EXP4

Expansion system with four slots for PCI Express 2.0 x8

Features

1U expansion system (20.5" deep), with slides to mount in a 19" rack, provides:

- Two rear-panel host ports for PCIe x8
- Four PCIe x8 slots (each supported by a x16 connector); each can be connected to either host port, in any configuration (2+2, 3+1, or 4+0)
- One front-panel LED status indicator
- 600W power supply, upgradable to 850W or 1100W
- One 1-meter PCIe x8 host adapter + cable (included)
- Additional host adapter + cable for dual host operation (optional)
- Ability to adjust the fan speed and monitor the voltage, temperature, and power through EDT software

Description

The EXP4 is a 1U rackmount expansion system that provides four PCIe x8 expansion slots at about 50 watts per slot. Each slot is supported by a 16-lane connector for up to four PCIe boards. The physical boards can be 1-, 4-, 8-, or 16-lane; however, the maximum number of lanes implemented is eight per slot.

The unit can be used to add slots, or to accept high-power boards that are not supported by typical host servers.

The back panel provides one serial diagnostic interface and two PCIe x8 host ports. Each slot can be connected to either host port in any configuration: two on each port; three on one port and one on the other; or all four on one port. The front panel provides an LED that displays green for normal operation, yellow for standby power, or red for faults.

The EXP4 has a removable 600-watt power supply, upgradable to 850 or 1100 watts, and a one-meter PCIe x8 host cable with adapter. As an option, an additional cable-adapter assembly is available for dual host operation.

The case is 17 inches wide (to fit a 19-inch rack) but only 20.5 inches deep – ideal for shorter rack depths. Rack-mount slides are included.

EDT software enables the user to control the fan speed (to adjust noise level versus cooling level) and monitor internal system parameters (voltage, temperature, and power).

Applications

Ideal for applications requiring added slots or support for higher power boards

Specifications

Product Type	1U expansion system with four slots for PCIe x8.	
Data Rates	Dependent on such factors as data format, system variables, and boards used.	
Interfaces	External	One 9-pin serial diagnostic port Two PCIe x8 host ports*
	Internal	Four PCIe x16 expansion slots for x1, x4, x8, or x16 boards (x8 implemented) Four power supply connectors for higher power boards
	* The four expansion slots can be connected to the two host ports in any configuration (2+2, 3+1, or 4+0)	
System Monitoring	Software-based control of fan speed and monitoring of internal system voltage, temperature, and power	
Noise	TBD (software allows the user to adjust noise level versus cooling performance)	
MTB	TBD	
Panel Features & Access	Front	One LED status indicator (green = normal; yellow = standby; red = fault)
	Back	One 9-pin serial diagnostic port Two host ports to support four PCIe x8 boards One AC power connector
Connectors and Cabling	Comes with a 1-meter cable-adapter assembly (PCIe x8). For additional cabling needs, consult EDT.	
Power	Power per slot	About 50 watts each
	Power supply	600 W, optionally upgradable to 850 W or 1100 W
	Input voltage ranges	90 to 264 VAC
	Input frequency	47 to 64 Hz
	Power factor	0.9 (minimum) W / VA
	Nominal output current (main / standby)	50 ADC (+12 VDC) / 5 ADC (+3.3 VDC)
Optional Accessories	Additional 1-meter cable with adapter for dual host operation; other cable lengths are available as options.	
Physical	Weight	TBD
	Dimensions	1.75" H (1U) x 17.25" W (inside rails) x 20.5" D (21.75" with handles)
Environmental	Temperature (operating / non-operating)	0° to 40° C / -40° to 70° C
	Humidity (operating / non-operating)	1% to 90%, non-condensing at 40° C / 95%, non-condensing at 45° C
Altitude	Operating / non-operating	0 to 15,000 feet / 0 to 50,000 feet
System and Software	System must have a PCI Express bus that supports a connector of at least eight lanes. Performance-monitoring software and driver are included for Windows and Linux.	

Ordering Options

- Power supply: **600W** / 850W / 110W
- Additional cable + adapter (PCIe 2.0 x8)
- Optional cable lengths

Bold is default. For more options, see mezzanine & main board detail. **Ask** about custom options.

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