



For Sales Information:
sales@serialcables.com
(303)495-2320
<http://www.serialcables.com>



PCI-SWG3-024E Gen3 PCIe Switch

Serial Cables PCI-SWG3-024E High Speed PCI Express switch delivers a powerful and flexible PCI Express external solution. This Gen3 PCI Express switch supports I/O expansion and high throughput PCI Express clustering.

- 24 PCI Express Gen3 x4 Ports
- Gen3 8.0 GT/s Per Lane
- 32 GT/s Per Port
- NTB or Transparent Use
- SFF-8644 Connectors
- PCIe 3.0 or MiniSAS HD Cables
- 19in 1U Rack Mountable
- Redundant Fans
- Port Status LEDs
- Copper and Fiber Optic Cables
- Ethernet Based Management and Monitoring
- Hot Plug Cabling Support

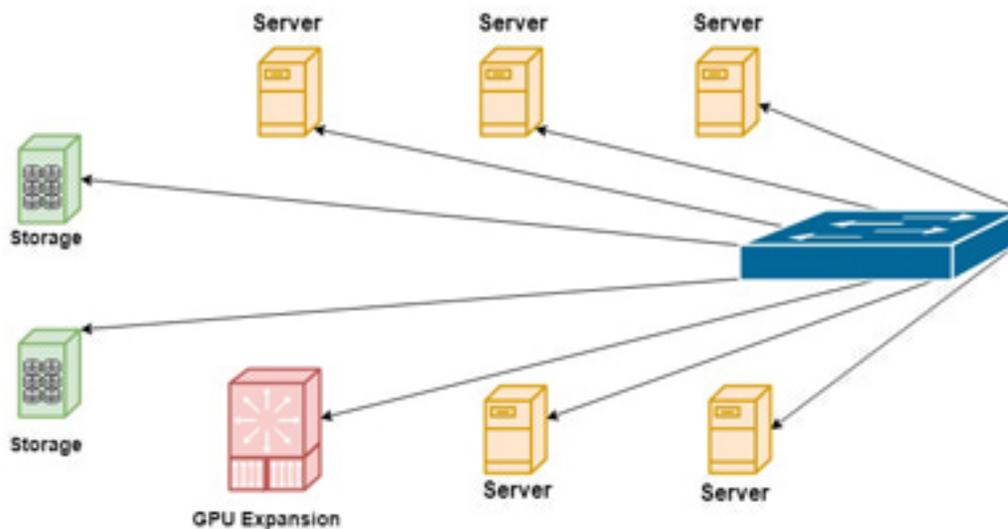
The PCI-SWG3-024E switch enables users the ability to create a scalable PCIe fabric solution using standard PCIe copper or fiber cables. PCIe solutions running over back planes can now easily be enabled to run over external cables. Larger PCIe configurations can be realized by interconnecting multiple PCI-SWG3-024E switches. By loading the appropriate firmware, the PCI-SWG3-024E supports both transparent and non transparent bridging (NTB) use cases for clustering and I/O expansion applications.

The PCI-SWG3-024E is the high-end switching component in Serial Cables new PCI Express Gen3 product family. This 24 port 1U cluster switch delivers 32 GT/s of non-blocking bandwidth per port at ultra low latency. Up to 4 ports can be combined into a single x16 / 128 GT/s port if higher bandwidth is required. Each connection is fully compliant with PCI Express Gen1, Gen2 and Gen3 I/O specifications.

PCIe IO Expansion

The PCI-SWG3-024E switch used in combination with the PCI-AD-x16HE-MPS will support standard IO expansion, connecting one server to many PCIe Devices or PCIe Expansion chassis. Additional configurations supporting multiple hosts and switch partitioning, fail-over configurations will be supported in the future. Management and configuration of the PCIe fabric will be done through the Ethernet port.

PCI Clustering / Networking



For host to host communication, the PCI-SWG3-024E can be combined with PCI-AD-x16HE-MPS Host Adapters. Operating in Non-Transparent Bridging mode, Serial Cables has solved the strict power on requirements normally associated with PCI Express. Hosts, cables, and the switch can be hot-swapped and power cycled in any order, providing real plug and play as normally expected from networking components.



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Composable Hardware Infrastructures

The PCI-SWG3-024E can be used to develop composable hardware infrastructures. In this environment, it functions as a top of rack switch which connects both I/O and processing.

Reflective Memory

The PCI-SWG3-024E supports large reflective memory configurations and multiple multicast groups.

Cables and Ports

The PCI-SWG3-024E switch has six quad SFF-8644 cable connectors and supports MiniSAS-HD cables as well as the new PCIe 3.0 cables. Each quad port can be used as four independent x4 links, two independent x8 links or one x16 link (in total up to 24 x4 links). The PCI-SWG3-024E is carefully designed for maximum cable lengths. Fiber optics extends this distance to 100 meters.

Management

The PCI-SWG3-024E comes with a built-in management processor. The processor enables Ethernet based firmware upgrade, switch re-configuration and monitoring. All configuration data is stored in non-volatile memory so the processor is not required to bring up a configured product.



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Link Speed	32 GT/s per x4 Port
Application Performance	170ns port latency
Active Components	Microsemi PFX Switchtec PCI Express Gen 3 Switch
PCI Express	Base Specification 3.1
Ports	24 - x4 non-blocking PCIe Gen3 32GT/s ports
Cable Connections	x4 MiniSAS HD Cable Connections Copper Cables - Up to 5 meters at Gen3 speed Fiber-Optic cable support - Up to 100 meters
Power Consumption	Auto-sensing Power Supply 110-240V AC 50-60Hz
Management	RJ45 and USB Management Ports Operational Status and Alert LEDs
Mechanical Dimensions	1U, 19in Rack Mountable Chassis 440mm(W) x 300mm(D) x 45mm(H)
Operating Environment	Operating Temperature: 0°C - 55°C Relative Humidity: 10% - 95% (non-condensing)
Storage Environment	Storage Temperature: -25°C - 70°C Relative Humidity: 10% - 95% (non-condensing)
Software	SuperSockets Berkley Sockets API, Microsoft WinSock/LSP Support, SISCi API, SmartIO, TCP/IP Driver
Operating System	Windows, Linux, VxWorks, RTX