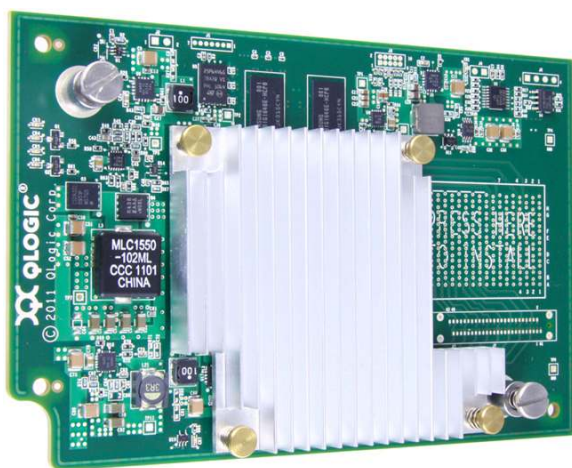# Cisco UCS CNA M73KR-Q
QLogic Converged Network Adapter

Product Overview

The Cisco UCS™ CNA M73KR-Q QLogic Converged Network Adapter (CNA; Figure 1) is a QLogic-based Fibre Channel over Ethernet (FCoE) mezzanine card that provides connectivity for Cisco UCS B-Series Blade Servers in the Cisco Unified Computing System™ (Cisco UCS).

Designed specifically for the Cisco UCS blades, the adapter provides high-performance connectivity for SAN and LAN traffic. One Cisco UCS CNA M73KR-Q can do the work of a discrete Fibre Channel host bus adapter (HBA) and Ethernet network interface card (NIC). This convergence means fewer cables, fewer switches, less power consumption, reduced cooling, and unified LAN and SAN management.

Figure 1.   Cisco UCS CNA M73KR-Q QLogic Converged Network Adapter

Features and Benefits

The Cisco UCS CNA M73KR-Q provides both 10 Gigabit Ethernet and 8-Gbps Fibre Channel functions using drivers from QLogic:

- Risk mitigation through compatibility with current QLogic adapter-based SAN environments and drivers
- Full hardware offload for FCoE protocol processing, reducing system CPU utilization for I/O operations and leading to faster application performance and greater consolidation in virtualized systems
- Reduced total cost of ownership (TCO) through consolidation of LAN and SAN traffic over the same mezzanine card and fabric, reducing the overall number of NICs), HBAs, cables, and switches
- Integrated management with Cisco UCS Manager

Figure 2 shows the Cisco UCS CNA M73KR-Q architecture.

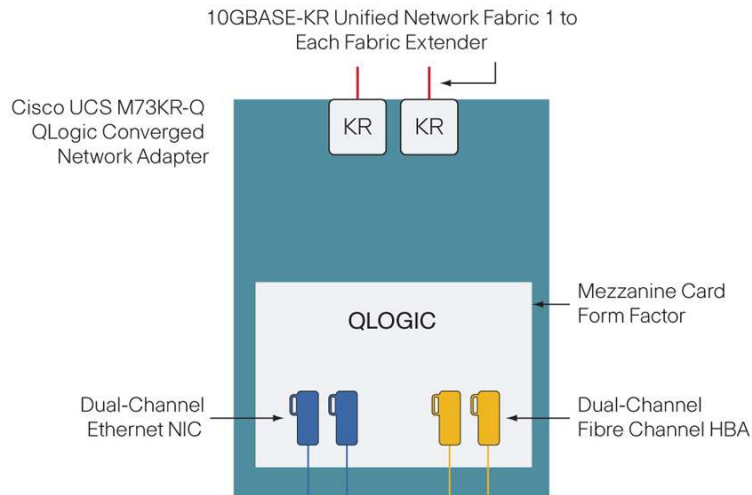**Figure 2.** Cisco UCS CNA M73KR-Q QLogic Converged Network Adapter Architecture

Table 1 summarizes the features and benefits of the Cisco UCS CNA M73KR-Q.

