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Product Datasheet



24 Port AV over IP Ethernet Switch with 2x 1G Fiber Uplink Ports

ZT-518 | ZT-IPS24F1G

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Overview

The ZT-IPS24F1G is a gigabit L2+ managed Ethernet fiber switch. It has 24*10/100/1000Base-T adaptive RJ45 ports and 2*100/1000Base-X uplink SFP fiber ports. Each port can support wire-speed forwarding.

The ZT-IPS24F1G has L2+ network management functions, supports IPV4 management and static routing forwarding, and has complete security protection mechanisms, perfect ACL/QoS strategies, and rich VLAN functions for easy management and maintenance. It supports network redundancy protocols STP/RSTP/MSTP (<50ms) to improve link backup and network reliability. When a unidirectional network fails, communication can be quickly restored to ensure uninterrupted communication of important transmissions. It supports operation and maintenance management and can configure a variety of application services through network management methods such as Web, CLI, SNMP, Telnet, etc., including port flow control, VLAN division, QoS, etc. It can meet the application environment of multi-channel video surveillance and wireless coverage networks and is suitable for hotels, campuses, parks, supermarkets, scenic spots, factory dormitories, and small and medium-sized enterprises to build economical and efficient networks.

Features

Gigabit access, uplink SFP fiber port

- Support non-blocking wire-speed forwarding.
- Support full-duplex based on IEEE 802.3x and half-duplex based on Backpressure.
- Support Gigabit RJ45 port and SFP port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

Security

- Support port isolation and port broadcast storm suppression.
- Support port + MAC binding, IP + MAC + port binding functions.
- Support 802.1X authentication to provide authentication functions for LAN computers, and control the authorization status of controlled ports according to the authentication results.

Strong business processing capability

- Support IEEE 802.1Q VLAN and protocol VLAN. Users can flexibly divide VLANs according to their needs.

- Support ring network STP/RSTP/MSTP production tree protocols to eliminate layer 2 loops and realize link backup.
- Support QoS, three priority modes based on port, 802.1P and DSCP, and four queue scheduling algorithms: Equ, SP, WRR, and SP+WRR.
- Support static aggregation and dynamic aggregation, effectively increase link bandwidth to achieve load balancing, and link backup and improve link reliability.
- Support ACL to filter data packets by configuring matching rules, processing operations, and time permissions, and provide flexible security access control strategies.
- Support IGMP V1/V2/V3 multicast protocols, IGMP Snooping meets the needs of multi-terminal high-definition video surveillance and video conferencing access.

Stable and reliable

- CCC, CE, FCC, RoHS.
- The user-friendly panel can show the device status through the LED indicator of PWR and Link.
- Self-developed power supply, high redundancy, providing a long-term and stable power output.
- Low power consumption, with fan, galvanized steel shell, and excellent heat dissipation to ensure the stable operation of the switch.

Easy O&M management

- Support CPU monitoring, memory monitoring, Ping detection, and cable length detection.
- Support HTTPS, SSLV3, SSHV1/V2, and other encryption methods, making management more secure.
- Support RMON, system log, and port traffic statistics to facilitate network optimization and transformation.
- Support LLDP to facilitate the network management system to query and judge the communication status of the link.
- Support Web network management, CLI command line (Console, Telnet), SNMP (V1/V2/V3), Telnet, and other diversified management and maintenance.

Technical Specifications

Model	ZT-IPS24F1G
Interface Characteristics	
Fixed Port	1*Console RS232 port (115200,N,8,1) 24*10/100/1000Base-T RJ45 ports (Data) 2*100/1000Base-X uplink SFP fiber ports (Data)
Ethernet Port	Port 1-24 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 or later UTP (≤100 meters)
Optical Fiber Port	Gigabit optical fiber interface, default no include optical module (optional 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	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 802.3x
Forwarding Mode	Store and Forward (Full Wire Speed)
Switching Capacity	52Gbps (non-blocking)

Forwarding Rate @ 64byte	38.69Mpps
CPU	500MHz
DRAM	1GB
FLASH	256MB
MAC	8K
Buffer Memory	4.1M
Jumbo Frame	10K
LED Indicator	Power: PWR (Yellow), System: SYS(Yellow), Network: Link/Act (Yellow), Fiber port: L/A(Green)
Reset Switch	Yes, one button factory reset
Power Supply	
Total PWR / Input Voltage	20W/ (AC100-240V)
Power Consumption	Standby<15W, Full load<20W
Power Supply	Built-in power supply, AC100~240V 50-60Hz, 1.0A
Physical Parameter	
Operation Temp / Humidity	-20~+55°C, 5%~90% RH Non condensing
Storage Temp / Humidity	-40~+75°C, 5%~95% RH Non condensing

Dimensions (L x W x H)	440*225*44mm
Net / Gross Weight	2.1kg/ 2.8kg
Installation	Desktop, Wall mount, 1U/19" cabinet
Certification and Warranty	
Lightning Protection	Lightning protection: 4KV 8/20us, Protection level: IP30
Certifications	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS
Warranty	5 Years
Network Management Feature	
Interface	IEEE 802.3x flow control (Full duplex) Port real-time flow management (Flow Interval) Broadcast storm suppression based on port rate Limit the rate of incoming and outgoing packet traffic, mini granularity is 16Kbps and max 1Gbps
L3 Features	IPV4 static route/ default route, max 128 entries L2+ network management function, ARP protocol, max 1024 entries
VLAN	4K VLAN based on port, VLAN based on the protocol IEEE802.1q, Port configuration of Access, Trunk, Hybrid
Port Aggregation	LACP dynamic aggregation, Static aggregation Max 13 aggregation groups and maximum 8 ports per group
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)

Multicast	Multicast VLAN, Fast log out IGMP Snooping v1/v2, Max 1024 multicast groups
Port Mirroring	Bidirectional data mirroring based on port
QoS	Queue Scheduling Algorithm (SP, WRR, SP+WRR) Flow-based Rate Limiting, Stream based redirection Flow-based Packet Filtering, 8*Output queues of each port 802.1p/DSCP priority mapping, Diff-Serv QoS, Priority Mark/ Remark
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	Port based IEEE 802.1X authentication SSL guarantees data transmission security Quad binding function of IP+MAC+VLAN+ports Port isolation, ARP message speed limit function MAC address learning limit, MAC address black hole Anti DoS attack, Port broadcast message suppression Hierarchical user management and password protection AAA& RADIUS certification, IP source address protection SSH 2.0 provides a secure encrypted channel for user login Host data backup mechanism, ARP intrusion detection function
DHCP	DHCP Client, DHCP Snooping, DHCP Server
Management	Web network management CPU real-time utilization status check Link Layer Discovery Protocol (LLDP) NTP clock, SNMP V1/V2/V3, One-click restore NMS platform cluster management (LLDP+SNMP) FTP, TFTP file upload and download management System work log, Cable status check, Ping detection Console/ Telnet/ SSH2.0, CLI command line configuration

System	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



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