



# Dell 10Gb Ethernet Pass Through II Dell 10Gb Ethernet Pass Through-k

## 10GbE Pass Through Modules for Dell M1000e Blade Enclosures

Transparently connect Dell M-Series blade servers into the Local Area Network (LAN) of your choice.

### Highlights

- Interoperable with any standards-based 10 Gigabit Ethernet Switch
- 1-to-1 port mapping simplifies configurations from blade server to LAN
- Dedicated & isolated 10GbE LAN connection from each blade within the enclosure
- Ships with all 32-ports enabled
- Choose between two models of Pass Through based on your selection of 10Gb NIC or CNA

### Interoperability without consideration

Dell 10GbE Pass Through Modules ensures 10Gb Ethernet interoperability for M-Series blade deployments. Since pass-throughs are transparent devices, they are unseen in LAN topologies and provide direct Ethernet connectivity from server blades to external LANs. This level of interoperability can be beneficial when seeking to integrate blade servers into existing LANs from any the partner of your choice.

### Plug and done

As unmanaged devices, Dell 10Gb Ethernet Pass Through Modules require no setup, configuration, or management. Simply plug the unit into the M1000e chassis and connect cables to the sixteen pre-installed short-wave SFP+ optical transceivers and you're done. The modules automatically connect at 10 Gigabit per second on a port-by-port basis and traffic can begin flowing from server blade to external 10Gb network switch.

### Dedicated bandwidth

By statically tying each internal (server) port to its corresponding external port, Dell 10GbE Pass Through Modules helps deliver dedicated and isolated bandwidth between each server blade and the LAN without compromise. The Modules' sixteen external ports also help maximize the available Ethernet bandwidth from your M1000e to your LAN.

*Looking for 10Gb Ethernet port aggregation or switching capability for your blade chassis? Check out the **PowerConnect M8024-k**, featuring both standard and port aggregator modes of operation.*

*Looking to consolidate with end-to-end 10Gb Converged Networking for your blade chassis? Check out **Dell M8428-k**, supporting connectivity to existing LAN and SAN data center infrastructures.*

## Specifications

Choose from two available models based on your Ethernet NICs or Converged Network Adapters:

Dell 10Gb Ethernet Pass Through II (for connectivity to legacy 10Gb adapters.

Dell 10Gb Ethernet Pass Through-k (for connectivity to next-generation 10Gb adapters.

System architecture	
Ports	<ul style="list-style-type: none"> <li>32 total Ethernet ports: 16 internal (server) ports and 16 external (LAN) ports</li> <li>1:1 Internal-external port pairs provide dedicated connections for isolated bandwidth between server and LAN</li> <li>Ships with all 32-ports enabled</li> <li>All external ports are hot-pluggable, enabling expansion without server interruption</li> </ul>
Interoperability	<ul style="list-style-type: none"> <li>Dell 10Gb Ethernet Pass Through Modules are transparent to all Ethernet topologies, providing connectivity from Dell blades to any vendor's external LAN switch</li> <li>Connect to any industry standard Ethernet compliant device</li> </ul>
Performance	<ul style="list-style-type: none"> <li>10 Gigabit per second line speed per port, full duplex</li> </ul>
Architecture	<ul style="list-style-type: none"> <li>Dell Pass-Through Modules are hot swappable in the M1000e chassis</li> <li>Redundant units provide failover protection</li> <li>Up to four 10Gb Ethernet Pass Through II modules (two in Fabrics B and C) supported per M1000e chassis</li> <li>Up to six 10Gb Ethernet Pass Through-k modules (two in Fabrics A, B, and C) supported per M1000e chassis</li> </ul>
Options	<ul style="list-style-type: none"> <li>All ports enabled standard</li> <li>External ports also support 10Gb SFP+ LR optics and SFP+ Direct-Attach (copper) cables (0.5m, 1m, 3m, 5m, 7m)</li> </ul>
Supported Adapters (by model)	<p>Adapter (NIC/CNA) support varies based on model of Pass Through</p> <ul style="list-style-type: none"> <li>Dell 10Gb Ethernet Pass Through II supports the following XAUI-based adapters: <ul style="list-style-type: none"> <li>Broadcom 57710 mezzanine card</li> <li>Broadcom 57711 mezzanine card</li> <li>Intel X520 mezzanine card</li> <li>Intel X520-x/k mezzanine card</li> <li>QLogic QME8142 mezzanine card</li> <li>Emulex OCm10102-f-m mezzanine card</li> </ul> </li> <li>Dell 10Gb Ethernet Pass Through-k supports the following KR-based adapters: <ul style="list-style-type: none"> <li>Brocade BR1741M-k mezzanine card</li> <li>Broadcom 57712-k network daughter card (NDC)</li> <li>Intel X520-x/k mezzanine card</li> <li>Future 10Gb adapters for PowerEdge blade servers</li> </ul> </li> <li>Note: 1Gb NICs are <u>not</u> supported with either model of pass-through</li> </ul>
Management	
Management	<ul style="list-style-type: none"> <li>Module is unmanaged – all management occurs via NIC firmware, O/S, or external switch</li> <li>Device status is available through the M1000e Chassis Management Controller (CMC)</li> </ul>
Diagnostics	<ul style="list-style-type: none"> <li>Dell 10GbE-k Pass-Through Module performs a power on self-test and various ongoing diagnostics to ensure proper operation</li> </ul>
Mechanical and environmental	
Size	<ul style="list-style-type: none"> <li>Single-wide I/O Module for M1000e (Width: 272.75 mm, Height: 32.48 mm, Depth: 307.24 mm)</li> </ul>
Weight	<ul style="list-style-type: none"> <li>2.6 kg without SFP's; 3.0 kg with SFP's</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>Please see limits associated with M1000e blade enclosure</li> </ul>
Power	
DC input	<ul style="list-style-type: none"> <li>12V from shared power supplies in M1000e blade enclosure</li> </ul>
Power consumption	<ul style="list-style-type: none"> <li>Approximately 20 Watts without SFP's</li> <li>Approximately 28 Watts with SFP's</li> </ul>

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