Cisco UCS Virtual Interface Card 1400 Series

Contents

Cisco Unified Computing System overview

The Cisco Unified Computing System™ (Cisco UCS®) is a next-generation data center platform that unites computing, networking, storage access, and virtualization resources in a cohesive system designed to reduce Total Cost of Ownership (TCO) and increase business agility. The system integrates a low-latency, lossless 10/25/40/100 Gigabit Ethernet network fabric with enterprise-class blade and rack x86-architecture servers. The system is an integrated, scalable, multichassis platform in which all resources participate in a unified management domain.

Portfolio overview

The Cisco UCS Virtual Interface Card (VIC) 1400 Series (Figure 1) extends the network fabric directly to both servers and virtual machines so that a single connectivity mechanism can be used to connect both physical and virtual servers with the same level of visibility and control. Cisco® VICs provide complete programmability of the Cisco UCS I/O infrastructure, with the number and type of I/O interfaces configurable on demand with a zero-touch model.

Figure 1.
Cisco UCS VIC 1400 Series

Cisco VICs support Cisco SingleConnect technology, which provides an easy, intelligent, and efficient way to connect and manage computing in your data center. Cisco SingleConnect unifies LAN, SAN, and systems management into one simplified link for rack servers, blade servers, and virtual machines. This technology reduces the number of network adapters, cables, and switches needed and radically simplifies the network, reducing complexity. Cisco VICs can support 256 Express (PCIe) virtual devices, either virtual Network Interface Cards (vNICs) or virtual Host Bus Adapters (vHBAs), with a high rate of I/O Operations Per Second (IOPS), support for lossless Ethernet, and 10/25/40/100-Gbps connection to servers. The PCIe Generation 3 x16 interface helps ensure optimal bandwidth to the host for network-intensive applications, with a redundant path to the fabric interconnect. Cisco VICs support NIC teaming with fabric failover for increased reliability and availability. In addition, it provides a policy-based, stateless, agile server infrastructure for your data center.

The VIC 1400 series is designed exclusively for the M5 generation of UCS B-Series Blade Servers, C-Series Rack Servers, and S-Series Storage Servers. The adapters are capable of supporting 10/25/40/100-Gigabit Ethernet and Fibre Channel over Ethernet (FCoE). It incorporates Cisco's next-generation Converged Network Adapter (CNA) technology and offers a comprehensive feature set, providing investment protection for future feature software releases. In addition, the VIC supports Cisco's Data Center Virtual Machine Fabric Extender (VM-FEX) technology. This technology extends the Cisco UCS fabric interconnect ports to virtual machines, simplifying server virtualization deployment.

Product overview

Cisco VIC 1440

The Cisco UCS VIC 1440 (Figure 2) is a single-port 40-Gbps or 4x10-Gbps Ethernet/FCoE capable modular LAN On Motherboard (mLOM) designed exclusively for the M5 generation of Cisco UCS B-Series Blade Servers. When used in combination with an optional port expander, the Cisco UCS VIC 1440 capabilities are enabled for two ports of 40-Gbps Ethernet. The Cisco UCS VIC 1440 enables a policy-based, stateless, agile server infrastructure that can present to the host PCIe standards-compliant interfaces that can be dynamically configured as either NICs or HBAs.

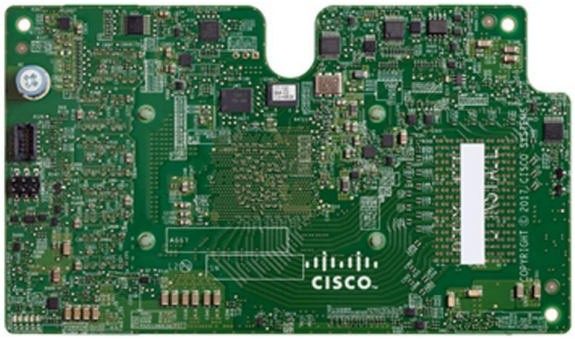
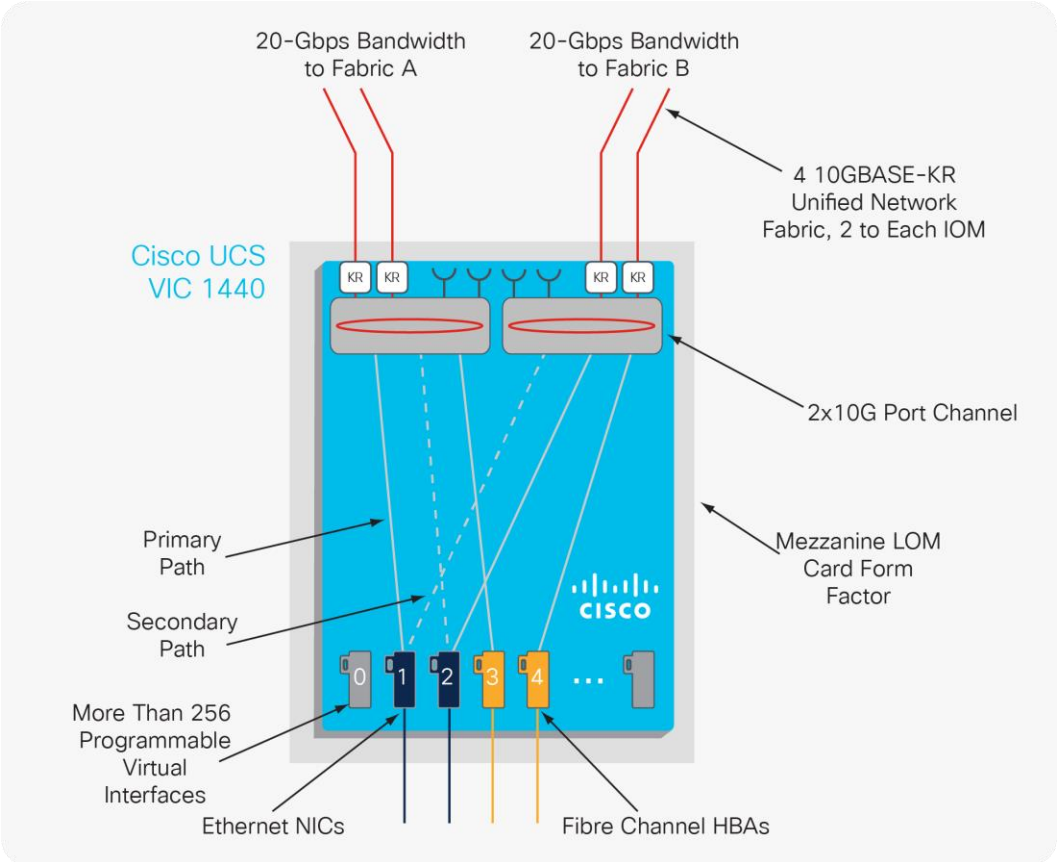


