



Asterfusion 2.5G Gigabit Campus Access Switch

Overview

The Asterfusion 2.5G Gigabit Series are purpose-built for next-generation campus networks, delivering more speed, more intelligence, and more simplicity. Powered by the enterprise SONiC distribution NOS, it combines a full suite of Layer 2/Layer 3 features, advanced network virtualization capabilities such as VXLAN and BGP-EVPN and even supports optional PTP for precise time synchronization.

With an OpenWiFi-compatible controller, IT teams can achieve unified configuration, monitoring, and management across access points and switches—simplifying operations while boosting flexibility.

Meanwhile, it supports PoE/PoE+/PoE++ with flexible power options (150W–1440W), configurable priority to safeguard critical devices, and scheduled PoE for automated on/off control.



Figure 1: Asterfusion 2.5G Gigabit Series Product

Features

- **Preload with Enterprise SONiC Distribution**

In terms of the operating system, The Asterfusion 2.5G Gigabit Series runs on AsterNOS Enterprise Edition, which offers full system openness, easily expandable functional modules, and highly resilient component availability. It delivers a full suite of Layer 2/Layer 3 features, advanced network virtualization capabilities such as VXLAN and BGP-EVPN and offers optional enhancements like PTP for precise time synchronization and MPLS for flexible service delivery.

- **Diverse Terminal Access Capabilities**

The Asterfusion 2.5G Gigabit Series delivers versatile connectivity with uplink and downlink options including 1GE/2.5GE RJ45, 10GE SFP+, and 25GE SFP28, all supporting line-rate forwarding. For power

delivery, it supports PoE/PoE+/PoE++ with flexible supply options from 150W to 1440W. Administrators can set PoE priority to guarantee power for critical devices and use scheduled PoE to automatically power terminals on/off—enabling smarter, more efficient power management.

- **High-Precision Clock Synchronization**

The Asterfusion 2.5G Gigabit Series offers an optional high-precision clock synchronization module, making it ideal for applications where timing is mission-critical. Compatible with hardware timestamp-based protocols like IEEE 1588v2 and SMPTE ST 2059-2, it supports multiple clock node types (OC, BC, P2PTC, E2ETC) and both one-step and two-step synchronization mechanisms—delivering PTP accuracy within 20ns. By combining SyncE frequency synchronization with 1588v2 phase synchronization, it achieves even greater precision and stability. This cost-effective solution ensures ultra-reliable timing for industries such as broadcast television, industrial automation, AV transmission, and 5G wireless access.

- **Comprehensive Security Mechanisms**

The Asterfusion 2.5G Gigabit Series is built with a comprehensive security toolkit to safeguard campus networks from within. It protects against internal threats with features like DHCP Snooping, Dynamic ARP Inspection, ND Snooping, IPSGv4/v6, IP Conflict Detection, and Loopback Detection. Administrators can further secure traffic through port isolation and inbound/outbound ACLs, while authentication options such as 802.1x, Portal, and MAB ensure even “dumb terminals” like printers and IP phones are protected. With broadcast storm suppression and CPU protection also in place, the series provides a robust, reliable, and secure foundation for next-generation campus networks.

- **OpenWiFi-compatible controller for unified configuration, Monitoring, and Management**

The Asterfusion 2.5G Gigabit Series integrates seamlessly with the cloud-hosted OpenWiFi-compatible controller- Asteria, enabling one-click service provisioning, simplified maintenance, full network visibility, and effortless scalability across deployments of any size—helping IT teams accelerate rollouts while reducing administrative complexity. In addition, the series complies with the OpenLAN Switching (OLS) standard, ensuring smooth integration with third-party OLS-compatible management platforms.

- **Flexible and User-Friendly Management**

The Asterfusion 2.5G Gigabit Series makes network management smarter and easier with support for SNMP, Syslog, ZTP, and USB backup. Administrators can configure devices flexibly through CLI access via SSH, Telnet, or Console, while cluster deployment allows a single device to manage and provision services for the entire network—simplifying operations and boosting efficiency.

