

zSeries 9-Slot Chassis

9-Slot 3U PXI Express Chassis





The LitePoint zSeries 9-slot chassis is a 9-slot PXI Express chassis with advanced features and functions. Compliant with PXI Express and cPCI Express specifications, the zSeries 9-slot chassis offers one system slot, one system timing slot, and seven hybrid peripheral slots for versatile testing and measurement applications requiring enhanced bandwidth.

The hybrid-slot design accepts installation of CompactPCI, PXI, CompactPCI Express, and PXI Express modules into any peripheral slot, maximizing flexibility. The zSeries 9-slot chassis is built on a four-link PXI express chassis with up to 8 GB/s system bandwidth, and 1 GB/s slot bandwidth for all peripheral slots. The zSeries 9-slot chassis implements 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 zSeries 9-slot chassis can provide 400 W in environments from 0°C to 55°C, and features an innovative cooling scheme providing superior heat dissipation. Two 185.9CFM fans in the rear section of the chassis draw cool air from apertures on the bottom and front of the chassis, over the PXI modules, and exhausted to the rear. This innovative cooling design provides, not only exceptional efficiency of heat dissipation, but also superior uniformity for each PXI slot. BNC connectors for 10 MHz clock input/output on the rear panel increase chassis flexibility, enabling synchronization with supplementary devices.

Features

- PXITM-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 1 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
- 400 W industrial-grade AC power supply
- Power, temperature, and fan monitoring LEDs

General Technical Specifications

The zSeries 9-slot chassis complies with the PXITM-5 Specification Rev.1.0 and accepts all modules compliant with the PXITM-5 and Compact PCI specification.

Power Supply

Parameter		Specifications	
AC Input (*guaranteed by power supply design)			
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	
Input current rating			
115 VAC		13 A	
230 VAC		10 A	
DC Output			
Maximum total usable power		400 W	
VDC	Maximum	Load Regulation	Maximum Ripple & Noise
+5V	23.0 A	±3%	50 mV
+12V system slot	15.0 A	±3%	50 mV
+12V peripheral slots	16.0 A	±3%	50 mV
+3.3V	33.0 A	±3%	50 mV
-12V	1.75 A	±3%	50 mV

10 MHz System Reference Clock (10 MHz REF)

Parameter		Specifications	
Maximum clock skew between slots		300 ps	
Built-in 10 MHz clock Accuracy		±50 ppm	
BNC Output amplitude		1 V _{pk-pk} ±20% square-wave into 50 Ω 2 V _{pk-pk} unloaded	
BNC Output impedance		50 Ω ±5 Ω	

External 10 MHz clock source input requirements

Parameter	Specifications
Frequency input	10 MHz \pm 100 PPM
Input signal (10 MHz REF In BNC)	100 mVPP to 5 VPP (square or sine)
Input impedance (10 MHz REF In BNC)	50 Ω \pm 5 Ω
Input signal (PXI_CLK10_IN on fifth slot)	5 V or 3.3 V TTL signal

100 MHz System Reference Clock: PXIe_CLK100

Parameter	Specifications
Maximum slot-to-slot skew	100 ps
Accuracy	\pm 25 ppm

Cooling

Parameter	Specifications
Fans	2 sets of 185.9 CFM fans
Per-slot cooling capacity	30 W (verified by 55°C chamber test)

Physical

Parameter	Specifications
Slots	9 (1 x system slot, 1 x system timing slot, 7 x hybrid peripheral slots)
Dimensions	321.9 (W) x 191.4 (H) x 465.3 (D) mm (12.7 x 7.5 x 18 in.)
Weight	8.8 kg (19.4 lb)

Environmental

Parameter	Specifications
Storage	Ambient temperature: -20 to 70°C Relative humidity: 10 to 90%, noncondensing
Operating	Ambient temperature: 0 to 55°C Relative humidity: 10 to 90%, noncondensing
Functional Shock	30 G, half-sine, 11 ms pulse duration
Random Vibration	Operating: 5 to 500 Hz, 0.31 Grms, 3 axes Nonoperating: 5 to 500 Hz, 2.46 Grms, 3 axes

Certification

Parameter	Specifications
Safety	EN 61010-1
Electromagnetic Compatibility	Emissions: EN 55011 Class A Immunity: EN 61326-1

CE Compliance

Parameter	Specifications
CE Compliance	Meets essential requirements of applicable European Directives, as amended for CE Marking: Low-Voltage Directive (safety): 73/23/EEC Electromagnetic Compatibility Directive (EMC): 9/336/EEC

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