



## Cx5500-28XGF

### 24 Port GE Fiber Layer-3 Core/Aggregation Switch with 10G Uplink Ports



Build for a high-performance data network



Unique Port combination brings maximum flexibility



Hardware-based traffic visualization



Carrier-grade reliability protection



Comprehensive Security Control Strategy



Support AC+ AC or DC+DC or AC+DC Power supply



## Cx5500-28XGF

### Product Overview

Cx5500-28XGF switch is a new generation of high-performance, high-density Ethernet switch designed for core or aggregation application of enterprise or telco network. It supports 16\*GE SFP ports, 8\*GE combo ports (SFP/RJ-45) and 4\*10G uplink ports. Supports manual aggregation and dynamic aggregation, effectively increasing link bandwidth, improving link reliability, load balancing, and link backup.

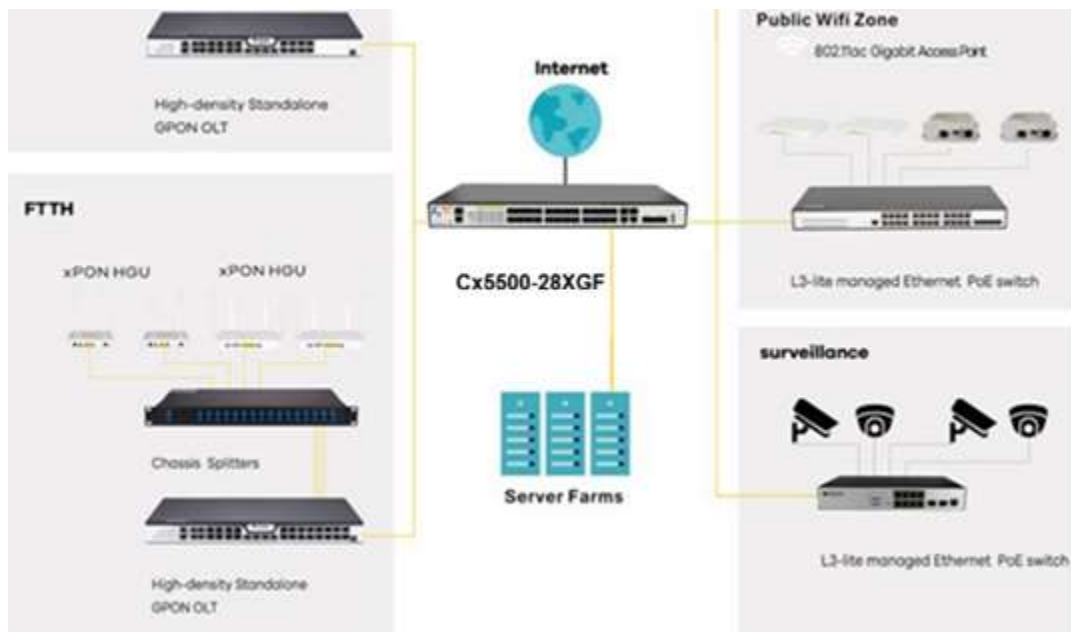
### Product Features

- Support IPv4 routing protocols, including static routes, RIP, OSPF, IS-IS, and BGP4. A variety of IPv6 routing protocols, including static routes, RIPng, OSPFv3, and BGP4+.
- The hardware supports IPv4/IPv6 dual-stack multi-layer line-speed switching.
- Support inbound and outbound ACLs, and VLAN-based ACLs to ensure legitimate users to use the network properly, such as multi-group binding, port security, time ACL, and bandwidth limiting based on data flow
- Support flexible management through WEB, CLI or SNMP.
- Supports IEEE802.3x full-duplex flow control and Backpressure half-duplex flow control.

## Hardware Specifications

|                       |                                                               |
|-----------------------|---------------------------------------------------------------|
| Model                 | Cx5500-28XGF                                                  |
| Interface             | 16xGE SFP Ports, 8xGE combo Ports and 4x10G SFP+ Uplink Ports |
| Management port       | 1*Console Port                                                |
| Transmission mode     | Support store-forward mode and cut-through mode               |
| Packet Forward Speed  | 96 Mpps                                                       |
| Switching Capacity    | 128Gbps                                                       |
| Dimension(L*W*H)      | 441.5*207*44.4mm                                              |
| Indicator             | PWR, LNK/ACT, SYS                                             |
| Green energy saving   | IEEE 802.3az                                                  |
| Power Supply          | Dual module power supply                                      |
| AC Input              | Rated voltage range: 100~240V<br>Frequency: 50~60Hz           |
| DC Input              | Input voltage range: 36-72V/DC                                |
| MAC Address Table     | 32K Auto-learning, Auto-aging                                 |
| Operating temperature | 0°C ~ 50 °C                                                   |
| Storage temperature   | -40 °C ~ +70 °C                                               |
| Operating humidity    | 10% ~ 90% non-condensing                                      |
| Storage humidity      | 5% ~ 90% non-condensing                                       |

