

# POE SWITCH SYSTEM PRODUCTS

L2 managed POE switch 16x 10/100/1000M RJ45 and 2xG SFP ports Built-in 250W



## OVERVIEW

SW-M-16G-2SFP is equipped with 16 Gigabit RJ45 ports and 2 Gigabit SFP fiber ports. All RJ45 ports support 802.3af/at (PoE+) standard with a maximum power of up to 30W per port and total power of up to 250W. With abundant L2+ layer management support, it can provide high throughput for the most demanding network edge workgroups, while in smaller networks it can serve as a backbone for Gigabit switches and high-speed servers. 2 SFP slots provide greater network flexibility. It supports unified management of the entire network configuration and network management, which can simplify user operation and improve the reliability of deployment. It supports perfect SNMP management, VCT, DDM (Digital Diagnostic Monitoring) and other functions to quickly detect network failures and reduce the difficulty of operation and maintenance.



## FEATURE

- Supports IEEE802.3i, IEEE802.3u, IEEE802.3ab, IEEE802.3z, IEEE802.3x , IEEE802.3az, IEEE802.3at, IEEE802.3af.
- 16 POE ports support 802.3af/at, per poe port up to 30W, and 250W total power.
- Provides 16 10/100/1000Mbps RJ45 ports, 2 Gigabit SFP fiber ports.
- Support DHCP Snooping, DHCP Relay, Option 82, DHCP client.
- Supports common QinQ and flexible QinQ technologies, giving users maximum freedom to configure QinQ policies.
- Supports multiple VLAN types such as protocol VLAN, MAC VLAN and Voice VLAN, plays a role in multi-service converged networks.
- CE, ROHS, FCC, UKCA , 802.1Q VLAN

### trong 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.

FOCOMM (THAILAND) CO., LTD

12 Soi Sukhaphiban 5 Soi 5 Yaek 3, Tha Raeng Subdistrict, Bang Khen District Bangkok 10220

Email : [info@focomm-cabling.com](mailto:info@focomm-cabling.com) [www.focomm-cabling.com](http://www.focomm-cabling.com)



### 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 broadcast storm suppression
- Support port isolation
- 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.
- Focomm-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.

## APPLICATIONS

### Value-Added Features Bring Unexpexted Experiences

#### QoS for a Lag-Free Experience

Ensures smooth traffic for latency-sensitive applications, such as voice and video

#### IGMP Snooping forMulticast Optimization

Ensures a better network experience, especially for applications like IPTV, by optimizing multimedia traffic delivery.

#### VLAN for Security

Helps to create a network with higher security and better overall performance by dividing the network into smaller groups

## SPECIFICATIONS

Power Supply	AC100~240V 50/60Hz
Standards	IEEE 802.3i,802.3u,802.3ab,802.3x,802.3az,802.3at,802.3af
Ports	16 x 10/100/1000Mbps ports, 2 x 1000Mbps SFP ports, 1x Console port
POE Port	Port 1 - 16 can support PoE @ IEEE802.3af/at
Indicators	Electrical port indicators, sfp fiber port indicators, power input indicator,system running indicator.
Network Media (Cable)	10Base-T: UTP category 3, 4, 5 cable (maximum 100m) 100Base-Tx: UTP category 5, 5e cable (maximum 100m) 1000Base-T: UTP category 5e, 6 cable (maximum 100m) 1000Base-X:MMF,SMF
PoE Standard	IEEE802.3af/at
Ethernet Port Feature	Port 1-16 can support 10/100/1000Base-T auto detect, full/half duplex MDI/MDI-X adaptive
Fiber Port Feature	Gigabit SFP fiber 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	36 Gbps (Non-blocking)
Forwarding Rate@64byte	26.78Mpps
MAC	8K
Buffer Memory	6M
Forwarding delay	<10us
Jumbo Frames	9.6K
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP( $\leq 100$ meter) ; 100BASE-TX: Cat5 or later UTP( $\leq 100$ meter) ; 1000BASE-X: Cat5e or later UTP( $\leq 100$ meter)
Optical Cable	Multi Mode: 850nm 0-550M; Single Mode: 1310nm 0-40KM , 1550nm 0-120KM.
Power Supply Pin	Default: 1/2(+), 3/6(-);
MAX / AVERAGE Power Per Port	30W/15.4W
Total PWR / Input Voltage	250W (AC100-240V)
Power Consumption	Standby:<16W; Full Load:<240W
LED	Power indicator PWR(green); system indicator: SYS (yellow); network indicator:Link(yellow); fiber port indicator :L/A (green); PoE indicator PoE (green); speed indicator: Speed(green)
Reset Button	yes,support one key to restore factory settings
Power Supply	Built in power supply ,AC100~240V 50-60Hz 4.1A
Operation TEMP / Humidity	-20~+55°C; 5%~90% RH Non-condensing
Storage TEMP / Humidity	-40~+75°C; 5%~95% RH Non-condensing
Dimension	440*290*44.5mm
Net /Gross Weight	<4.2kg / <4.7kg
Installation Method	desktop type ,19 inch 1U cabinet installation
Port lightning protection / protection level	Port lightning protection : 4KV 8/20us; 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) Broadcast storm suppression for port rate support speed limit for incoming and offline message traffic, with a minimum particle size of 64Kbps. Temperature protection setting Energy saving configuration of port IEEE Ethernet
PoE Management	Total power limit of PoE power supply PoE output power allocation per port, close /af/at PoE output priority configuration for each port PoE working state display per port Power delay start PoE work and time scheduling
Layer 3 Function	Support L2+ managed function, Support IPV4/IPV6 management Support layer3 soft routing (weak three tier) forwarding, Support different network segments, communication between different VLAN Support static routing / default routing 128, 1024 ARP software forwarding
VLAN	Support port based VLAN (4K), IEEE802.1q Support protocol based VLAN Support Access, Trunk, Hybrid three types of port configuration Support QinQ configuration
Port Aggregation	Support LACP Support static polymerization Support the largest 8 aggregation groups, each aggregation group supports 8 ports.
Spanning Tree	STP (IEEE802.1d) RSTP (IEEE802.1w) MSTP (IEEE802.1s)
Industrial Ring Network Protocol	Support G.8032 (ERPS), support 255 loops at most, and supports 1024 devices per ring. 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. Support the user's quick departure mechanism Support MLD Snooping V1/V2 Support multicast VLAN
Image	Bi-directional traffic mirroring supporting the basic port
QoS	Diff-Serv QoS Each port supports 8 output queues Support 802.1p/DSCP priority mapping Support queue scheduling mechanism (SP, WRR, SP+WRR) priority tag Mark/Remark stream based packet filtering Support for stream based redirection 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. Support ACL based on port and VLAN
Safety Characteristics	Support user grading management and password protection Support IEEE802.1X authentication / centralized MAC address authentication Support AAA&RADIUS authentication Support the number of MAC address learning restrictions Support MAC address black hole Support SSH 2 to provide secure passwords for user login. Support SSL to ensure data transmission security Support port isolation Support the speed limit function of ARP message Support IP source address protection Support ARP intrusion detection function Support against DoS attacks Support port broadcast message suppression Support host data backup mechanism Binding capabilities of IP+MAC+VLAN+ ports
DHCP	Support DHCP Client Support DHCP Snooping Support DHCP Serve Support 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 ONV 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.

## ORDER INFORMATION

PRODUCT	PART NUMBER
L2 managed POE switch 16x 10/100/1000M RJ45 and 2xG SFP ports Built-in 250W	SW-M-16G-2SFP