

EPS-3128 Managed Gigabit PoE Ethernet Switch



24-Port 10/100/1000Base-T 802.3at PoE + 4 x Gigabit SFP/TP Combo Managed Switch

Features

- **IPv4/IPv6 Dual Stack**
Support IPv6 management, packet forwarding and MLD v1/v2 snooping
- **Fast Recovery for Critical Redundant Network**
Supports Fast Ring v2 and chain protocol, greatly reduce recovery time to less than 50 milliseconds and the ability to support up to 200 nodes.
- **IEEE 802.3af/at PoE/PSE**
Supports IEEE 802.3af/at PoE/PSE feature to feed power to remote devices which facilitate deployment in power unreachable environment.
- **PoE Management**
PoE Management features a diversity of functions such as alarm threshold, port priority, quick control, and schedule-based PoE. These features enable users to manage PoE more efficiently.
- **Multimedia Streaming Facilitated Functions**
Support IGMP snooping, IGMP fast leave, IGMP filtering to intelligently transmit multicast traffic and deliver IPTV service.
- **VLAN Translation**
Allow service providers to implement Metro Ethernet service by translates the original VLAN ID to new VLAN ID with different priority for different customers.
- **IEEE 802.3ad Link Aggregation**
A cost-efficient way to increase bandwidth and reliability by grouping multiple links into one.

Target Applications

- PoE-enabled device deployments such as IP Surveillance or Wireless AP.

Description

Connection Technology Systems (CTS) EPS-3128 is a layer 2 Gigabit PoE switch equipped with 24 10/100/1000Base-T ports featuring 30-watt 802.3at PoE+ and 4 Gigabit TP/SFP combo ports.

EPS-3128 provides complete functionality and reliable Power over Ethernet network solution with 240/480W total PoE budget for small businesses and enterprises.

EPS-3128 supports PoE scheduling, power budget allocating, priority functions for operator to control and manage all connected devices over IP PoE network.

With the support of reliable fast ring and chain protocol, recovery time is reduce to less than 50 milliseconds to ensure critical surveillance video uninterrupted.

Advanced features including Multicast IGMP, QoS classifications and rate limit control help service providers to deploy and manage network efficiently in order to deliver quality triple-play service.

In order to provide extra security, EPS-3128 comes with Q-in-Q feature. This feature enables operator to separate different services at layer 2 level regardless what VLAN setting end customers have.

With carrier-grade design while keeping user-friendly for administrators, EPS-3128 can be easily managed by web, console, telnet, SSH, SNMP v1/v2c and DHCP auto-provision.

Specification

■ Interface

- TP Port:
 - 24 x 10/100/1000Base-T RJ-45 with 802.3at/af PoE injector function
 - 4 x 10/100/1000Base-T RJ-45
- SFP Slot:
 - 4 x 100/1000Base-X SFP shared with port-25 to port-28
- Console Port:
 - 1 x RS-232 to RJ-45 serial port

■ Standards

- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX/FX
- IEEE 802.3ab 1000Base-T
- IEEE 802.3z 1000Base-X
- IEEE 802.3az EEE
- IEEE 802.3x Flow Control
- IEEE 802.3ad Link Aggregation (LACP)
- IEEE 802.1ab LLDP
- IEEE 802.1p Priority
- IEEE 802.1q Tag VLAN
- IEEE 802.1d STP
- IEEE 802.1w RSTP
- IEEE 802.1x Port based Network Access Control
- IEEE 802.3af Power over Ethernet
- IEEE 802.3at Power over Ethernet Plus

■ H/W Specification

- MAC Address table: 16K
- Non-blocking Switching Fabric: 56Gbps
- Throughput @ 64Bytes: 41.6Mpps
- Memory Buffer: 12Mbit
- Jumbo Frame: 9K Bytes
- Store and Forward Switching Mechanism
- Auto-cross Over for MDI/MDIX in TP Ports
- Auto-negotiation in TP Ports
- Full/Half Duplex Mode Operation
- PoE Power Output: max. 30W per port
- Max. PoE Budget:
 - 240W at 40°C, 210W at 50°C (EPS-3128-240W)
 - 480W at 40°C, 420W at 50°C (EPS-3128-480W)
- Surge Protection in Ethernet Port (for LP models)

■ LED

- Power A/B, COM, Status, Speed/Link/Act, PoE

■ Forward / Filter Rate

- 10M: 14,880/14,880pps
- 100M: 148,800/148,800pps
- 1000M: 1,488,000/1,488,000pps

