

12 and 14 Port Industrial Giga Managed PoE Switches, Model IPSMG 308-XS A



IEMSG 12 and 14 Port Series Industrial L2 Managed Switch adopt Store-and-Forward architecture, fan-less and energy-saving design to provide reliable and stable operation in harsh industrial environments.

All the switches support 12-58VDC Dual power input and operate at temperature of -40 to 85°C.

While using standard Cat5/5e/6 cables that carry Ethernet data, the switch can also provide power to a Powered Devices, such as VoIP phones, video cameras, wireless access points, alarms, traffic controllers, sensors and tracking devices.

Features

- ERPS (G.8032) Ring Technology
- Loop Protection
- SFP fiber port support 1.25G/155M
- 9.6K Jumbo Frame
- 12-58V DC Dual power input with polarity reverse protection
- 6KV Surge protection for Power and copper port
- 8-15KV ESD protection
- IP40 enclosure
- Din-rail installation, Wall-mounted optional
- Low power consumption, lead-free process

Specification

Model	12 Port, 8 Copper 4 SFP	14 Port, 8 Copper 6 SFP
Performance		
Standard	IEEE802.3 10BASE-T, IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X IEEE802.3x, IEEE802.1Q VLAN, IEEE802.1w RSTP, IEEE802.1s MSTP, IEEE802.1d STP, IEEE802.1ag	
Protocols	TCP, UDP, ARP, ICMP, ICMP Router Discovery	
Mode	Store and Forward / Cut through or fragment free switching	
Processing type	Store and Forward	
Switch Capacity	55Gbps Non-blocking	
Packet forwarding Rate	17.86Mpps	20.83Mpps
MAC address	8k	
Buffer Space	4M	
Jumbo Frame	9.6k	
Interface		
Copper port	8 * 10/100/1000M Auto Negotiation, Auto MDI/MDIX, ESD and EFT protection, Cat5/Cat5e/Cat6, ≤100m	
Fiber port	4 or 6 * 1.25G/155M SFP slot type TX Power & RX Sensitivity based on SFP Modules	
Console	RS232 (RJ45)	

Reset	Key switch
LED indicators	PWR, SYS, Speed, Link/Act, PoE
Alarm Relay	Normal Open

PoE Function	
Standard	IEE802.3af/at
Pin Assignment	1/2(+), 3/6(-)
PoE Budget	≤240W
Power	
Input Voltage	48 to 52VVDC, Dual Redundant 6-PIN Removable Terminal Block Overload Voltage protection Overload Current protection Reverse Polarity protection
Input Current	Max 0.4A Max 0.5A
Power Consumption Full load without PoE	10W 13W
Physical characteristics	
Dimension	170x120x60mm
Enclosure	IP40 , Aluminum Alloy, Fan-less
Installation	DIN-rail, Wall-mounted
Weight	700g
Environment	
Working Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Relative Humidity	5-95% (no condensation)

Software Features

L2 Feature	
Port Features	IEEE 802.3x Flow control
	Interface counters
	Broadcast Storm control
	Flow Mirroring
Link Aggregation	Static Aggregation
	IEEE802.1q
	Dynamic Aggregation, LACP
MAC-address table	Static MAC-address
	Dynamic MAC-address
	Security MAC-address
	IVL mode
Mirror	Port-based Mirror
	VLAN-Based
	Flow-Based

Spanning Tree	IEEE802.1d STP
	IEEE802.1w RSTP
	IEEE802.1s MSTP
GVRP	Supported
BPDU Filtering	Per Port
Host ARP table	Yes
Port Isolation	Yes
Q IN Q	VLAN-based Q In Q
	1:1 VLAN Mapping
LLDP	LLDP
	LLDP-MED
Loop Protection	Support
ERPS (G.8032)	Single Ring, Sub-Ring, Multi-Ring
	Load balance
	Recovery Time < 50ms
VLAN	4094 VLAN
	Port-based VLAN
	GVRP
Protocol VLAN	MAC-based VLAN
	Protocol-based VLAN
	IP Subnet-based VLAN
Voice VLAN	Static entry
	LLDP-MED
Private VLAN	Support
Port Isolate	Support
IGMP Snooping	IGMP V1 Snooping
	IGMP V2 Snooping
	IGMP V3 Snooping
	Source Port Check
	IGMP Fast Leave
	IGMP Filter
	IGMP Proxy
MLD Snooping	MLD V1 Snooping
	MLD V2 Snooping
	Source Port Check
	MLD Fast Leave
	MLD Filter
	MLD Proxy
MVR	Static mode
	Dynamic mode
	Fast Leave

