

Product Highlights

Port Configurations

- CX764QD-N:
64 × 400G QSFP-DD
- CX764QO-N:
64 × 400G OSFP
- CX764QH-N:
64 × 400G QSFP112
- Wired speed L2/L3 forwarding

Hardware

- ~560ns/700ns port-to-port latency by model
- Compact 2RU fixed units
- 3+1 Redundant fans
- 1+1 Redundant power supplies
- ZR/ZR+ module supported
- Flowlet-based Adaptive Routing (CX764QD/QO-N)
- SRv6 supported (CX764QH-N)
- High-precision PTP timestamp

AsterNOS

- Enterprise SONiC distribution
- Single binary for all models
- Standard L2/L3 features

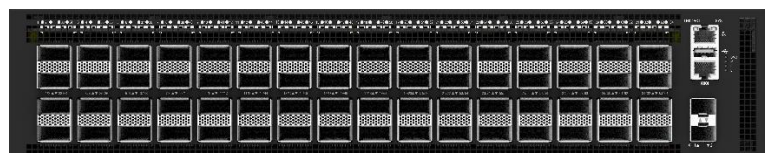
Product Applications

- AI training & inference fabric
- Cloud data center & DCI
- Distributed storage

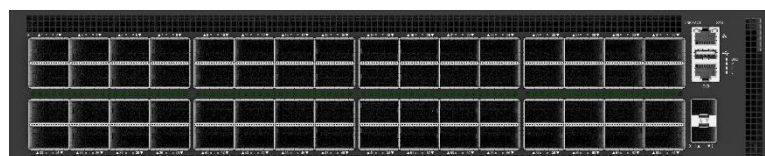
Overview

The rapid expansion of hyperscale Cloud DCI and AI/ML clusters is driving an accelerated demand for high-density 400GbE networking solutions. The Asterfusion CX764Q Series provides a high-density 400GbE solution in a compact 2RU form factor, powered by a single-chip 25.6Tbps ASIC. The platforms support up to 64 ports of 400G QSFP-DD, OSFP, or QSFP112, delivering industry-leading density and interface flexibility. It ensures non-blocking, line-rate performance with ultra-low port-to-port latency ranging from 560ns to 700ns.

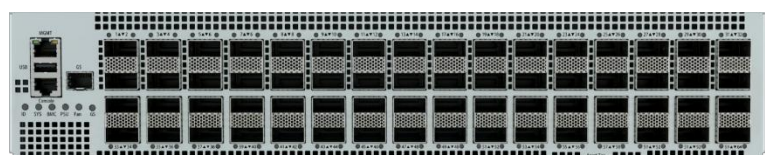
As one of the few 25.6T platforms to feature hardware-driven flowlet-based adaptive routing, the CX764QD/QO-N series are purpose-built to eliminate congestion and minimize tail latency in demanding AI compute environments. Additionally, the CX764QH-N introduces native SRv6 and uSID capabilities for unified IPv6 traffic orchestration, while integrated 400G Coherent ZR optics support ensures long-reach interconnectivity across cloud data centers.



CX764QD-N



CX764QO-N



CX764QH-N

Combined with AsterNOS, the CX764Q series deliver advanced features for cloud, virtualized and AI data centers.

AsterNOS

AsterNOS is a common software for all Asterfusion products. It is an enterprise distribution of SONiC which is based on Linux kernel and Switch Abstract Interface (SAI) for multi-vendor merchant silicon adaptability. AsterNOS provides rich, standard L2, L3 and virtualization functionalities across all products, which makes it possible that customers can have consistent experience on campus switches, data center switches, and routers. For details of the latest AsterNOS version for data center switches, visit: <https://asternos.com/community/space/aidc-fabric/home>

Flowlet-Based Adaptive Routing and Packet Spray

The CX764QD/QO-N features flowlet-based adaptive routing, detecting inter-packet gaps to split elephant flows into granular flowlets. By dynamically rebalancing path traffic, it eliminates ECMP imbalances, reducing Job Completion Time (JCT) and maximizing fabric utilization for RoCEv2 AI/ML workloads. Additionally, the full CX764Q series supports Packet Spray for maximum efficiency when paired with out-of-order reassembly NICs.