Table 1. Features & Benefits

Feature	Benefit
QLogic Fibre Channel controller application-specific integrated circuits (ASICs)	Allows customers to use existing QLogic HBA software and drivers for storage
Unified I/O	• Supports three simultaneous protocols: TCP/IP networking, FCoE, and Small Computer System Interface over IP (iSCSI) • Helps reduce TCO by consolidating the overall number of NICs, HBAs, cables, and switches because LAN and SAN traffic run over the same mezzanine card and fabric
Network architecture	Provides redundant path to fabric interconnect using dual 10 Gigabit Ethernet ports to the fabric carrying both Fibre Channel and Ethernet traffic
Unified management	Through Cisco UCS Manager, supports automatic updates of Qlogic firmware and drivers.
Support for lossless Ethernet	• Uses Priority Flow Control (PFC) and IEEE 802.3x pause to enable FCoE as part of the Cisco unified fabric • Increases storage networking performance by eliminating retry and resend operations in congested fabrics

Product Specifications

Table 2 summarizes the features and benefits of the Cisco UCS CNA M73KR-Q.

Table 2. Product Specifications

Feature	Specification
Standards	• IEEE 802.3ae (10-Gbps Ethernet), 802.1q(VLAN), 802.3ad (Link Aggregation), 802.1p (Priority Encoding), 802.3x (Flow Control), 802.3ap (KX/KX4), and 1149.1 (JTAG) • IPV4 Specification (RFC 791), IPV6 Specification (RFC 2460),TCP/UDP Specification (RFC 793 and 768), and Address Resolution Protocol (ARP) Specification (RFC 826) • SCSI-3 Fibre Channel Protocol (SCSI-FCP-2), Second-Generation Fibre Channel Generic Services (FC-GS-2), Third-Generation Fibre Channel Generic Services (FC-GS-3), and FCoE and FCoE Initialization Protocol (FIP; FC-BB-5) • Priority-Based Flow Control (IEEE 802.1Qbb), Enhanced Transmission Selection (IEEE 802.1Qaz), Congestion Notification (IEEE 802.1Qau), and Data Center Bridging Exchange (DCBX) Protocol (IEEE 802.1Qaz)
Components	QLogic 3G CNA ASIC (Cisco UCS certified)

Feature	Specification
Ports	2x 10 Gigabit Ethernet and mezzanine connectors
Connectivity	1000BASE-BX and Cisco UCS midplane
FCoE performance	Single port: 250,000 I/O operations per second (IOPS; estimate) Dual port: 450,000 IOPS (estimate)
Network management	Cisco UCS Manager Release 1.3.1 or later
Physical dimensions	• Length: 5.3 in. (13.5 cm) • Width: 3.5 in. (8.9 cm)
Power dissipation	14.36 watts (typical)
Inlet operating temperature range	50 to 90°F (10 to 35 °C)

System Requirements

The Cisco UCS CNA M73KR-Q mezzanine card is designed for use only on Cisco UCS B-Series Blade Servers. Each half-width server, including the Cisco UCS B200 M3 Blade Servers supports one mezzanine adapter. The adapter is not designed or intended for other purposes.

Warranty Information

Find warranty information at Cisco.com on the Product Warranties page.

Cisco Unified Computing Services

Using a unified view of data center resources, Cisco and our industry-leading partners deliver services that accelerate your transition to a unified computing architecture. Cisco® Unified Computing Services helps you quickly deploy your data center resources, simplify ongoing operations, and optimize your infrastructure to better meet your business needs. For more information about these and other Cisco Data Center Services, visit http://www.cisco.com/go/unifiedcomputingservices.

Why Cisco?

Cisco has significant experience in listening to customer requirements and providing solid technology innovation for the enterprise data center. Cisco delivers standards-based solutions backed by a broad partner ecosystem of industry leaders to provide end-to-end customer solutions. Unified computing elevates the traditional product classification of network, server, storage, operating systems, and applications to a vision that spans the entire data center. Cisco, as one of the largest technology providers in the world, has the resources, expertise, and customer focus to deliver on the unified computing vision.

Printed in USA

C78-703587-00   04/12