

S3410-24TS-P PoE+ Switch

POE+ SWITCH WITH FAST HARDWARE PROCESSING FOR BUSINESS

Model: S3410-24TS-P



Overview

S3410-24TS-P switch is next-generation strong-security, high-performance and energy-efficiency gigabit Ethernet switch newly released by FS. It can provide full Gigabit access 10 Gigabit uplink data interaction capabilities. With the advanced hardware architecture and FS latest modular OS, the S3410-24TS-P switch is capable of providing faster hardware processing and better operation experience. It can fully meet users' requirements for high-density access and high-performance convergence.

Benefits

- Layer 2+ Switch
- BCM56150 Switch Chip
- 1+1 Redundant Power Supply
- Support up to 4 Units Stacking
- Green Energy Efficiency
- Simple and Easy Network Maintenance

Product Characteristics

Comprehensive Protection Policies

Support multiple anti-ARP spoofing modes. Whether users automatically retrieve address via the DHCP server or use a fixed IP address, the switch can still record the true user IP and MAC addresses.

Support proactively defend against different kinds of DDOS attacks. Open networks are susceptible to viruses. Network devices and servers are also vulnerable under attacks by malicious network users. Commonly found problems are: ARP flooding causing response failure in gateway; ICMP flooding overloading the network CPU; and DHCP flooding attacks resulting in deficiency in DHCP server address and failure to obtain user IP address for normal network access.

Offer industry-leading CPU Protection Policy (CPP). The CPP technology diverges traffic to CPU into different packet flows and organizes them based on priority. Bandwidth speed control can also be implemented.

Support Network Foundation Protection Policy (NFPP) readily available in the S3410-24TS-P switch. The NFPP technology can limit the number of packets that users issue (including ARP, ICMP, DHCP packets). It can discard any packet that exceeds the limit threshold and even isolate malicious attacks for absolute network availability.

Support DHCP snooping, allowing DHCP response only from the trusted ports to prevent DHCP server spoofing. Based on the DHCP protection feature, the switch can dynamically monitor ARP and check user's IP address. Packets inconsistent with the binding table will be labeled as rogue and hence discarded. The feature prevents attacks such as ARP spoofing and user source IP address spoofing.

Advanced Virtualization Technology

S3410-24TS-P switch supports stacking, in which multiple physical devices are connected through aggregate links and virtualized into one logical device. The devices use the same IP address, telnet process, command line interface (CLI) for management, and support automatic version check and automatic configuration.

Easy management: Administrators can centrally manage all the devices at the same time.

Simplified topology: The stacking is regarded as one switch in the network. By connection of aggregation link and peripheral network devices, MSTP protocol is unnecessary as there is no Layer 2 loop network. All protocols operate as one switch.

Millisecond failover: The stacking and peripheral devices connected via the aggregation link. Upon failure event of any device or link, failover to another member link requires only 50 to 200ms.

Exceptional scalability: The network is hot-swappable, any devices leaving or joining the virtualized network cause zero impact on other devices.

Investment protection: The stacking is connected to the peripheral devices via an aggregation link, achieving link redundancy as well as load balancing. Such deployment fully utilizes all the network devices and bandwidth resources. A stacking virtualized network system can be easily constructed by using any 10GE ports and any types of cables.

Carrier-class Reliability

The 802.1d, 802.1w and 802.1s Spanning Tree Protocols guarantee fast convergence and improves fault tolerance. These also maintain stable network operation and link load balancing. The feature ensures optimal network channel usage and improves redundant link utilization.

Virtual Router Redundancy Protocol (VRRP) and Rogue Location Discovery Protocol (RLDP) are also available for network stability. These technologies quickly detect link interruption and fiber link unidirectionality. It also prevents loop failure caused by connecting a hub or other devices to the port.

Ethernet Ring Protection Switching (ERPS) (G.8032) implements loop blocking and link recovery on the master device. Other devices directly report link status to the master device. Without passing through other standby devices, the failover time of loop interruption and recovery is hence faster than STP.

With STP disabled, the basic link redundancy can still be maintained via Rapid Ethernet Uplink Protection Protocol (REUP). It enables even faster millisecond failover protection than that of the STP.

Software-defined Networking (SDN)

Support OpenFlow 1.3. It can fully collaborate with SDN controller to form a large-scale Layer 2 framework with ease. The feature ensures a smooth upgrade to SDN network.