Figure 2.
Cisco UCS VIC 1440



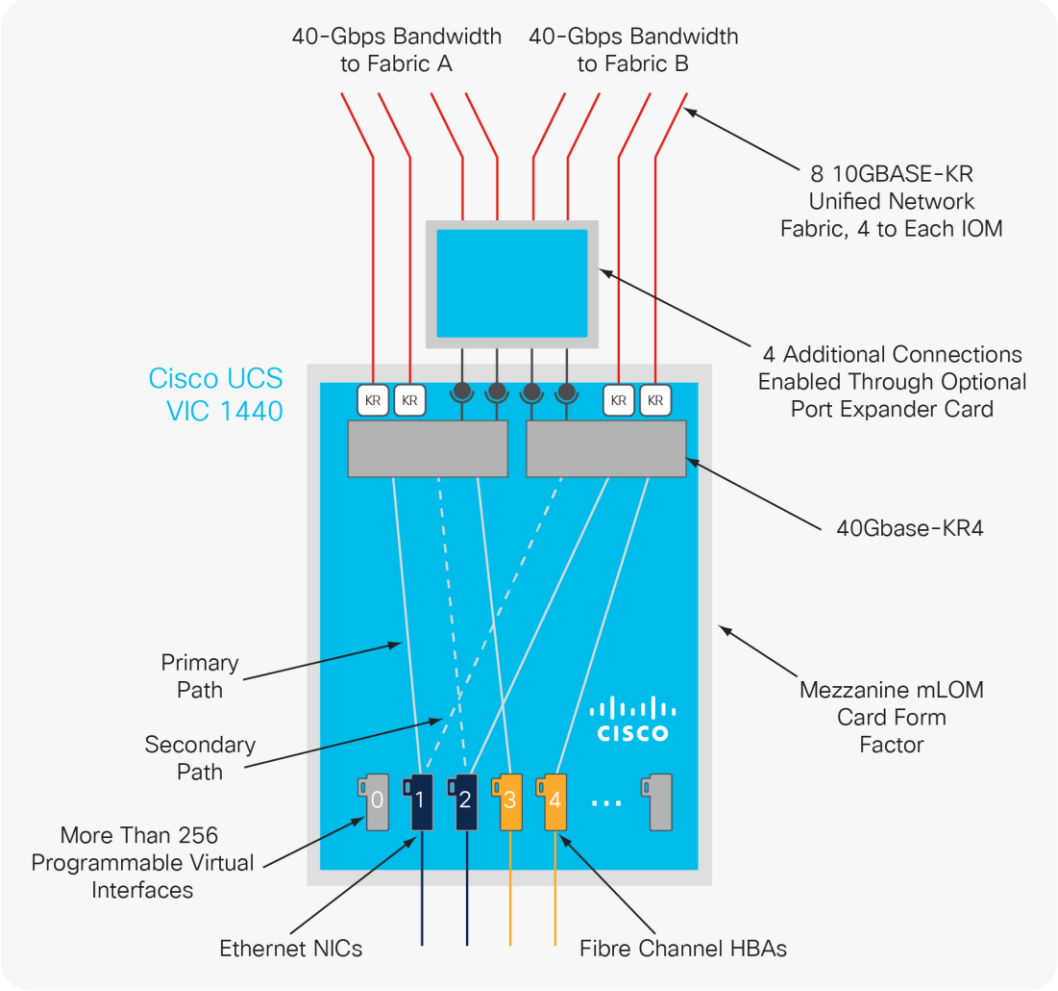


Figure 3.
Cisco UCS VIC 1440 with Port Expander

Cisco VIC 1480

The Cisco UCS VIC 1480 (Figure 4) is a single-port 40-Gbps or 4x10-Gbps Ethernet/FCoE capable mezzanine card (mezz) designed exclusively for the M5 generation of Cisco UCS B-Series Blade Servers. The card enables a policy-based, stateless, agile server infrastructure that can present PCIe standards-compliant interfaces to the host that can be dynamically configured as either NICs or HBAs.

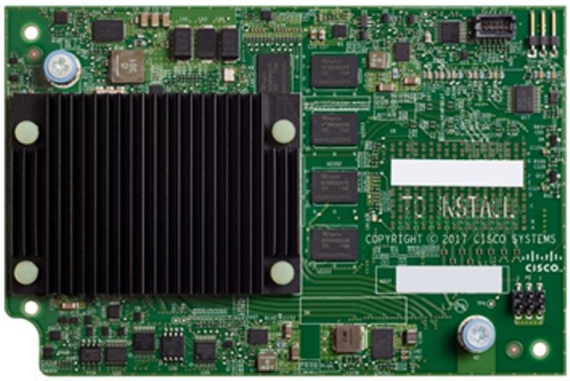


Figure 4.
Cisco UCS VIC 1480

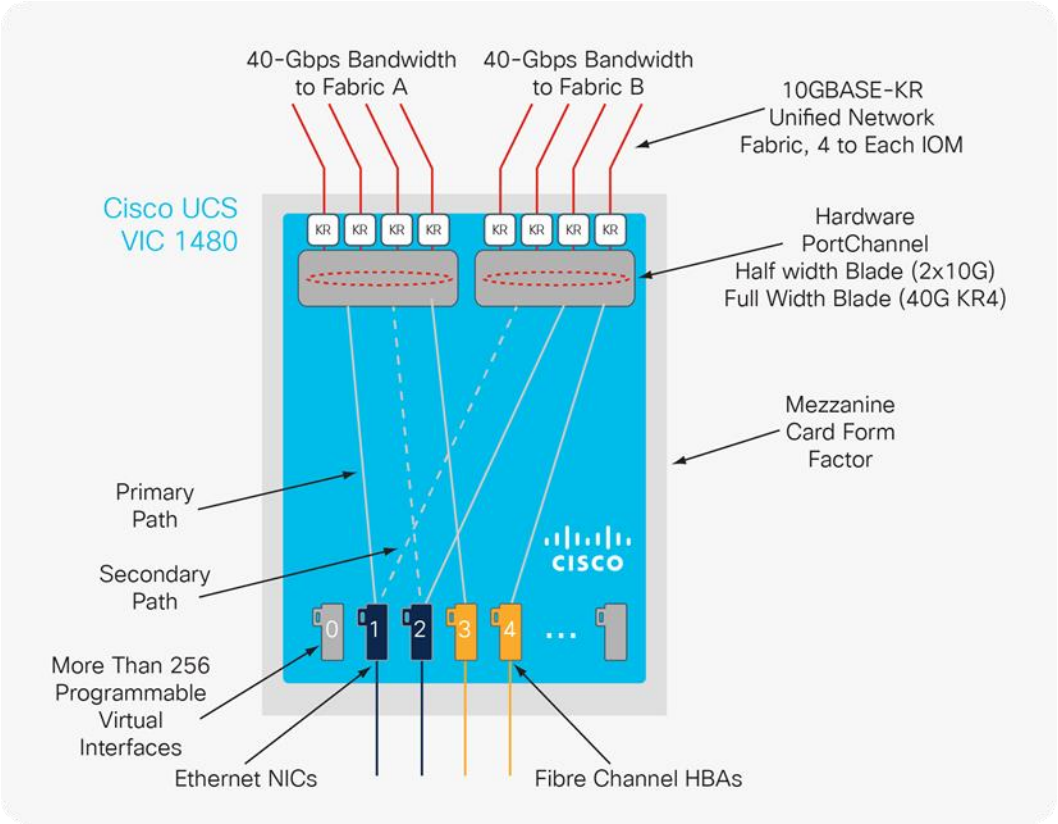


Figure 5.
Cisco UCS VIC 1480 Infrastructure

Cisco VIC 1455

The Cisco UCS VIC 1455 (Figure 6) is a quad-port Small Form-Factor Pluggable (SFP28) half-height PCIe card designed for the M5 generation of Cisco UCS C-Series Rack Servers. The card supports 10/25-Gbps Ethernet or FCoE. The card can present PCIe standards-compliant interfaces to the host, and these can be dynamically configured as either NICs or HBAs.

