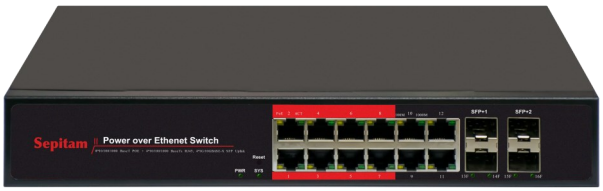
TYPE: Sepitam-PS412G-QXM

12*10/100/1000Mbps auto-sensing RJ45 ports +
4*10G SFP Fiber ports, Managed Ethernet Switch



Overview

Sepitam-PS412G-QXM is a Layer 2+ managed Gigabit PoE Switch that features intelligent PoE functions to improve the availability of critical business applications. It provides IPv6/IPv4 management and built-in L2+ Gigabit Switching engine along with 8*10/100/1000BASE-T ports featuring 30-watt 802.3at PoE+ and 4 additional Gigabit Ethernet ports and **4*10G SFP+ fiber slots**. With a total power budget up to 150W for different kinds of PoE applications, can provides quick, safe and cost-effective Power over Ethernet network solutions to security IP surveillance for small businesses and enterprises.

The **Sepitam-PS412G-QXM** is programmed for advanced switch management functions such as 802.1Q VLAN and Q-in-Q VLAN, Multiple Spanning Tree protocol (MSTP), loop and BPDU guard, IGMP snooping, and MLD snooping. Also, the Link Layer Discovery Protocol (LLDP) is the Layer 2 protocol included to help discover basic information about neighboring devices on the local broadcast domain.

Features

- Support L2+ Switching features including 802.1Q VLAN, Mirroring, Port isolation, IGMP Snooping, DHCP Snooping, LLDP, POE+ management, IP Source Guard, ARP inspection, ACLs etc.
- Support spanning tree STP(802.1D) and RSTP(802.1W) and MSTP(802.1s).
- Support enhanced management through WEB, CLI, TELNET, SSH, SNMP.
- Support cable diagnosis and SFP DDM.
- Support PoE management, like PoE schedule, PoE PD-alive.
- Support G.8032 quick ring protocol. Self-recovery time <20ms.
- Support IEEE1588 v2, transparent clock(TC)
- Support DDM, SFP digital diagnostics monitoring
- Support IPV4 and IPV6 static routing functions
- Support memory and CPU monitoring
- 4KV surge protection, 6KV contact/8KV air protection

Technical Specifications

Model	Sepitam-PS412G-QXM
Ethernet Ports	12-10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports
Fiber Ports	4*1G/10GBASE-X SFP interfaces, supports 1G/10Gbps dual mode
PoE Ports	8*802.3af/802.3at PoE Ports
Switch Architecture	Store-and-Forward
Switch Fabric	104 Gbps/non-blocking
Throughput	77.38Mpps @64 bytes
Address Table	32K entries
Share Data Buffer	32 Mb
Jumbo Frame	9600 Bytes
SDRAM	2Gb
Flash Memory	128Mb
Flow Control	IEEE 802.3x pause frame for full-duplex Back pressure for half-duplex
Reset Button	>2 sec.: Factory default and reset
Power Supply	100~240V AC, 50/60Hz, 4A (max.)
Power Consumption	Max.150 watts/1122 BTU
PoE Standards	IEEE 802.3af Power over Ethernet/PSE IEEE 802.3at Power over Ethernet Plus/PSE
PoE Power Supply Type	Per Port 52V DC, 300mA. Max. 15.4 watts (IEEE 802.3af) Per Port 52V DC, 600mA. Max. 30 watts (IEEE 802.3at)

LED Indicators	Power: Green Solid on- power work normal, off- power disconnected System: Green Blink -work normally, solid on- soft work abnormal, fast Blink - soft upgrade PoE: Yellow Solid on- PoE work normally, Off- PoE doesn't work, Blink - PoE over-load10/100/1000T RJ45 Interfaces(Port 1 to Port 12): 1000 LNK/ACT (Green) Blink - port connected with data transmission; Solid on- port connected without data transmission 1G/10G SFP Interfaces (Port 13 to Port 16): Blue Blink- port connected with data transmission; Solid on- port connected without data transmission
EMC	Surge Immunity： 4KV Per: IEC61000-4-5 ESD Protection：ESD Level 4 Per: IEC61000-4-2 EFT Level 4 Per: IEC61000-4-4
Dimension	280x213x44.5mm
Weight	2.5kg
Working Temperature	-10 ℃to 45℃
Storage Temperature	-20℃ to 70 ℃
MTBF	50,000hrs

