

28 Port Full Gigabit 24 Port Poe L2 Managed Fiber Switch **Description**

TS-SG2424P is self-developed full Gigabit L2 managed ring PoE switch. The switch has 24* 10/100/1000Mbps PoE+ ports + 4* 1000Mbps SFP Slot, where 1-24 100/1000 Mbps downlink power ports all support powering PoE network cameras via UTP Category 5 and above unshielded twisted pair cables. 24Ports 10/100 /1000Mbps adaptive RJ45 downlink ports all support 802.3af/at standard PoE power supply. The maximum PoE output power of the whole machine is 400 W, and the maximum power supply power of individual ports is 30W.

The TS-SG2424P is a full thousand Layer 2 managed PoE switch, Using a new generation of high-performance hardware and software platform to provide flexible, cost-effective full Gigabit access and uplink ports, support for complete security protection mechanisms, perfect ACL/QoS policy and flexible VLAN function, easy to manage and maintain, to meet the user's network for network equipment, easy to manage, high security, low-cost network requirements for campuses, hotels, and business parks network access, convergence of a variety of application scenarios.

 **Features**

- 24 x 10/100/1000Mbps auto-sensing Poe+ Ports, 4x 1000Mbps SFP Ports, 1 x Console Port;
- Supports PoE power up to 30W for each PoE port, all power up to 400W
- Support IEEE802.3/IEEE802.3u/IEEE802.3ab/IEEE802.3z, store-and-forward;
- Flow control mode: full-duplex adopts IEEE 802.3x standard, half-duplex adopts Back pressure standard;
- Support port auto flip (Auto MDI/MDIX);
- Supports MAC address auto-learning and auto-aging.

- Store and forward mode operates.
- Supports quad binding, ARP/IP/DoS protection, 802.1X authentication
- Supports IEEE 802.1Q VLAN, QoS, ACL, Spanning Tree, Multicast, IPv6
- Supports port security, port monitoring, port isolation
- Supports Web-based network management, CLI command line, SNMP

Application

- Metro Optical Broadband Network: Data network operators such as telecommunications, cable TV, and network system integration, etc.
- Broadband private network: Suitable for financial, government, oil, railway, electric power, public security, transportation, education and other industries
- Multimedia transmission: Integrated transmission of images, voice and data, suitable for remote teaching, conference TV, videophone and other applications
- Real-time monitoring: Simultaneous transmission of real-time control signals, images and data.

Specification

I/O Interface	
Power	AC 100-240 V
Ethernet	24*10/100/1000Mbps Ethernet Port with Poe af/at 4*1000Mbps SFP Port 1*Console Port
Performance	
Bandwidth	56Gbps (non-blocking)
Packet Forwarding rate	41.67Mpps
Packet Buffer	4.1Mbit
MAC Address	8K
Jumbo Frame	12K
Transfer Mode	Store and forward
Power Pin Assignment	1/2(+), 3/6(-)
PoE Budget	450W
Standard	
Network protocol	IEEE802.3: 10Base-T IEEE802.3u :100Base-TX IEEE802.3ab: 1000Base-TX

	IEEE802.3z :1000Base-FX IEEE 802.3x: Flow control IEEE 802.1ab: LLDP/LLDP-MED (Link Layer Discovery Protocol) IEEE 802.1p: LAN Layer QoS/CoS Protocol Traffic Prioritization(Multicast filtering function) IEEE 802.1q: VLAN Bridge Operation IEEE 802.1x: Client/Server Access Control and Authentication Protocol IEEE 802.3ad: Standard method for performing link aggregation IEEE 802.1d: STP IEEE 802.1s: MSTP IEEE 802.1w: RSTP
Industry Standard	EMS: EN61000-4-2 (ESD)、 EN61000-4-5 (Surge)
Network Medium	10Base-T : Cat3、4、5 or above UTP(≤100m) 100Base-TX : Cat5 or above UTP(≤100m) 1000Base-TX : Cat5 or above UTP(≤100m)
optical characteristics	multi mode: 850/1310nm (0-2KM) Single mode: 1310/1550/1490nm (0-120KM)
Protection	
Security Certificate	CE、FCC、RoHS
Environment	
Working Environment	Working Temperature: -10~50°C Storage Temperature: -40~70°C Working Humidity : 10%~90%, non-condensing Storage Temperature: 5%~95%, non-condensing
Indication	
LED Indicators	PWR、SYS、Link、ACT
Mechanical	
Structure Size	Product Size: 440*192*45mm Product Net-Weight: 1.6KG Product Gross-Weight: 1.9KG
Power Voltage	Power Input Voltage: AC 100-240 V
Max Power	350W/500W
Package List	Ethernet switch: 1 Set、Instruction manual: 1 PCS、Certificate: 1 PCS、Power cord:1PCS

