

Qlogic QLE2770 Datasheet



Genuine Qlogic QLE2770-SR-SP PCIe 4.0 x8 Single-port 32GFC SR-Optic SFP+ Enhanced 32Gb Fibre Channel Adapter
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The Marvell QLogic 2770 Series Adapters are Enhanced 32-Gigabit Fibre Channel (GFC) HBAs that secure mission critical data with hardware-based Root of Trust (RoT). The adapters are available in single, dual, and quad ports across standard form factors.

Leveraging over 16 years of market leadership, the 2770 Series FC HBAs are designed from the ground up for customers looking to accelerate databases, host more virtual machines (VMs), and reduce total cost of ownership (TCO), while leveraging their investment in nonvolatile memory express (NVMe)-based all flash arrays. Marvell QLogic 2770 Series FC (32GFC) HBAs provide full backward compatibility with 16GFC and 8GFC SANs.

NVMe® Over Fibre Channel (FC-NVME)

Workloads that demand higher throughput, IOPS, and lower latency are moving to flash. The NVMe protocol has been designed from the ground up for flash and features deep parallelism, random access, and flash access over PCI Express® (PCIe®) to maximize bandwidth.

NVMe works best when coupled with a network that can provide lossless, low-latency, and high-performing transport. FC-NVMe extends these benefits over a Fibre Channel fabric.

The 2770 Series Adapters support low-latency access to scale out with full support for the FC-NVMe-2 protocol. The 2770 Series Adapters can simultaneously support FC-NVMe and FCP-SCSI storage traffic on the same physical port, enabling customers to migrate to NVMe at their own pace.

The 2770 Series FC Adapters bring the best of both worlds by offering up to 4 million IOPS and line rate 32GFC performance, while delivering low-latency access to NVMe and SCSI storage over a Fibre Channel network.

Features

- Improve scale out NVMe efficiencies by delivering concurrent support for FCP and FC-NVMe™
- Industry leading performance of up to 4 million IOPS and 25,600MBps of aggregate throughput
- Port isolation design delivers deterministic and scalable performance on each port
- Marvell StorFusion™ technology accelerates deployment, simplifies diagnostics, enhances reliability, and optimizes performance
- Improve database transactional performance, enable faster business decisions with up to 2x faster data mining, and host more VMs
- Supports PCIe 4.0 systems
- Available in single, dual, and quad-port versions

Host Bus Interface Specifications

- Bus Interface
 - QLE2770: PCIe 4.0 ×8 (single-port)
 - QLE2772: PCIe 4.0 ×8 (dual-port)
 - QLE2774: PCIe 4.0 ×16 (quad-port)
- Host Interrupts
 - INTx and MSI-X
- Compliance
 - PCIe Base Specification, rev. 4.0
 - PCIe Card Electromechanical Specification, rev. 3.0
 - PCIe Card Electromechanical Specification, rev. 4.0 draft 0.9
 - PCI Bus Power Management Interface Specification, rev. 1.2
 - PCI Hot Plug Specification, rev. 1.1

Fibre Channel Specifications

- Throughput
 - 6,400MBps full duplex line rate per port
- Logins
 - Support for 2,048 concurrent logins and 2,048 active exchanges per port
- Port Virtualization
 - NPIV
- Compliance
 - SCSI Fibre Channel Protocol-4 (FCP-4)
 - Fibre Channel Tape (FC-TAPE) Profile
 - Fibre Channel Generation Services-8 (FC-GS-8)
 - Fibre Channel-Physical Interface-5 (FC-PI5)
 - Fibre Channel-Physical Interface-6 (FC-PI6)
 - Fibre Channel Link Services 4 (FC-LS-4)
 - Fibre Channel Framing and Signalling-4 (FC-FS-4)
 - Fibre Channel-NVMe-2 (FC-NVMe-2)

Physical Specifications

- Ports
 - QLE2770: single-port FC
 - QLE2772: dual-port FC
 - QLE2774: quad-port FC
- Form Factor
 - Single port: low profile PCIe card (6.6 inches × 2.731 inches)
 - Dual port: low profile PCIe card (6.6 inches × 2.731 inches)
 - Quad port: standard height PCIe card (6.6 inches × 4.38 inches)

Ordering Information

- QLE2770-SR-SP (Single Port)
 - Ships in an individually packed box with a standard-height bracket installed
 - Ships with 32GFC SR optical transceiver installed

- QLE2772-SR-SP (Dual Port)
 - Ships in an individually packed box with a standard-height bracket installed
 - Ships with 32GFC SR optical transceivers installed
- QLE2774-SR-SP (Quad Port)
 - Ships in an individually packed box with a standard-height bracket installed
 - Ships with 32GFC SR optical transceivers installed

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