Product Highlights

Port Configurations

- CX308P-48Y-N-V2:

    48 x 25G SFP28 + 8 x 100G

    QSFP28

- CX532P-N-V2:

    32 x 100G QSFP28

- CX732Q-N-V2:

    32 x 400G QSFP-DD

- Wired speed L2 and L3

    forwarding

Hardware

- Compact 1RU fixed units, high

    port density with multi-speed

    combination

- N+1 Redundant fans

- 1+1 Redundant power supplies

- 128K MAC entries

- 288K IPv4 Routes

- High-precision PTP timestamp

AsterNOS

- SONiC based enterprise

    distribution

- Single binary for all models

- Standard L2/L3 features

Product Applications

- Cloud data center

- High performance computing

- Distributed storage

- AIDC

Overview

The popularity of high-performance servers and the increase in applications that use higher bandwidth have accelerated the need for dense 25, 100 to even 400 Gigabit Ethernet switching in the leaf and spine of modern networks. Asterfusion CX-N-V2 series enterprise data center switches are wire speed network leaf/spine roles for enterprise data center scenarios. Comparing to CX-N series, the CX-N-V2 series based on Marvell Falcon ASIC offers provides larger table size and richer feature set, which are suitable for data center application scenarios that do not have extreme requirements on latency .

CX308P-48Y-N-V2

CX532P-N-V2

CX732Q-N-V2

The CX308P-48Y-N-V2, CX532P-N-V2, CX732Q-N-V2 support a flexible combination of speeds including 10G/25G, 40G/100G and 400G in compact form factors that allow customers to design networks for different applications and east-west traffic patterns found in modern data centers whilst providing investment protection. In addition, the 100G/400G models support break-out to 4x10G, 4x25G and 4x100G, which enable seamless transition for 10/25G servers to 100G even 400G.

Combined with AsterNOS, the CX-N-V2 series deliver advanced features for cloud, virtualized and traditional 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 Layer-2, Layer-3 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://help.cloudswit.ch/portal/en/kb/asternos-for-data-center/versions

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.

Asterfusion Optics and Cables

Asterfusion switches support a wide range of 10G, 25G, 100G, 200G, 400G and 800G ports. For details about the different optical modules compatible with Asterfusion switches, visit:

https://cloudswit.ch/product-category/optical-transceivers/

Layer 2 Features

- 4096 VLANs
- Multiple Spanning Tree Protocol (MSTP)
- Link Aggregation Control Protocol (LACP)
- 128 LAG groups / 64 LAG members
- Multi-Chassis Link Aggregation (MC-LAG)
- Link Layer Discovery Protocol (LLDP)
- Jumbo Frames (9K Bytes)
- Storm Suppression
- Port Isolation
- Monitoring Link

Layer 3 Features

- Routing Protocols: OSPF, OSPFv3, BGP, MP-BGP, IS-IS
- Equal Cost Multipath Routing (ECMP)
- VRF
- Bi-Directional Forwarding Detection (BFD)
- Route Maps
- VRRP
- Policy Based Routing (PBR)
- AIDC Intelligent Routing

Virtualization Features

- VXLAN Routing and Bridging
- Anycast Gateway
- Distributed/Centralized Gateway
- Ethernet Auto Discovery
- Symmetry IRB
- EVPN Multi-homing

Security Features

- IPv4/IPv6 Ingress & Egress ACLs using User-defined fields
- Control Plane Policing (CoPP)
- Service ACLs
- TACACS+
- RADIUS

Quality of Service (QoS)