 Software Function

L2 Features	
Flow Control	802.3x (Full-duplex)
	Back-Pressure (Half-duplex)

Spanning Tree	IEEE 802.1D (STP)
	IEEE 802.1w (RSTP)
	IEEE 802.1s (MSTP)
	Auto Edge Port
	BPDU Filtering
	ERPS
	Self Loop Detection
Link Aggregation	IEEE 802.3ad LACP
	Static Trunk
	Max. Group
	Max. Ports/Group
	Traffic Load Balancing

VLAN	
VLAN	Static VLAN 256
	Port-based
	IEEE 802.1Q Tagged-based
	Protocol-based
	MAC-based
Voice VLAN	OUI Mode (Auto/Manual)
Surveillance VLAN	OUI Mode (Auto/Manual)
QinQ (IEEE 802.1ad)	Basic
GARP VLAN Registration Protocol (GVRP)	Yes
Multicast	
Common	Multicast Groups 256
	Immediate Leave
	Static/Forbidden Forward Port
	Filtering 128 profiles
	Throttling
IGMP Snooping	IGMP v1/v2
	IGMP v3 Basic (BISS)
	IGMP v2/v3 Querier
MLD Snooping	MLD v1/v2
Multicast VLAN Registration (MVR)	Yes (IPv4)
QoS Features	

Priority Queue	8 queues/port	
Queue Scheduling	WRR	
	WFQ	
	Strict Pripority	
	Hybrid(WRR+SP or WFQ+SP)	
Class of Service	Port-based	
	802.1p	
	IP TOS Precedence	
	IP DSCP	
Trusted QoS	Yes	
Rate Limit	Port-based (Ingress/Egress)	
Access Control List (ACL)		
Access Rules	1024	
ACL Type	L2	
	MAC-based	512
	IPv4-based	
	IPv6-based	
PoE Function	Power	
	Current	
	Voltage	
	PoE Watch Dog	
Security		
AAA	Authentication	
TACACS+	8	
RADIUS	8	
Authentication Manager	IEEE 802.1X	
	MAC Auth	
	Web Auth	
	Guest VLAN	
	Port-based	
	Host-based	
Account Manager	Local Authenticoain	
	Multiple User Account	
	Multi-Level Security (Manager/Operator)	
	Password Recovery Procedures	
Management Access	Management VLAN	
	Management ACL	

WebUI	HTTPS	
Port Security	Dynamic Lock	
Storm Control	Broadcast	
	Unknown Multicast	
	Unknown Unicast	
Spanning Tree	BPDU Guard	
Protected Port (Port Isolation)		
Black Hole MAC		
CPU Defence Engine		
DoS Prevention		
DHCP Snooping (with Option 82)		
Dynamic ARP Inspection		
IP Source Guard		
IP/MAC/Port Binding (IMPB)		
Dynamic VLAN Assignment		
IPv6		
IPv6 Host	Auto Configuration	
	Static IPv6 Address and Prefix Length	
	Static IPv6 Default Gateway	
	IPv6 Neighbor Discovery (ND)	
	IPv6 Duplicate Address Detection	
	ICMPv6	
IPv6 Application	HTTP/HTTPS	
	TELNET	
	SSH	
	SNMP	
	TFTP	
	Syslog	
	PING	
	DHCPv6	
Management		
CLI	Console	
	Telnet (RFC854)	
WebUI	HTTP	
SNMP	v1	
	v2c	
	v3	

File Management	Firmware Upgrade/Backup
	Dual Images
	Configuration Download/Backup
	Multiple Configurations
Upload/Download	TFTP (RFC783)
	HTTP
	UART
Time Management	Local
	SNTP
Port Management	Friendly Port Name (Port Description)
	Error Disabled Recovery
	Console
Line Management	Telnet (RFC854)
	SSH v1/v2
DHCP	Client
DNS	Client
Software Reset Button	
EEE (802.3az)	
RMON Management	32 entries / type
Discovery	
IEEE 802.1AB Link Layer Discovery Protocol (LLDP)	
ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)	
Diagnostics	
Mirroring	Port-based (Many to One)
Syslog (RFC3164)	Local RAM
	Local Flash
	Remote Server
System Diagnostics	CPU Utilization
	Memory Utilization
	Port Utilization
Port Diagnostics	Cable Test
	Fiber Module Status
Network Diagnostics	Ping Test
	Traceroute
UDLD	

MIB
RFC1213 MIBII (System & Interface groups)
RFC2819 RMON I (1,2,3, & 9 groups)
RFC1215 Generic Traps
RFC1493 Bridge
RFC2674 Bridge MIB Extensions
RFC2737 Entity
RFC3635 Ethernet-Like
RFC2863 Interface Group
SNMP-Community-MIB
SNMPv3-MIB