



Smart Architecture of Espadana

Designing, Production, Customization and Consultant Service
in Network and Fiber Optic System



Technical Specification

SAE-IPE8900T-QTIM3

**8x 10/100/1000Mbps PoE+ (IEEE 802.3at) Ethernet ports Industrial Managed
Layer 3 Switch + 4x 1/10G SFP fiber slot Uplink ports (240W Max output power)**





Product Description

- 8×10/100/1000Mbps PoE+ Ethernet (RJ45) ports + 4×1/10G SFP+ uplink fiber slots, ports 1–8 support IEEE802.3af/at
- Compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE802.3af/at standards
- PoE ports support AF/AT intelligent detection, standard 15.4W/port, maximum 30W/port
- Supports PoE management, power allocation, priority mechanism, scheduling, PD detection & protection
- Supports AI Watchdog, Port Self-Healing, VLAN, 300m Extend Mode, Auto Speed Recognition, Priority Ports
- Supports PoE-powered devices such as wireless APs, IP surveillance cameras, VoIP phones, industrial sensors, etc.
- Total PoE Power Budget: 120W
- Supports advanced L3 management, IPv4/IPv6, dynamic routing, ACL/QoS, IGMP, and redundancy protocols



Full Description

The **SAE-IPE8900T-QTIM3** is an industrial-grade managed PoE switch engineered for applications requiring high-density PoE power delivery alongside reliable high-speed uplink connections. The device features **8 Gigabit PoE RJ45 ports** and **4×1/10G SFP+ uplink fiber ports**, providing full non-blocking wire-speed forwarding and flexible deployment in harsh or professional environments.

Ports 1–8 fully support the **IEEE 802.3af/at PoE+ standard**, delivering up to **30W per port (TOTAL POWER 240W)**. The switch automatically identifies compliant PD devices and safely supplies power, ensuring full protection for non-PoE equipment. This makes the **SAE-IPE8900T-QTIM3** ideal for powering wireless access points, 4K/8K IP cameras, VoIP terminals, intelligent transportation devices, and industrial automation sensors.

With its L3 management capabilities, the switch supports IPv4/IPv6 address management, static and dynamic routing, rich VLAN configuration, complete ACL/QoS policies, and secure access control. It offers advanced redundancy protocols such as **STP/RSTP/MSTP (<50ms)** and **ERPS (ITU-T G.8032, <20ms)**, ensuring rapid recovery during network failures and maintaining uninterrupted communication in critical scenarios.

The **SAE-IPE8900T-QTIM3** also supports intelligent service features including link aggregation, IGMP Snooping for multi-stream video deployments, port isolation, storm control, and 802.1X authentication. Its robust aluminum housing, excellent heat dissipation, and low-power industrial design guarantee stable long-term operation in demanding environments such as transportation, mining, energy, rail systems, security networks, and smart city deployments.

Management interfaces include **Web GUI, CLI (Console/Telnet), SNMP v1/v2/v3, SSH**, offering flexible configuration, monitoring, and maintenance. Additional diagnostic tools such as CPU/memory monitoring, cable diagnostics, LLDP, and RMON enhance the network administrator's ability to optimize and troubleshoot the system efficiently.



Application

- IP camera surveillance and video transmission systems
- Wireless AP networks and indoor/outdoor coverage systems
- VoIP telephony, virtual PBX, and intelligent communication systems
- Industrial automation and sensor networks
- School, campus, hospital, and smart building monitoring
- Transportation, mining, energy sector, and large-scale industrial deployments
- High-bandwidth, long-distance fiber uplink networks

Technical Specification

Model	SAE-IPE8900T-QTIM3
Interface Characteristics	
Fixed Port	1*Console port (115200, N, 8,1) Power failure alarm switch port (FAULT) 4*1/10G uplink SFP+ fiber ports (Data) 8*10/100/1000Base-T PoE ports (Data/ Power) 2*DC48-57V input ports (support reverse connection protection)
Ethernet Port	Port 1-8 can support 10/100/1000Base-T(X) auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters) 1000BASE-T: Cat5e/6 or later UTP (≤100 meters)
Optical Fiber Port	Default no include optical module (optional single-mode/ multi-mode, single fiber/ dual fiber optical module. LC)
Optical Fiber Port Expansion	Turbo overclocking 2.5G optical module expansion and ring network