Hardware Specifications

Table 1: PoE access switches

Product Model	CX102S-8MT -M-SWP	CX204Y-24MT -M-SWP4	CX206Y-24MT -M-HWP6	CX206Y-48MT -M-HWP8
Network Interface	8 x 2.5G/1G RJ45 2 x 10G SFP+	24 x 2.5G/1G RJ45 4 x 25G/10G SFP28/SFP+	24 x 2.5G/1G RJ45 6 x 25G/10G SFP28/SFP+	48 x 2.5G/1G RJ45 6 x 25G/10G SFP28/SFP+
PoE/PoE+	1 to 8	1 to 24	1 to 24	1 to 48
PoE++	1 to 8			
PoE Budget	150W	740W	820W	1440W
Mgmt Interface	1 x USB2.0 1 x Console RJ45	1 x Console RJ45, 1 x MGMT RJ45, 1 x USB2.0		
Dimensions (WxHxD mm)	44 x 215 x 310mm	440mm x 44mm x 470mm		
Weight	2.2kg	4.3kg	8.5kg	9.3kg
Maximum power consumption	39W (without PoE)	76W (without PoE)	96W (without PoE)	120W (without PoE)
Power Supply	100W	880W	920W	1600W
Power	1 fixed Power module	1 fixed power module	1+1 power module hot-pluggable	1+1 power module, hot-pluggable
Fan	2 fixed fan modules	3 fixed fan modules	2+1 fan modules hot-pluggable	2+1 fan modules hot-pluggable
airflow	side-to-side airflow	side-to-side airflow	front-to-rear airflow	front-to-rear airflow
Input Voltage	100~240V AC			
Operating temperature	0 - 45 °C			
Relative humidity	5% - 90% (non-condensing)			

Table 2: Access switches without PoE

Product Model	CX102S-8MT -M-S	CX204Y-24MT -M-S	CX206Y-24MT -M-H	CX206Y-48MT -M-H
Network Interface	8 x 2.5G/1G RJ45, 2 x 10G SFP+	24 x 2.5G/1G RJ45 4 x 25G/10G SFP28/SFP+	24 x 2.5G/1G RJ45 6 x 25G/10G SFP28/SFP+	48 x 2.5G/1G RJ45 6 x 25G/10G SFP28/SFP+
Mgmt Interface	1 x USB2.0, 1 x Console RJ45	1 x Console RJ45, 1 x MGMT RJ45, 1 x USB2.0		
Dimensions (WxHxD mm)	44 x 215 x 310mm	440mm x 44mm x 470mm		
Weight	2.2kg	3.6kg	7.5kg	8.3kg
Maximum power consumption	39W (without PoE)	76W (without PoE)	96W (without PoE)	120W (without PoE)
Power Supply	100W	100W	550W	550W
Power	1 fixed Power module	1 fixed power module	1+1 power module hot-pluggable	1+1 power module hot-pluggable
Fan	2 fixed fan modules	3 fixed fan modules	2+1 fan modules hot-pluggable	2+1 fan modules hot-pluggable
airflow	side-to-side airflow	side-to-side airflow	front-to-rear airflow	front-to-rear airflow
Input Voltage	100~240V AC			
Operating temperature	0 - 45 °C			
Relative humidity	5% - 90% (non-condensing)			

