TYPE: Sepitam-PI216G-DFM

Technical Specification of Sepitam-PI216G-DFM
18*Port Full Gigabit Managed Industrial PoE Switch

Description:

The **Sepitam-PI216G-DFM** series is a full gigabit managed industrial PoE fiber switch independently developed by Sepitam. It has 16*10/100/1000Base-T RJ45 ports and 2*100/1000Base-X SFP fiber slot ports. Port 1-16 can support IEEE 802.3af/at standard PoE power supply. single port PoE power reaches 30W, and the maximum PoE output power is 250W(at-400W). As a PoE power supply device, it can automatically detect and recognize power-compliant devices that meet the standard and supply power through the network cable. It can supply power to POE terminal equipment such as wireless AP, webcam, VoIP, industrial sensor through the network cable, and meet the network environment that needs high-density PoE power supply. It is suitable for intelligent transportation, rail transit, power industry, mining, petroleum, Industrial scenes such as shipping, metallurgy, and green energy construction form a cost-effective, stable and reliable communication network.

The **Sepitam-PI216G-DFM** has the L2+ full network management function, support IPV4/IPV6 management, static route full line rate forwarding, security protection mechanism, ACL/QoS policy and VLAN, and is easy to manage and maintain. Support multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS(<20ms) to improve link backup and network reliability. When one-way network fails, communication can be quickly restored to ensure important Uninterrupted communication for applications. According to the actual application requirements, you can configure multiple application services such as PoE power management, port traffic control, VLAN division, and SNMP through the Web network management mode.

Feature :

Gigabit access, SFP fiber port uplink

♦ All series support "Gigabit Ethernet port and Gigabit SFP port" combination, which enables users to flexibly build networking to meet the needs of various scenarios.

♦ Support non-blocking wire-speed forwarding.

♦ Support full-duplex based on IEEE802.3x and half-duplex based on backpressure.

Intelligent PoE power supply

♦ 16* 10/100/1000Base-T RJ45 ports, meeting the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.

♦ IEEE 802.3af/at PoE standard, without damaging non-PoE devices.

♦ Priority system for PoE port, it will supply power to the high priority level port first when the power budget is insufficient and avoid overwork of the device.

♦ PoE network management, realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.

Security

♦ Authentication802.1 X

♦ Port isolation, Storm control.

♦ IP-MAC-VLAN-Port binding.

Strong business processing capability

♦ IEEE802.1Q VLAN, flexible VLAN division, Voice VLAN and QinQ configuration.

♦ QoS, Priority mode based on 802.1P, Port & DSCP, queue scheduling algorithm including Equ, SP, WRR & SP+WRR.

♦ ALC, filter data packet through configuring matching rules, processing operation & time permission, and provide flexible and safe access control.

♦ IGMP V1/V2 and IGMP Snooping.

♦ ERPS/STP/RSTP/MSTP.

♦ Static and dynamic aggregation.

Stable and reliable

♦   Low power consumption, No fan low noise design, aluminum shell.

♦   Self-developed power supply, high redundancy design, providing a long term and stable PoE power output.

♦   CCC,CE, FCC, RoHS.

♦   The user-friendly panel, it can show the device status through the LED indicator of PWR,SYS, Link, L/A,PoE.

Easy operation and maintenance management

♦   Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).

♦   HTTPS, SSLV3, and SSHV1/V2.

♦   RMON, system log, LLDP, and port traffic statistics.

♦   CPU monitoring, memory monitoring, Ping test, and cable diagnose.

Specifications:

Model	Sepitam-PI216G-DFM
Interface Characteristics	
Fixed Port	16*10/100/1000Base-T PoE ports (Data/Power)
	2*100/1000Base-X uplink SFP fiber slot ports (Data)
	1 * RS232 console port(115200,N,8,1)
Ethernet Port	Port 1-16 support 10/100/1000Base-T,auto-sensing, Full/half duplex
	MDI/MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meter)
	100BASE-TX: Cat5 or later UTP(≤100 meter)

	1000BASE-T: Cat5e or later UTP(≤100 meter)
Optical Fiber Port	Gigabit optical fiber interface, default matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)
Optical Cable/ Distance	Multi mode: 850nm / 0 ~ 500M,single mode: 1310nm / 0 ~ 40KM, 1550nm / 0 ~ 120KM.
Chip Parameter	
Network Management Type	L2+
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T IEEE802.3u 100Base-TX , IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X IEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	256Gbps
Forwarding Rate@64byte	26.78Mpps
MAC	8K
Buffer Memory	6M
Jumbo Frame	9.6K