- 802.1p based classification
- DSCP based classification and Remarking
- Strict priority queueing
- DWRR Scheduling
- Port/Queue Based Traffic Shaping
- Rate limiting
- Explicit Congestion Notification (ECN)
- Per-Priority Flow Control (PFC)
- PFC Watchdog
- Data Center Bridging Extensions (DCBX)
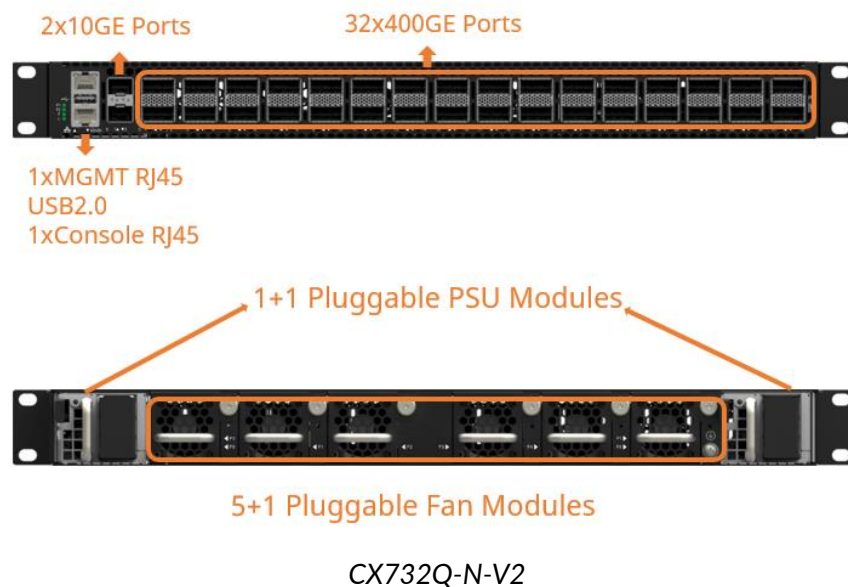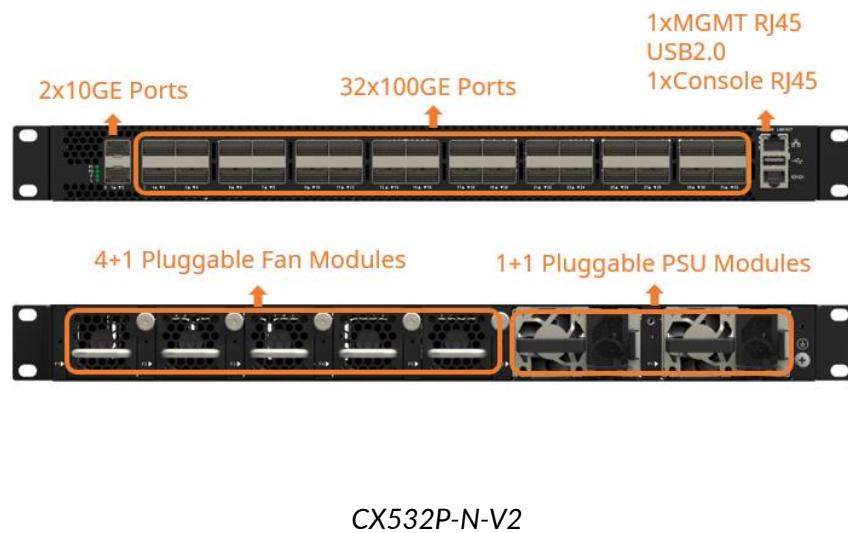- RoCEv2
- One-step RoCE Configuration

Management and Monitoring

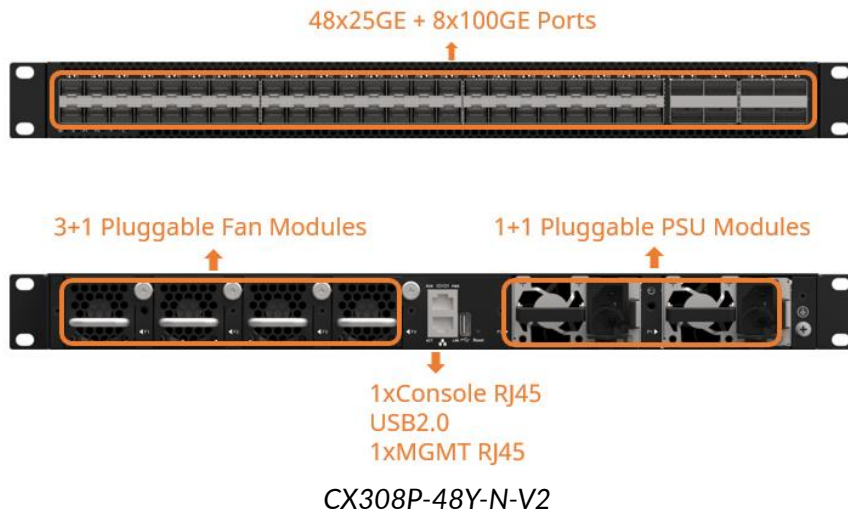- Console, SSH, Telnet, REST API, NETCONF
- Management over IPv6
- Industry Standard CLI
- Syslog
- Zero Touch Provisioning (ZTP)
- PTP IEEE 1588v2 (TC and BC)
- Containerized Custom Tools
- SNMPv2, SNMPv3, SNMP Trap
- SPAN, ERSPAN
- sFlow
- In-band Network Telemetry (INT)
- Buffer Drop Capture
- High Delay Capture
- AsterNOS Exporter (Prometheus)
- Grafana Dashboard
- RoCE Status
- Prometheus Alarm & Alert

