# GALGUS Switch G-SW-M4P4S

## 8-port Full Gigabit Managed Fiber PoE Switch



The G-SW-M4P4S series is a layer two plus managed PoE fiber switch. It has 4*10/100/1000Base-T RJ45 ports and 4*100/1000Base-X SFP fiber slot ports . Port 1-4 can support IEEE 802.3af/at standard PoE power supply. single port PoE power reaches 30W, and the maximum PoE output power is 65W(at-130W). As a PoE power supply device, it can automatically detect and recognize the power receiving equipment that meets the standard and supply power through the network cable. It can supply power to POE terminal equipment such as wireless AP, webcam, VoIP phone, building visual access control intercom, etc. through a network cable to meet the network environment that needs high-density PoE power supply. It is suitable for hotels, campuses, parks, shopping malls, scenic spots, hospitals„ factory dormitory and small and medium-sized enterprise.

The G-SW-M4P4S has the layer two plus full network management function, supports IPV4/IPV6 management, supports static route full line rate forwarding, supports complete security protection mechanism, complete ACL/QoS policy and rich VLAN functions, and is easy to manage and maintain. Supports multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS to improve link backup and network reliability. When one-way network fails, communication can be quickly restored to ensure important Uninterrupted communication for applications. According to the actual application requirements, you can configure multiple application services such as PoE power management, port traffic control, VLAN division, and SNMP through the Web network management mode.

# Main Features

## Gigabit access, gigabit (TP/SFP) combo uplink

All series supports "10/100/1000M RJ45 port + Gigabit TP/SFP port " combination, which enables users to flexibly build networking to meet the needs of various scenarios.

Support non-blocking wire speed forwarding

Support full duplex based on IEEE802.3x and half duplex based on Backpressure

## Intelligent PoE power supply functions

4*10/100/1000Base-T RJ45 ports support PoE power supply to meet the needs of PoE power supply in security monitoring, teleconferencing systems, and wireless coverage.

Conforms to the IEEE 802.3af/at PoE power supply standard, automatically recognizes PoE devices for power supply, without damaging non-POE devices. The maximum POE output power of the entire device reaches 65W, and the maximum POE output power of a single port is 30 W.

The PoE port supports the priority mechanism. When the remaining power is insufficient, the power supply of the high-priority port is preferentially guaranteed to prevent the device from being overloaded.

Support the POE network management function, which can be configured through the network management system to implement power allocation, priority setting, port power status check, and time scheduling of PoE ports.

## Strong business processing capability

Support IEEE 802.1Q VLAN, users can flexibly divide VLAN according to needs, and support QinQ configuration.

Support QoS, support port based, 802.1P based and DSCP based three priority modes and Equ, SP, WRR, SP+WRR four queue scheduling algorithms.

ACL supports the filtering of data packets by configuring matching rules, processing operations and time permissions, and provides a flexible access control strategy.

Support IGMP V1/V2 multicast protocol and support IGMP Snooping to meet the multi terminal HD video surveillance and video conference access requirements.

Support ERPS industrial fast V-Ring and STP/RSTP/MSTP production tree protocol, eliminates two layers of loops, and realizes link backup.

Support static convergence and dynamic convergence, effectively increases link bandwidth, achieves load balancing, link backup, and improves link reliability.

## Complete safety protection mechanism

Support 802.1X authentication, provide authentication function for LAN computer, and control the authorized status of controlled port according to the result of authentication.

Support port isolation

Support port broadcast storm suppression

Support port +MAC binding, IP+MAC+ port binding function

## The equipment is stable and reliable

The host has low power consumption, no fan mute design, aluminum alloy metal shell, excellent heat dissipation, and ensure stable operation of products.

The equipment meets the national CCC standard, fully meets the requirements of CE, FCC and RoHS safety regulations, and is safe and reliable.

Self-developed power supply, high redundancy design, provides long-term stable PoE power

The user can easily understand the working status of the device through the power indicator (PWR), port status indicator (Link)operation indicator.

## Easy operation and maintenance management

Support various management and maintenance methods such as Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).

Support encryption methods such as HTTPS, SSLV3, and SSHV1/V2 for more secure management.

Support RMON, system log, port traffic statistics, easy network optimization and transformation.

Support LLDP, which is convenient for the network management system to query and judge the communication status of the link.

Support CPU monitoring, memory monitoring, ping detection, cable length detection.

