Marvell QLogic Adapters for Dell Servers

FUTURE-READY I/O

Marvell technology enables superior performance, greater virtualization density, and improved storage area networking on Dell EMC PowerEdge Servers and Storage arrays. A leading provider of QLogic® Fibre Channel host bus adapters to Dell Technologies, Marvell offers Dell Technologies and its customers a broad portfolio of storage and networking solutions.

Dell OEM SKUs

Speed/ Protocol	QLogic Model	Factory Install	Customer Kit/APOS	Ports*	Form Factor	Notes
32Gb Fibre Channel	QLE2772 V2 (FH)	540-BDHC	540-BDHO	2	PCIe 4.0	**14G:** R640, R740, R740XD, R840, R940(FH), R940XA, T640(FH), FC640(LP) **15G:** R650, R650XS(LP), R750, R750XS(LP), R750XA, R6515(LP), R7515, R6525, R7525 **16G:** R660, R760, R760XA(FH), R6615, R6625, R7615, R7625, C6620(LP)
	QLE2772L V2 (LP)	540-BDGU	540-BDHM	2	PCIe 4.0	
	QLE2770 (FH)	540-BDKL	540-BDKO	1	PCIe 4.0	
	QLE2770L (LP)	540-BDKN	540-BDKM	1	PCIe 4.0	
	QME2742	544-BBCP	540-BCJG	2	Blade Server Mezzanine Card	**14G:** MX740C, MX840C **15G:** MX750C **16G:** MX760C
16Gb Fibre Channel	QLE2692 V2 (FH)	540-BDHU	540-BDHW	2	PCIe 3.0	**14G:** R540, R640, R740, R740XD, R740XD2, R840, R940(FH), R940XA, R6415(LP), R7415, R7425, T640(FH), M640 VRTX(1P), FC640(LP) **15G:** R650, R650XS(LP), R750, R750XS(LP), R750XA, R6515 (LP), R7515, R6525, R7525, T550 (2P, FH)
	QLE2692 V2 (LP)	540-BDIB	540-BDHB	2	PCIe 3.0	
	QLE2690 V2 (FH)	540-BDGX	540-BDHE	1	PCIe 3.0	
	QLE2690 V2 (LP)	540-BDGW	540-BDHV	1	PCIe 3.0	
25Gb sNDC CNA	QL41262	543-BBDI	540-BCJF	2	Blade Server Mezzanine Card	**14G:** MX740C, MX840C **15G:** MX750C **16G:** MX760C

* Port count is the same for both FH and LP models

Marvell's Global Dell Sales Team

Jimmy Endres	Americas Sales	+1-512-657-2991	jendres@marvell.com
Frank Heine	EMEA Dell Sales	+49 173-328-6633	fheine@marvell.com
Loren Lan	China Dell Sales	+86 133-0600-8696	LLan@marvell.com
Ken Hare	Global Account Manager	+1-512-406-1479	khare@marvell.com
Todd Owens	Field Marketing Director	+1-970-692-4263	towens@marvell.com

Marvell's Field Application Engineer Dell Team

Klaus Scholz	EMEA FAE		kscholz@marvell.com
Xi Jiang	China FAE	+86-186-1023-255	xij@marvell.com
Shiro Yada	Japan FAE	+81-805-057-4639	syada@marvell.com

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Fibre Channel Facts
● Fibre Channel is a well adopted **lossless** protocol that is the gold-standard storage connectivity option for customers needing reliable **performance, low latency, and scalability.**
● Marvell QLogic FC HBAs has **dedicated processor, memory, and firmware for each port** to help increase reliability and deliver predictable performance.
● Many **mission critical applications** in banking and finance, healthcare, and government almost entirely depend on FC storage; it's not going away!
● Marvell Qlogic is a market leader paving the way for **NVMe over Fibre Channel** (FC-NVMe) because of its low latency, scalable, secure, and proven technology.
● Future-proof: 32Gb **backwards compatible** with 16Gb and 8Gb .
● **Only QLogic** FC HBAs utilize a **single driver** for **both FC and FC-NVMe** connectivity
● **UNIVERSAL Congestion Mitigation** technology at *NO additional cost* ; works with Brocade and Cisco switches.
● PowerMax and PowerStore supports FC-NVMe to provide **end-to-end** NVMe with QLogic from servers to storage.
● Tape backup uses fibre channel because it is lossless for a **seamless offsite backup strategy**!
● Fibre Channel technology drives more external **storage** ports than any other I/O interconnect.

	Technology	What is it?	Customer benefit?
	Port Isolation Design	ASIC design utilizing dedicated processor, memory and firmware for each adapter port	Ensures predictable per-port performance and increases overall SAN reliability
	Secure Firmware Update/**Silicon Root of Trust (RoT)**	Encrypted signature match between firmware and HBA ASIC	Improves security by eliminating possibility of rogue F/W to be introduced into the adapter.
	Forward Error Correction **(FEC)**	Enhanced error correction encoding now part of 32GFC Standard	Improves transmission reliability and reduces potential data errors in FC SAN
	NVMe over Fibre Channel **(FC-NVMe)**	Ability to process NVMe storage commands to Storage Arrays that support native NVMe connect	Improved performance due to efficiency of NVMe protocol compared to SCSI protocol
StorFusion	Universal SAN Congestion Mitigation **(USCM)**	Support for Fabric Performance Impact Notification (FPIN) messages and responses	Minimize SAN congestion in both B-Series and C-series SAN Fabrics for customers
	Virtual Machine ID (**VM-ID**)	Provides VM awareness for Fibre Channel traffic from the server to the SAN	Improve VM workload visibility, diagnostics and improves ability to meet SLAs
	Fabric Assigned WWN, (FA-WWN)	Fibre Channel features to pre-configure adapter configuration setting in the fabric	Reduces SAN deployment time by as much as 30%
	Diagnostic Port, FDMI, Read Diagnostic Parameter (RDP), Link Cable Beaconing (LCB)	Enhanced diagnostic and parameter information that can be transmitted in a 16GFC or 32GFC SAN	Reduces troubleshooting effort by as much as 50%