



DELL EMC NETWORKING MX7116n FABRIC EXPANDER MODULE

Low latency 25 Gigabit Ethernet fabric expansion for the PowerEdge MX platform

The Dell EMC Networking MX7116n Fabric Expander Module is a key component in the MX Scalable Fabric Architecture. This module transparently extends the networking capabilities of the MX9116n Fabric Switching Engine to multiple PowerEdge™ MX7000 chassis, providing high performance networking at a low TCO.

Maximum Scalability

The MX7116n extends the capabilities of the MX9116n Fabric Switching Engine to a total of ten MX7000 chassis and 80 PowerEdge MX compute sleds.

In addition to 16 internal 25GbE ports, the MX7116n provides two QSFP28-Double Density uplink ports. Each QSFP28-DD port provides capacity for eight 25GbE connections from PowerEdge MX compute sleds for a total of 200GbE of bandwidth per QSFP28-DD cable, and 400GbE bandwidth per MX7116n.

Performance and Latency

The non-blocking switching architecture in the MX9116n Fabric Switching Engine provides line-rate 25GbE L2 and L3 forwarding capacity to all connected servers. The MX7116n extends that capability to additional MX7000 chassis, adding less than 75ns of latency for a total of less than 600ns latency between any two compute sleds in a Scalable Fabric.

The design of the MX Scalable Fabric Architecture also allows for zero oversubscription between any two compute sleds in the fabric.

Zero touch management

The MX7116n does not run an operating system or have firmware that requires frequent updating to keep “in sync” with the Fabric Switching Engine. It is transparently managed by the MX7000 infrastructure and does not require user configuration.

Product	Description
MX7116n Fabric Expander Module	
Cables	QSFP28-DD to QSFP28-DD, active optical, passive DAC

Technical specifications

Physical

25GbE Fabric Expander in PowerEdge MX Fabric A/B I/O sled form factor

Indicators:

- Power/Health LED
- ID LED
- Supported Optic LED
- Compute sled link/activity LEDs

Size: 1.18" h x 17.11" w x 10.94" d

Weight: 6.83lbs (3.1kg)

Max. power consumption: 21.9 Watts

Typ. power consumption: 16.0 Watts

Max. operating specifications:

Standard Operating Temperature 10°C to 35°C (50°F to 95°F)

Operating Relative Humidity 5% to 85%, non-condensing

Max. non-operating specifications:

Storage temperature: -40°C to 65°C (-40°F to 149°F)

Storage humidity: 5 to 95% (RH), non-condensing

Expanded Operating Temperature, Continuous

Operation: 5°C to 40°C at 5% to 85% RH with 29°C dew point

Note: Outside the standard operating temperature, the system can operate continuously in temperatures as low as 5°C and as high as 40°C. For temperature between 35°C to 40°C, de-rate maximum allowable temperature by 1°C per 175m above 950m (1°F per 319 ft)

Fresh Air Compliant to 45°C

Redundancy

Redundant Power and Cooling provided by Dell EMC PowerEdge MX7000 Chassis

Performance

Latency: Sub 75ns

Regulatory compliance

Safety

UL/CSA 60950-1, Second Edition

EN 60950-1, Second Edition

IEC 60950-1, Second Edition Including all National Deviations and Group Differences

EN 60825-1 Safety of Laser Products Part 1: Equipment Classification Requirements and User's Guide

EN 60825-2 Safety of Laser Products Part 2: Safety of Optical Fiber Communication Systems
FDA Regulation 21 CFR 1040.10 and 1040.11

Emissions

Australia/New Zealand: AS/NZS CISPR 32:2015, Class A

Canada: ICES-3/NMB-3, Class A

Europe: EN 55024:2010 (CISPR 24:2010), Class A

Japan: VCCI V-3/2010.04 Class A

USA: FCC CFR 47 Part 15, Subpart B:2011, Class A

Immunity

EN 300 386 V1.6.1 EMC for Network Equipment
EN 55024:2010

EN 61000-3-2: Harmonic Current Emissions

EN 61000-3-3: Voltage Fluctuations and Flicker

EN 61000-4-2: ESD

EN 61000-4-3: Radiated Immunity

EN 61000-4-4: EFT

EN 61000-4-5: Surge

EN 61000-4-6: Low Frequency Conducted Immunity

RoHS

EN 50581:2012 All S9999 components are EU RoHS compliant

IT Lifecycle Services for Networking

Experts, insights and ease

Our highly trained experts, with innovative tools and proven processes, help you transform your IT investments into strategic advantages.



Plan & Design

Let us analyze your multivendor environment and deliver a comprehensive report and action plan to build upon the existing network and improve performance.



Deploy & Integrate

Get new wired or wireless network technology installed and configured with ProDeploy. Reduce costs, save time, and get up and running fast.



Educate

Ensure your staff builds the right skills for long-term success. Get certified on Dell EMC Networking technology and learn how to increase performance and optimize infrastructure.



Manage & Support

Gain access to technical experts and quickly resolve multivendor networking challenges with ProSupport. Spend less time resolving network issues and more time innovating.



Optimize

Maximize performance for dynamic IT environments with Dell EMC Optimize. Benefit from in-depth predictive analysis, remote monitoring and a dedicated systems analyst for your network.



Retire

We can help you resell or retire excess hardware while meeting local regulatory guidelines and acting in an environmentally responsible way.

Learn more at
DellEMC.com/Services

Learn more at DellEMC.com/Networking