# 10-port Gigabit Managed PoE Switch

## OP-S8E2X-M-AT



**Shenzhen Optostar Optoelectronics Co., Ltd**

**2013. 09(Version 2)**

## Overview

OP-S8E2X-M-AT managed PoE switch comes with 8x 10/100/1000Base-T RJ45,Ethernet ports, 1x console port, and 2x gigabit SFP slots. It can supply power to network equipment such as weather-proof IP cameras with windshield wiper and heater, high-performance AP and IP telephone. This managed PoE switch are highly flexible, the transmission distance of the SFP fiber port can be up to 120km, and with high resistance to electromagnetic interference.

OP-S8E2X-M-AT product components were rigorous screened, have superior performance in stability, environmental adaptability. Metal shells have better resistance ability to corrosion and electromagnetic interference, ensure stability and security of this Ethernet Switch. Power input also chooses a suitable and reliable types of power, to get more powerful suitability to environment.

## Prduct Features

➢ All gigabit design, 8x gigabit Ethernet RJ45 ports with AutoUplink™ , 1x console port, and 2x gigabit SFP slots.

➢ 8 PoE ports support power over Ethernet for PDs

➢ Meet IEEE802.3af/at PoE standard. Supports per port PoE configuration function

➢ L2+ features provide better manageability, security, QoS, and performance.

➢ Support L2+ Switching features including 802.1Q VLAN,Mirroring, Port isolation, IGMP Snooping, DHCP Snooping, LLDP, POE+ management, IP Source Guard, ARP inspection, ACLs etc.

➢ Support spanning tree STP(802.1D) and RSTP(802.1W).

➢ Jumbo frames support up to 9.6K kilobtyes.

➢ Support enhanced management through WEB, CLI, TELNET, SSH, SNMP.

➢ Support cable diagnosis

➢ G.8032, support <50ms industrial quick ring protectio

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### Technical Parameter

| Product | 10-port Gigabit Managed PoE Switch (OP-S8E2X-M-AT) | |
|---|---|---|
| **Performance** (Switching capacity and forwarding rate) | | |
| Capacity in Millions of Packets per Second (mpps) (64-byte packets) (Buffer Memory) | | 4M |
| Packet Forwarding Rate | | 14.88Mpps |
| Switching Capacity in Gigabits per Second (Gbps) (Bandwidth) | | 20G |
| **Interface** | | |
| Ports | 8-Port 10/100/1000Base-T + 2x gigabit SFP slots + 1 console port | |
| **Layer 2 Switching** | | |
| Spanning Tree Protocol (STP) | Standard Spanning Tree 802.1d<br>Rapid Spanning Tree (RSTP) 802.1w | |
| G.8032 ERPS | <50ms ring protection for industrial high reliable application | |
| Aggregation | Link Aggregation Control Protocol (LACP) IEEE 802.3ad; Up to 13 groups ; Up to 16 ports per group | |
| VLAN | Support up to 4K VLANs simultaneously (out of 4096 VLAN IDs) ; Port-based VLAN; 802.1Q tag-based VLAN | |
| IGMP v1/v2 snooping | IGMP limits bandwidth-intensive multicast traffic to only the requesters; supports 1024 multicast groups (source-specific multicasting is not supported) | |
| **Security** | | |
| Secure Shell (SSH) Protocol | SSH secures Telnet traffic in or out the switch, SSH v1 and v2 are supported | |
| SecureSockets Layer (SSL), HTTPS | SSL encrypts the http traffic, allowing advance secure access to the browser-based management GUI in the switch | |
| Port Security | Locks MAC Addresses to ports, and limits the number of learned MAC，addresses | |
| DHCP Snooping | prevent unauthorized configuration and use of IP addresses, while providing support for IP Source Guard and ARP detection | |
| IP Source Guard | Prevents datagram with spoofed addresses from being in the network | |
| ARP Inspection | Prevent ARP spoofing attacks and ARP | |
| Storm control | Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port | |