# Technical Specification

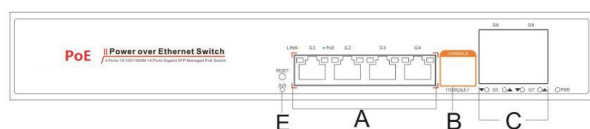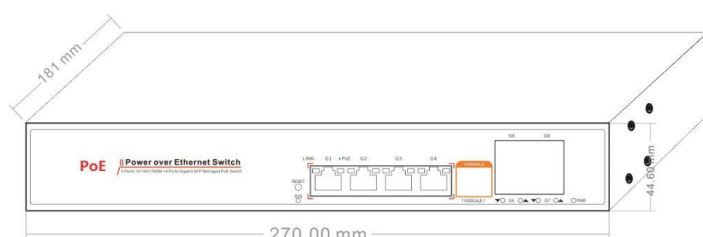| Model | G-SW-M4P4S |
|---|---|
| Interface | 4*10/100/1000Base-T POE ports (Data /Power); <br><br> 4*100/1000Base-X SFP ports (Data) <br><br> 1*Console RS232 port  (115200,N,8,1) |
| POE Port | Port 1 - 4 support PoE @ IEEE802.3af/at |
| Network Protocol | IEEE802.3 10BASE-T;  IEEE802.3i 10Base-T; <br><br> IEEE802.3u 100Base-TX; <br><br> IEEE802.3ab 1000Base-T <br><br> IEEE802.3z 1000Base-X |

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|---|---|
| | IEEE802.3x |
| PoE Standard | IEEE802.3af/at |
| Ethernet Port Feature | 10/100/1000Base-T,Auto-sensing,Full/half duplex MDI/MDI-X self-adaption |
| Fiber Port Feature | Gigabit SFP interface (Fiber module is not included, need to order separately, module options include single/multi mode, single/dual fiber, LC) |
| Forwarding Mode | Store and Forward (Full wire speed) |
| Switching Capacity | 128Gbps (Non-blocking) |
| Forwarding Rate@64byte | 11.90Mpps |
| MAC | 8K |
| Buffer Memory | 4M |
| Jumbo frames | 9.6K |
| Twisted Pair Transmission | 10BASE-T:  Cat3,4,5 UTP(≤100 meter) ;<br><br>100BASE-TX:  Cat5 or later UTP(≤100 meter) ;<br><br>1000BASE-X:  Cat5e or later UTP(≤100 meter) |
| Optical Cable | Multi Mode: 850nm 0-550M;Single Mode: 1310nm 0-40KM , 1550nm 0-120KM. |
| Power Supply Pin | Default: 1/2(+), 3/6(-); |

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|---|---|---|
| MAX / Average Power Per Port | 30W/15.4W | 30W/30W |
| Total PWR / Input Voltage | 65W (AC100-240V) | 130W (AC100-240V) |
| Power Consumption | Standby:<9W; Full Load:<60W | Standby:<12W; Full Load:<120W |

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| LED | Power indicator : PWR (green); system indicator : SYS ( green) ; network indicator: Link (yellow); SFP fiber port :L/A (green); POE indicator : PoE (green); |

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|---|---|---|
| Power Supply | Built in power supply ,<br>AC100~240V 50-60Hz 1A | Built in power supply, AC100~240V 50-60Hz 2.3A |

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|---|---|
| Operation TEMP / Humidity | -20~+55°C; 5%~90% RH Non-condensing |
| Storage TEMP / Humidity | -40~+75°C; 5%~95% RH Non-condensing |
| Dimension | 270*181*44.5mm |
| Net /Gross Weight | <1.5kg / <2.0kg |
| Installation Method | desktop type ,19 inch 1U cabinet installation |

| Port lightning protection / protection level | Port lightning protection : 4KV 8/20us;<br><br>Protection level: IP30 |
|---|---|
| Certification | CCC;CE mark, commercial; CE/LVD EN60950; FCC Part 15 Class B; RoHS; |
| Warranty | 3 years , lifelong maintenance. |
| **Managed Series Feature** | |
| Interface | IEEE802.3x flow control (full duplex)<br><br>Broadcast storm suppression for port rate<br><br>support speed limit for incoming and offline message traffic, with a minimum particle size of 64Kbps.<br><br>Temperature protection setting<br><br>Energy saving configuration of port EEE Ethernet |
| PoE Management | Total power limit of PoE power supply<br><br>PoE output power allocation per port, close /af/at<br><br>PoE output priority configuration for each port<br><br>PoE working state display per port<br><br>Power delay start<br><br>PoE work and time scheduling |
| Layer 3 Function | Support L2+ managed function,<br><br>Support IPV4/IPV6 management<br><br>Support layer3 soft routing (weak three tier) forwarding,<br><br>Support different network segments, communication between different VLAN<br><br>Support static routing / default routing 128, 1024 ARP software forwarding |
| VLAN | Support port based VLAN (4K), IEEE802.1q<br><br>Support protocol based VLAN<br><br>Support Access, Trunk, Hybrid three types of port configuration<br><br>Support QinQ configuration |
| Port Aggregation | Support LACP<br><br>Support static polymerization<br><br>Support the largest 8 aggregation groups, each aggregation group supports 8 ports. |
| Spanning Tree | STP (IEEE802.1d)<br><br>RSTP (IEEE802.1w)<br><br>MSTP (IEEE802.1s) |