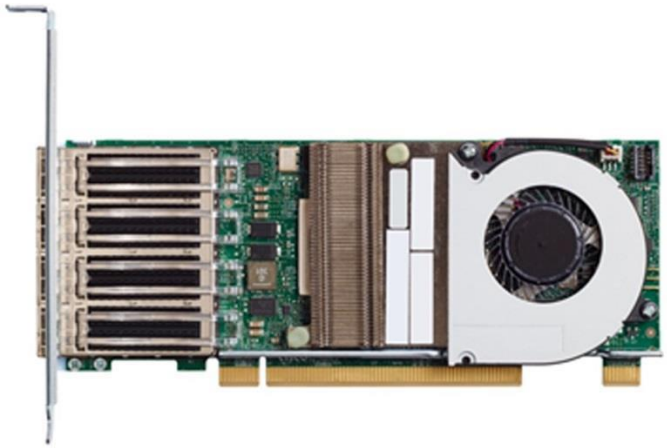


Figure 6.
Cisco UCS VIC 1455

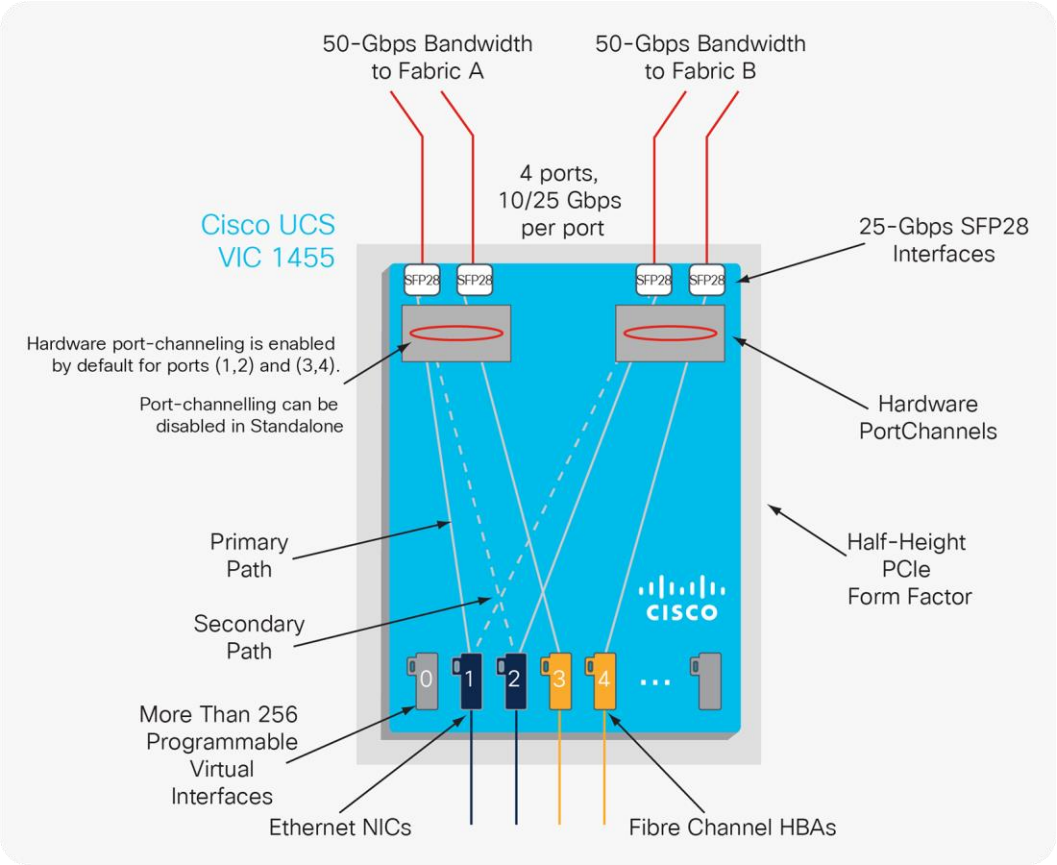


Figure 7.
Cisco UCS VIC 1455 Infrastructure

Cisco VIC 1457

The Cisco UCS VIC 1457 (Figure 8) is a quad-port Small Form-Factor Pluggable (SFP28) mLOM card designed for the M5 generation of Cisco UCS C-Series Rack Servers. The card supports 10/25-Gbps Ethernet or FCoE. The card can present PCIe standards-compliant interfaces to the host, and these can be dynamically configured as either NICs or HBAs.

