

# MISCOM8020G-4GF-16GT

28-port Layer 3 Full Gigabit Rack-mounted Managed Industrial Ethernet Switch



- ◆ Support 4 channels of Gigabit SFP Ethernet interfaces and 16 channels of 10/100/1000 Base-T interfaces, providing users with flexible networking methods;
- ◆ Support MW-Ring, ERPS, MSTP, VRRP and other redundant protocols;
- ◆ Support static routing, support RIP v1/v2, OSPF v1/v2 and other dynamic routing protocols;
- ◆ Support IGMP, PIM-SM, PIM-DM and other multicast protocols;
- ◆ High-strength closed aluminum shell, IP40 protection grade, no fan for efficient heat dissipation, so that the system can work reliably in the harsh and dangerous industrial environment of -40~+70°C.



# Product Description

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MISCOM8020G series layer 3 full gigabit switches follow the main communication standards in the industrial field and meet technical issues such as real-time communication and network security. At the same time, it provides a variety of ways to manage the switch, including accessing the command line interface of the switch through HyperTerminal, or managing the switch through the telnet management system, or using the SNMP management software system to manage the switch, and also supports multiple network monitoring protocols: LLDP, SNTPv4 , DHCP. Layer 3 routing function can also provide a number of advanced management functions, such as: MSTP, VRRP, IGMP, IGMP Snooping, internal routing protocols RIPv1/v2 and OSPF v1/v2, static routing protocols, VLAN, GVRP, QoS, ports aggregation, port rate limit, broadcast storm suppression, ACL, port mirroring, and some common advanced management functions. In terms of device management, it supports FTP/TFTP upgrade, log recording and uploading, and power failure alarm output. In terms of structural installation, rail-mounted installation is supported. Products are widely used in integrated energy, smart city, rail transit, intelligent transportation, industrial automation and other industrial fields.

## Product Features

- ◆ 20 Gigabit Ethernet interfaces, providing users with flexible networking methods;
- ◆ Gigabit SFP interface, which can support hot-swappable SFP optical module and RJ45 electrical port module;
- ◆ Support 4 gigabit SFP optical ports + 16 10/100/1000Base-T adaptive Ethernet ports (full duplex, half duplex);
- ◆ Support automatic MDI/MDI-X connection;
- ◆ The fast ring network redundancy technology of less than 20ms enhances the reliability of system communication;
- ◆ Support VLAN based on IEEE802.1Q, the number is 4096;
- ◆ Support ERPS, MSTP, VRRP and other redundant protocols;
- ◆ Support static routing, support RIP v1/v2, OSPF v1/v2 and other dynamic routing protocols;
- ◆ Support IGMP, PIM-SM, PIM-DM and other multicast protocols;
- ◆ The MAC address table supports 16K;
- ◆ Support perfect QoS strategy and multiple queue scheduling algorithms;
- ◆ Support SNMP, RMON, Telnet and other network management protocols;
- ◆ Support access to the switch's command line interface (CLI) through software such as HyperTerminal;
- ◆ Support hardware ACL function, provide ACL hardware filtering based on L2-L7 layer data;
- ◆ Support IGMP Snooping detection function, support broadcast storm suppression;
- ◆ Support full-duplex and half-duplex flow control;
- ◆ Support power alarm, port alarm, ring alarm function;
- ◆ The online software upgrade based on FTP/TFTP can facilitate the user's equipment management and update;
- ◆ With graphical network configuration and management and maintenance functions.

