

Product Highlights

Port Configurations

- 16 x 10G
- 24 x 10G
- Uplinks: 2 x 100G

- 24 x 10G
- 16 x 25G
- Uplinks: 4 x 100G

- 24 x 10G
- 48 x 10G
- Uplinks: 6 x 100G

- 24 x 25G
- Uplinks: 2 x 100G

- 48 x 25G
- 2 x DPU slots
- Uplinks: 6 x 100G

- 48 x 25G
- Uplinks: 8 x 100G

- 32 x 100G

- 32 x 400G

Hardware

- Compact 1RU
- Integrated power supplies and fans
- Redundant fans
- Redundant power supplies
- PTP IEEE 1588v2 support

AsterNOS

- SONiC based enterprise distribution
- Single binary for all models
- Standard L2/L3 features
- Extensible with custom tools
- OpenLAN Switching compatible

Overview

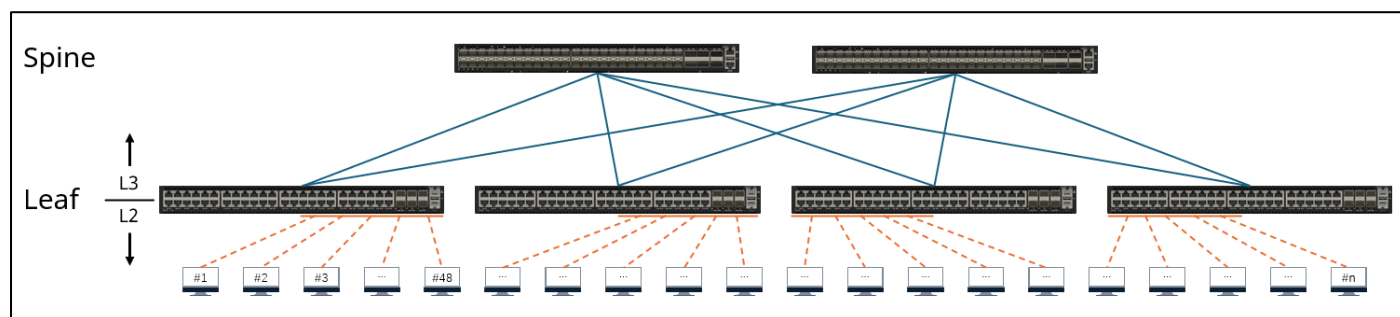
The Asterfusion CX-M series aggregation switches are wire speed network core/aggregation/spine roles for enterprise campus scenarios. The CX2P/CX3P/CX5P/CX7P series based on Marvell Aldrin 3, and Falcon ASIC offers a variety of port configurations ranging from 10G, 25G downlinks with 100G uplinks to full 100G ports, which deliver a flexible and scalable topology design.

The CX-M series switches run AsterNOS, which is enterprise-ready SONiC distribution enhanced by Asterfusion. AsterNOS is a common binary for all series of Asterfusion switches including data center and campus network products, it provides comprehensive and standardized Layer-2 and Layer-3 features including VXLAN virtualization, QoS and security functionalities. In campus network, AsterNOS supports standard 802.1x and RADIUS authentication for access control. Along with security features such as Dynamic ARP Inspection (DAI) and IP Source Guard (IPSG), it protects campus network security in different dimensions.

Asterfusion's switches and Wi-Fi products are managed by Asteria Campus Controller, which is based on OpenWiFi and OpenLAN Switching standards, providing unified provisioning and maintenance experience for both wired and wireless network.

Campus Pod Design

Conventional Layer-2 networks based on the Spanning Tree Protocol (STP) can be difficult to maintain and unable to fully utilize redundant interconnections. In modern enterprise networks, an open architecture is leveraged to divide the network into Pods for campus buildings or floors. These Pods can be deployed as single devices, a MC-LAG system or a Leaf Spine design for better scalability instead of stacking.



Layer-3 Leaf Spine Campus Pod Design

For elimination of broadcast storm and port security considerations, moving the Layer-3 boundary to Leaf switches (or so-called access layer) can help. It allows for multiple new redundant topology options as already proved in data centers. If using a Leaf Spine design, uplinks benefit from Equal Cost Multi-Path (ECMP) for load balancing of user traffic and increased redundancy from multiple active paths.

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 and Layer-3 functionalities, including VXLAN virtualization across all products, which makes it possible that customers can also choose data center products (25G or even 100G models) as spine or super spine layer within campus networks to expand the throughput and scalability.

Asteria Campus Controller

Asteria Campus Controller is Asterfusion's management plane solution for entire campus network including wired and wireless components. The Controller is lightweight designed that can be deployed on-premises or on cloud, even directly deployed in specific switches. It offers topology pre-design, Zero Touch Provisioning (ZTP), configuration batch modification, network monitoring and health check for campus network. By using OpenWiFi and OpenLAN Switching architecture and standards, it is also possible to manage any standard 3rd party hardware to achieve unified management plane of entire network.