■ Layer 2 Switch Features

VLAN

- IEEE 802.1q VLAN
 - VLAN ID: 4094 IDs
 - VLAN Concurrent Groups: 2K VLAN Groups
- Port Based VLAN
- VLAN Translation
- Q-in-Q Double tag with Configurable Ether Type

QoS

- QoS 802.1p CoS / DSCP
- Scheduling Algorithm
 - Weighted Round Robin (WRR)
 - Strict Priority Queueing (SPQ)
- QoS Priority Queues: 8 Queues
- 802.1p P-bit & DSCP Remarking
- Port based rate limit (ingress/egress)

Network Redundancy

- IEEE 802.1d Spanning Tree Protocol (STP)
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.3ad Link Aggregation (LACP)
- Static Port Trunking
- Up to 14 Aggregation Groups, 8 Ports per Group
- Fast Redundancy Protocol
 - Fast Ring v2
 - Chain
 - Up to 200 nodes and recovery time < 50ms

Multicast

- IGMP Snooping v1/v2/v3
- IGMP Fast Leave and Querier
- MLD v1/v2 Snooping
- MLD Querier
- IGMP/MLD Snooping Group: 512/128 Groups
- IP Multicast Filter with Segment and Profile
- Static Multicast Group

IPv6 Feature

- IPv6 over Ethernet (RFC 2464)
- IPv6 Addressing Architecture (RFC 4291)
- IPv6 Dual Stack (RFC4213)
- ICMPv6 (RFC4884)
- Path MTU Discovery for IPv6 (RFC 1981)
- Neighbor Discovery (RFC4861)
- DHCPv6 Client

Layer 2 Protocol Tunneling

- CDP, LLDP, STP, VTP, LACP, PAgP & UDLD

Access Control List

- Physical port, Ether Type, MAC address, VID, ToS/DSCP, Protocol Type, L4 Port and IP address
- 192 ACL entries

■ PoE Management

- PoE alarm threshold
- Per Port PoE Power On/Off
- Configurable PD Name
- Per Port PoE Output Priority
- PoE Scheduling

■ Security

- 802.1x Port Base Access Control
- 802.1x RADIUS Authentication
- DHCP Option 82 Relay Agent
- DHCP Option 82 with configurable circuit and Remote ID
- DHCP Snooping and DHCP server trust port
- IP Source Guard
- Port Isolation
- Storm Control
 - Unknown Unicast/Unknown Multicast/Broadcast
- MAC Limiter
- Loop Detection

■ Management

- SNMP v1 & v2c/Web/Telnet/SSHv2/CLI
- Text Base CLI Configure file
- Port Configuration
 - Speed/duplex/flow control/Description
- NTP with Daylight Saving Time
- Layer 2 Control Protocol filter
- Static MAC address Table
- LLDP

■ Maintenance

Diagnostic

- Port Mirror
- ICMP Ping
- Event log
- Syslog
- SFP SFF-8472 DDMI monitor
- CPU Utilization
- Memory Statistics

Upgrade/Restore

- Firmware Upgrade/Downgrade
 - HTTP/FTP/TFTP
 - DHCP Auto-provision via DHCP option 60/43
- Configuration Upload/Backup
 - HTTP/FTP/TFTP
 - DHCP Auto-provision via DHCP option 60/43

■ Power Requirement

- Input AC:100V-240V 50/60Hz
- Power Consumption (Max.):
 - 260W (EPS-3128-240W)
 - 500W (EPS-3128-480W)
- Max. PoE Budget:
 - 240W (EPS-3128-240W)
 - 480W (EPS-3128-480W)

■ Environmental Condition

- Operation : 0°C ~ 50°C
- Storage : -20°C ~ 60°C
- Humidity:5%~90%, Non-condensing