Unified SRv6 & Full-Stack Fabric Support

The CX764QH-N offers hardware-native SRv6 and uSID compression for unified traffic orchestration across intra-DC fabrics and DCI environments. Consolidating overlays into a single IPv6 data plane, it eliminates protocol translation between Leaf-Spine and border gateways. Supporting EVPN over SRv6, SRv6 Policy steering, and TI-LFA, it ensures wire-speed forwarding for enterprise workloads.

Prometheus Exporter and Grafana Monitoring Solution

As a containerized operating system based on the Linux kernel, AsterNOS is well compatible with open-source operation, maintenance and management solutions. We provide AsterNOS Exporter, which runs as a container in the operating system. It can collect the operating status of the switch in real time and send the collected metrics to the Prometheus server, and the standard Grafana dashboard will display it on the front end.

High-precision Time Synchronization

CX764Q-N switches provide full support for IEEE 1588v2 Precision Time Protocol (PTP) with Class C-level timing accuracy, enabling precise time synchronization for time-sensitive networking applications. The switches support multiple industry-standard PTP profiles, including IEEE 1588v2, G.8275.1, G.8275.2, SMPTE 2059-2, and AES67. Flexible clock roles are supported, including GrandMaster (GM), Boundary Clock (BC), Ordinary Clock (OC).

Interface

- 10G/25G/40G/100G/200G/400G
- Interface Statistics
- Jumbo Frames (9216 Bytes)
- Digital Optical Monitoring (DOM)
- Virtual Interfaces

Layer 2 & Layer 3

- 4096 VLANs
- MSTP
- LLDP
- LACP
- IPv4/v6 Dual Stack
- ARP, NDP
- SVI
- Routing Protocols: Static, OSPF v2/v3, BGP, MP-BGP, IS-IS
- Policy Based Routing (PBR)
- Route Map
- ECMP
- DHCPv4/v6

Virtualization

- VRF
- Static/Dynamic VXLAN
- VXLAN Centralized/Distributed Gateway
- EVPN Type 1/2/3/4/5
- VXLAN Cross-connect
- VXLAN Multicast Underlay
- Inter-VRF Route Leaking
- Anycast Gateway
- Symmetric IRB
- DCI

SRv6

- uSID, G-SID
- SRv6 BE
- SRv6 L2/L3 VPN
- SRv6 TE & Policy
- BGP-EPE
- TI-LFA
- SRv6 OAM

Multicast Features

- Multicast Route
- IGMP v1/v2/v3
- IGMP Querier
- IGMP Snooping
- PIMv4, PIM-SM

Quality of Service (QoS)

- 8 Queues per Port
- 802.1p Based Classification
- DSCP Based Classification
- Strict Priority Queueing
- DWRR Scheduling
- WRED
- Policing/Shaping
- Rate limiting
- ECN
- PFC
- PFC Watchdog
- DCBX
- RoCEv2
- Easy RoCE (One-step Configuration)
- Fast CNP

AIDC Intelligent Features

- Adaptive Routing and Switching (ARS)
- Packet Spray

- Load Balance based on QP
- Static/Dynamic Intelligent Routing
- In-band Network Telemetry (INT)
- AIDC Dashboard

Security

- ACL for IPv4/v6
- Ingress/Egress ACL
- Storm Suppression
- TACACS+
- RADIUS
- CoPP