Layer 2 Features

- 4K VLANs
- Voice VLAN
- Multiple Spanning Tree Protocol (MSTP)
- QinQ
- Link Aggregation Control Protocol (LACP)
- Multi-Chassis Link Aggregation (MC-LAG)
- VLAN Trunking
- Link Layer Discovery Protocol (LLDP)
- LLDP Enhancements for PoE
- Port Isolation
- Jumbo Frames (9216 Bytes)
- IGMP Snooping
- Storm Control
- Monitor Link

Layer 3 Features

- IPv4/v6 Dual Stack
- Routing Protocols: OSPF v2/v3, BGP, MP-BGP
- Policy Based Routing
- Resilient ECMP
- ARP-to-Host
- VRF
- Bi-Directional Forwarding Detection (BFD)
- IGMP v2/v3
- Route Map
- VRRP
- GRE

Virtualization Features

- VXLAN Centralized/Distributed Gateway
- EVPN Type 2/3/5

Security Features

- Service ACLs
- ACL Logging and Counters
- Control Plane Policing (CoPP)

- Dynamic ARP Inspection (DAI)
- IP Source Guard v4/v6
- DHCPv4/v6 Relay
- DHCPv4/v6 Snooping
- ND Snooping
- 802.1x Authentication
- Portal Authentication
- MAC Authentication Bypass (MAB)
- Dynamic VLAN Assignment
- TACACS+
- RADIUS

Quality of Service (QoS)

- 8 Queues per Port
- 802.1p Based Classification
- DSCP Based Classification
- Strict priority queueing
- DWRR Scheduling
- Policing/Shaping
- Rate Limiting

Management and Monitoring

- Asteria Campus Controller
- Industry Standard CLI
- Zero Touch Provisioning (ZTP)
- SNMP v1/v2/v3
- sFlow
- Port Mirroring
- Syslog
- Log Management
- PTP IEEE 1588v2 (TC and BC)
- Containerized Custom Tools

Specifications

Product Model		CX204P-24S-M-E	CX204P-16Y-M-E
Network interface	100G(QSFP28)	4	4
	25GE(SFP28)	-	16
	10G(SFP+)	24	-
Switching chip	Chip model	Marvell ArmStrongLP	Marvell Prestera (Aldrin 3)
	Switching capacity	1.09Tbps	800Gbps
	Forwarding rate	600Mpps	810Mpps
CPU	CPU	OCTEON CN9130	
Flash	Flash	32GB EMMC	
Management interface	USB	1xUSB2.0	
	Console	1xConsole RJ45	
	MGMT	1xMGMT RJ45	
Dimensions	Dimensions (WxHxD mm)	440x44x470	
	Weight	9kg	
Electrical characteristics	Maximum power consumption	125W	
	Power and fan	1+1 power modules hot-pluggable; 3 fixed fan modules	
	Input voltage	100-240V AC / 36-72V DC	
Operating conditions	Operating temperature	0-45°C	
	Relative humidity	5%-90% (non-condensing)	
	Air Flow	Front-to-Rear	

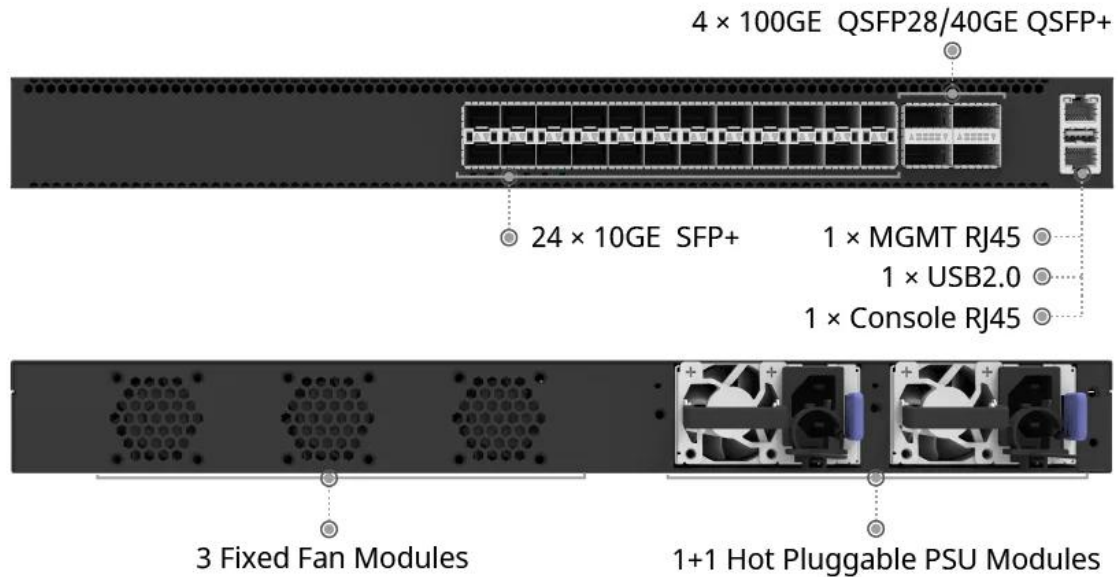
Product Model		CX202P-16S-M-H	CX202P-24S-M-H
Network interface	100G(QSFP28)	2	2
	25GE(SFP28)	-	24
	10G(SFP+)	16	-
Switching chip	Chip model	Marvell ArmStrongLP	
	Switching capacity	1.09Tbps	
	Forwarding rate	600Mpps	
CPU	CPU	OCTEON CN9130	
Flash	Flash	32GB EMMC	
Management interface	USB	1xUSB2.0	
	Console	1xConsole RJ45	
	MGMT	1xMGMT RJ45	
Dimensions	Dimensions (WxHxD mm)	440x44x470	
	Weight	9kg	
Electrical characteristics	Maximum power consumption	165W	168W
	Power and fan	1+1 power modules hot-pluggable; 2+1 fan modules hot-pluggable	
	Input voltage	100-240V AC / 36-72V DC	
Operating conditions	Operating temperature	0-45°C	
	Relative humidity	5%-90% (non-condensing)	
	Air Flow	Front-to-Rear	