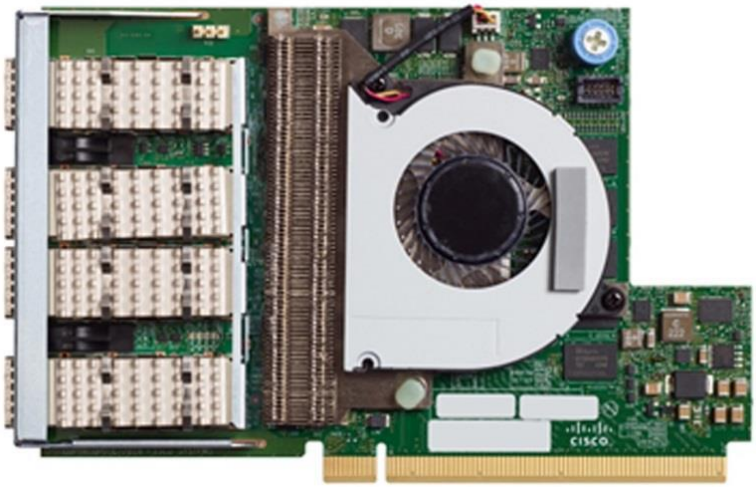


Figure 8.
Cisco UCS VIC 1457

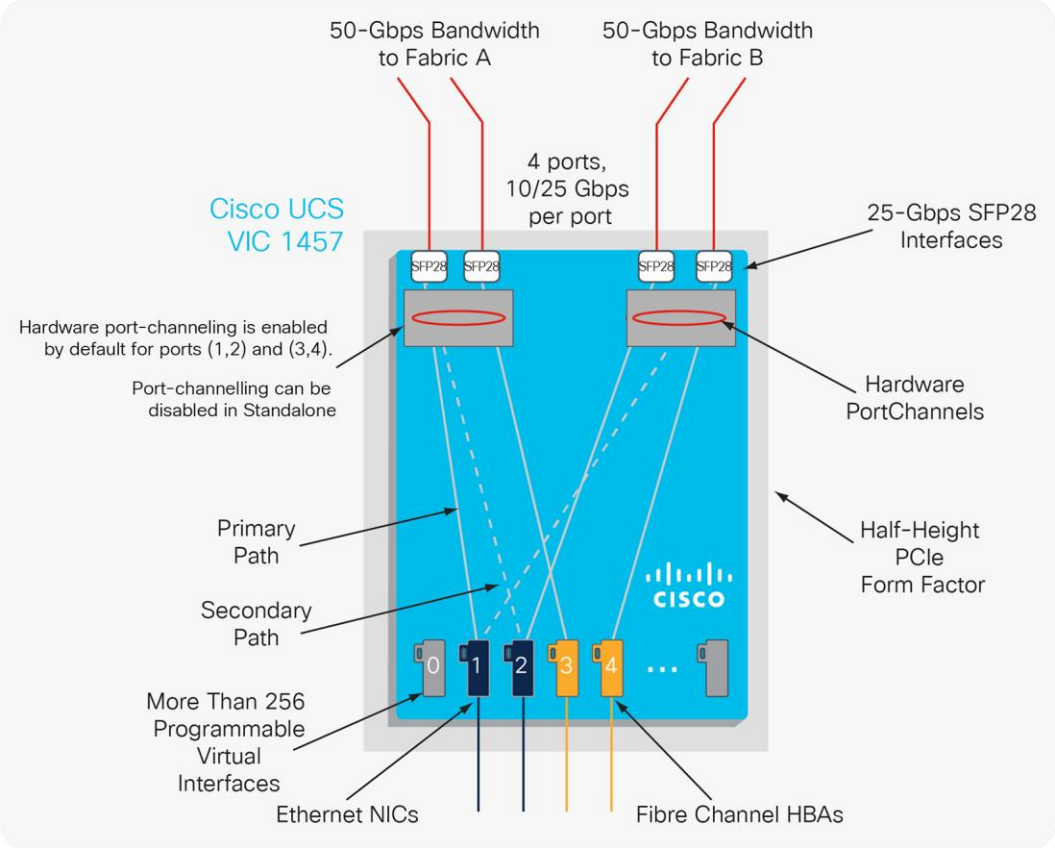


Figure 9.
Cisco UCS VIC 1457 Infrastructure

Cisco VIC 1495

The Cisco VIC 1495 (Figure 10) is a dual-port Quad Small Form-Factor (QSFP28) PCIe card designed for the M5 generation of Cisco UCS C-Series Rack Servers. The card supports 40/100-Gbps Ethernet or FCoE. The card can present PCIe standards-compliant interfaces to the host, and these can be dynamically configured as NICs or HBAs.

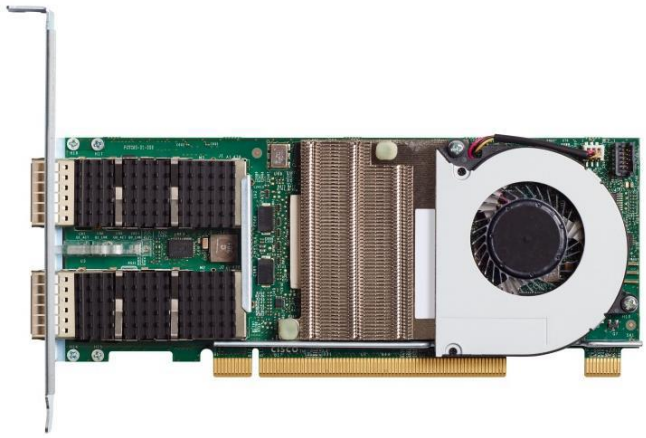


Figure 10.
Cisco UCS VIC 1495

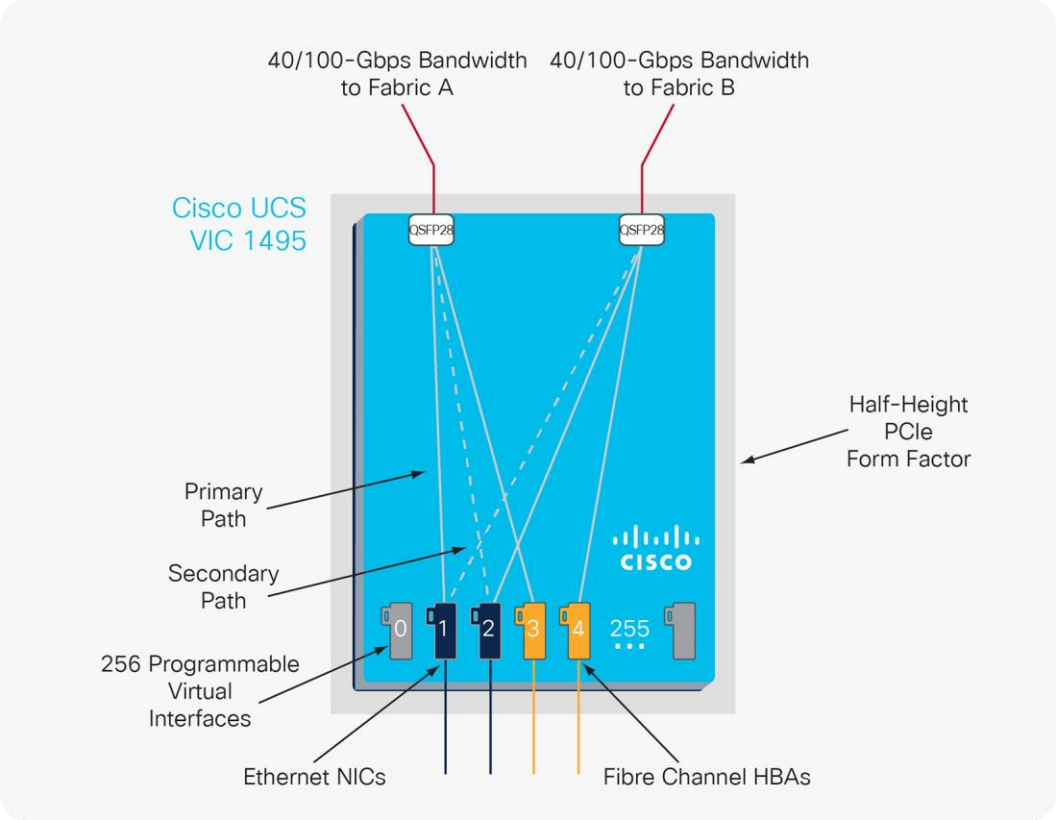


Figure 11.
Cisco UCS VIC 1495 Infrastructure

Cisco VIC 1497

The Cisco VIC 1497 (Figure 12) is a dual-port Quad Small Form-Factor (QSFP28) mLOM card designed for the M5 generation of Cisco UCS C-Series Rack Servers. The card supports 40/100-Gbps Ethernet or FCoE. The card can present PCIe standards-compliant interfaces to the host, and these can be dynamically configured as NICs or HBAs.

