specifications

Model Name	PXES-2788/HP PXES-2788E/HP	PXES-2788E
Total Slots	PXES-2788/HP: 18 slots PXES-2788E, PXES-2788E/HP: 21 slots	
PXIe System Slots	PXES-2788/HP: up to 4-slot width PXIe controller PXES-2788E, PXES-2788E/HP: up to 1-slot width PXIe controller	
PXIe Peripheral Slots	PXES-2788/HP: 8 PXES-2788E, PXES-2788E/HP: 11	
System Timing Slots	1	
PXIe Hybrid Slots	8	
PCI Express Bus	3.0	
Operating Temperature	0°C to 50°C	0°C to 55°C

Cooling Capacity

Model Name	PXES-2788/HP PXES-2788E/HP	PXES-2788E
Per Peripheral Slot (Max.)	102W/slot *1 *5 85W/slot *2 *5 60W/slot *3	85W/slot *2 *5 60W/slot *4
Per System Slot (Max.)	200W/sys slot *2 150W/sys slot *3	200W/sys slot *2 150W/sys slot *4
Chassis (Max.)	1700W/chassis *2 1300W/chassis *3	1300W/chassis *4
Fans	Rear fans: 3 pcs Top: fans: 4 pcs	Rear fans: 3 pcs
Air Inlet/Outlet Location	Air Inlet: Rear Air Outlet: Top	
Air Inlet/Outlet Clearance	Rear: 10.2cm / 4 in Top (with top fan): 10.2 cm / 4 in	Rear: 10.2cm / 4 in Top (without top fan): 4.45 cm / 1.75 in

*1: Ambient temperature: 0°C to 40°C, boost fan mode
*2: Ambient temperature: 0°C to 45°C, boost fan mode
*3: Ambient temperature: 0°C to 50°C
*4: Ambient temperature: 0°C to 55°C
*5: When all slots have high power peripheral modules (>60W) installed, the cooling requirements of modules installed in slots 2, 7, 8, 9, 14, 15, 18, 19, 20, 21 shall be limited to less than 72W.

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DC Power Output

Model Name	PXES-2788/HP PXES-2788E/HP	PXES-2788E
Maximum Output of chassis	1700W (0°C to 45°C) 1300W (45°C to 50°C)	1300W (0°C to 55°C)

DC Power Voltage	Maximum Current Per Chassis	Load Regulation	Maximum Ripple Noise
12V	72A	±5%	120mV
3.3V	77A	±5%	50mV
5V	20A	±5%	50mV
-12V	2A	±5%	120mV
5Vsb	4A	±5%	50mV

DC Power Voltage	Maximum Current Per slot *1		
Slot type	PXIe System Slot	PXIe Peripheral Slot PXIe System Timing Slot	PXIe Hybrid Peripheral Slot
12V	30A	6A	6A
3.3V	15A	9A	9A
5V	15A	-	6A
-12V	-	-	1A
5VSB	3A	1A (Shared)	

*1: Applies to all PXES-2788 variants (PXES-2788/HP, PXES-2788E/HP, PXES-2788E).

AC Power Input

Model Name	PXES-2788/HP PXES-2788E/HP	PXES-2788E
AC Input	200 to 240V AC, 50 to 60Hz, 13.3A (max per PSU)	100 to 240V AC, 50 to 60Hz, 12A (per PSU) 200 to 240V AC, 50 to 60Hz, 8A (per PSU)
AC Input OCP	Internal AC in-line fuse (non-user serviceable)	Internal AC in-line fuse (non-user serviceable)

- **IO/Switch**
  Two front panel SMA connectors for 10MHz reference clock input and output
  Fan mode setting switches
  Remote inhibit and voltage monitoring connector
- **Dimensions**
  444.4 mm (W) x 177.8 mm (H) x 480.5 mm (D) (7.0" x 17.5" x 18.9")
  Net weight: 11.9 kg (26.2 lbs)
  Gross (Freight) weight: 14.6 kg (32.2 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: -40°C to 71°C (-40˚F to 159.8˚F)
  Relative humidity: 10% to 90%, non-condensing

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- **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
- **EMC Compliance**
  - EN 61326-1 (IEC 61326-1): Class A emissions; Basic immunity
  - EN 55011 (CISPR 11): Group 1, Class A emissions
  - EN 55032:2015/A11:2020, Class A
  - EN 55035:2017/A11:2020
  - EN 61000-3-2:2019: Class A
  - EN 61000-3-3:2013
  - FCC 47 CFR Part 15 Subpart B (Class A)
  - ICES-003 Issue 7-2020
  - AS/NZS CISPR 11: Group 1, Class A emissions
  - AS/NZS CISPR 32: 2015 (Ed 2.0)/C1:2016 : Class A
  - EN 61326-1 Class A emissions; Basic immunity FCC 47 CFR Part 15 Subpart A ICES-001/ICES-003 AS/NZS CISPR 11/32
- **Safety Compliance: not bold**

Software Support

- Windows 10 64-bit, Windows 11 64-bit

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