Product Model		CX206P-24S-M-H	CX206P-48S-M-H	CX202P-24Y-M-H
Network interface	100G(QSFP28)	6	6	2
	25GE(SFP28)	-	-	24
	10G(SFP+)	24	48	-
Switching chip	Chip model	Marvell ArmStrongLP		Aldrin 3
	Switching capacity	1.09Tbps		800Gbps
	Forwarding rate	600Mpps		810Mpps
CPU	CPU	OCTEON CN9130		
Flash	Flash	32GB EMMC		
Management interface	USB	1xUSB2.0		
	Console	1xConsole RJ45		
	MGMT	1xMGMT RJ45		
Dimensions	Dimensions (WxHxD mm)	440x44x470		
	Weight	9kg	9.1kg	8.6kg
Electrical characteristics	Maximum power consumption	165W	187W	168W
	Power and fan	1+1 power modules hot-pluggable; 2+1 fan modules hot-pluggable		
	Input voltage	100-240V AC / 36-72V DC		
Operating conditions	Operating temperature	0-45°C		
	Relative humidity	5%-90% (non-condensing)		
	Air Flow	Front-to-Rear		

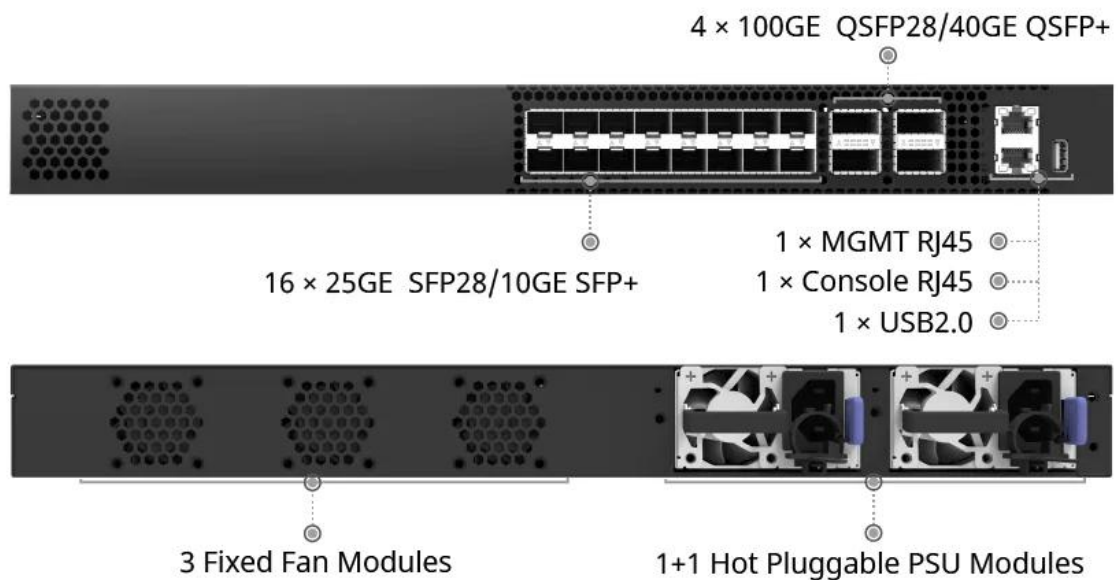
Product Model		CX306P-48Y-M-H	CX308P-48Y-M-H
Network interface	100G(QSFP28)	6	8
	25GE(SFP28)	48	48
Switching chip	Chip model	Marvell Prestera (Falcon)	
	Switching capacity	2.0Tbps	
	Forwarding rate	2600Mpps	
CPU	CPU	Pentium D1508	
	DPU Slot	2	
Flash	Flash	128GB M.2 SATA	256GB M.2 SATA
Management interface	USB	1xUSB2.0	
	Console	1xConsole/1PPS + ToD RJ45	1xConsole RJ45
	MGMT	1xMGMT RJ45	
Dimensions	Dimensions (WxHxD mm)	440x44x515	
	Weight	10.6kg	11.1kg
Electrical characteristics	Maximum power consumption	480W	
	Power and fan	1+1 power modules, 4+1 fan modules Hot-pluggable	1+1 power modules, 3+1 fan modules Hot-pluggable
	Input voltage	100-240V AC / 36-72V DC	
Operating conditions	Operating temperature	0-45°C	
	Relative humidity	10%-90% (non-condensing)	
	Air Flow	Front-to-Rear / Rear-to-Front	