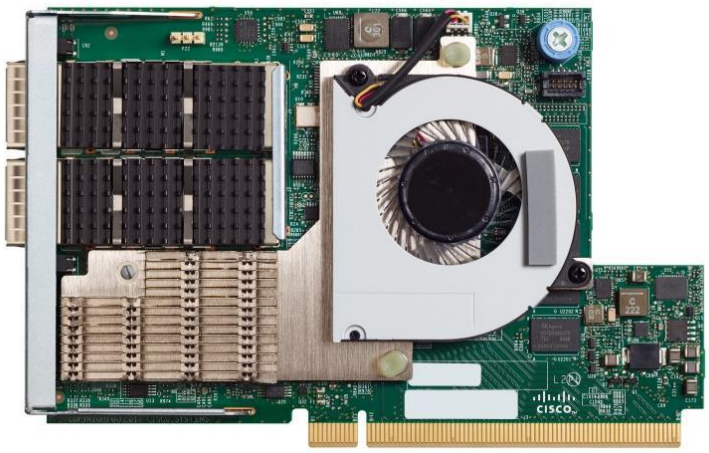


Figure 12.
Cisco UCS VIC 1497

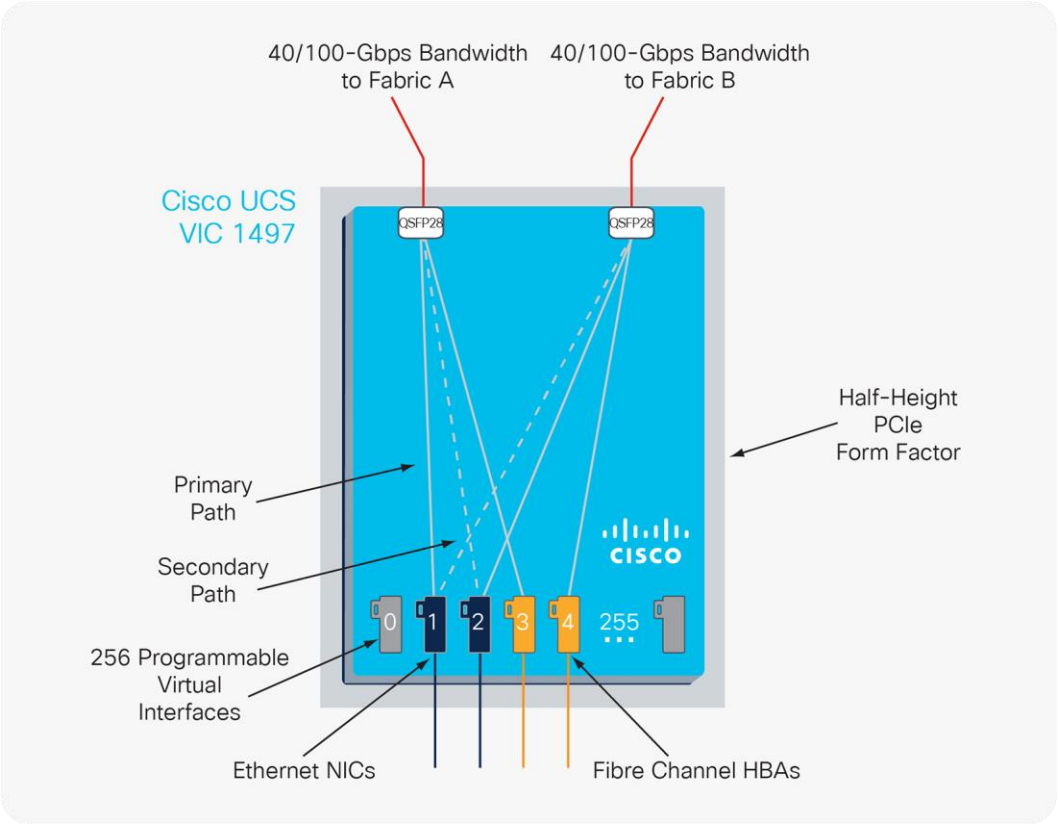


Figure 13.
Cisco UCS VIC 1497 Infrastructure

Features and benefits

The Cisco UCS VIC 1400 series provides the following features and benefits:

- Stateless and agile platform: The personality of the card is determined dynamically at boot time using the service profile associated with the server. The number, type (NIC or HBA), identity (MAC address and World Wide Name [WWN]), failover policy, bandwidth, and Quality-of-Service (QoS) policies of the PCIe interfaces are all determined using the service profile. The capability to define, create, and use interfaces on demand provides a stateless and agile server infrastructure.
- Network interface virtualization: Each PCIe interface created on the VIC is associated with an interface on the Cisco UCS fabric interconnect, providing complete network separation for each virtual cable between a PCIe device on the VIC and the interface on the Fabric Interconnect.

Next-generation data center features

A hardware classification engine provides support for advanced data center requirements, including stateless network offloads for VXLAN and NVGRE. Additional features support low latency kernel bypass for performance optimization via usNIC, DPDK, and server virtualization support using NetQueue and VMQ/VMMQ. The Cisco UCS VIC 1400 series provides high network performance and low latency for the most demanding applications:

- Big data, High-Performance Computing (HPC)
- Large-scale virtual machine deployments
- High-bandwidth storage targets and archives

When the Cisco UCS VIC 1400 Series is connected to Cisco Nexus® 9000 Series Switches, pools of virtual hosts scale with greater speed and agility. Cisco Nexus 9000 Series Switches provide native FCoE connectivity from the VIC to both Ethernet and Fibre Channel targets.

The Cisco VIC provides industry-leading performance and features.

Table 1 summarizes the main features and benefits of the Cisco UCS VIC 1400 Series.

Table 1. Features and benefits

Features	Benefits
PCIe x16 Gen3 interfaces	Delivers high performance (128 Gb/s) throughput
10/25/40/100-Gbps unified I/O	• Delivers 4x10/25-Gbps in a single VIC configuration with the Cisco UCS C-Series, and S-Series M5 Rack Server • Delivers 2x40/100-Gbps in a single VIC configuration with the Cisco C-Series M5 Rack Server • Helps reduce TCO by consolidating the overall number of NICs, HBAs, cables, and switches because LAN and SAN traffic run over the same adapter card and fabric

Features	Benefits
256 dynamic virtual adapters and interfaces	• Creates fully functional unique and independent PCIe adapters and interfaces (NICs and HBAs) without requiring single-root I/O virtualization (SR-IOV) support from OSes or hypervisors • Allows these virtual interfaces and adapters to be configured and operated independently, just like physical interfaces and adapters • Creates a highly flexible I/O environment needing only one card for all I/O configurations **Note:** Cisco UCS VIC 1400 series hardware is SR-IOV capable. Please refer to Cisco UCS Manager configuration limits for your specific OS and environment in the configuration guide.
Low-latency connectivity	Supports usNIC technology, delivering latency as low as 1 microsecond in back-to-back VIC connections; standard latency using the Cisco Nexus Series Switches in approximately 1-2 microseconds
Cisco SingleConnect technology	A single unified network: the same network brings LAN, SAN, and management connectivity to each server
Cisco Data Center VM-FEX technology	• Unifies virtual and physical networking in a single infrastructure • Provides virtual machine visibility from the physical network and a consistent network operating model for physical and virtual servers • Enables configurations and policies to follow the virtual machine during virtual machine migration
Centralized management	Enables the mezzanine in B-Series to be centrally managed and configured by Cisco UCS Manager
Support for advanced features	• SR-IOV • usNIC • Small Computer System Interface over IP (iSCSI) and iSCSI boot • Ethernet NIC (eNIC) and Fibre Channel NIC (fNIC) • VM-FEX support for KVM with RHEL • Microsoft System Center Virtual Machine Manager (SCVMM) • DPDK • NetFlow • N-Port ID Virtualization (NPIV) • Receive Flow Steering • Extended Receive (RX) Ring • VMware NetQueue • Windows VMQ/VMMQ • Multi-RQ • Receive Side Scaling (IPv4/IPv6/UDP/TCP) • GENEVE support with VMware NSX-T, VXLAN and NVGRE • NVME over RDMA support with RHEL 7.7 • RoCEv2 support with Windows 2019 NDKPI Mode 1 and Mode 2 with IPv4 / IPv6 & Linux
Fibre Channel	• Supports FCoE Fibre Channel with 10e15 Bit Error Rate (BER) connected to Cisco Nexus 9000 Series Switches • Supports NVMe capabilities by adding NVMe over Fabrics (NVMeoF) with RoCEv2 addition to existing support for NVMe over Fabrics using Fibre Channel (FC-NVMe) • FC-NVMe with SLES SP12 SP3/SP4, SLES 15, RHEL 7.6