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| ACLs | Support for up to 256 entries; Drop or rate limitation based on source and destination MAC, VLAN ID or IP address, protocol, port, differentiated services code point (DSCP) / IP precedence, TCP/ UDP source and destination ports, 802.1p priority, Ethernet type, Internet Control Message Protocol (ICMP) packets, IGMP packets, TCP flag |
|---|---|
| **Quality of Service** | |
| Hardware Priority Queue | Support 8 hardware queues |
| Scheduling | 8 COS queues per port support strict priority and weighted round-robin (WRR) |
| Classification | Port based; 802.1p(PCP) VLAN priority based; |
| Rate Limiting | Ingress policer;egress shaping and rate control; per VLAN,per port and flow based |
| **Management** (Web/ SSL, Telnet/ SSH, ping, Trivial File Transfer Protocol (TFTP), SNMP, Syslog) | |
| Web GUI interface | Built-in switch configuration utility for browser-based device configuration (HTTP/ HTTPs). Supports configuration, system dashboard, maintenance, and monitoring |
| Dual Image | Dual image provides independent primary and secondary OS files for backup while upgrading |
| Firmware upgrade | Web browser upgrade (HTTP/ HTTPs) and TFTP; Upgrade through console.port as well |
| Port mirroring | Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to **N-1 (N is Switch's Ports)** ports can be mirrored to single destination port. A single session is supported. |
| Other management | Single IP management; HTTP/HTTPs; SSH; RADIUS; DHCP Client; SNTP; cable diagnostics; ping; syslog; Telnet client (SSH secure support) |
| **Green Ethernet** | |
| Green and Energy-saving Ethernet (EEE) | Compliant IEEE802.3az Energy Efficient Ethernet Task Force. Automatically turns off power on Gigabit Ethernet RJ-45 port when detecting link down or Idle of client. Active mode is resumed without loss of any packets when the switch detects the link up |
| Cable length detection | Adjusts the signal strength based on the cable length. Reduces the power consumption for cables shorter. |
| **General** | |
| Jumbo frames | Frame sizes up to 9KB supported on Gigabit interfaces |
| MAC Table | Up to 8K MAC addresses. |
| **Discovery** | |

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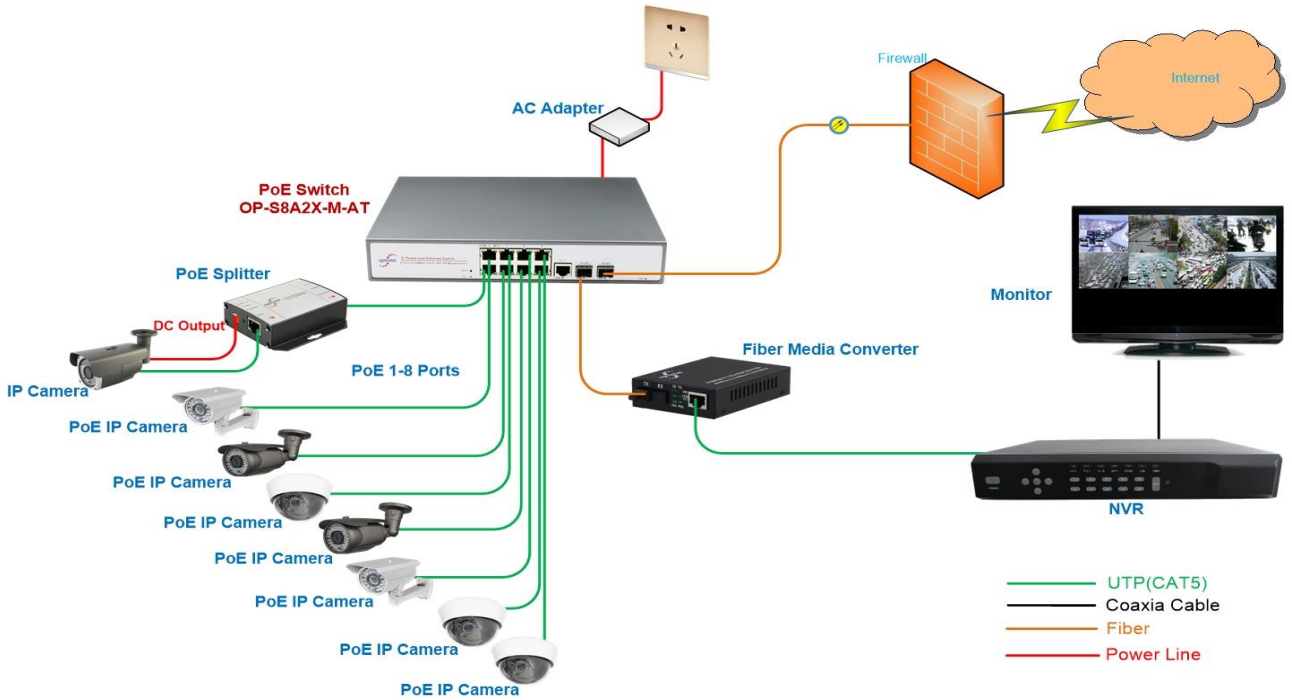
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| Link Layer Discovery Protocol (LLDP) | Used by network devices for advertising their identities, capabilities, and neighbors on a IEEE 802 local area network, principally wired Ethernet. | | |
|---|---|---|---|
| **PoE** | | | |
| PoE Standard: | IEEE802.3af/at | Power: | Max. Power per PoE Port:30W ; Switch's total power: 250W |
| PoE Ports: | 8 ports support PoE | Power Pin Type: | End-span   (Mid-span optional) |
| **Minimum Requirements** | | | |
| Web browser: Mozilla Firefox version 2.5 or later, Microsoft Internet Explorer version 6 or later; Category 5 Ethernet network cable; <br> TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in network | | | |
| **Environmental (preliminary)** | | | |
| Dimensions | 279 x 210 x 44mm | | |
| Working Environment | Operating temperature: -20 to 55 ℃; Storage temperature: -40℃ to 85 ℃; Operating humidity: 5% to 95% , relative, non-condensing | | |