Product Model		CX532P-M-H	CX732Q-M-H
Network interface	400G(QSFP-DD)	-	32
	100G(QSFP28)	-	16
	10G(SFP+)	2	2
Switching chip	Chip model	Marvell Prestera (Falcon)	Marvell Prestera (Falcon)
	Switching capacity	3.2Tbps	12.8Tbps
	Forwarding rate	2800Mpps	5600Mpps
CPU	CPU	Pentium D1508	
	Memory	16GB DDR4	
	Flash	256GB M.2 SATA	
Management interface	USB	1xUSB2.0	
	Console	1xConsole RJ45	
	MGMT	1xMGMT RJ45	
Dimensions	Dimensions (WxHxD mm)	440x44x515	
	Weight	12kg	12.4kg
Electrical characteristics	Maximum power consumption	495W	1000W
	Power and fan	1+1 power modules, 4+1 fan modules, Hot-pluggable	1+1 power modules, 5+1 fan modules, Hot-pluggable
	Input voltage	100-240V AC / 36-72V DC	
Operating conditions	Operating temperature	0-45°C	0-40°C
	Relative humidity	10%-90% (non-condensing)	
	Air Flow	Front-to-Rear / Rear-to-Front	

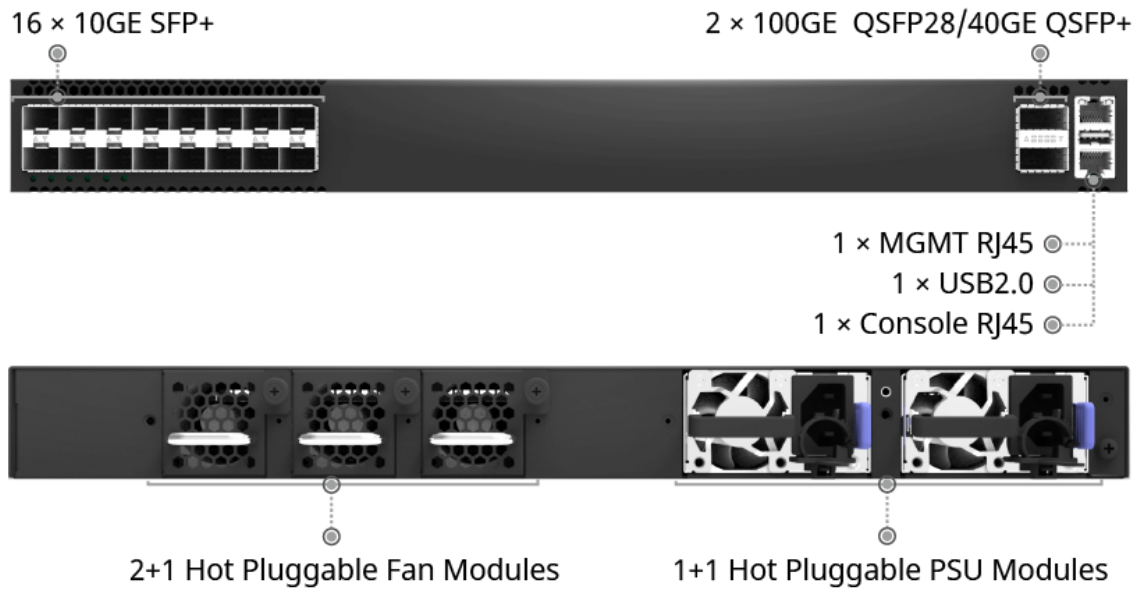
Panel Illustration



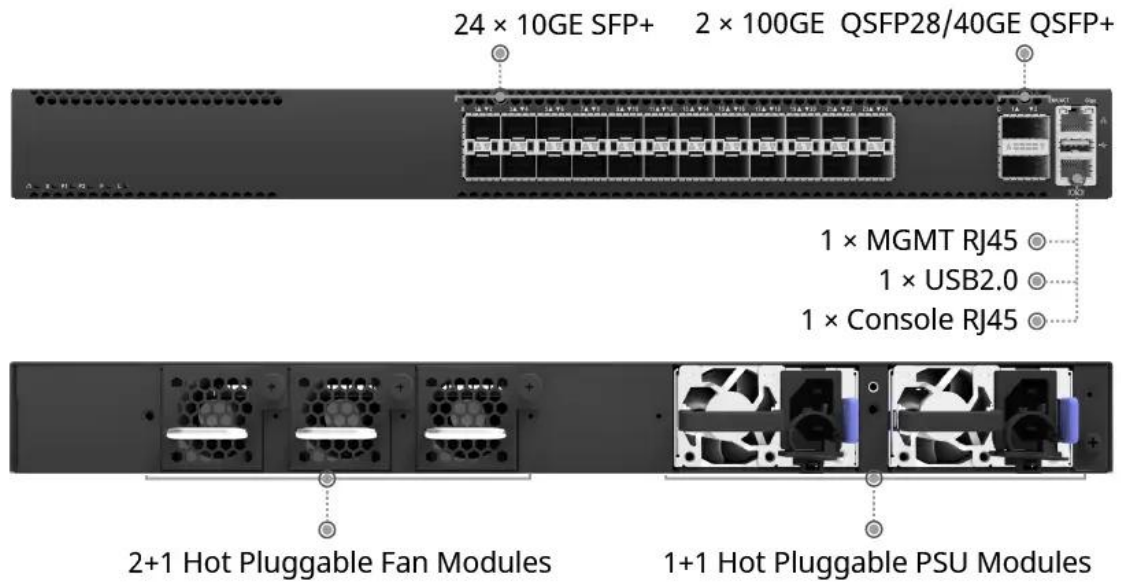
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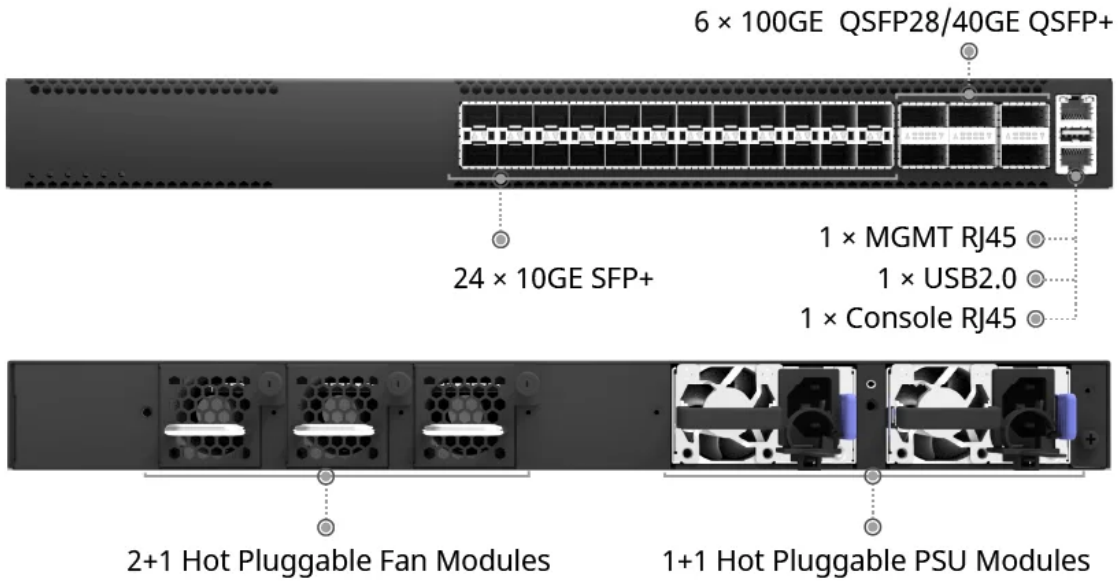
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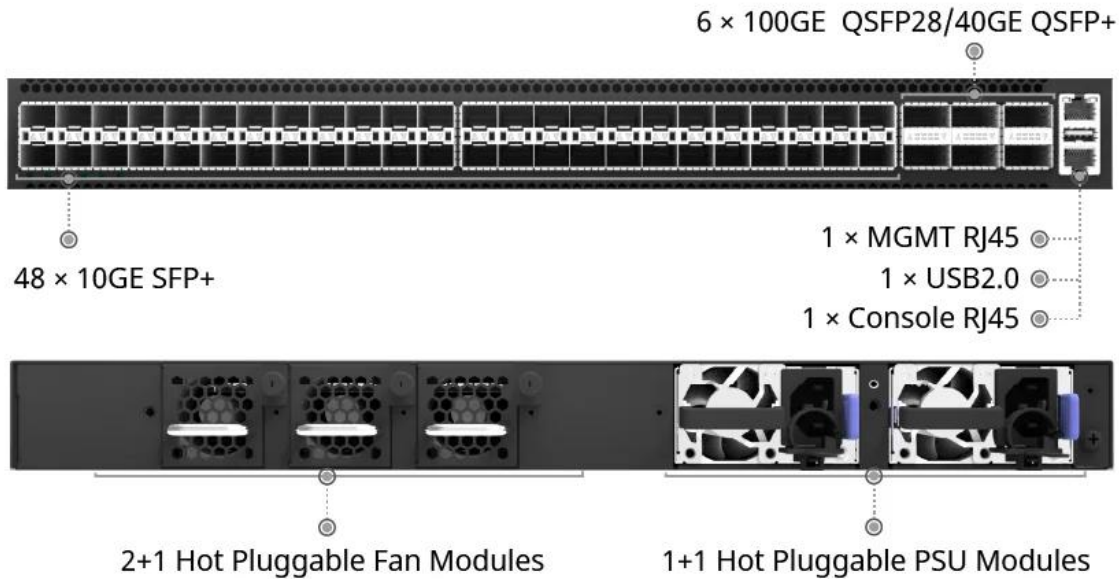