Features	Benefits
Network architecture	Provides a redundant path to the Fabric Interconnect using hardware-based fabric failover
High performance I/O	Supports 900,000+ I/O Operations Per Second (IOPS)
Lossless Ethernet	Uses Priority Flow Control (PFC) to enable as part of the Cisco Unified Fabric
Broad OS and hypervisor support	Supports customer requirements for VMware vSphere, Microsoft Windows, Red Hat Enterprise Linux, Citrix XenServer, SUSE Linux Enterprise Server, and Ubuntu. Refer to the Hardware Compatible List (HCL) for detail list of supported operating systems

Product specifications

Table 2 lists the specifications for the Cisco UCS VIC 1400 Series.

Table 2. Cisco UCS VIC 1400 Series specifications

Items	Specifications
Standards	• 10-Gigabit Ethernet • 25-Gigabit Ethernet • 40-Gigabit Ethernet • 100-Gigabit Ethernet • IEEE 802.3x • IEEE 802.1q VLAN • IEEE 802.1p • IEEE 802.1Qaz • IEEEE 802.1Qbb • Prestandard IEEE 802.1BR • Jumbo frames up to 9KB • SCSI-FCP • T11 FCoE
Components	Cisco UCS custom Application-Specific Integrated Circuit (ASIC)
VIC 1495/1497 physical ports	2 x 40/100-Gbps Ethernet and FCoE QSFP28
VIC 1455/1457 physical ports	4x10/25-Gbps Ethernet and FCoE SFP28
Connectivity	PCIe 3.0x16 form factor (PCIe, mLOM, and mezz)
Performance	10/25/40/100-Gbps per port
Management	Software release: Release 4.1(x) extends support for RoCEv2 Cisco VIC 1455/1457/1495/1497: Recommended UCSM Release is 4.0(4e) or later that contains VIC firmware 5.0(3d) or later and Recommended Standalone Release is 4.0(4h) or later that contains VIC firmware 5.0.3(d) or later. Review Note under Table 2 for minimum version required

Items	Specifications
Number of interfaces	256 virtual interfaces (approximately eight are reserved for internal use; other factors such as the OS and hypervisor may limit this number further)
Supported switches with VIC 1455/1457	Cisco Fabric Interconnect and Cisco Nexus switches: • UCS-FI-64108 (support with minimum UCSM Release 4.1(1a)) • Cisco UCS-FI-6454 • Cisco UCS-FI-6332-16UP • Cisco UCS-FI-6332 • Cisco UCS-FI-6248 • Cisco UCS-FI-6296 • Cisco Nexus 2232PP • Cisco Nexus 2348UPQ • Cisco Nexus 31108PC-V • Cisco Nexus 3172PQ • Cisco Nexus 3232C • Cisco Nexus 3548P-10GX • Cisco Nexus 36180YC-R • Cisco Nexus 5548UP • Cisco Nexus 5624Q • Cisco Nexus 5648Q • Cisco Nexus 5672UP-16G • Cisco Nexus 5696Q • Cisco Nexus 92160YC-X • Cisco Nexus 92300YC • Cisco Nexus 9236C • Cisco Nexus 9336C-FX2 • Cisco Nexus 9372PX • Cisco Nexus 93180LC-EX • Cisco Nexus 93180YC-EX • Cisco Nexus 93180YC-FX • Cisco Nexus 93240YC-FX2
Supported switches with VIC 1495/1497	• Cisco UCS-FI-6332-16UP • Cisco UCS-FI-6332 • Cisco Nexus 3232C • Cisco Nexus 92300YC • Cisco Nexus 9236C • Cisco Nexus 93180LC-EX • Cisco Nexus 93240YC-FX2 • Cisco Nexus 9336C-FX2 • Cisco Nexus 9364C-E

Items	Specifications
Supported Fabric Interconnect and IOM with VIC 1440/1480	Cisco Fabric Interconnect switches and IOM: • Cisco UCS-FI-64108 (support with minimum UCSM Release 4.1(1a)) • Cisco UCS FI-6454 • Cisco UCS-FI-6332-16UP • Cisco UCS-FI-6332 • Cisco UCS-FI-6324 (UCS Mini) • Cisco UCS-FI-6248 • Cisco UCS-FI-6296 • Cisco UCS-IOM-2304 • Cisco UCS-IOM-2208 • Cisco UCS-IOM-2408 • Cisco UCS-IOM-2204

VIC 1455/1457: Minimum UCSM Release Is 4.0(1a) with VIC firmware 5.0(1c) or later. Whereas the minimum Standalone Release is 4.0(1a) with VIC firmware 5.0(1c).

VIC 1495/1497: Minimum UCSM Release Is 4.0(2c) with VIC firmware 5.0(2b) or later. Whereas the minimum Standalone Release is 4.0(2) with VIC firmware 5.0(2b).

UCS Manager Release 4.1 support NVMeoF with RDMA for RoCEv2 on all VIC 1400 series.

VIC 1440 + PE support with IOM 2408 (will support 40G aggregate flow and maximum 25G single flow per vNIC) with UCSM 4.1(2a)

All the listed switches are validated against our Transceivers/Cables, any switch that is not listed may support but not validated.

Items	Specifications			
Power consumption	**Cisco UCS VIC**		**Power consumption (max)**	
	1455		27.4W	
	1457		27.4W	
	1440		21W	
	1480		21W	
	1495		28W	
	1497		28W	
Physical dimensions	**Cisco UCS VIC**	**Length**	**Width**	**Height**
	1455	6.60 in	2.5 in	0.53 in
	1457	5.75 in	3.7in	0.63 in
	1440	5.85 in	3.4 in	0.96 in

Items	Specifications			
	1480	5.85 in	2.9 in	1.33 in
	1495	6.60 in	2.5 in	0.53 in
	1497	5.75 in	3.7 in	0.63 in

Table 3. Cisco UCS VICs, Fabric Interconnect, IOM, and Server Support

Cisco UCS VIC	Cisco UCS Servers
1440 10/40-Gbps mLOM	B200 M5, B480 M5
1480 10/40-Gbps mezz	B200 M5, B480 M5
1455 quad-port 10/25-Gbps PCIe	C220 M5, C240 M5, C240 SD M5, C480 M5, C480 ML M5, C4200, S3260 M5
1457 quad-port 10/25-Gbps mLOM	C220 M5, C240 M5, C240 SD M5
1495 dual-port 40/100-Gbps PCIe	C220 M5, C240 M5, C240 SD M5, C480 M5, C480 ML M5, C4200, S3260 M5
1497 dual-port 40/100-Gbps mLOM	C220 M5, C240 M5, C240 SD M5

Note: 10/25G optics are only supported with VIC 1455/1457.

