

# MISCOM8220G-4GF-16GT

## 20-Port Gigabit Din Rail Layer 3 Industrial Ethernet Switch



- Support 4\*1G SFP ports , 16\*1G copper ports
- Support ring network redundancy protocols such as MW-Ring, EAPS, ERPS, STP / RSTP / MSTP to improve the network reliability
- Support static routing, RIP v1/v2, OSPF dynamic routing protocol, realize routing and message forwarding
- Support single AC85~264V/DC110~370V, Dual DC18~36V or DC36~72V power inputs optional
- High strength alloy shell, IP40 protection level, fanless heat dissipation, it can reliably work in harsh industrial environments of -40 °C ~ +70 °C



### Product Description

MISCOM8220G-4GF-16GT layer 3 industrial Ethernet switch support 4\*1G SFP ports , 16 \*gigabit copper ports. It adopts a storage and forwarding mechanism and has strong bandwidth processing capabilities, automatically troubleshooting data packet errors, reducing transmission failures, and easily supporting 1G networking to ensure stable, reliable, and efficient data transmission. The product uses industrial grade components, combined with high standard system design and production control. It is 35mm standard DIN rail installation, high strength durable aluminum alloy shell, fanless efficient heat dissipation, -40°C ~ + 70°C wide temperature work, high standard industrial protection design, can adapt to a variety of harsh working environment, stable communication performance.

MISCOM8220G-4GF-16GT layer 3 switch follows the main communication standards in the industrial field and meets the technical requirements such as real-time communication and network security. The product provides various ways of managing switches, such as accessing the switch command line (CLI) through the CONSOLE port or TELNET/SSH protocol, accessing the switch WEB interface through HTTP/HTTPS, and accessing the device MIB through the SNMP protocol. Multiple network protocols and industry standards, such as RIP, OSPF, VRRP, PIM, MW-Ring, EAPS, ERPS, STP / RSTP / MSTP, VLAN, QoS, LACP, IGMP, IGMP Snooping, GMRP, LLDP, 802.1X, ACL, DHCP, STP, port mirroring, Ping, Tracert, etc. Support configuration file upload and download, mirror file online upgrade and other system management.. The products are widely used in comprehensive energy, smart city, rail transit, intelligent transportation, smart factory, industrial automation and other fields.



## Features and Benefits

- Support the storm suppression of broadcast, multicast and unknown unicast text, support the broadcast and multicast data packet storm detection, to prevent the broadcast storm
- Support link static aggregation and dynamic aggregation LACP, which can increase transmission bandwidth, improve link reliability and realize network load sharing
- Support 802.1Q VLAN, provide Access, Trunk, Hybrid interface easy to divide multiple broadcast domain, enhance the security of the network
- Support for VLAN division based on port, MAC, protocol, IP subnetwork, etc., which can be applied to networks in different environments
- Support GVRP protocol to dynamically distribute, register and propagate VLAN attributes, and maintain dynamic VLANs
- Support the MAC address table and the aging time limit, and the static unicast / multicast MAC address is bound with the interface, to ensure the use of legitimate users
- The PIM, IGMP, GMRP, IGMP Snooping and other multicast protocols are supported to reduce the broadcast of multicast data in the network and save network resources
- Support LLDP link layer discovery protocol, obtain LLDP neighbor device information, conduct link status monitoring, facilitate topology management and fault location
- Support ERPS Ethernet multi-loop protection technology, provide multi-loop networking, link backup, achieve fast convergence and improve network stability
- Support STP, RSTP, MSTP generating tree protocol, which can eliminate network loop and improve network reliability
- Support EAPS loop protection protocol and MW-RingV2 private loop network protocol, enhance the reliability of system communication
- Support VRRP virtual routing redundancy protocol, forming multiple routing devices into a virtual router to realize redundant backup and load sharing
- Support IPv4 static routing configuration, RIPv 1 / v2, OSPF dynamic routing protocol, realize routing and message forwarding
- Support HTTP, HTTPS, TELNET, SSH network access mode, SSH can provide a secure remote login
- Support SNMPv1 / v2c / v3, through the MIB network management system can be information query, information modification and troubleshooting, to achieve centralized management
- Support QoS service quality, give priority to voice, video and important data in network devices, and solve network congestion
- Support ACL access control list, filtering TCP / UDP / ICMP / IGMP messages based on source / destination IP and MAC address

