

Product Overview



PM9020GSMI V1 is an industrial management PoE switch independently developed by UNIPOE. It provides eight 10/100/1000Mbps adaptive RJ45 ports and 12 independent gigabit SFP fiber module expansion slots. 1-8 RJ45 ports all support PoE power supply, each port up to 90W. Support static routing functions, provide perfect security, QoS, and plenty of VLAN function has ring network function, can form a ring network, switch between by hand in hand form a ring network topology, the redundancy, high reliability characteristics can make in a ring online link disconnected all the way, will not affect the forwarding of data on the network.

The device adopts storage and forwarding, no fan, low power consumption design, has the advantages of easy to use, compact and beautiful, simple installation. The product is designed to meet Ethernet standards, with lightning protection, static protection mechanism, operating temperature range of -40°C to 75°C, stable performance, safety and reliability, can be widely used in intelligent transportation, telecommunications, security, financial securities, customs and other broadband data transmission fields.

Product Features

- Supports IEEE802.3u, IEEE802.3ab, IEEE802.3z, and IEEE802.3x standards;
- PoE supports IEEE 802.3af/at/bt standards and provides a maximum output of 90W for each port;
- Data transmission and power supply distance up to 100 meters;
- Supports IEEE802.3x full-duplex flow control and Backpressure half-duplex flow control;
- Panel indicators monitor working status and assist in fault analysis;
- High energy aluminum alloy roof heat conduction groove design;
- Supports one-click ring network and one-click storm suppression, featuring redundancy and high reliability;
- High reliability design, supporting traditional STP/RSTP layer 2 link protection technology;
- Supports manual aggregation and dynamic aggregation, which increases link bandwidth, improves link reliability, and implements load balancing and link backup;
- Flexible and convenient management and maintenance Supports various management modes, such as Console, Telnet, and SSH;
- Supports WEB management, which is simple and efficient, and facilitates installation and debugging by engineering and maintenance personnel. Supports file upload and download management through TFTP;

Product Specifications

Hardware Specification

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| Model | PM9020GSMI V1 |
| Standard | IEEE 802.3、IEEE 802.3u、IEEE 802.3ab 、IEEE 802.3z、IEEE 802.3x、IEEE 802.1X、IEEE 802.1q 、IEEE 802.1p、IEEE 802.1d 、IEEE 802.1w、IEEE 802.3ad、IEEE802.3af、IEEE802.3at 、IEEE802.3bt |
| Interface | 8*10/100/1000Mbps RJ45 Ports 12*1000Mbps SFP Slots 1 Console Port |
| Indicator | PWR、LNK/ACT、PoE、SYS |
| Network media | 10BASE-T: UTP category 3,4,5 cable (≤100m) 100BASE-TX: UTP category 5, 5e cable (≤100m) 1000BASE-T: UTP category 5e, 5 cable (≤100m) 1000BASE-X: MMF, SMF |
| MAC Address Table | 8K, Auto-learning, Auto-aging |
| jumbo frame | 9216Byte |
| Packet buffer | 4.1M bit |
| Transfer Mode | Store-and-forward |
| Packet Forward Speed | 29.76Mpps |
| Switching Capacity | 40Gbps |
| Dimensions(L*W*H) | 145*109*62mm |
| Fan Quantity | Fanless |
| Power supply | 200W |
| PoE Power Budget | 180W |
| PoE Port | Port1~8 |
| PoE Power on RJ45 | Mode A 1/2 (-) , 3/6 (+) Mode B 4/5 (+) , 7/8 (-) |
| PoE Power Output | 90W (MAX) |
| Green energy saving | IEEE 802.3az |
| Input Power Supply | DC:48-57V |
| Operating Temperature | -40°C ~ 75 °C |
| Storage Temperature | -40 °C ~ 80 °C |
| Operating Humidity | 10% ~ 90% non-condensing |
| Storage Humidity | 5% ~ 90% non-condensing |
| Surge Protection | Differential mode ±2KV Common mode ±4KV |
| MTBF | >100000 hour |
| Electrostatic standard | Contact 6KV,air 8KV |

Software Specification

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|---------------------------------------|-----------------------------------|---|-------------------|
| L2 Features | MAC Address Table | MAC Address Size | |
| | | MAC Aging Time | |
| | | MAC Filter | |
| | | MAC Notification | |
| | Basic Management | Console/Telnet/SSH | |
| | | Http/Https、SSL/TLS | |
| | | FTP/TFTP | |
| | | Syslog | |
| | | SNMP(v1/v2c/v3)、SNMP Trap | |
| | | SNTP/NTP | |
| | | CPU protect | |
| | | Software/Hardware watchdog | |
| | | Firmware Upgrade/Backup | |
| | | Ping/Traceroute | |
| | | Port Config | Bandwidth Control |
| | | | Flow Control |
| | EEE | | |
| | MTU | | |
| | CFM(802.1ag) | | |
| | EFM OAM(802.3ah) | | |
| | DDM | | |
| | Storm Control | | |
| | Port Isolation | | |
| | Port Security | | |
| | Virtual Cable Test | | |
| | ULDP/Cisco UDLD | | |
| | Discovery | LLDP(802.1ab) | |
| | | LLDP-MED | |
| | (Link Aggregation) | Static | |
| | | LACP(802.3ad) | |
| | | Load Balance(src-mac/dst-mac/src-ip/dst-ip) | |
| | | Max groups and ports per group | |
| | VLAN | VLAN(802.1Q 4K) | |
| | | Access/Trunk/Hybrid | |
| | | Private VLAN | |
| | | VLAN Filter | |
| | | MAC-based VLAN | |
| | | Protocol-based VLAN | |
| | | IP Subnet-based VLAN | |
| | | Voice VLAN | |
| GVRP/GMRP | | | |
| QinQ/Selective-QinQ/Flexible QinQ | | | |
| VLAN Translation/N:1 VLAN Translation | | | |
| Guest VLAN | | | |
| Network Loop Detection | Loopback Detection | | |
| | ERPS | | |
| Spanning Tree | STP/RSTP/MSTP | | |
| | MSTP Support 64 instance | | |
| | BPDU Guard/Root Guard/BPDU Tunnel | | |
| ARP | Static ARP | | |
| | ARP Scanning Prevention | | |
| | ARP Spoofing Prevention | | |
| | ARP Guard | | |
| | Gratuitous ARP | | |
| | Dynamic ARP Inspection | | |

