GALGUS SWITCH (G-SW-M4P2S) DATASHEET

L2+ 4xGbpsPoE+ + 2xSFP Switch

The Galgus SW-M4P2S is a L2+managed PoE fiber switch with 4x10/100/1000Base-T RJ45 ports and 2x100/1000Base-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. 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 villages, hotels, campuses, parks, shopping malls, scenic spots, hospitals,, factory dormitory and small and medium-sized enterprise.

The M4P2S has L2+ full network management function, supports IPV4/IPV6 management, static route full line rate forwarding, 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, or through the Galgus Cloud Manager.

FEATURES

■ **Gigabit access, gigabit (TP/SFP) combo uplink**

◇ All series supports "10/100/1000M RJ45 port and 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.

1.25G ultra-large switching capacity Massive access, ultra-low latency

■ Intelligent PoE power supply

◇ 4*10/100/1000Base-T RJ45 ports, meeting the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.
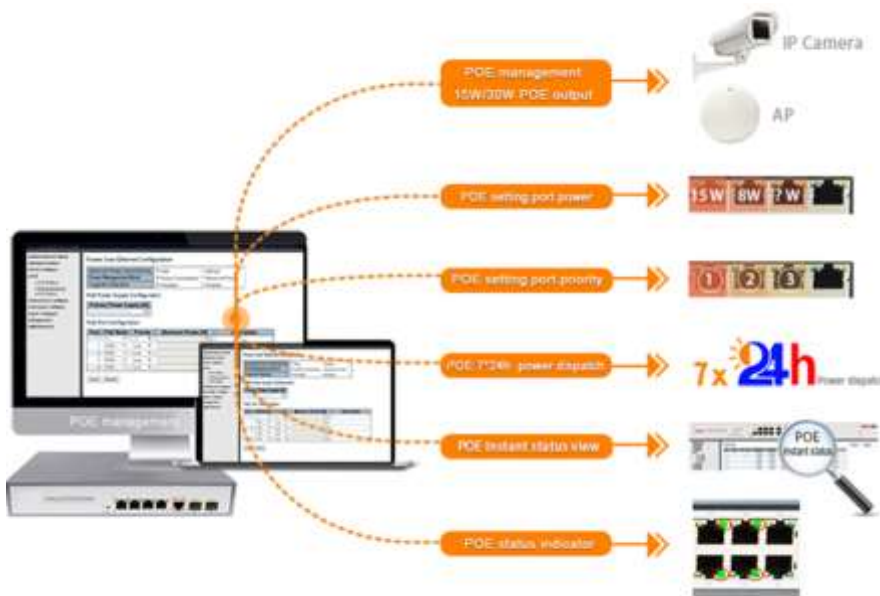
◇ IEEE 802.3af/at PoE standard, without damaging non-PoE devices.

◇ Priority system for PoE port, it will supply power to the high priority level port first when the power budget is insufficient and avoid overwork of the device.

◇ PoE network management, realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.

■ Strong business processing capability

◇ IEEE802.1Q VLAN, flexible VLAN division,Voice VLAN and QinQ configuration.

◇ QoS, Priority mode based on 802.1P, Port & DSCP, queue scheduling algorithm including Equ, SP, WRR & SP+WRR.

◇ ALC, filter data packet through configuring matching rules, processing operation & time permission, and provide flexible and safe access control.
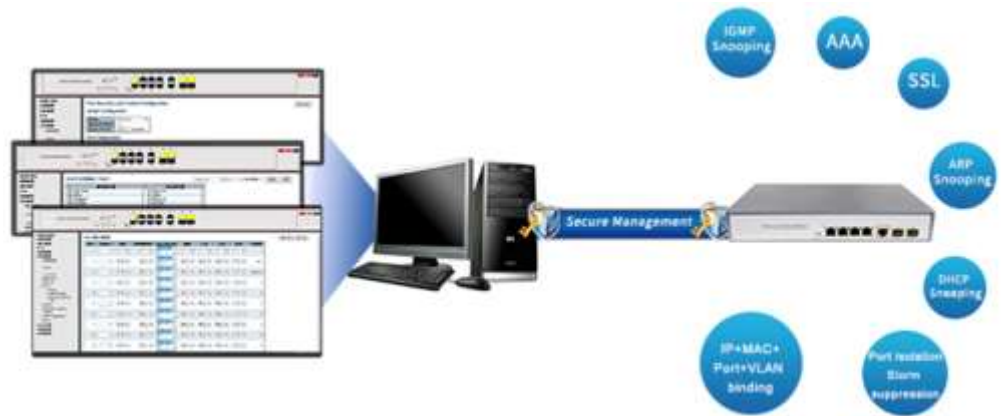
◇ IGMP V1/V2 and IGMP Snooping.