Transceiver and cable support

The Cisco UCS VIC supports a wide variety of Ethernet connectivity options using Cisco 10/25/40/100-Gbps transceivers and 10/25/40/100-Gbps passive cables and active optical cables.

Table 4 lists the supported transceiver options.

Table 4. Cisco UCS VIC transceiver matrix

Product number	Description
SFP+ 10-Gbps transceivers	
SFP-10G-SR	10GBASE-SR, 850 nm, MMF, 300m
SFP-10G-SR-S	10GBASE-SR, 850 nm, MMF, 300m, S-Class
SFP-10G-LR	10GBASE-LR, 1310 nm, SMF, 10 km
SFP-10G-LR-S	10GBASE-LR, 1310 nm, SMF, 10 km, S-Class
SFP28 25-Gbps transceivers	
SFP-25G-SR-S	25GBASE-SR SFP28 Module for MMF
SFP-10/25G-CSR-S(1)	10/25GBASE-CSR SFP28 Module for MMF
SFP-10/25G-LR-S(4)	10/25GBASE-LR SFP28 Module of SMF

Product number	Description
QSFP 40-Gbps transceivers	
QSFP-40G-SR4	40GBASE-SR, 850 nm, MMF, 300 m
QSFP-40G-SR4-S	40GBASE-SR, 850 nm, MMF, 300 m, S-Class
QSFP-40G-LR4	40GBASE-LR, 1310 nm, SMF, 10 km
QSFP-40G-LR4-S	40GBASE-LR, 1310 nm, SMF, 10 km, S-Class
QSFP-40G-SR-BD	40GBASE-SR-BiDi, duplex MMF, 150 m
WSP-Q40GLR4L[2]	40GBASE-LR4-Lite, 1310 nm, SMF, 2 km
QSFP28 100-Gbps transceivers	
QSFP-100G-SR4-S	100GBASE-SR, 850 nm, MMF, 300 m, S-Class
QSFP-40/100-SRBD[3]	100G and 40GBASE SR-BiDi QSFP, MMF, 100 m
QSFP-100G-LR4-S	100GBASE-LR, 1310 nm, SMF, 10 km, S-Class

Note:

[1] SFP-10/25G-CSR-S is supported only at 25G. This transceiver has been qualified to work with N9K switches listed in table 2. In table 2, with minimum IMC Version 4.0.4(e) and is also supported at 25G only with VIC 1455/1457 with both UCS FI-6454/FI-64108 at minimum UCSM Release 4.1(2a).

[2] FI 6300 series doesn't support WSP-Q40GLR4L.

[3] QSFP-40/100-SRBD supported at 100G only.

[4] SFP-10/25G-LR-S is supported at 25G only. This transceiver has been qualified with N9K switches listed in table 2 with minimum CIMC Release 4.1(1c), and is also supported at 25G only with VIC 1455/1457 with both UCS FI-6454/FI-64108 at minimum UCSM Release 4.1(2a)

Table 5. Cisco UCS VIC cable support matrix

Product number	Description
SFP+ 10-Gbps cables with integrated transceivers	
SFP-H10GB-CU1M	10GBASE-CU SFP+ direct-attached copper cable, 1M
SFP-H10GB-CU1-5M[4]	10GBASE-CU SFP+ direct-attached copper cable, 1.5M
SFP-H10GB-CU2M	10GBASE-CU SFP+ direct-attached copper cable, 2M
SFP-H10GB-CU2-5M[4]	10GBASE-CU SFP+ direct-attached copper cable, 2.5M
SFP-H10GB-CU3M	10GBASE-CU SFP+ direct-attached copper cable, 3M
SFP-H10GB-CU5M	10GBASE-CU SFP+ direct-attached copper cable, 5M
SFP-H10GB-ACU7M	10GBASE-CU SFP+ direct-attached active copper cable, 7M

Product number	Description
SFP-H10GB-ACU10M	10GBASE-CU SFP+ direct-attached active copper cable, 10M
SFP-10G-AOC1M	10GBASE active optical SFP+ cable, 1M
SFP-10G-AOC2M	10GBASE active optical SFP+ cable, 2M
SFP-10G-AOC3M	10GBASE active optical SFP+ cable, 3M
SFP-10G-AOC5M	10GBASE active optical SFP+ cable, 5M
SFP-10G-AOC7M	10GBASE active optical SFP+ cable, 7M
SFP-10G-AOC10M	10GBASE active optical SFP+ cable, 10M
SFP28 25-Gbps cables with integrated transceivers	
SFP-H25G-CU1M	25GBASE-CU SFP28 direct-attached copper cable, 1M
SFP-H25G-CU2M	25GBASE-CU SFP28 direct-attached copper cable, 2M
SFP-H25G-CU3M	25GBASE-CU SFP28 direct-attached copper cable, 3M
SFP-H25G-CU4M[6]	25GBASE-CU SFP28 direct-attached copper cable, 4M
SFP-H25G-CU5M[7]	25GBASE-CU SFP28 direct-attached copper cable, 5M
SFP-25G-AOC1M	25GBASE-AOC SFP28 active optical cable, 1M
SFP-25G-AOC2M	25GBASE-AOC SFP28 active optical cable, 2M
SFP-25G-AOC3M	25GBASE-AOC SFP28 active optical cable, 3M
SFP-25G-AOC5M	25GBASE-AOC SFP28 active optical cable, 5M
SFP-25G-AOC7M	25GBASE-AOC SFP28 active optical cable, 7M
SFP-25G-AOC10M	25GBASE-AOC SFP28 active optical cable, 10M
QSFP 40-Gbps cables	
QSFP-H40G-CU1M	40GBASE-CR4 Passive Copper Cable, 1m
QSFP-H40G-CU3M	40GBASE-CR4 Passive Copper Cable, 3m
QSFP-H40G-CU5M	40GBASE-CR4 Passive Copper Cable, 5m
QSFP-H40G-ACU7M	40GBASE-CR4 Active Copper Cable, 7m
QSFP-H40G-ACU10M	40GBASE-CR4 Active Copper Cable, 10m
QSFP-H40G-AOC1M	40GBASE Active Optical Cable, 1m
QSFP-H40G-AOC2M	40GBASE Active Optical Cable, 2m

