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, parallel-ized applications and transactional services applications achieve significant performance improve-ments 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.

Easy Management

The M2401G is easily managed through any IBTA compliant subnet manager. Mellanox recom-mends 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 configura-tion and data paths can be set up automatically or customized to meet the needs of the applica-tion. 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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