# Product Specification

| Parameters                 |  |
|----------------------------|--|
| IEEE standard              | 802.3i、802.3u、802.3ab、802.3z、802.3ae、802.3ad、802.3x、802.1p、802.1Q、802.1w、802.1s, etc.          |
| Exchange function          | Support VLAN, GVRP   |
|                            | Support port speed limit, support storm suppression  |
|                            | Support port aggregation   |
|                            | Support port flow control  |
| Redundant technology       | Support VRRP, ERPS   |
|                            | Support MW-Ring ring network technology  |
|                            | Support MSTP/RSTP, compatible with STP   |
| Multicast technology       | Support IGMP v1/v2/v3, IGMP Snooping   |
|                            | Support GMRP   |
|                            | Support static multicast, support PIM-SM, PIM-DM   |
| Routing technology         | Support RIPv1/v2c/v3, RIPng, OSPFv1/v2   |
|                            | Support static routing protocol  |
| Service quality management | Support ACL to filter L2-L7 layer data   |
|                            | Support SP, WRR queue scheduling   |
| Management and maintenance | Support Console, Telnet, WEB management, RMON  |
|                            | Support SNMPv1/v2c, can be centrally managed through MaxView                                   |
|                            | Support FTP, TFTP file transfer and software upgrade   |
|                            | Support power failure alarm, power alarm, port alarm, ring network storm alarm                 |
|                            | Supports port mirroring, Syslog, LLDP, RTC, SNTPv4   |
|                            | IP supports DHCP server/relay/client   |
| Exchange method            | store and forward  |
| Backplane bandwidth        | 40Gbps   |
| Packet forwarding rate     | 29.76Mpps  |
| Gigabit port               | 16 10/100/1000Base-T+4 1000Base-LX interfaces  |
| Copper port                | Physical interface: RJ45 with shielding, IEEE802.3 standard                                    |
|                            | RJ45 port: 10/100/1000Base-T (Gigabit) supports auto-negotiation function                      |
|                            | Transmission distance: 100 meters (standard CAT5/CAT5e cable)                                  |
| Fiber port                 | Luminous power: >-12dBm (single mode) >-17dBm (multimode)                                      |
|                            | Receiver sensitivity: <-38dBm (single mode) <-35dBm (multimode)                                |
|                            | Wavelength: 1310nm (single-mode) 1550nm (single-mode) 850 nm (multi-mode) 1310 nm (multi-mode) |

|                     |  |
|---------------------|--|
|                     | <p>Transmission distance: multimode fiber 850nm, 2km; 1310 nm, 2/5km<br/>Single-mode fiber 1310nm, 20/40/60km; 1550nm, 20/40/60/80/120km</p> <p>Connector Type: LC</p> <p>Transmission rate: 1.25Gbps (Gigabit)</p>  |
| Power               | <p>Input voltage: 220AC/DC (85-264VAC/110-370VDC)</p> <p>Input power consumption: 15W (MAX)</p> <p>Overcurrent Protection: Built-in</p>  |
| Mechanical          | <p>Physical dimensions (width × height × depth): 482.6mm × 44mm × 210mm</p> <p>Installation method: standard 19' 1U rack</p> <p>Heat dissipation form: aluminum alloy single-rib chassis surface heat dissipation, no fan</p> <p>Outlet form: front and rear outlet</p> <p>Case protection: IP40</p> |
| Working environment | <p>Working temperature: -40°C~+70°C</p> <p>Storage temperature: -40°C~+85°C</p> <p>Humidity: 5%~95% (no condensation)</p>  |
| EMC                 | <p>EN61000-4-2 anti-static (ESD): ±8kV contact discharge, ±15kV air discharge</p> <p>EN61000-4-3 electromagnetic field: 10V/m (80-1000MHz)</p> <p>EN61000-4-6 anti-conduction: 3V (10kHz~150 kHz), 10V (150kHz~80 MHz)</p> <p>EN55022: EN55022 Class A</p>   |

## Ordering Information

| Model                        | 1000Base-LX | 10/100/1000Base-TX | Power            |
|------------------------------|-------------|--------------------|------------------|
| MISCOM8020G-4GF-16GT-AD220   | 4           | 16                 | Single AC/DC220V |
| MISCOM8020G-4GF-16GT -2AD220 | 4           | 16                 | Dual AC/DC220V   |