Software Features

Item	Description	
Interfaces Features	Interface info	Supports statistics on interface rate, forwarded packets, dropped packets, error packets, etc.
	Module info	Supports displaying interface module information such as presence status, optical power, vendor, etc.
	Interface Configuration	Interface Up/Down, rate adjustment, MTU adjustment, delayed startup
	Jumbo Frames	Supports transmission of packets up to 10218 bytes
	Virtual Interface	Supports creation of multiple Loopback interfaces
Layer 2 Features	MAC	Static MAC, dynamic MAC, MAC aging and updating
		Supports limiting the number of MAC address learning entries
		Supports MAC address flapping detection
	VLAN	Supports 802.1q VLAN, Tagged and Untagged port modes
	Voice VLAN	Supports Voice VLAN
	QinQ	Supports basic QinQ and flexible QinQ
	STP	Supports STP, RSTP, MSTP
	Port Mirroring	Supports traffic mirroring in RX and TX directions, SPAN/RSPAN/ERSPAN
		Supports mirroring source/destination ports as physical ports or VLANs
	Hash Methods	Supports various hash methods based on source/destination MAC, source/destination IP, source/destination IP + port, etc.
Layer 3 Features	ARP	Static ARP, dynamic ARP, ARP aging and updating
		Supports ARP Proxy and reply statistics
	NDP	Supports Neighbor Discovery Protocol (NDP)
	SVI	Supports creating Layer 3 SVI interfaces for VLANs and modifying SVI interface MAC addresses
	IPv4/IPv6	Supports dual-stack IPv4/IPv6
	Routing	Static routing, OSPFv2/v3, BGP4/4+, supports TRACK association with static routing

	Policy-Based Routing	Supports policy-based routing (IPv4/IPv6) based on five-tuple
	Multicast	Supports IGMPv1/v2/v3, IGMP Snooping, MLD Snooping
		Supports multicast VLAN based on user VLAN
	Virtualization	Supports VRF (Virtual Routing and Forwarding) technology to create multiple logically isolated routing tables for Layer 3 service isolation
	GRE	Supports various GRE tunnels: IPv4 over IPv4, IPv6 over IPv6, IPv4 over IPv6, IPv6 over IPv4
	VxLAN	Supports static tunnel establishment
		Supports dynamic tunnel establishment via EVPN
		Supports distributed/centralized VxLAN gateways
Security Features	DHCP	DHCPv4/v6 Server、DHCPv4/v6 Relay、DHCP Failover
	Storm Control	Supports rate limiting for BUM packets
		Supports setting BUM packet forwarding action to Flooding or Drop
	AAA	Local username/password authentication, TACACS+ authentication
	Authentication	Supports 802.1x authentication, MAB (MAC Address Bypass) authentication, Portal authentication
	ACL	Supports ACL filtering (IPv4/IPv6) based on five-tuple, inbound and outbound ACL filtering
	Port Isolation	Supports Layer 2 port isolation, isolation of physical/aggregated ports, port isolation groups
	DHCP Protection	DHCPv4/v6 Snooping
	ND Protection	ND Snooping
	ARP Protection	Dynamic ARP Inspection
	IP Protection	IPSG v4/v6
	CoPP	Supports CPU protection policies to prevent high CPU usage caused by high-speed traffic
	Loopback Detection	Detects local loops to prevent network loops caused by misoperations
QoS	IP Conflict Detection	Supports IP conflict detection enabled per port/VLAN
	Priority Mapping	Supports priority mapping based on 802.1p and DSCP
	Traffic Policing	Supports traffic policing, combined with ACL for inbound rate limiting of specific traffic

	Traffic Shaping	Supports traffic shaping per port or queue for outbound rate limiting
	Queue Scheduling	Supports queue scheduling based on PQ (Priority Queuing) and DWRR (Deficit Weighted Round Robin) algorithms
Availability	Link Aggregation	Supports static aggregation and dynamic LACP
	Multi-Homing Access	Control plane supports EVPN Multi-Homing for dual-uplink AP access requirements
	Device High Availability	Supports MC-LAG, VRRP
	Load Balancing	Supports ECMP/UCMP
	Monitor link	Supports creating Monitor Link groups; downlinks are synchronously disabled when uplink fails
	BFD	Supports BFD (Bidirectional Forwarding Detection), single-arm echo BFD via Echo packets; 10ms hardware BFD
Device Management		Supports association with static routing, OSPF, BGP
	Login Methods	SSH、Telnet、Console
	SNMP	SNMP v1、SNMP v2、SNMP v3
	sFlow	Supports global/interface-based sampling
	System Configuration	Supports configuration save, import, and export
	Cluster Configuration	Supports cluster deployment; configuration synchronization for the entire cluster via a single device
	FTP/TFTP	Supports downloading files from or uploading files to FTP servers
	USB	Supports file upload/download via USB interface
	ZTP	Supports Zero Touch Provisioning (ZTP)
	Clock Synchronization	Supports NTP protocol
		Supports hardware timestamp-based 1588V2 and SyncE (requires optional PTP clock synchronization module)
	System Logging	Supports Log recording and remote transmission via Rsyslog
	Alarm Information	Temperature alarm, power supply absence alarm, fan absence alarm, traffic overflow alarm