Reliability

- MC-LAG
- VRRPv2/v3
- EVPN MultiHoming
- Monitor Link
- BFD

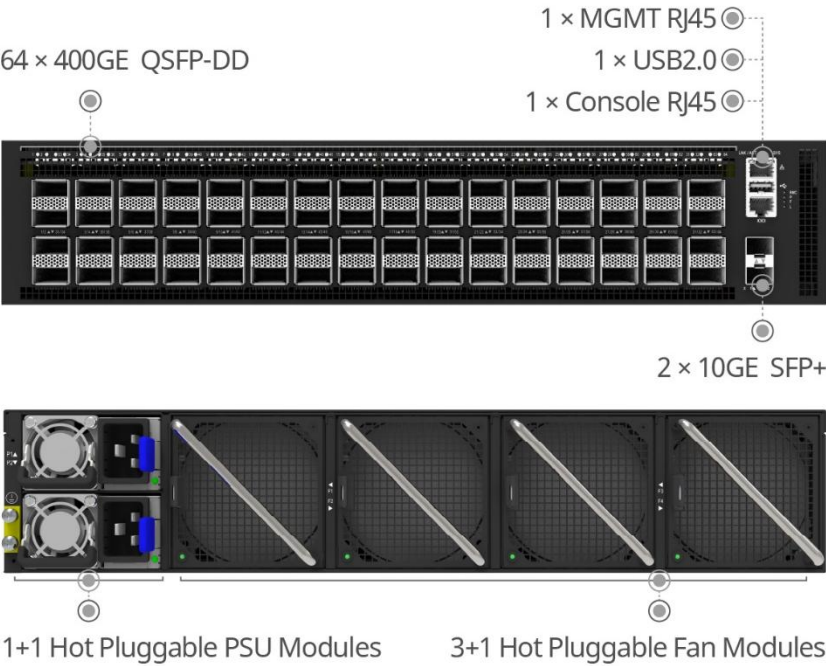
Management

- Console, SSH, Telnet, REST API, NETCONF
- Industry Standard CLI(Klish)
- ZTP
- Syslog k
- sFlow
- SNMPv1/v2/v3
- SPAN/ERSPAN
- PTP Profile: IEEE 1588v2, ITU-T G.8275.1, ITU-T G.8275.2, SMPTE-2059-2, AES67
- PTP Clock Type: GrandMaster, BC, OC, TGM, T-BC, T-BC-P, T-TSC, T-TSC-P
- SyncE
- AsterNOS Exporter (Prometheus)
- Grafana Dashboard