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LED Indicator	Power: PWR (yellow), system:SYS (yellow);network:Link (yellow); PoE: PoE (green), Rate: Speed:(green), Fiber port : L/A (green)
Reset Switch	Yes, support one key to restore factory settings
PoE & Power	
PoE Port	Port 1 to 16
PoE Management	PoE working status Delay start of power supply PoE output priority configuration

	Scheduling of PoE operation and time Total power limit of PoE power supply PoE output power allocation, off& af &at
Power Supply Pin	Default: 1/2 (+), 3/6 (-)
Max Power Per Port	30W, IEEE802.3af/at
Total PWR / Input Voltage	250W /(AC100-240V)
Power Consumption	Standby<16W,Full load<240W
Power Input Interface	Dual input power interface design, AC power supply priority, support anti-reverse protection, power-off automatic switching DC connection; 2 sets of DC12-48V input interface; 1-way alarm switch interface; 1 set of AC power input interface
Power Supply	Built-in power supply, AC 100~240V 50-60Hz 4.1A
Physical Parameter	
Operation TEMP / Humidity	-40~+85°C;5%~90% RH Non condensing

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Storage TEMP /Humidity	-40~+85°C;5%~95% RH Non condensing
Dimension (L*W*H)	440*298*44.5mm
Net /Gross Weight	<4.2kg / <4.7kg
Installation	Desktop type ,19 inch 1U cabinet installation
Certification & Warranty	
Lightning protection / protection level	Lightning protection: 6KV 8/20us; Protection level: IP30 IEC61000-4-2(ESD):±8kV contact discharge,±15kV air discharge IEC61000-4-3(RS):10V/m(80~1000MHz) IEC61000-4-4(EFT): power cable:±4kV; data cable:±2kV IEC61000-4-5(Surge):power cable:CM±4kV/DM±2kV; data cable:±4kV
	IEC61000-4-6(radio frequency transmission):10V(150kHz~80MHz) IEC61000-4-8(power frequency magnetic field):100A/m;1000A/m ,1s to 3s IEC61000-4-9(pulsed magnet field):1000A/m IEC61000-4-10(damped oscillation):30A/m 1MHz IEC61000-4-12/18(shockwave):CM 2.5kV,DM 1kV IEC61000-4-16(common-mode transmission):30V; 300V,1s FCC Part 15/CISPR22(EN55022):Class A IEC61000-6-2(Common Industrial Standard)
Mechanical Properties	IEC60068-2-6 (anti vibration) IEC60068-2-27 (anti shock) IEC60068-2-32 (free fall)
Certification	CCC;CE mark, commercial; CE/LVD EN60950;FCC Part 15 Class B; RoHS

Network Management Features	
Interface	IEEE802.3X (Full-duplex) Port temperature protection setting Port green Ethernet Energy-saving setting Broadcast storm control based on port speed The speed limit of the message flow in the access port. The minimum particle size is 64Kbps.
Layer 3 Features	L2+ network management ,IPV4/IPV6 management L3 soft routing for warding, Static route, Default route @ 128 pcs, APR @ 1024 pcs
VLAN	4K VLAN based on port, IEEE802.1q VLAN based on the protocol VLAN based on MAC Voice VLAN, QinQ configuration

	Port configuration of Access, Trunk, Hybrid
Port Aggregation	LACP, Static aggregation Max 9 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d),RSTP (IEEE802.1w),MSTP (IEEE802.1s)
Industrial Ring Network Protocol	G.8032 (ERPS),Recovery time less than 20ms 250 Ring at most, Max 1024 devices per ring.
Multicast	MLD Snooping v1/v2,Multicast VLAN IGMP Snooping v1/v2, Max 250 multicast groups, Fast log out
Port Mirroring	Bidirectional data mirroring based on port
QoS	Flow-based Rate Limiting Flow-based Packet Filtering 8*Output queues of each port 802.1p/DSCP priority mapping Diff-Serv QoS,Priority Mark/Remark Queue Scheduling Algorithm (SP, WRR, SP+WRR)
ACL	Port-based Issuing ACL,ACL based on port and VLAN L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc.
Security	IP-MAC-VLAN-Port binding ARP inspection,Anti-DoS attack AAA & RADIUS,MAC learning limit Mac black holes,IP source protection IEEE802.1X & MAC address authentication Broadcast storm control,Backup for host datum SSH 2.0,SSL,Port isolation,ARP message speed limit User hierarchical management and password protection
DHCP	DHCP Client,DHCP Snooping, DHCP Server,DHCP Relay
Management	One-key recovery

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