



SWITCH BLADE

M2401G

20Gb/s InfiniBand Switch Blade

The M2401G 20Gb/s InfiniBand Switch Blade for Dell PowerEdge M1000e-series Blade Enclosures provides a high-bandwidth, low-latency, low-power fabric for Enterprise Data Center and High-Performance Computing environments. Based on the third generation InfiniScale® III InfiniBand switch device, the platform delivers an ideal balance between cost and performance. When used in conjunction with ConnectX® InfiniBand dual-port adapter cards, clustered data bases, parallelized applications and transactional services applications achieve significant performance improvements that reduce completion time and cost per operation.

The 24-port switch blade supports up to 16 server blades while providing 8 ports for connecting to a larger InfiniBand fabric. The non-blocking architecture ensures that each port will provide the full 20Gb/s of bi-directional bandwidth, while the advanced scheduling engine supports quality of service for up to 9 traffic classes.

High Availability

The M2401G delivers director-class availability required for mission-critical applications environments. When fully populated, the PowerEdge M1000e chassis can support up to four M2401G switch blades for maximum server throughput and redundancy. The switch blade is hot-swappable, enabling expansion without server interruption.

Easy Management

The M2401G is easily managed through any IBTA compliant subnet manager. Mellanox recommends installing and running Mellanox OpenFabrics software stack on each server blade. Any server can then run the subnet manager along with the switch management tools. Port configuration and data paths can be set up automatically or customized to meet the needs of the application. Firmware can be updated in-band for simple network maintenance.

Mellanox Advantage

Mellanox is the leading supplier of industry-standard InfiniBand adapters and switch products. Our products have been deployed in clusters scaling to thousands-of-nodes and are being deployed end-to-end in data centers and Top500 systems around the world.



M2401G 24-port InfiniBand Switch for PowerEdge M1000e-series Blade Enclosures

BENEFITS

- World-class price/performance
- High-performance networking and storage access
- Reliable transport
- I/O consolidation
- Virtualization acceleration

KEY FEATURES

- 960 Gb/s switching capacity
- Congestion management and QoS
- Hot pluggable

INFINIBAND

- IBTA Specification 1.2 compliant
- Integrated subnet manager agent
- Hardware-based congestion control
- 960Gb/s total switching bandwidth
- 256 to 4Kbyte MTU
- 9 virtual lanes: 8 data + 1 management
- 48K entry linear forwarding data base

MANAGEMENT

- Supports OpenSM or third-party subnet managers
- Diagnostic and debug tools

SPECIFICATIONS

- 24 InfiniBand ports
 - 10 or 20Gb/s
 - 16 ports for server blades
 - 8 uplink ports supporting active cables and fiber adapters
- IBTA 1.2 compliant
- Port and system status LED indicators
- RoHS-R5 compliant
- 37-month warranty from date of manufacturing

HARDWARE**INFINIBAND SWITCH**

- 24 ports
- 10 or 20Gb/s per port
- Fully non-blocking architecture

CONNECTORS AND CABLING

- microGiGaCN
- Passive copper cable
- Optical media adapter and active cable support

INDICATORS

- Per port status LEDs: Link, Activity
- System status LEDs: system status, power

DIMENSIONS (H X W X D)

- 10.73 x 1.16 x 10.04 inches

MAXIMUM POWER CONSUMPTION

- 50W
 - Dissipated power: 33.5W
 - Power through connector: 1.65W per port

COMPLIANCE**SAFETY**

- US/Canada: cTUVus
- EU: IEC60950
- International: CB

EMC (EMISSIONS)

- USA: FCC, Class A
- Canada: ICES, Class A
- EU: CE Mark (EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3)
- Japan: VCCI, Class A
- Korea: RRL (MIC), Class A
- Australia/New Zealand: C-Tick Class A

ENVIRONMENTAL

- EU: IEC 60068-2-64: Random Vibration
- EU: IEC 60068-2-29: Shocks, Type I / II
- EU: IEC 60068-2-32: Fall Test

OPERATING CONDITIONS

- Operating temperature: 0 to 40° C
- Humidity: 10-90% non-condensing



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Visit <http://www.dell.com> for more information.



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