

ECS3510-28F

L2 FE Fiber Access Switch



Product Overview

The Edge-Core ECS3510-28F features with a 1U form factor consisting of 24 100Base-BX ports with 24 fiber transceivers, 4 Gigabit combo ports and an optional converter module fitting the 24 ports to achieve the TS-1000 standard's requirement. The ECS3510-28F is one product of the Edge-Core Fiber Access Switch. The Edge-Core ECS3510-28F is Fiber Access Switch include different types of subscriber ports to fit different provider needs from Copper, VDSL2 to WDM. The ECS3510-28F Fiber Access Switch also includes Access specific security, QoS, and Management software features to enable service providers to deliver a secure triple play service while checking end to end connectivity for customers. The ECS3510-28F Fiber Access Switch is a next generation switches designed by Edge-Core to provide service providers to fulfill the needs of access network demands for the future.

Key Features and Benefits

Metro Ethernet Specific Software

The ECS3510-28F Fiber Access Switch was designed to fit within the Metro Ethernet, feature enhancement such as 802.3ah, Q in Q, Carrier Class Rate-Limit, QoS, and subscriber isolation was added to help service providers deploy, manage, and secure their services.

Built to Offer Triple Services

The ECS3510-28F Fiber Access Switch is built to help service provider offer data, voice, video within one network. With enhance multicast and QoS features service can offer services such as IPTV, VoIP, and Internet access within the same network and without interference from each other.

Single IP Management for 36 Switches

The ECS3510-28F is managed as a single object and has a single IP address. Up to 36 of ECS3510-28F can be virtual stacked as a single object.

Enhance Security Features

The ECS3510-28F Fiber Access Switch was designed to provide enhance security at the Metro Access and was built with Subscriber Security, Switch Security, and Network Security features to help secure the Metro Ethernet Network. Subscriber is where service provider delivers their service to, but usually many subscriber shares a common device. To prevent each subscriber network traffic from effecting each other the ECS3510-28F Fiber Access switch provides Private VLAN, DHCP Snooping, IP Source Guard to help protect the subscriber from affecting each other and unwanted attacks. To prevent the switch from unwanted attacks from CPU, the ECS3510-28F Fiber Access Switch also provided several features for Switch Security. The protection of CPU is crucial for the switch, if CPU is attacked control packets could be dropped resulting in network down. The ES3528 includes features such as Storm Control Protection, Port Security to help prevent CPU down.

To ensure only valid traffic is allowed through the switch the ECS3510-28F Fiber Access Switch includes IEEE802.1x, L2/L3/L4 ACL to control traffic and validate traffic going through the switch.

Operation Administration Maintenance (OAM) for Ethernet*

The services provider network is complex and large with huge user base, to help service provider isolate, maintain, and manage network traffic the ECS3510-28F FiberAccess Switch comes with OAM features to address the needs of the service provider and help maintain their network services.



Features

Physical Ports

- 24 100 BASE-BX ports (24 single-mode fiber connectors built-in)
- 4 Gigabit combo ports(RJ-45/SFP)
- 1 RS-232 console port

Performance

- Switching Capacity: 12.8Gbps
- Forwarding Rate: 9.6Mpps
- MAC Address Table Size: 8K
- Packet Buffer Size: 2MB
- Jumbo Frame:9K

L2 Features

- Auto-negotiation for port speed and duplex mode
- Flow Control: IEEE 802.3x
- Spanning Tree Protocol:
 - IEEE 802.1D Spanning Tree Protocol (STP)
 - IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
 - IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- Loop Back Detection
- BPDU Filtering
- BPDU Guard
- Auto Edge Port
- Root Guard
- VLANs:
 - IEEE 802.1Q VLAN Tagging
 - 4K VLANs
 - Port-based VLAN
 - Mac-based VLAN
 - IP Subnet VLAN
 - Private VAN
 - Voice VLAN
 - VLAN Trunking
 - GVRP
 - Q-in-Q
- Link Aggregation:
 - Static Trunk
 - IEEE 802.3ad LACP
 - Load Balancing
 - Trunk groups: 8
 - Trunk links: 2~8 for Ethernet port
 - Trunk links: 2~4 for Combo Gigabit Ethernet port
- IGMP:
 - IGMP v1, v2, v3
 - IGMP Snooping
 - IGMP Immediate leave
 - IGMP Throttling
 - IGMP Filtering
 - IGMP Leave Proxy
 - MVR
 - LLDP 802.1ab
 - LLDP MED*

QoS Features

- 4 Priority Queues
- Priority Queues Scheduling Scheme
 - WRR
 - Strict Priority
- Traffic classification and priority management
 - IEEE 802.1p
 - IP DSCP
- Rate Limiting
 - Ingress/Egress
 - 64Kbps~100Mbps for Ethernet port
 - 64Kbps~1000Mbps for Gigabit port
 - Per Port COS

Security

- Port Security
 - Static
 - Dynamic
- IP Source Guard
- DHCP Snooping
- DHCP Option 82
- IEEE 802.1X
 - Port-based
 - MAC-based Authentication
 - Auto VLAN Assignment
 - Guest VLAN
- RADIUS AAA
 - 5 servers
 - Encryption: MD5, TLS, TTLS
- TACACS AAA, TACACS 3.0
 - 1 Server
- HTTPS/SSH
- Access Control List (ACL)
 - IP-based
 - MAC-based
 - IP/MAC-based
 - VLAN
 - TCP/UDP port
- Storm Control
 - Broadcast
 - Multicast
- Web Authentication
- MAC Authentication
- Link Detection
- MAC Filter

* Future Release



Features

Management

- Switch Management:
- CLI via console port or Telnet
 - Web management
 - SNMP v1, v2c, v3
- Firmware & Configuration:
- Dual firmware configuration files
 - Firmware Configuration upgrade via TFTP/Xmodem server
- RMON (groups 1,2,3 and 9)
 SNTP (RFC2030), NTP
 Port Mirroring
 Event/Error/System Log
 System monitoring
 UPnP
 Banner
 OAM
 sFlow
 Dynamic ARP inspection
 VLAN mirror
 AMC based mirror
 ATC
 Delay reload

IEEE Standards

- IEEE 802.1D Spanning Tree Protocol
- IEEE 802.1p Quality of service in Ethernet networks.
- IEEE 802.1Q VLAN
- IEEE 802.1v Protocol-base VLANs
- IEEE 802.1w Rapid Spanning Tree
- IEEE 802.1X Port Authentication
- IEEE 802.3ac VLAN tagging
- IEEE 802.3x Flow control on full-duplex links.

Safety

- UL/CUL(UL60950-1, CSA60950-1)
- CB (IEC60950-1)

Electromagnetic Compatibility

- CE Mark
- FCC Class A
- VCCI Class A

Environmental Specifications

- Temperature:
- IEC 68-2-14
 - 0°C to 50°C (Standard Operating)
 - -40°C to 70°C (Non-Operating)

Mechanical

- Dimensions (H x W x D): 43x 440 x 324 mm (1RU)
- Weight: 4.2kg (9.26lbs)
- Power Requirement:
 - AC Input: 100~240 V, 50~60 Hz, 2 A
- Power Consumption: Max 83W
- LED Indicators: Power, Port status

Warranty

Limited lifetime warranty

* Future Release