Optical Cable/ Distance	Multi-mode: 850nm/ 0-550m(1G), 850nm/ 0-300m (10G), Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km
Chip Parameter	
Network Management Type	L3
Network Protocol	IEEE 802.3 10BASE-T, IEEE 802.3i 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-X, IEEE 802.3ae 10GBase-SR/LR, IEEE 802.3x
Forwarding Mode	Store and forward (Full store speed)
Switching Capacity	128Gbps (non-blocking)
Forwarding Rate@64byte	71.42Mpps
CPU(Hz)	800M
DRAM	1G
FLASH	128M
MAC	16K
Buffer Memory	12M
Jumbo Frame	12K
LED Indicator	System: SYS (Green), Network: Link (Yellow), PoE: PoE (Green), Fiber port: L/A (Green)
Reset Switch	Yes, press and hold the switch for 10 seconds and release it to restore the factory settings
PoE& Power Supply	
PoE Port	Port 1-8
PoE Management	Port PoE real-time load power display, Port PoE output on/off, PoE work and time scheduling
Power Supply Pin	1/2(+) 3/6 (-)
Max Power Per Port	30W, IEEE802.3af/at
Power Consumption	Standby<13W, full load af<120W, at<240W
Input Voltage/ Interface	DC48-57V, 6P industrial Phoenix terminal, support anti-reverse protection.
Power Supply	No, optional 48V/120W or 48V/240W industrial power supply
Physical Parameter	
Operation Temp/ Humidity	-40~75°C, 5%~90% RH non condensing



Storage Temp/ Humidity	-40~80°C, 5%~95% RH non condensing
Dimension (L*W*H)	166*150*75mm
Net /Gross Weight	1.8kg/ 2.1kg
Installation	Desktop, 35mm DIN Rail
Certification & Warranty	
Lightning Protection	IEC61000-4-3 (RS):10V/m (80-1000MHz) FCC Part 15/CISPR22 (EN55022): Class A IEC61000-6-2 (Common Industrial Standard) IEC61000-4-9 (Pulsed magnet field): 1000A/m IEC61000-4-10 (Damped oscillation): 30A/m 1MHz IEC61000-4-12/18 (Shockwave): CM2.5kV, DM1kV Protection level: IP40, Lightning protection: 6KV 8/20us IEC61000-4-4(EFT): Power cable: ±4kV, data cable: ±2kV IEC61000-4-16 (Common-mode transmission): 30V, 300V, 1s IEC61000-4-2 (ESD): ±8kV contact discharge, ±15kV air discharge IEC61000-4-6 (Radio frequency transmission): 10V(150kHz~80MHz) IEC61000-4-8 (Power frequency magnetic field): 100A/m, 1000A/m, 1s-3s IEC61000-4-5 (Surge): Power cable: CM±4kV/ DM±2kV, data cable: ±4kV
Mechanical Properties	IEC60068-2-6 (Anti Vibration), IEC60068-2-27 (Anti Shock), IEC60068-2-32 (Free Fall)
Certification	CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class A, RoHS
Warranty	3 years, lifelong maintenance.
Network Management Feature	
Interface	Port real-time flow management (Flow Interval) Broadcast storm suppression based on port rate SFP optical module DDMI real-time digital diagnosis Port EEE Green Ethernet Energy-Saving configuration and status view IEEE802.3x flow control (Full duplex), Port exception protection mechanism Limit the rate of packet traffic on incoming and outgoing ports, the mini granularity is 16Kbps and max 1Gbps
L3 Feature	Pingv6, Telnetv6, TFTPv6, DNSv6, ICMPv6 VLANIF interfaces for IPV4/IPV6, up to 64 entries IPV4/IPV6 static routing/default routing, up to 64 entries