◇ ERPS/STP/RSTP/MSTP.

◇ Static and dynamic aggregation.
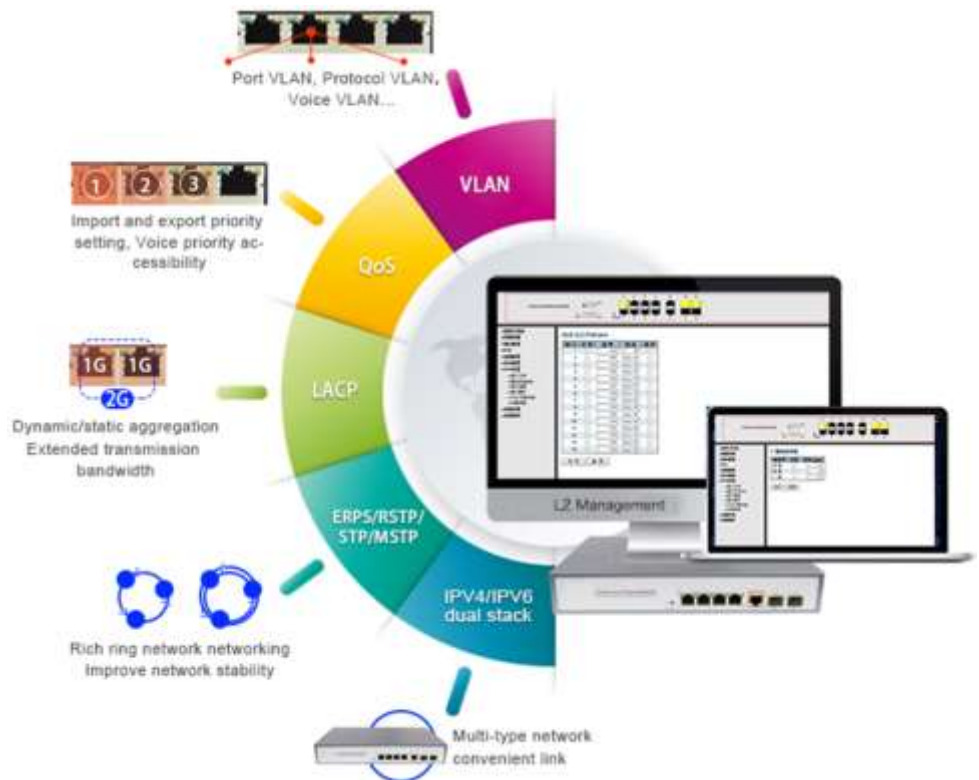
■ Security

◇ 802.1X authentication.

◇ Port isolation,Storm control.

◇ IP-MAC-VLAN-Port binding.

■ Stable and reliable

◇ Low power consumption, galvanized steel casing, No fan.

◇ Self-developed power supply, high redundancy design, providing a long term and stable PoE power output.

◇ CCC,CE, FCC, RoHS.

◇ The user-friendly panel, it can show the device status through the LED indicator of PWR, Link ,PoE.

■ Easy operation and maintenance management

◇ Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).

◇ HTTPS, SSLV3, and SSHV1/V2.

◇ RMON, system log, LLDP, and port traffic statistics.

◇ CPU monitoring, memory monitoring, Ping test, and cable diagnose.