**Technical Parameter**
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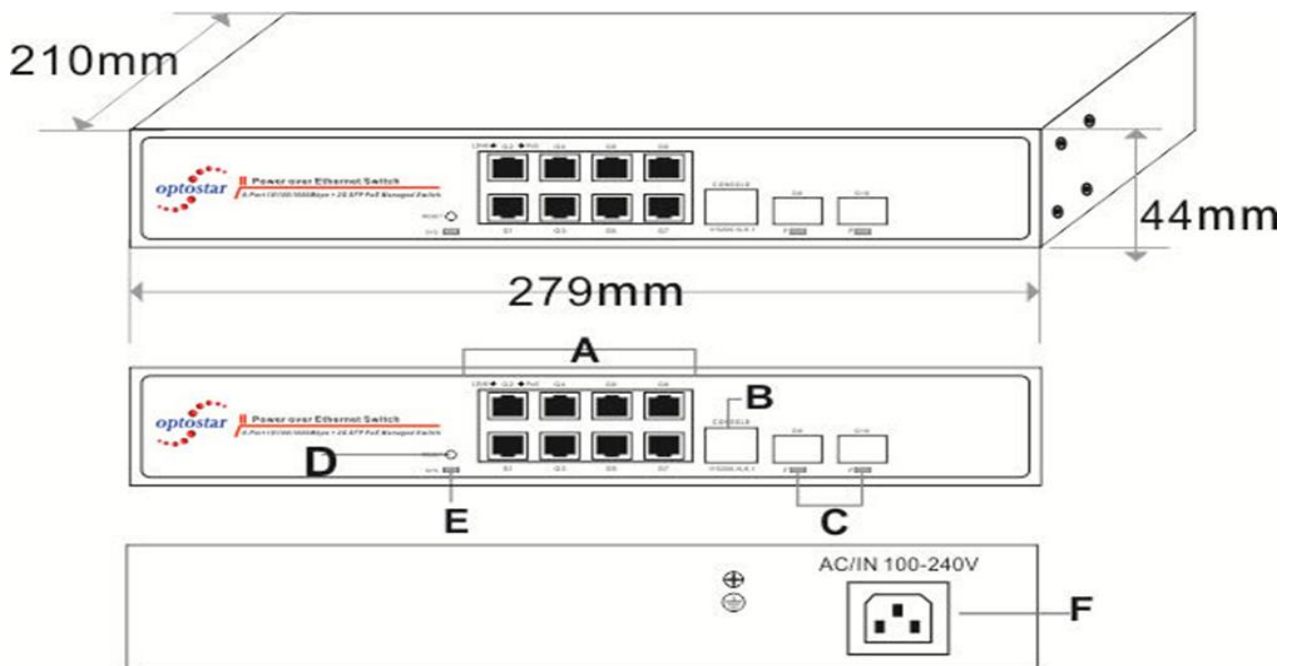


A. Rj45  Ports (PoE Ports)
B. Console Port
C. Gigabit  Uplink SFP Slot
D. Reset
E. System Working Indicator
F. 100-240VAC,50/60Hz

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## Application



## Order Information

| Model | Description |
|---|---|
| OP-S8E2X-M-AT | 10-port Gigabit Managed PoE Switch, with 8x 10/100/1000Base-T RJ45Ethernet ports, 1x console port, and 2x gigabit SFP slots. 8 RJ45 ports support PoE power supply function, IEEE802.3af/at standard. Max Power per PoE Port: 30W ; Switch's total power: 250W. |
| **Notes:** 1. Default PoE power supply type is end-span, mid-span optional | |
|     2.SFP module is not included, need to order it separately | |

## Package include

| No | Package List |
|---|---|
| 1 | 10-port Managed PoE Switch ( OP-S8E2X-M-AT) |
| 2 | Power Cable |
| 3 | User Guide |
| 4 | Warranty Card |

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