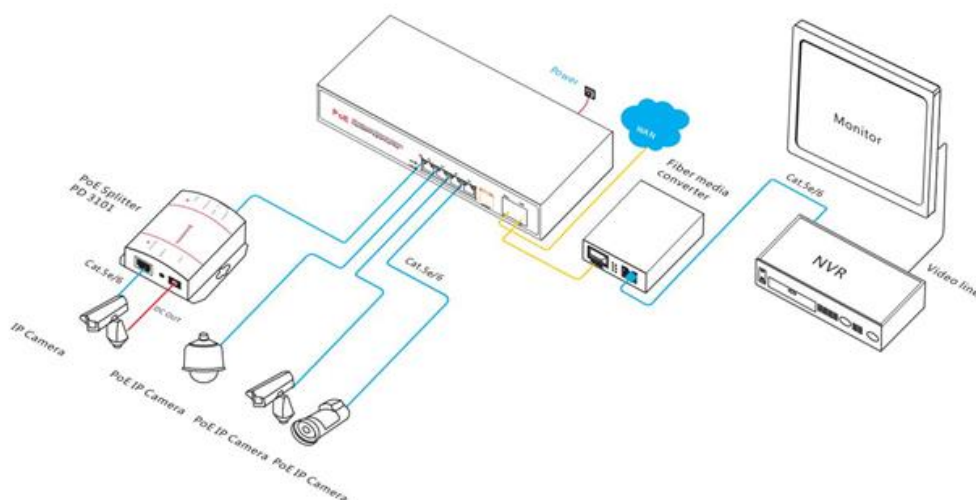| | |
|---|---|
| Industrial Ring Network Protocol | Support G.8032 (ERPS), support 255 loops at most, and supports 1024 devices per ring.<br><br>The self healing time of the ring network is less than 20ms |
| Multicast | Support IGMP Snooping V1/V2 and support 1024 multicast groups at most.<br><br>Support the user's quick departure mechanism<br><br>Support MLD Snooping V1/V2<br><br>Support multicast VLAN |
| Image | Bi-directional traffic mirroring supporting the basic port |
| QoS | Diff-Serv QoS<br><br>Each port supports 8 output queues<br><br>Support 802.1p/DSCP priority mapping<br><br>Support queue scheduling mechanism (SP, WRR, SP+WRR)<br><br>priority tag Mark/Remark<br><br>stream based packet filtering<br><br>Support for stream based redirection<br><br>Support flow based speed limit |
| ACL | Support L2 to L4 packet filtering function, can match the first 80 bytes of the message, provide based on the source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port, TCP/UDP port range, VLAN and other definition ACL.<br><br>Support ACL based on port and VLAN |
| Safety Characteristics | Support user grading management and password protection<br><br>Support IEEE802.1X authentication / centralized MAC address authentication<br><br>Support AAA&RADIUS authentication<br><br>Support the number of MAC address learning restrictions<br><br>Support MAC address black hole<br><br>Support SSH 2 to provide secure passwords for user login.<br><br>Support SSL to ensure data transmission security<br><br>Support port isolation<br><br>Support the speed limit function of ARP message<br><br>Support IP source address protection<br><br>Support ARP intrusion detection function<br><br>Support against DoS attacks<br><br>Support port broadcast message suppression<br><br>Support host data backup mechanism<br><br>Binding capabilities of IP+MAC+VLAN+ ports |

| DHCP | Support DHCP Client |
| :--- | :--- |
| | Support DHCP Snooping |
| | Suport DHCP Serve |
| | Suport DHCP Relay |
| Management And Maintenance | Support Console/AUX Modem/Telnet/SSH2.0 CLI command line configuration |
| | Support WEB network management (HTTPS) |
| | Support FTP, TFTP, Xmodem, SFTP file download management |
| | Support SNMP V1/V2C/V3 |
| | Support one bond reduction |
| | Support NTP clock |
| | Support system work log |
| | Support Ping detection |
| | Support cable state detection |
| | Support CPU instant utilization status view |
| | Support link layer discovery protocol LLDP |
| | Support NMS intelligent management center |
| System Requirements | Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later; |
| | Cat5e or later Ethernet cable; |
| | TCP/ IP, network adapter and network operating system (Microsoft Windows, Linux or Mac OS X) installed on on every computer in the network. |

# Dimension



A. 4*10/100/1000M PoE ports    B. Console ports
C. 4*100/1000M SFP ports       D. Power input port AC100-240V 50/60Hz
E. working indicator

# Application



# Packing List

| | CONTENT | QTY | UNIT |
|---|---|---|---|
| Packing List | 8-port full gigabit managed fiber PoE switch (G-SW-M4P4S) | 1 | SET |
| | AC Power Cable | 1 | PC |
| | RJ45-DB9 Line | 1 | PC |
| | Mounting Kits(Hanging Ear ) | 1 | SET |
| | User Guide | 1 | PC |
| | Warranty Card | 1 | PC |

**Note:** PoE switch does not match SFP module by default. If you need to purchase it, please refer to the accessory product information.