## Application Diagram



# Technical Specifications

## VLAN

- 512 Active VLAN, QinQ(Double VLAN) & Selective QinQ,
- GVRP,
- Centralize VLAN Management
- GVRP, Private VLAN
- 802.1v VLAN
- 802.1Q Tagged VLAN Protocol
- VLAN ID 0~4094
- VLAN Trunking
- Port based VLAN, Voice VLAN
- Loop Guard

## Spanning Tree

- 802.1D (STP)
- 802.1W (RSTP) for sub second failover 802.1S (MSTP)
- STP/RSTP/MSTP edge port mode
- Up to 65 STP Instances
- BPDU Attack protection, root guard and loopback guard

## Multicast

- IGMP v1/v2/v3,
- IGMP v1/v2/v3 Snooping,
- IGMP Fast Leave,
- 1000 IGMP Multicast Groups
- MVR, IGMP filter

## IPv4

- Static routing, Default route, RIP v1/v2,
- OSPF
- 512 IP Interface
- Loopback Interface, Loopback detection

## IPv6

- ICMPv6, DHCPv6 Guard, ACLv6
- IPv6 Telnet, IPv6 QoS
- IPv6 neighbor discovery, Path MTU discovery
- MLD snooping
- Static Routing, RIPng, BGP+
- Route advertisement guard
- RFC2740
- IPv6 ND Inspection

## Routing

- Policy Based Routing (PBR), Bidirectional Forwarding Detection
- IP Direct Broadcast
- OSPFv3, BGP4
- PIM-SM, PIM-DM, PIM-SSM
- Inter VLAN IP unicast routing
- Policy based route
- 1100 Unicast routes

- Route advertisement guard
- IPv6 ND Inspection

## Ports Standards & Functions

- IEEE 802.3 10BASE-T, 100BASE-T Ethernet
- IEEE 802.3ab 1000BASE-T Gigabit Ethernet
- 802.3ae 10 GbE
- IEEE 802.3x Flow Control for Full-Duplex Mode
- Auto-negotiation (Link speed)
- Support Auto MDI-II/MDI-X uplink for all the twisted pair ports.

## QoS

- IEEE802.1P QoS (Per Port), Priority Tag, ToS/DSCP Tag
- Priority queue, Class of Service (CoS),
- QoS Flow, Strict Priority Queue, WRR, WRED, Three Color Marking
- Per Port QoS ACL (IP/MAC)
- QoS classification & Scheduling based on ToS & DSCP
- 8 Egress/Ingress queue per port
- Rate limiting (Bandwidth Control) based on IP, MAC, TCP, UDP ports.
- QoS ACL Class Map & Policy Map
- CoS, DSCP classification and Marking (IP, MAC, TCP/UDP ports)
- QoS, CoS based on L2, L3, L4 Protocols

## Security

- Port isolation, Port security, IP+MAC+port binding, sticky MAC
- DHCP Snooping and option 82, DAI & IP source guard, PPPoE+,
- IEEE 802.1x, port base, host base and MAC base for access control
- RADIUS and TACACS+ authentication with database failover
- L2/L3/L4 ACL based on 802.1P priority, Protocol type, MAC address, VLAN, Ether type, TCP/UDP port number, DSCP, IP address, IPv6 traffic class & flow label
- Ingress and Egress ACL
- Enhanced protection using Network Admission Control
- Flow identification and filtration Anti-attack from
- DOS/DDoS, TCP's SYN Flood, UDP Flooded.
- Broadcast/multicast/unknown unicast storm-control, Port blocking
- Dynamic ARP inspection and snooping
- MD5, SHA-256, RSA-1024, AES256, etc.

## Reliability

- 802.3ad Link aggregation Control Protocol (LACP)
- Interface backup
- Should support ITU-T G.8032 Ethernet Ring protection for Loop Protection and fast convergence time (Sub 50ms)
- Unicast MAC Filtering
- Optical Transceiver DDMI
- IEEE802.1ag CFM
- Port Spanning

- UDLD
- LLDP, LLDP-MED
- MAC address notification
- Link state tracking

- IEC 61000-4-5 surge protection (6kV)
- 802.3ah Remote Loopback & Discovery
- VRRP v2, v3
- 1+1 power backup

### Ordering information

|              |                                                                                     |
|--------------|-------------------------------------------------------------------------------------|
| Cx5500-28XGF | 16*GE SFP Ports, 8*GE Combo Ports, 4*10GE SFP+ Ports, 1 Console Port Managed Switch |
|--------------|-------------------------------------------------------------------------------------|