Layer 2 functions:

Port configuration	Auto-negotiation Flow Control Port Mirror: TX/RX/BOTH; Many-to-1 monitor CPU Mirror Traffic statistics
Link Aggregation	Static link aggregation LACP（Dynamic Trunk/Static Trunk） Algorith based on Source/Destination MAC Algorithm based on Source/Destination IP

MAC Table	Aging Time Static MAC address Dynamic MAC address management
VLAN	4094 Active VLANs 4094 VID 802.1Q Tag VLAN Port VLAN Protocol VLAN MAC VLAN Voice VLAN 802.1ad Q-in-Q tunneling Private VLAN (Protected port) GARP/GVRP
ACL	512ACLs L2, L3 e L4 Time-based ACL IP ACL MAC ACL MAC-IP ACL User-Defined ACL ICMPv6
Spanning tree	802.1D Spanning Tree Protocol (STP) 802.1w Rapid Spanning Tree Protocol (RSTP) 802.1s Multiple Spanning Tree Protocol (MSTP) Loop Guard Root Guard TC-BPDU Guard BPDU Guard BPDU Filter
Ring Protection	<20ms G.8032 ERPS Ring Fast Ring

Multicast	1024 groups IGMP v1/v2/v3 Snooping, Fast Leave MLD Snooping Multicast VLAN IGMP filter MVR Multicast Routing
QOS	8 mapping IDs to 8 level priority queues CoS port-based CoS 802.1p-based CoS DSCP-based Scheduling algorithms SP, WRR, SP+WRR Storm Control (Broadcast, Multicast, Unknown Unicast) Bandwidth control per port SWRR, DWRR for Scheduling Flow Redirect Precedence TOS Rate Limiting（Ingress/Egress） Stri Priority
Security Features	Port Security MAC address filter ARP Association (Manual, ARP scanning, DHCP snooping) ARP Protection AAA DAI DoS (Denial of Service) Classification of packages based on: End.MAC, IP End, TCP / UDP Ports, Protocol Type; 802.1x Authentication (port-based e MAC-based) TACACS/TACACS+ Authentication RADIUS Authentication DHCP Filter Guest VLAN SSLv2/SSLv3/TLSv1 SSHv1/SSHv2 Restriction of WEB access based on: IP Address, And. MAC and Port; Port Isolation Loopback detection

Management	SNMP v1/v2c/v3 with Full Private MIBs RMON 4 groups WEB (HTTP/HTTPS) CLI (Telnet, Console, SSHv1/v2) Firmware upgrade via console/web/TFTP Configuration Backup/Reload Dual Firmware LLDP Configuration Export/Import CDP Aware OAM (IEEE802.3ah) CFM (IEEE802.1ag) sFlow Telnet client
Synchronization, IEEE1588	Support IEEE1588v2 transparent clock
Other Features	DNS Client DHCP Relay DHCP Client DHCP Snooping DHCP Option 66 DHCP Option 67 DHCP Option 82 NTP/SNTP Client UPNP UDLD
PoE management	Total PoE power budget control Per port PoE function enable/disable PoE admin-mode control PoE port power feeding priority Per PoE port power limitation PD classification detection PD alive check PoE schedule Soft-reboot PoE Non-stop

Maintenance	Cable Diagnostics Ping SFP DDM (Digital Diagnostics Monitoring) Thermal protection System log (Local and Remote) Memory and CPU Monitoring Tracert/ Tracert 6

Layer 3 functions:

Static Routing	IPv4 Unicast: Static Routing(Software Base) IPv6 Unicast: Static Routing(Software Base)
IPV6	IPv6 neighbor discovery (ND) Path maximum transmission unit (MTU) discovery Internet Control Message Protocol (ICMP) version 6 TCPv6/UDPv6 Ping6 Telnet(v6) Http/Https Interface IPV6 ACL IPV6

Technical Specification of

Sepitam-PS412G-QXM

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