TECHNICAL SPECIFICATION

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Fixed Port	4*10/100/1000Base-T POE ports (Data /Power) 2*100/1000Base-X SFP ports (Data) 1*Console RS232 port
Ethernet Port	Port1-4 can support 10/100/1000Base-T(X) auto-sensing,Full/half duplex MDI/MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meter) 100BASE-TX: Cat5 or later UTP(≤100 meter) 1000BASE-T: Cat5e or later UTP(≤100 meter)
SFP Slot Port	Gigabit SFP optical fiber interface, default matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)
Optical Cable	Multi mode: 850nm 0 ~ 550M, Single mode: 1310nm 0 ~ 40KM, 1550nm 0 ~ 120KM.
Network Management Type	L2+
Network Protocol	IEEE802.3 10BASE-T; IEEE802.3i 10Base-T; IEEE802.3u 100Base-TX; IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X IEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	128Gbps (Non-blocking)
Forwarding Rate@64byte	5.95Mpps
MAC	8K
Buffer Memory	4M
Jumbo Frame	10K
LED Indicator	Power:PWR (green), network : Link (yellow), fiber port: L/A (green), PoE : PoE (green)
Reset Switch	Yes, One-button factory reset
PoE Port	Port 1 to 4 IEEE802.3af/at @ POE
PoE Management	PoE working status Delay start of power supply Total power limit of PoE power supply PoE output power allocation, off& af &at PoE output priority configuration Scheduling of PoE operation and time

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Power Supply Pin	Defaul 1/2 (+), 3/6 (-)
Max Power Per Port	30W; IEEE802.3af/at
Total PWR / Input Voltage	65W/ (AC100-240V)
Power Consumption	Standby<6W, Full load<60W
Power Supply	Built in power supply, AC100~240V 50-60Hz 1A
Operation TEMP / Humidity	-20~+55°C;5%~90% RH Non condensing
Storage TEMP / Humidity	-40~+75°C;5%~95% RH Non condensing
Dimension (L*W*H)	270*181*44.5mm
Net /Gross Weight	<1.5kg / <2.0kg
Installation	desktop type ,wall mounted , 19 inch 1U cabinet installation
Lightning protection / protection level	Lightning protection: 4KV 8/20us; Protection level: IP30
Certification	CCC;CE mark, commercial; CE/LVD EN60950;FCC Part 15 Class B; RoHS;
Network Management Interface	IEEE802.3X (Full-duplex) Port temperature protection setting Port green Ethernet Energy-saving setting Broadcast storm control based on port speed The speed limit of the message flow in the access port. The minimum particle size is 64Kbps.
Layer 3 Features	L2+ network management ,IPV4/IPV6 management L3 soft routing forwarding, Static route, Default route @ 128 pcs, APR @ 1024 pcs
VLAN	4K VLAN based on port, IEEE802.1q VLAN based on the protocol VLAN based on MAC Voice VLAN, QinQ configuration Port configuration of Access, Trunk, Hybrid
Port Aggregation	LACP, Static aggregation Max 3 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d),RSTP (IEEE802.1w),MSTP (IEEE802.1s)
Industrial Ring Network Protocol	G.8032 (ERPS),Recovery time less than 20ms 250 Ring at most, Max 254devices per ring.
Multicast	MLD Snooping v1/v2,Multicast VLAN IGMP Snooping v1/v2, Max 250 multicast groups, Fast log out
Port Mirroring	Bidirectional data mirroring based on port
QoS	Flow-based Rate Limiting Flow-based Packet Filtering

	8*Output queues of each port
	802.1p/DSCP priority mapping
	Diff-Serv QoS,Priority Mark/Remark
	Queue Scheduling Algorithm (SP, WRR, SP+WRR)
ACL	Port-based Issuing ACL,ACL based on port and VLAN
	L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc.
Security	IPSec /OpenVPN
	IP-MAC-VLAN-Port binding
	ARP inspection,Anti-DoS attack
	AAA & RADIUS,MAC learning limit
	Mac black holes,IP source protection
	IEEE802.1X & MAC address authentication
	Broadcast storm control,Backup for host datum
	SSH 2.0,SSL,Port isolation,ARP message speed limit
	User hierarchical management and password protection
DHCP	DHCP Client,DHCP Snooping, DHCP Server,DHCP Relay
Management	One-key recovery
	Cable Diagnose,LLDP
	Web Management (HTTPS)
	NTP,System work log,Ping Test
	CPU instant utilization status view
	Console/AUX Modem/Telnet/SSH2.0 CLI
	Download & Management on FTP, TFTP, Xmodem, SFTP,SNMP V1/V2C/V3
	Galgus NMS and Cloud Manager. Smart network management system platform (LLDP+SNMP)
System	Category 5 Ethernet network cable
	Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later;
	TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network

