GALGUS SWITCH G-SW-M48P4+3

52-Port 10G Uplink Layer Three Managed PoE Switch

The G-SW-M48P4+3series is a layer three managed PoE switch independently developed by GALGUS. It has 48*10/100/1000Base-T RJ45 ports and 4*1/10G SFP+ fiber slot ports Port 1-48 can support IEEE 802.3af/at standard PoE power supply. single port PoE power reaches 30W, and the maximum PoE output power is 600W. 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 hotel, campus, factory dormitory and small and medium-sized enterprise.

The G-SW-M48P4+3has the layer three full Web 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 management mode.

Main Features

Gigabit wire speed access, 10G uplink

All series supports Gigabit Ethernet port and 10G SFP+ uplink 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 function

48*10/100/1000Base-T RJ45 ports support PoE power supply, which meets the requirements of PoE power supply in security monitoring, teleconferencing systems, and wireless coverage.

It complies with the IEEE 802.3af/at PoE power supply standard and automatically recognizes PoE devices for power supply without damaging non-PoE devices. The maximum PoE output power is up to 600W, and the maximum PoE output power of a single port is 30W.

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.

Supports 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 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.

GALGUS-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

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

Supports 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		
Interface	48*10/100/1000Base-T PoE ports (Data/Power) 4*1/10G uplink SFP+ fiber slot ports (Data) 1*Console RS232 port (115200,N,8,1)	
Managed type	L2+	L3
POE port	Port 1-48 can support IEEE 802.3af/at PoE standard	
Network Protocol	IEEE802.3 10Base-T; IEEE802.3i 10Base-T; IEEE802.3u 100Base-TX; IEEE802.3ab 1000Base-T; IEEE802.3z 1000Base-X IEEE802.3ae 10GBase-SR/LR;	

	IEEE802.3x
PoE Standard	IEEE802.3af/at standard
Ethernet Port Feature	Port 1-48 can support 10/100/1000BaseT(X) auto detect, full/half duplex MDI/MDI-X adaptive
Fiber Port Feature	Gigabit SFP port and 10G SFP+ port (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	598Gbps (non-blocking)
Forwarding Rate@64byte	131Mpps
MAC	32K
Buffer Memory	32M
Twisted Pair Transmission	10BASE-T:Cat3,4,5 UTP(≤100 meter) ; 100BASE-TX: Cat5 or later UTP(≤100 meter) 1000BASE-T:Cat6 or later UTP(≤100 meter)
Optical Fiber Cable	Multi-mode:850nm 0~300M(10G) ,850nm 0~500M (1.25G); 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	600W (AC100-240V)
Power Consumption	Standby<35W;Full Load<600W
LED Indicator	Power indicator:PWR(yellow); system indicator:SYS(yellow); Network indicator;Link/Act (yellow); PoE indicator: PoE (green); SFP fiber port :L/A(green)
Reset Button	Support one key to restore factory settings
Power Supply	Built-in switching power supply, AC 100~240V 50-60Hz 6.6A
Operation TEMP/Humidity	-20~+55°C;5%~90% RH Non condensing
Storage TEMP /Humidity	-40~+80°C;5%~95% RH Non condensing
Dimension (L*W*H)	440*289*44mm
Net /Gross Weight	<4.8kg / <5.5kg
Installation Method	desktop type ,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;
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 EEE 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	Support L3 managed function Support IPV4/IPV6 management Support layer 3 of software line speed forwarding.Support different network segments, communication between different VLAN Static routing/default routing,128 maximum entries ARP protocol, 1024 maximum entries
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
	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 GALGUS 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.