Product number	Description
QSFP-H40G-AOC3M	40GBASE Active Optical Cable, 3m
QSFP-H40G-AOC5M	40GBASE Active Optical Cable, 5m
QSFP-H40G-AOC7M	40GBASE Active Optical Cable, 7m
QSFP-H40G-AOC10M	40GBASE Active Optical Cable, 10m
QSFP-H40G-AOC15M	40GBASE Active Optical Cable, 15m
QSFP-H40G-AOC20M[4]	40GBASE Active Optical Cable, 20m
QSFP-H40G-AOC25M[4]	40GBASE Active Optical Cable, 25m
QSFP-H40G-AOC30M[4]	40GBASE Active Optical Cable, 30m
QSFP-4x10G-AC7M[5]	40GBASE-CR4 QSFP+ to 4x10GBASE-CU SFP+ active direct-attach breakout cable, 7M
QSFP-4x10G-AC10M[5]	40GBASE-CR4 QSFP+ to 4x10GBASE-CU SFP+ active direct-attach breakout cable, 10M
QSFP-4SFP10G-CU1M[5]	40GBASE-CR4 QSFP+ to 4x10GBASE-CU SFP+ passive direct-attach cable, 1M
QSFP-4SFP10G-CU3M[5]	40GBASE-CR4 QSFP+ to 4x10GBASE-CU SFP+ passive direct-attach cable, 3M
QSFP-4SFP10G-CU5M[5]	40GBASE-CR4 QSFP+ to 4x10GBASE-CU SFP+ passive direct-attach cable, 5M
QSFP-4X10G-AOC1M[5]	40GBASE-active optical QSFP to 4xSFP+ active optical breakout cable, 1M
QSFP-4X10G-AOC2M[5]	40GBASE-active optical QSFP to 4xSFP+ active optical breakout cable, 2M
QSFP-4X10G-AOC3M[5]	40GBASE-active optical QSFP to 4xSFP+ active optical breakout cable, 3M
QSFP-4X10G-AOC5M[5]	40GBASE-active optical QSFP to 4xSFP+ active optical breakout cable, 5M
QSFP-4X10G-AOC7M[5]	40GBASE-active optical QSFP to 4xSFP+ active optical breakout cable, 7M
QSFP-4X10G-AOC10M[5]	40GBASE-active optical QSFP to 4xSFP+ active optical breakout cable, 10M
QSFP 100-Gbps cables	
QSFP-100G-AOC1M	100GBASE QSFP Active Optical Cable, 1m
QSFP-100G-AOC2M	100GBASE QSFP Active Optical Cable, 2m
QSFP-100G-AOC3M	100GBASE QSFP Active Optical Cable, 3m
QSFP-100G-AOC5M	100GBASE QSFP Active Optical Cable, 5m
QSFP-100G-AOC7M	100GBASE QSFP Active Optical Cable, 7m
QSFP-100G-AOC10M	100GBASE QSFP Active Optical Cable, 10m
QSFP-100G-AOC15M	100GBASE QSFP Active Optical Cable, 15m

Product number	Description
QSFP-100G-AOC20M	100GBASE QSFP Active Optical Cable, 20m
QSFP-100G-AOC25M	100GBASE QSFP Active Optical Cable, 25m
QSFP-100G-AOC30M	100GBASE QSFP Active Optical Cable, 30m
QSFP-4SFP25G-CU1M[5]	100GBASE QSFP to 4xSFP25G passive copper splitter cable, 1M
QSFP-4SFP25G-CU2M[5]	100GBASE QSFP to 4xSFP25G passive copper splitter cable, 2M
QSFP-4SFP25G-CU3M[5]	100GBASE QSFP to 4xSFP25G passive copper splitter cable, 3M

Note:

[4] Only Nexus switches listed in table 2 are supported with IMC Version 4.0.4(e).

[5] These cables are only supported with VIC 1455/1457.

[6] SFP-H25G-CU4M cable support VIC 1455/1457 with both UCS-FI-6454/64108 in minimum UCSM Release 4.1(2a) with VIC firmware 5.1(2d)

[7] SFP-H25G-CU5M cable support VIC 1455/1457 with both UCS-FI-6454/64108 in minimum UCSM Release 4.1(2a) with VIC firmware 5.1(2d). Additionally, minimum CIMC Release 4.1(2a) is required to qualify with N9K switches listed in Table 2.

Ordering information

Table 6 presents ordering information for the Cisco UCS VIC 1400 Series.

Table 6. Ordering information

Part number	Description
UCSB-MLOM-40G-04	Cisco UCS VIC 1440 mLOM for B-Series M5
UCSB-VIC-M84-4P	Cisco UCS VIC 1480 mezz for B-Series M5
UCSC-PCIE-C25Q-04	Cisco UCS VIC 1455 quad port 10/25G SFP28 PCIe for C-Series and S-Series M5
UCSC-MLOM-C25Q-04	Cisco UCS VIC 1457 quad port 10/25G SFP28 mLOM for C220 M5 and C240 M5
UCSC-PCIE-C100-04	Cisco UCS VIC 1495 dual port 40/100G QSFP28 PCIe for C-Series and S-Series
UCSC-MLOM-C100-04	Cisco UCS VIC 1497 dual port 40/100G QSFP28 mLOM for C220 M5 and C240 M5

System requirements

The Cisco UCS VIC 1400 Series is designed for use only on Cisco UCS B-Series M5 Blade Servers, C-Series M5 Rack Servers, and S-Series M5 Storage Servers. Only one VIC 1457/1497 mLOM can be supported on a Cisco UCS C220 M5 or C240 M5 Rack Server or C240 SD M5.

Warranty information

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

Cisco environmental sustainability

Information about Cisco's environmental sustainability policies and initiatives for our products, solutions, operations, and extended operations or supply chain is provided in the "Environment Sustainability" section of Cisco's Corporate Social Responsibility (CSR) Report.

Reference links to information about key environmental sustainability topics (mentioned in the "Environment Sustainability" section of the CSR Report) are provided in the following table:

Sustainability topic	Reference
Information on product material content laws and regulations	Materials
Information on electronic waste laws and regulations, including products, batteries, and packaging	WEEE compliance

Cisco makes the packaging data available for informational purposes only. It may not reflect the most current legal developments, and Cisco does not represent, warrant, or guarantee that it is complete, accurate, or up to date. This information is subject to change without notice.

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Why Cisco?

The Cisco Unified Computing System continues Cisco's long history of innovation in delivering integrated systems for improved business results based on industry standards and using the network as the platform. Recent examples include IP telephony, LAN switching, unified communications, and unified I/O. Cisco began the unified computing phase of our unified data center strategy several years ago by assembling an experienced team from the computing and virtualization industries to augment our own networking and storage access expertise. As a result, Cisco delivered foundational technologies, including the Cisco Nexus Family, supporting unified fabric and server virtualization. Cisco UCS completes this phase, delivering innovation in architecture, technology, partnerships, and services. Cisco is well positioned to deliver this innovation by taking a systems approach to computing that unifies network intelligence and scalability with innovative ASICs, integrated management, and standard computing components.

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Cisco Capital makes it easier to get the right technology to achieve your objectives, enable business transformation and help you stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services and complementary third-party equipment in easy, predictable payments. Learn more.

For more information

For more information about Cisco UCS, visit https://www.cisco.com/en/US/products/ps10265/index.html.

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