Ordering Information

Product Model	Description
CX102S-8MT-M-S	Enterprise access/leaf switch, 8x2.5GE/1GE RJ45, 2 x 10G SFP28, fixed 1xPSU, 2xFAN, side-to-side airflow
CX102S-8MT-M-SWP	Enterprise access/leaf switch, 8x2.5GE/1GE RJ45 with PoE+, 2 x 10G SFP28, fixed 1xPSU, 2xFAN, side-to-side airflow
CX204Y-24MT-M-S	Enterprise access/leaf switch, 24x2.5GE/1GE RJ45, 4x25G/10G SFP28, fixed 1xPSU, 2xFAN, side-to-side airflow
CX204Y-24MT-M-SPW4	Enterprise access/leaf switch, 24x2.5GE/1GE RJ45 with PoE+, 4x25G/10G SFP28, 740w power budget, fixed 1xPSU, 3xFAN, side-to-side airflow
CX206Y-24MT-M-H	Enterprise access/leaf switch, 24x2.5GE/1GE RJ45, 6x25G/10G SFP28, 2xPSU hot-pluggable, 3xFAN, front-to-rear airflow
CX206Y-24MT-M-HPW4	Enterprise access/leaf switch, 24x2.5GE/1GE RJ45 with PoE+, 6x25G/10G SFP28, 920w power budget, 2xPSU hot-pluggable, 3xFAN, front-to-rear airflow
CX206Y-48MT-M-H	Enterprise access/leaf switch, 48x2.5GE/1GE RJ45, 6x25G/10G SFP28, 2xPSU hot-pluggable, 3xFAN, front-to-rear airflow
CX206Y-48MT-M-HPW8	Enterprise access/leaf switch, 48x2.5GE/1GE RJ45 with PoE+, 6x25G/10G SFP28, 1440w power budget, 2xPSU hot-pluggable, 3xFAN, front-to-rear airflow

Modules	Description
PWR-CRPS-AC-550-AF	Power module, 550W, CRPS, input 110V/220V AC or 240V DC (Applicable to all CX-M series models supporting hot-swappable power supplies)
PWR-CRPS-AC-920-PoE-740	Power module, 920W (PoE 740W), CRPS, input 110V/220V AC or 240V DC (Applicable to all CX-M series PoE models supporting hot-swappable power supplies)
PWR-CRPS-AC1600-PoE-1440	Power module, 1600W (PoE 1440W), CRPS, input 110V/220V AC or 240V DC (Applicable to all CX-M series PoE models supporting hot-swappable power supplies)
FAN-AF-II	Fan module, F2R (front-to-rear airflow), blows air from the port side toward the power supply side (Applicable to all CX-M series models supporting hot-swappable fans)
OM-10G-SM1310-10K-LC	10G, SFP+, single-mode, 1310nm, 10km, LC
OM-10G-MM850-300-LC	10G, SFP+, multi-mode, 850nm, 300m, LC
OM-25G-SM1310-10K-LC	25G, SFP28, single-mode, 1310nm, 10km, LC
OM-25G-MM850-100-LC	25G, SFP28, multi-mode, 850nm, 100m, LC
OM-40G-SM-10K-LC-CWDM	40G-LR4, QSFP+, single-mode, 10km, LC, CWDM

OM-40G-MM850-300-MPO	40G-SR4, QSFP+, multi-mode, 850nm, 300m, MPO
OM-100G-SM-10K-LC-LANWDM	100G-LR4, QSFP28, single-mode, 10km, LC, LAN WDM
OM-100G-SM-80K-LC-LANWDM	100G-ZR4, QSFP28, single-mode, 80km, LC, LAN WDM

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.

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