

## Product Overview



PM116GSMI V2 is a managed Ring-network Industrial Switch independently developed by UNIPOE. It has 8\*10/100/1000Mbps adaptive RJ45 ports and 8\*1000Mbps SFP fiber module expansion slots. 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;
- RJ45 Supports automatic port flip (Auto MDI/MDIX);
- 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;
- Highly reliable design, supporting traditional STP/MSTP/RSTP Layer 2 link protection technology;
- Support static convergence and dynamic convergence (LACP) 2 convergence modes, effectively increase the link bandwidth, improve the reliability of the link, and at the same time can achieve load balancing, 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

<b>Model</b>	PM116GSMI V2
<b>Standard</b>	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
<b>Interface</b>	8*10/100/1000Mbps RJ45 Ports 8*1000Mbps SFP Slots 1 Console Port
<b>Indicator</b>	PWR, LNK/ACT, SYS
<b>Network Media</b>	10BASE-T: UTP category 3, 4, 5 cable( $\leq 100m$ ) 100BASE-TX: UTP category 5, 5e cable( $\leq 100m$ ) 1000BASE-T: UTP category 5e, 5 cable( $\leq 100m$ ) 1000BASE-X: MMF, SMF
<b>MAC Address Table</b>	8K, Auto-learning, Auto-updating
<b>Jumbo Frame</b>	9216Bytes
<b>Packet Buffer</b>	4.1M bit
<b>Transfer Mode</b>	Store-and-forward
<b>Packet Forward Speed</b>	23.8Mpps
<b>Switching Capacity</b>	32Gbps
<b>Dimensions(L*W*H)</b>	145*109*62mm
<b>Fan Quantity</b>	Fanless
<b>Green Energy Saving</b>	IEEE 802.3az
<b>Input Power Supply</b>	DC:12-55V
<b>Operating Temperature</b>	-40°C ~ 75 °C
<b>Storage Temperature</b>	-40 °C ~ 80 °C
<b>Operating Humidity</b>	5% ~ 95% non-condensing
<b>Storage Humidity</b>	0% ~ 95% non-condensing
<b>Surge Protection</b>	Differential mode $\pm 2KV$ Common mode $\pm 4KV$
<b>MTBF</b>	>100000 hour
<b>Electrostatic Standard</b>	Contact $\pm 6KV$ , Air $\pm 8KV$

## Software Specification

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
	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-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	

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	IPv6 Basic	IPv6 ND Snooping
	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	
	QoS(Quality Of Service)	Basic
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
Queuing		Ingress/Egress Rewrite
		DSCP to DSCP mapping
		DSCP to DP mapping
		DSCP to Queue mapping

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

## Ordering Information

Model	Product Information
<b>PM116GSMI V2</b>	8-Port Gigabit +8G SFP Industrial Fast Ring Managed Switch