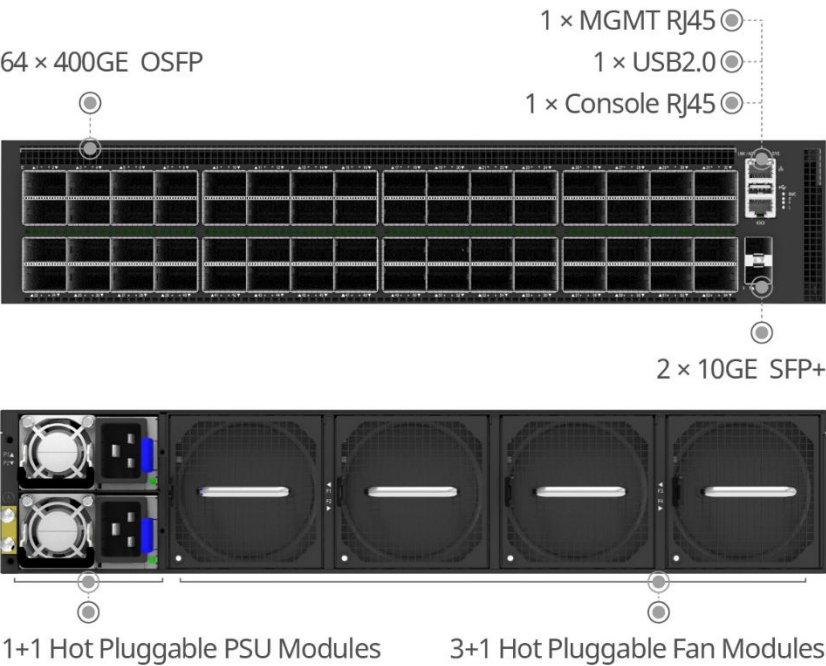
Specifications

Product Model		CX764QD-N	CX764QO-N	CX764QH-N
Network interface	400GE Ports	64 × QSFP-DD	64 × OSFP	64 × QSFP112
	25GE (SFP28)	-	-	1
	10GE (SFP+)	2	2	-
Switching chip	Chip model	Marvell Teralynx 10		Clounix
	Switching capacity	25.6Tbps		
Control and manage CPU (COMe)	CPU	Intel Xeon-D/Marvell OCTEON10 CN102		
	Memory	16GB/32GB DDR4, extensible to 96GB		
	SSD	256GB M.2 SATA		
Management interface	USB	1 × USB2.0		
	Console	1 × Console RJ45		
	MGMT	1 × MGMT GE RJ45		
Electrical characteristics	Fan redundancy (Hot-pluggable)	3 + 1		
	Power redundancy (Hot-pluggable)	1 + 1		
	Power supply (AC)	2700W	2700W	2400W
	Input voltage	200~240V AC/200~320V DC		100~240V AC/ 240V DC
	Maximum power consumption	2100W	2150W	2000W
Dimensions	Height	2U		
	Dimensions (W×H×D, mm)	440 × 87 × 640	440 × 87 × 650	440 × 87 × 760
Operating conditions	Operating temperature	Front-to-Rear: 0 – 40°C		
	Relative humidity	5% - 90% (non-condensing)		10% - 90% (non-condensing)

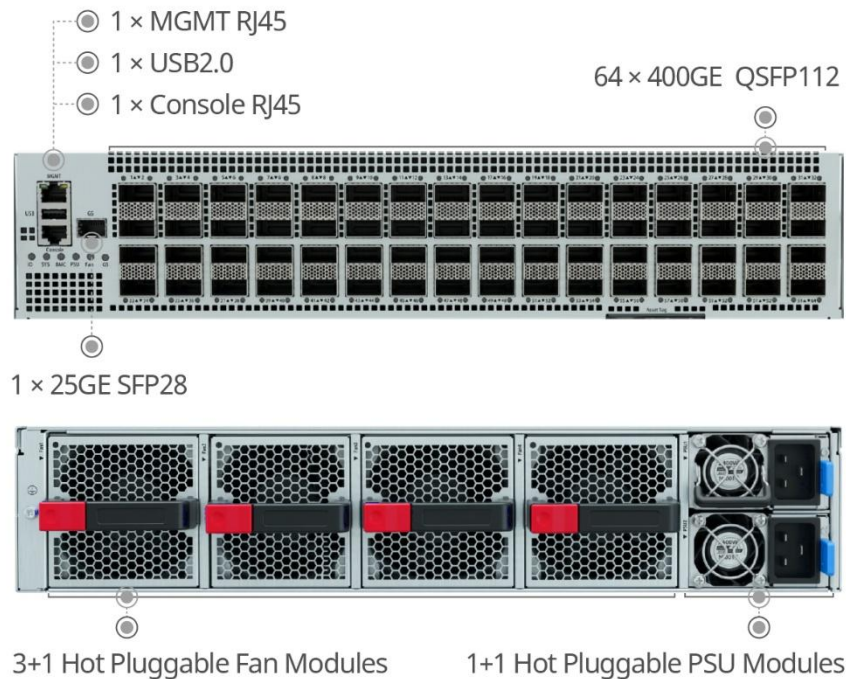
Panel Illustration



CX764QD-N



CX764QO-N



CX764QH-N

Ordering Information

Part Number	Description
CX764QD-N	Ultra-low latency AIDC switch system, 64×400G QSFP-DD, 2x10G SFP+, hot-pluggable 1+1 PSU, hot-pluggable 3+1 FANs, front-to-power airflow
CX764QO-N	Ultra-low latency AIDC switch system, 64×400G OSFP, 2x10G SFP+, hot-pluggable 1+1 PSU, hot-pluggable 3+1 FANs, front-to-power airflow
CX764QH-N	AI & SRv6 switch system, 64×400G QSFP112, 1x25G SFP28, optimized for domestic AI compute clusters and SRv6 networking, hot-pluggable 1+1 PSU, hot-pluggable 3+1 FANs, front-to-power airflow

Optional Components

HW-WNT-1Y-CX764Q-N	Hardware platform warranty for CX764Q-N series, 1 Year
AsterNOS-UG-1Y-CX764Q-N	Major version upgrade of AsterNOS for CX764Q-N series, 1 Year

To acquire more info about company, products, and solutions: www.cloudswit.ch
Sales: bd@cloudswit.ch