Flex System PCIe Expansion Node

Expand compute nodes for more capability

Over time, IT systems have become more complex and difficult to manage. Without the right systems in place, you run the risk of spending too much time on operations and maintenance and not enough time on innovation. You need a flexible infrastructure that can meet today's ever-changing business demands.

The Flex System™ PCIe Expansion Node is an element of the PureFlex family, which combines compute, storage, networking, virtualization and management into a single system that anticipates resource needs to help you optimize your infrastructure. The PCIe Expansion Node allows you to attach additional PCIe adapters, fabric mezzanine adapters and next-generation graphics processing units (GPU) to a Flex System compute node, which expands the compute node's capability.

The Flex System PCIe Expansion Node is ideal for a variety of application environments, including:

- Specific networking environments that require direct PCIe adapter connectivity to Flex System compute nodes
- Application environments that are written to take advantage of acceleration and visualization performance-leveraging GPUs connected to Flex System compute nodes

A complete list of supported Flex System compute nodes, adapters, and operating systems is available on the ServerProven® web page at: **ibm.com**/systems/info/x86servers/serverproven/compat/us/flex.html

Why System x

System x® is the leading provider of x86 systems for the data center. The portfolio includes rack, tower, blade, dense and converged systems, and supports enterprise class performance, reliability and security. System x also offers a full range of networking, storage, software and solutions, and comprehensive services supporting business needs throughout the IT lifecycle.

intel inside™ XEON®

Specification

Supported bus widths	1x, 2x, 4x, 8x and 16x*
Adapter capacity	Two full-length, full-height x16 Two half-length, half- height x8
Adapter sizes	Standard-height adapters, 4.20-inch (106.7 mm) Low-profile adapters, 2.536-inch (64.4 mm) Half-length adapters, 6.6-inch (167.65 mm) Full-length adapters, 12.283-inch (312 mm)
Adapter quantities	Up to two low-profile adapters Up to two full-height adapters Up to one full-height, doublewide adapters
PCIe standards	Supports 1.1 and 2.0
Generation	Generation 1- and Generation 2-compliant adapters†
Power	Supports greater than 75 W PCIe adapters using standard PCIe auxiliary power connectors‡
Form factor	Flex System™ standard node
Chassis support	Flex System Enterprise Chassis
I/O Expansion	2x Mezz adapters (x8+x4)
Warranty	3-year customer replaceable unit and onsite service, next business day 9×5, service upgrades available
Management	iMM V2, RTMM KVM Dongle

For more information

To learn more about the Flex System PCIe Expansion Node, visit: **ibm.com**/systems/pureflex/ or contact your Lenovo representative or Business Partner.

* PCIe mechanical connectors limit larger lane add-in cards from being inserted into smaller mechanical connectors.

† Generation 3-compliant adapters will operate using Generation 2 compliance.

‡ Contact your representative for additional information on other high-wattage adapters that can be supported.

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