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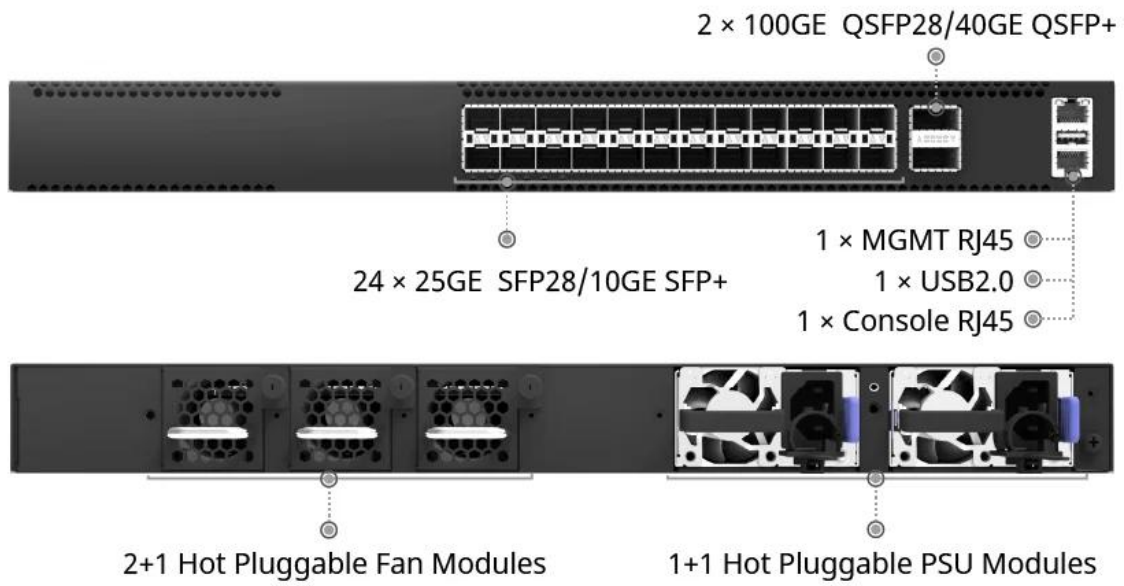
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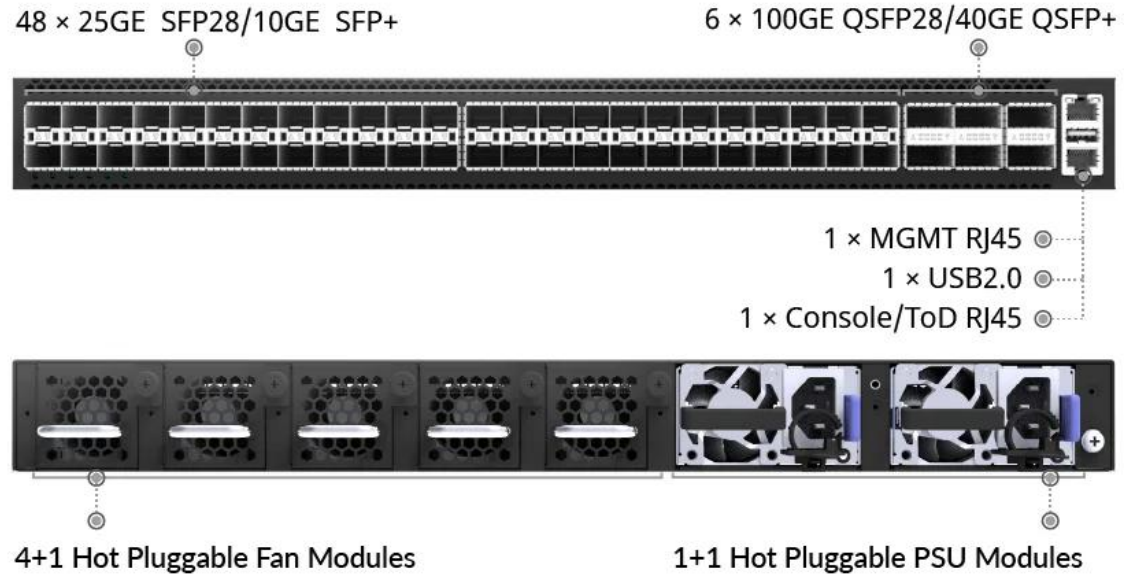
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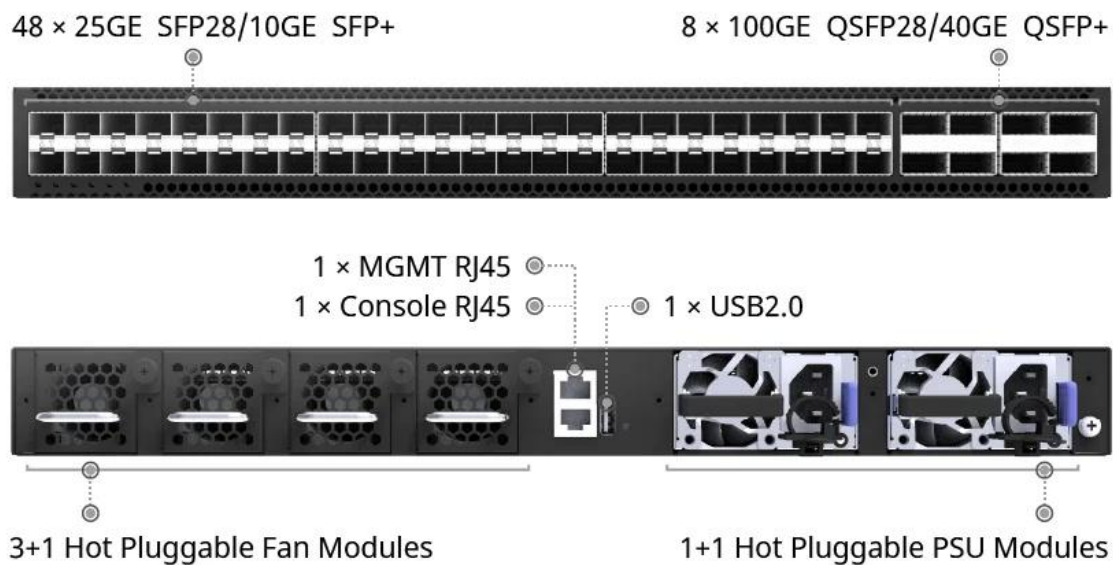
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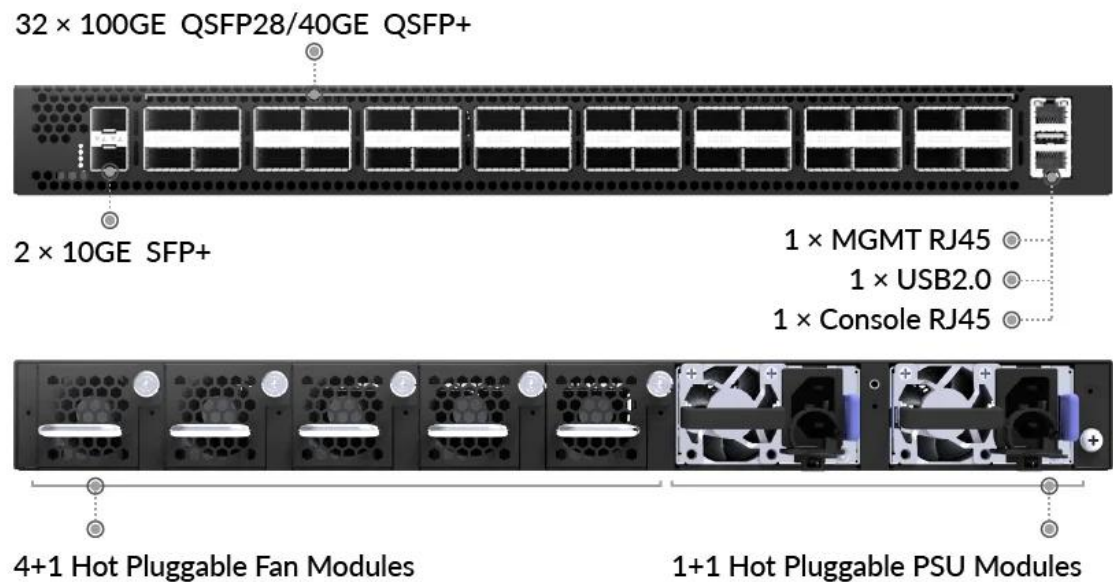
CX202P-24Y-M-H