Security

ACL	ACL (IP Standard ACL), IPv4/IPv6
	MAC extend ACL
	IP extend ACL
	L2, L3, L4 fields match
	log, redirection, mirroring, speed limit
QoS	QoS Class, Remarking
	SP, WRR queue scheduling
	Ingress port-based rate-limit
	Ingress priority-based rate-limit
	Egress port-based rate-limit
	Egress queue-based rate-limit
	Policy-based QoS
	Storm Control
8 queues per port	
Dot1x	Port Access Control
	User Access Control
	MAC-address Access Control
	RADIUS Server
	TACACS+ Server
Additional Features	IP Binding per Port, Port trunking Static IEEE 802.1p QoS / CoS / ToS / DSCP priority queuing Port Mirroring, Auto sensing, Dynamic ARP Inspection ARP Snooping / Spoofing prevention, Loopback detection / STP Loopback detection, Priority Mapping, DiffServ Marking BootDoS attack prevention, DHCP Server Screening, Head of Line(HoL), BootP, Digital Diagnostic Monitoring Interface (DDMI) support IEEE 802.1x Port Access Authentication, User authentication for Web GUI, Ingress policing, Auto QoS
Access Control list (ACL)	Port based, VLAN based, Bidirectional ACL
IP Source Guard	Dynamic entry (from DHCP Snooping)
	Static entry
ARP Inspection	Dynamic entry (from DHCP Snooping)
	Static entry
Port Security	Support
Access Management	Support

Management

User management	Password protection
SNMP	SNMP V1/V2c/V3 (MIB)
SNTP	Yes
	System configure, Restore and Backup
RMON	Statistics Group
	History Group
	Alarm Group
	Events Group
Web management	WebUI with HTTP V1.1, HTTPS
Other	SmartPort, Syslog, DHCP Server
Firmware Upgrade	Reversion Upgrade
IPv4/IPv6	Support
PoE Management	IEEE8.2.3af/at Class, Energy-saving, Static
CLI	Support
RADIUS client	Support
Syslog/Debug	Support
Diagnosis	Ping (IPv4), ping (IPv6)
	Trace route(IPv4),
	Trace route(IPv6)

Application

NTP	NTP Client
DHCP	DHCPv4 Client, DHCPv6 Client
DHCP Snooping	DHCP snooping table
	Trust Port
Telnet	Telnet Server
TFTP	TFTP Client
SSH	SSH Server
Support	SNMPv6, Telnetv6, SSHv6

San Telequip (P) Ltd.,
 504 & 505 Deron Heights, Baner Road
 Pune 411045, India
 Phone : +91-20-27293455, 9764027070, 8390069393
 email : info@santelequip.com



Approvals & Standards Tested for

Electro Magnetic Interference EMISSIONS : EN55032 : 2015

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|---|------------------------|---|
| 1 | EN55022 / 55032 : 2015 | Conducted Disturbance, Radiated Disturbance |
| 2 | IEC 61000-3-2 : 2014 | Harmonic Current Emissions |
| 3 | IEC 61000-3-3 : 2013 | Voltage Fluctuation & Flicker |

Electro Magnetic Immunity / Susceptibility : EN55024 / EN55035 : 2017

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|---|----------------------|--|
| 1 | IEC 61000-4-2 : 2009 | Electrostatic Discharge |
| 2 | IEC 61000-4-3 | RF Immunity |
| | | Continuous Radiated Disturbance |
| 3 | IEC 61000-4-4 | Electrical Fast Transient |
| 4 | IEC 61000-4-5 | Surge Immunity |
| 5 | IEC 61000-4-6 | Conducted RF immunity |
| | | Continuous Conducted Disturbance |
| 6 | IEC 61000-4-8 | Power Frequency Magnetic Field |
| 8 | IEC 61000-4-11 | AC Voltage Dips & Interruption/Variation |

SAFETY : EN 62368 / EN 60950

FCC : FCC 47 CFR Part 15B 15.107(a), 15,109(a)

Order Information : IPSMG 308-XS A

IPSMG : Industrial Grade Giga PoE Managed Ethernet Switch
 308 : 8 of 10/100/1000 Copper Port
 XS : 4 or 6 of 100/1000 SFP Ports
 A : Fixed

Ordering Code Example

Model	Description
IPSMG 308-4S A	10/100/1000M 8-RJ45, 4-SFP
IPSMG 308-6S A	10/100/1000M 8-RJ45, 6-SFP

Note : SFP to be purchased separately

Note : 48V DC SMPS to be sourced separately

NOTE :

- It is advisable that you use PoE Surge protectors on each port of the Switch.
- The PoE Surge protector has to be installed within 10m distance of the ports.
- It is mandatory that the Switch along with the PoE Surge protectors are very securely earthed.
- Failing which the Switch/Switch ports are likely to be damaged