- Support 802.1X port authentication, authentication and access control for access users
- Support DHCPv4 server to centrally dynamically manage and configure user IP addresses
- Support dual power redundancy drop relay alarm and upper computer alarm, support port drop line upper computer alarm



## Specifications

Software	
Switching	<p>Support port configuration, port speed limit, storm suppression, storm detection, static port aggregation, LACP</p> <p>Supports 802.1Q VLAN, port/MAC/subnet/protocol-based VLAN division, GVRP, and port isolation</p> <p>Supports MAC address aging, static MAC address binding and filtering, and MAC address learning restrictions</p>
Redundancy Technique	<p>Support for MW-RingV2 private ring network technology</p> <p>support EAPS</p> <p>support ERPS</p> <p>Support for STP/RSTP/MSTP</p>
Multicast	<p>Support for IGMPv1 /v2 /v3, and IGMP Snooping</p> <p>Support for the static multicast GMRP</p> <p>Support for PIM-DM, PIM-SM</p>
Routing	<p>Support static routing</p> <p>Support for RIPv1/v2, OSPF dynamic routing</p> <p>support VRRP</p>
Security Management	<p>Support for HTTP, HTTPS, TELNET, and SSH access mode</p> <p>Support ACL and filtering data on the L2-L4 layer</p> <p>Support 802.1X port authentication and MAC address authentication</p> <p>Support dual power redundancy drop relay alarm</p>
Management and Maintenance	<p>Support for DHCP Server/Security/Relay/Snooping</p> <p>Support Qos, SNMP v1 /v2c/v3, SNMPv1/v2c Trap, LLDP</p> <p>Support port mirror, Ping, Tracert</p> <p>Support user rights management, system logs, local time setting synchronization, and SNTP network time synchronization</p> <p>Support online restart, restore factory Settings, system upgrade, configuration file upload / download</p> <p>Support for unified upper-level computer software management</p>
Switch Capability	
Processing Type	Store and forward
Backplane Bandwidth	128Gbps
Buffer Size	12Mbit
MAC Table Size	16K



## Specifications

Interface	
1G Fiber port	4*1000Base-x SFP ports
1G Copper port	16*10/100/1000 Base-T(X) auto-sensing RJ45 copper ports, support full/half duplex, auto MDI /MDI-X
Relay	1 relay alarm output, 3-pin 5.08mm terminal block
Console port	1 CONSOLE port of RS232 signal for equipment debugging and command line configuration
Status LED	Power indicator, operation indicator, alarm indicator, SFP interface indicator, interface rate and connection / active status indicator
Power Supply	
Input voltage	DC24 DC model: DC18~36V, dual power input redundancy, anti-reverse connection DC48 DC model: DC36~72V, dual power input redundancy, anti-reverse connection AD220 AC model: AC85~264V / DC110~370V
Power Consumption	< 15W@AC220V
Connection	5-pin 5.08mm terminal block
Physical Characteristics	
Dimensions	156×85×128.4 mm
Installations	35mm standard DIN rail installation
IP Code	IP40
Weight	About 1.3kg
Working Environment	
Operating Temp	-40℃~+70℃
Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% No condensation
Industry Standard	



# Specifications

EMC	IEC 61000-4-2 (ESD): Level 4 IEC 61000-4-5 (Surge): Level 4 ※The network port supports 6kV lightning protection IEC 61000-4-4 (EFT): Level 4
Certification	CE,RoHs,FCC





## Ordering Information

Standard Model	1000M Fiber Port	1000M Copper Port	Input Voltage
MISCOM8220G-4GF-16GT-DC24	4	16	DC18~36V
MISCOM8220G-4GF-16GT-DC48	4	16	DC36~72V
MISCOM8220G-4GF-16GT-AD220	4	16	AC85~264V/ DC110~370V



## Contact Us

### Wuhan Maiwe Communication Co., Ltd

Address: No.52 Liufang Avenue, East lake High-tech  
Development Zone, Wuhan, China.

Tel: 027-87170217

Mail: enquiry@maiwe.com

Official site: www.maiwe.com

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