APPLICATION
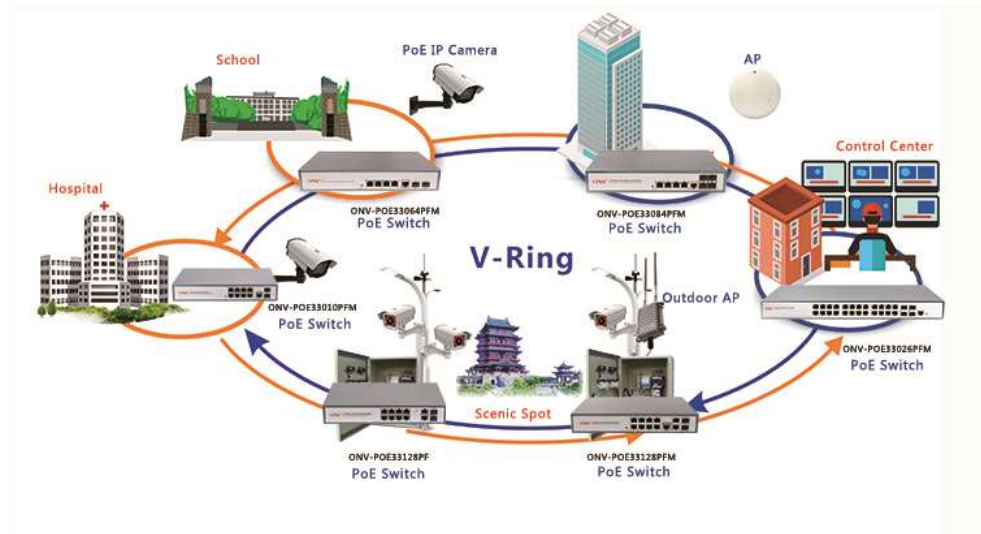
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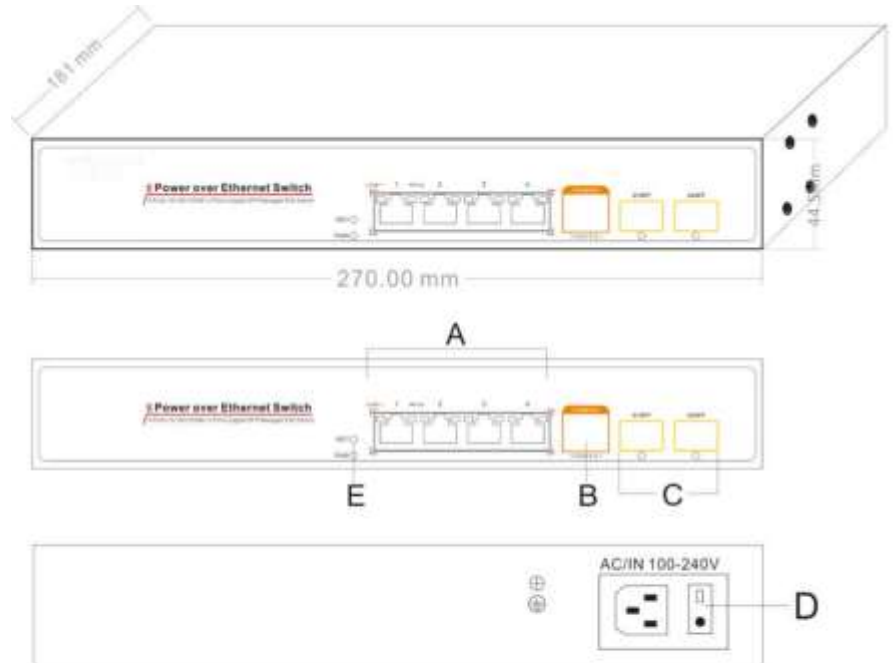
A.4* 100/1000M PoE Ports B.Control Port

C.2*Gigabit SFP Ports   D.AC100-240V,50/60Hz

E.Working indicator

OPTICAL MODULE INFORMATION

Product	Model	Description
1.25G Fiber Module	G-OM-MMDFLC	SFP optical module, 1.25G, multi mode dual fiber 850nm, transmission distance: 550m, LC interface, support DDM, hot plug and pull.

	G-OM-SMDFLC	SFP optical module, 1.25G, single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM, hot plug and pull.
	G-OM-SMSFLC	SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm + TX1550nm/RX1310nm, transmission distance: 20km, LC interface,support DDM, hot plug and pull.
	G-OM-SMSFSC	SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm + TX1550nm/RX1310nm transmission distance: 20km, SC interface,support DDM, hot plug and pull.
Power Module	G-OM-SFP-GE	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.