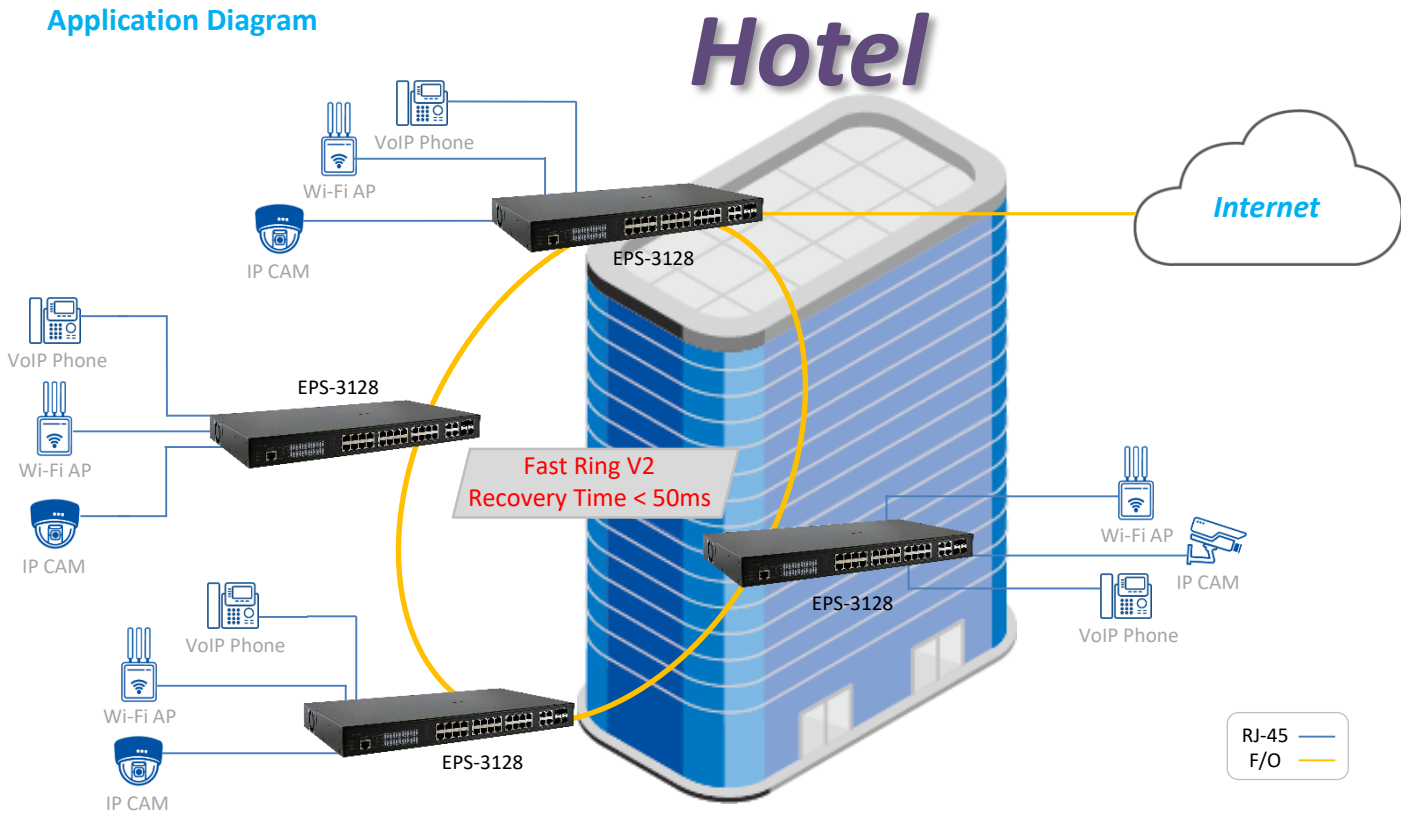
■ Dimension & Weight

- Size: 440 x 310 x 44 mm (W x D x H)
- Weight: 4.8 Kg

■ EMC/Safety

- FCC Class A, CE

Application Diagram



Order Information

EPS-3128

Model	Fiber Ports					TP Ports			Support Power Source
	Speed	Type	Connector	Distance	Ports	Speed	Non-PoE	PoE	
EPS-3128-240W	100/1000 Mbps	SFP	-	-	4 Combo	10/100/1000 Mbps	4	24 x 802.3at/af	Fixed 1 Internet AC
EPS-3128-480W	100/1000 Mbps	SFP	-	-	4 Combo	10/100/1000 Mbps	4	24 x 802.3at/af	Fixed 1 Internet AC
EPS-3128-240W-LP*	100/1000 Mbps	SFP	-	-	4 Combo	10/100/1000 Mbps	4	24 x 802.3at/af	Fixed 1 Internet AC
EPS-3128-480W-LP*	100/1000 Mbps	SFP	-	-	4 Combo	10/100/1000 Mbps	4	24 x 802.3at/af	Fixed 1 Internet AC

* Surge Protection in Ethernet Port