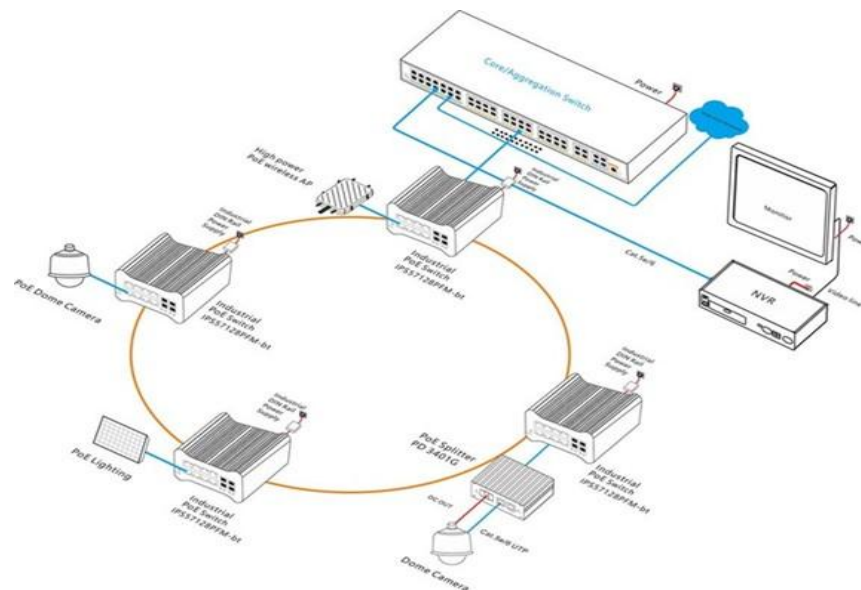
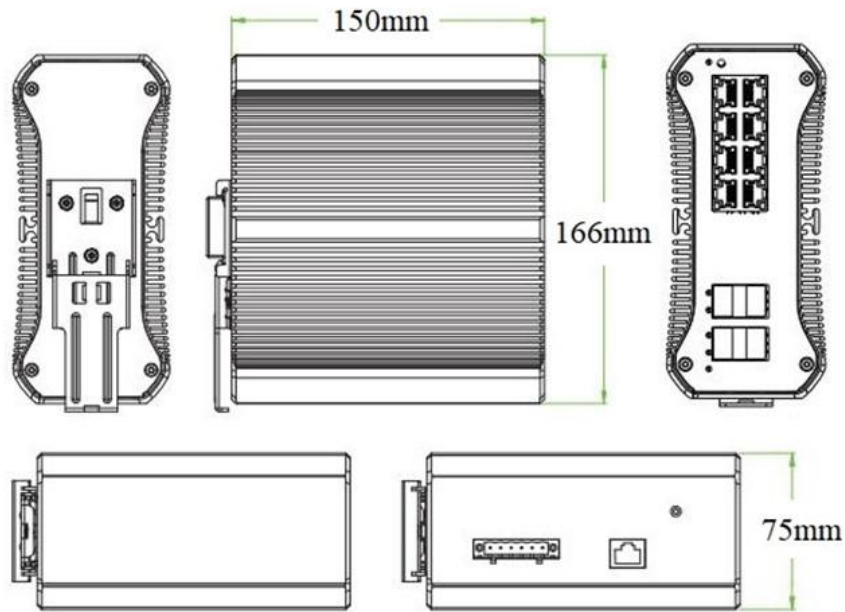
	<p>NG protocol max 1000 entries, ARP protocol max 1000 entries</p> <p>IPV4 equal cost routing, VRRP for IPV4/IPV6, up to 255 entries</p> <p>IPV4 dynamic routing, RIPv1/v2, OSPFv2, routing 2000 entries</p> <p>L3 network management function, IPV4/ IPV6 dual-stack management</p> <p>L3 routing and forwarding, support communication between different network segments and different VLAN</p>
VLAN	<p>Port configuration of Access, Trunk, Hybrid, IEEE 802.1q</p> <p>Voice VLAN, GVRP VLAN protocol, Port-based VLAN (4K)</p> <p>Protocol-based VLAN, MAC address-based VLAN, QinQ configuration</p>
Port Aggregation	<p>LACP dynamic aggregation, Static aggregation, Max 6 aggregation groups and max 8 ports per group.</p>
Spanning Tree	<p>STP BPDU Guard, BPDU filtering and BPDU forwarding</p> <p>STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)</p>
ERPS Ring Network	<p>ERPS ring network, Recovery time less than 20ms, ITU-T G.8032</p>
Multicast	<p>Multicast VLAN, User quick log out, MLD Snooping, MVR (Multicast VLAN Registration), IGMP Snooping v1/v2/v3 and 1024 multicast groups at most</p>
Mirroring	<p>Bidirectional traffic mirroring for basic ports</p> <p>one-to-multiple mirroring, supports up to 4 port sessions</p>
QoS	<p>Flow-based Rate Limiting, Flow-based redirection</p> <p>Queue Scheduling Algorithm (SP, WRR, SP+WRR)</p> <p>Flow-based Packet Filtering, 8*Output queues of each port</p> <p>802.1p/DSCP priority mapping, Diff-Serv QoS, Priority Mark/Remark</p>
ACL	<p>ACL is issued based on port and VLAN</p> <p>L2-L4 packet filtering function can match the first 80 bytes of the message and provide ACL definition based on source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port range, VLAN, etc.</p>
Security	<p>Port based IEEE802.1X authentication</p> <p>Port isolation, IP Source Guard function</p> <p>SSL guarantees data transmission security</p> <p>Quad binding function of IP+MAC+VLAN+ports</p> <p>MAC address learning limit, MAC address black hole</p> <p>Anti DoS attack, Port broadcast message suppression</p>



	<p>Hierarchical user management and password protection SSH 2.0 provides a secure encrypted channel for user login Host data backup mechanism, ARP intrusion detection function IP source address protection, ARP message speed limit function Support AAA, RADIUS, TACACS+ authentication (only supports authentication, not authorization and accounting)</p>
DHCP	DHCP Client, DHCP Snooping, DHCP Server
Management	<p>System work log, Link Layer Discovery Protocol NMS platform cluster management (LLDP+SNMP) NTP clock, Cable length detection, SNMP V1/V2/V3 Ping detection, Web network management (HTTPS) HTTP, TFTP file upload and download management Console/ SSH/ Telnet/ CLI command line configuration One click recovery, View CPU real-time utilization status</p>
System	<p>Web browser: Mozilla Firefox 2.5 or higher, Google Chrome V42 or higher, Cat5 and above Ethernet cable TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, Mac OS X) installed on each computer in the network Cat5 and above Ethernet cable</p>



Product Display



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