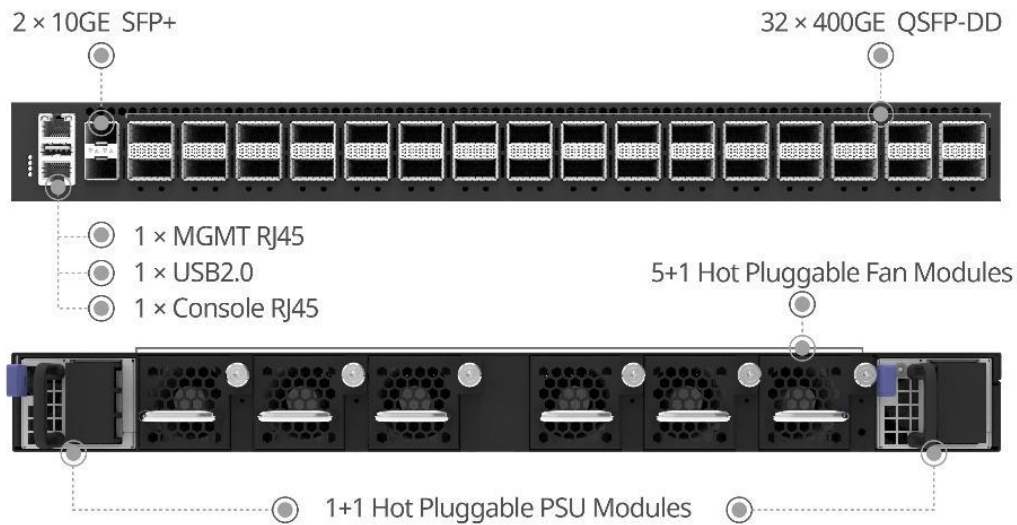
CX306P-48Y-M-H



CX308P-48Y-M-H



CX532P-M-H



CX732Q-M-H

Ordering Information

Part Number	Description
CX204P-24S-M-E	Campus aggregation/spine switch system, 24x10G/1G SFP+, 4x100G QSFP28, hot-pluggable 1+1 PSU, 3 fixed FANs, front-to-rear airflow
CX204P-16Y-M-E	Campus aggregation/spine switch system, 16x25G/10G/1G SFP28, 4x100G QSFP28, hot-pluggable 1+1 PSU, 3 fixed FANs, front-to-rear airflow
CX202P-16S-M-H	Enterprise aggregation/spine switch system, 16x10G/1G SFP+, 2x100G QSFP28, hot-pluggable 1+1 PSU, hot-pluggable 2+1 FANs, front-to-rear airflow
CX202P-24S-M-H	Enterprise aggregation/spine switch system, 24x10G/1G SFP+, 2x100G QSFP28, hot-pluggable 1+1 PSU, hot-pluggable 2+1 FANs, front-to-rear airflow
CX206P-24S-M-H	Enterprise aggregation/spine switch system, 24x10G/1G SFP+, 6x100G QSFP28, hot-pluggable 1+1 PSU, hot-pluggable 3+1 FANs, front-to-rear airflow
CX206P-48S-M-H	Enterprise aggregation/spine switch system, 48x10G/1G SFP+, 6x100G QSFP28, hot-pluggable 1+1 PSU, hot-pluggable 3+1 FANs, front-to-rear airflow
CX202P-24Y-M-H	Enterprise aggregation/spine switch system, 24x25G/10G/1G SFP28, 2x100G QSFP28, hot-pluggable 1+1 PSU, hot-pluggable 3+1 FANs, front-to-rear airflow
CX306P-48Y-M-H	Enterprise core/spine switch system, 48x25G/10G SFP28, 6x100G QSFP28, 2xDPU extension slots, hot-pluggable 1+1 PSU, hot-pluggable 3+1 FANs, front-to-rear or rear-to-front airflow

CX308P-48Y-M-H	Enterprise core/spine switch system, 48x25G/10G SFP28, 8x100G QSFP28, hot-pluggable 1+1 PSU, hot-pluggable 3+1 FANs, front-to-rear or rear-to-front airflow
CX532P-M-H	Enterprise core/spine, 32x100G QSFP28, hot-pluggable 1+1 PSU, hot-pluggable 4+1 FANs, front-to-rear or rear-to-front airflow
CX732Q-M-H	Enterprise core/spine, 32x400G QSFP-DD, hot-pluggable 1+1 PSU, hot-pluggable 5+1 FANs, front-to-rear or rear-to-front airflow

Optional Components	
MT3608-CX3	8-core CN103 DPU module inside CX306P series, Ubuntu preloaded
MT3024-CX3	24-core CN96 DPU module inside CX306P series, Ubuntu preloaded
MT2016-CX3	16/8-core CN83 DPU module inside CX306P series, Ubuntu preloaded
HW-WNT-1Y-CX202P-M	Hardware platform warranty for CX202P-M series, 1 Year
AsterNOS-UG-1Y-CX202P-M	Major version upgrade of AsterNOS for CX202P-M series, 1 Year
HW-WNT-1Y-CX204P-M	Hardware platform warranty for CX204P-M series, 1 Year
AsterNOS-UG-1Y-CX204P-M	Major version upgrade of AsterNOS for CX204P-M series, 1 Year
HW-WNT-1Y-CX206P-M	Hardware platform warranty for CX206P-M series, 1 Year
AsterNOS-UG-1Y-CX206P-M	Major version upgrade of AsterNOS for CX206P-M series, 1 Year
HW-WNT-1Y-CX306P-M	Hardware platform warranty for CX306P-M series, 1 Year
AsterNOS-UG-1Y-CX306P-M	Major version upgrade of AsterNOS for CX306P-M series, 1 Year
HW-WNT-1Y-CX308P-M	Hardware platform warranty for CX308P-M series, 1 Year
AsterNOS-UG-1Y-CX308P-M	Major version upgrade of AsterNOS for CX308P-M series, 1 Year
HW-WNT-1Y-CX532P-M	Hardware platform warranty for CX532P-M series, 1 Year
AsterNOS-UG-1Y-CX532P-M	Major version upgrade of AsterNOS for CX532P-M series, 1 Year
HW-WNT-1Y-CX732Q-M	Hardware platform warranty for CX732Q-M series, 1 Year
AsterNOS-UG-1Y-CX732Q-M	Major version upgrade of AsterNOS for CX732Q-M series, 1 Year

Warranty and Service Support

Asterfusion CX-M series switches come with 2-year Basic H/W service and warranty, preloaded perpetual licensed AsterNOS and 1-year AsterNOS upgrade subscription grade subscription.