Specifications

Product Model		CX308P-48Y-N-V2	CX532P-N-V2	CX732Q-N-V2
Network interface	400GE(QSFP-DD)	-	-	32
	100GE(QSFP28)	8	32	-
	25GE(SFP28)	48	-	-
	10GE(SFP+)	-	2	2
Switching chip	Chip model	Marvell Falcon		
	Switching capacity	2.0Tbps	3.2Tbps	12.8Tbps
Control and manage CPU (COMe)	CPU	Broadwell DE D-1508		
	Memory	16GB DDR4, extensible to 96GB		16GB DDR4, extensible to 64GB
	SSD	128GB/-, m.2 SATA		256GB/-, m.2 SATA
Management interface	USB	1xUSB2.0		
	Console	1xConsole RJ45		
	MGMT	1xMGMT GE RJ45		
Electrical characteristics	Fan redundancy (Hot-pluggable)	3+1	4+1	5+1
	Power redundancy (Hot-pluggable)	1+1	1+1	1+1
	Input voltage	100-240V AC 36-72V DC		
	Maximum power consumption	480W	490W	1000W
Dimensions	Height	1U		
	Dimensions (WxHxD, mm)	440x44x515		
Operating conditions	Operating temperature	0 – 45℃		0 – 40℃
	Relative humidity	10% - 90% (non-condensing)		

Panel Illustration

48x25GE + 8x100GE Ports

3+1 Pluggable Fan Modules

1+1 Pluggable PSU Modules

1xConsole RJ45
USB2.0
1xMGMT RJ45

CX308P-48Y-N-V2

2x10GE Ports

32x100GE Ports

1xMGMT RJ45
USB2.0
1xConsole RJ45

4+1 Pluggable Fan Modules

1+1 Pluggable PSU Modules

CX532P-N-V2

2x10GE Ports

32x400GE Ports

1xMGMT RJ45
USB2.0
1xConsole RJ45

1+1 Pluggable PSU Modules

5+1 Pluggable Fan Modules

CX732Q-N-V2

Ordering Information

Part Number	Description
CX308P-48Y-N-V2	Enterprise data center switch system, 48x25G SFP28, 8x100G QSFP28, hot-pluggable 1+1 PSU, hot-pluggable 3+1 FANs, front-to-power airflow
CX532P-N-V2	Enterprise data center switch system, 32x100G QSFP28, hot-pluggable 1+1 PSU, hot-pluggable 4+1 FANs, front-to-power airflow
CX732Q-N-V2	Enterprise data center switch system, 32x400G QSFP-DD, hot-pluggable 1+1 PSU, hot-pluggable 5+1 FANs, front-to-power airflow

Optional Components

HW-WNT-1Y-CX308P-N	Hardware platform warranty for CX308P-N series, 1 Year
AsterNOS-UG-1Y-CX308P-N	Major version upgrade of AsterNOS for CX308P-N series, 1 Year
HW-WNT-1Y- CX532P-N	Hardware platform warranty for CX532P-N series, 1 Year
AsterNOS-UG-1Y-CX532P-N	Major version upgrade of AsterNOS for CX532P-N series, 1 Year
HW-WNT-1Y- CX732Q-N	Hardware platform warranty for CX732Q-N series, 1 Year
AsterNOS-UG-1Y-CX732Q-N	Major version upgrade of AsterNOS for CX732Q-N series, 1 Year