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| IPv4 Related Function | ICMP | ARP Quantity Control |
| | | Anti ICMP Attack |
| | | ICMP Rate Limit |
| | | ICMP Unreachable Drop |
| | IP Forward | Static Route |
| | | Route Aggregation |
| | Control Multicast | DCSCM |
| | Multicast VALN | Multicast VALN |
| | IGMP | IGMP SNOOPING V1/V2/V3 |
| | | Fast Leave |
| | | IGMP Proxy |
| | DHCP | DHCP Server |
| | | DHCP Client/BOOTP |
| | | DHCP Relay |
| DHCP Snooping | | |
| DHCP Option 82/43/60/61/67 | | |
| IPv6 Related Function | DHCPv6 | DHCPv6 Server |
| | | DHCPv6 Relay |
| | | DHCPv6 Snooping |
| | | IPv6 SAVI |
| | | Security RA |
| | IPv6 Unicast Routing | Static Route |
| | IPv6 Multicast Routing | MLD v1/V2 Snooping |
| | IPv6 Features | SNMP over IPv6 Support |
| | | HTTP over IPv6 Support |
| | | SSH over IPv6 Support |
| | | DNS over IPv6 Support |
| | | IPv6 ping/traceroute Support |
| | | IPv6 Telnet Support |
| | | IPv6 Radius+ Support |
| IPv6 Tacacs+ Support | | |
| IPv6 SNTP/NTP Support | | |
| IPv6 FTP/TFTP Support | | |
| IPv6 IPSec Support | | |
| IPv6 ACL | | |
| QoS(Quality Of Service) | Basic | Trust COS/DSCP |
| | | Trust Port |
| | Scheduling | SP |
| | | WRR |
| | | WDRR |
| | PolicyMap Stream | Based on VLAN |
| | | Based on COS/DSCP |
| | | Aggregate PolicyMap |
| | | Ingress PolicyMap |
| | Policing | CAR Stream Shaping(leak algorithm) |
| | | Ingress Policing |
| | Rewrite | COS/802.1p Priority |
| | | IP Precedence |
| | | IPv4 DSCP/IPv6 DSCP |
| | | drop-precedence |
| | | internal-priority |
| | Ingress/Egress Rewrite | |
| | Queuing | DSCP to DSCP mapping |
| | | DSCP to DP mapping |
| DSCP to Queue mapping | | |
| COS to DP mapping | | |

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|------------------------------------|--------------------------------|--|
| ACL | IP-ACL | COS to Queue mapping |
| | | SIP/DIP |
| | | IP Protocol |
| | | IP Priority(DSCP,TOS, Precedence) |
| | MAC-ACL | TCP,UDP src,dst Port |
| | | SRC/DST MAC |
| | | VLAN |
| | | COS |
| | IP-MAC ACL | Tag/Untag |
| | User-defined ACL | MAC-ACL and IP-ACL |
| | ACL Features | Base on user defined profile |
| Based on time period ACL | | |
| ACL on VLAN | | |
| Security | 802.1x | Based on ACL Stream |
| | | Port Based Authentication |
| | | Support EAPoR |
| | | MAC based Authentication |
| | MAB | Guest VLAN |
| | | Based on Port Authentication |
| | MAC Address Count Limit | Based on MAC Authentication |
| | | Based on Port |
| | IP Address Count Limit | Based on VLAN |
| | | Based on Port |
| | Access Management | Based on VLAN |
| | | Based on source mac and IP address |
| | Deny DoS Attack | TCP Flag |
| | | TCP Fragment |
| | | IP Segment |
| | | ICMP |
| TACACS+ | Standard Support | |
| Radius | Standard Support | |
| | Client, Support MD5 | |
| SSL | Openssl 1.1.0 | |
| Redundancy Related Function | MRPP | Compatiable ERRP |
| | ULPP | Uplink Protection Protocol |
| | | Smart Link/Monitor Link |
| Mirror | Mirror | Uplink State Monitor |
| | | Support one to one, multi to one |
| | | Port based mirror, support ingress, egress, and both |
| | | CPU based mirror |
| | | Flow based mirror |
| PoE | PoE Management | RSPAN |
| | | ON/OFF Config |
| | | Alive Checking for PD |
| | | 7/24 On/Off Scheduling |

Ordering information

| Model | product information |
|---------------|--|
| PM9020GSMI V1 | 8-Port Gigabit + 12G SFP Industrial Fast Ring Managed High PoE Switch (1-8 Port Support IEEE 802.3 Bt) |