Energy Efficiency

Offer a total solution for noise and energy consumption problems, providing a more quiet work environment and resolving heavy energy use caused by the deployment of a large number of devices.

Adopt next-gen hardware architecture with an advanced energy-saving circuit design and component selection, offering an overall energy deduction of 40%+ for maximized cost savings. Axial flow fans supporting speed adjustment. The fans enable intelligent temperature control based on current ambient temperature. Offer auto, energy-saving and static modes to deal with various deployment challenges.

Support auto-power-down mode. When an interface is down for a certain period of time, the system will automatically power down that interface for extra energy efficiency. The switch also supports an EEE energy saving function. The system will automatically turn an idle port into energy-saving mode. The system will regularly issue listening streams to the port. It will resume service upon receiving a new packet.

Complies with RoHS standards adopted by the European Union on restricting the use of hazardous materials in the manufacture process. The switch also fulfills SJ/T 11363/11364/11365 standards.

Simple and Easy Network Maintenance

The S3410-24TS-P switch supports varieties of features such as SNMP V1/V2/V3, RMON, Syslog, SFLOW, and logs and configuration backup via USB for routine diagnosis and maintenance. The switch console port can be managed via Telnet/SSHv2, HTTP or HTTPS. Administrators can use a wide variety of methods for easier management and such include CLI, web management, Telnet, CWMP(TR069) zero configuration and so on.

Technical Specification

S3410-24TS-P PoE switch comes with the industry-standard hardware and FSOS. Here's a look at the details.

CHARACTERISTICS

S3410-24TS-P

Ports

10/100/1000BASE-T RJ45 24

1G RJ45/SFP Combo 2

10G SFP+ 2

Operating System

OS FSOS

Key Components

Switch Chip BCM56150

CPU ARM A9 Single-core CPU, 1GHz

Performance

Layer Type Layer 2+

Switching Capacity 88 Gbps

Forwarding Rate 66 Mpps

Jumbo Frame 9216

MAC Address 16K

Number of VLANs 4K

SDRAM 512MB

Flash Memory 512MB

CHARACTERISTICS

	S3410-24TS-P
Packet Buffer	1.5MB
Switch Method	Storage and forward
Key Components	
Stackability	Up to 4 Units
Ipv4 Routing Table	500
Ipv6 Routing Table	500
ARP Table	1000
MTBF (Hours)	>200,000
Authentication Methods	802.1X, AAA
Status Indicators	Status, M1, M2, POE, PWR1, PWR2
Remote Management Protocol	SNMP V1/V2/V3, RMON, Syslog, SFLOW
Power	
Max. Power Consumption (Single-power)	440W
Max. Power Consumption (Dual-power)	880W
Power Budget (Dual-power)	740W
Power Budget (Single-power)	370W
Input Voltage (AC)	100-240VAC, 50-60Hz;
Input Voltage (DC)	-36~ -72VDC, 50-60Hz;
PoE Standard	IEEE 802.3af, IEEE 802.3at
Lightning Protection	4KV(Common-mode); 2KV(Differential-mode)

CHARACTERISTICS

S3410-24TS-P

Physical and Environmental

Dimensions (HxWxD) 1.73"x17.32"x12.59" (44x440x320mm)

Rack Space 1U

Fan Number 2

Acoustic Noise <78dB

Airflow Left-to-Right

Weight 12.79 lbs (5.8kg)

Operating Temperature 32°F to 122°F (0°C to 50°C)

Storage Temperature -40°F to 158°F (-40°C to 70°C)

Operating Humidity 10% to 90% (Non-condensing)

Storage Humidity 5% to 95% (Non-condensing)

Warranty

Warranty 5 Years

FEATURES

Functionality	Description
802.1Q VLAN	4K 802.1Q VLAN Port-based VLAN MAC-based VLAN Protocol-based VLAN Private VLAN Voice VLAN IP subnet-based VLAN GVRP
QinQ	Basic QinQ Flexible QinQ
ACL	Standard IP ACL, Extended IP ACL, Extended MAC ACL, Expert ACL, ACL80, IPv6 ACL, ACL Logging, ACL Counter, ACL Remark, Global ACL, ACL Redirect
QoS	Port traffic identification Port traffic rate limiting 802.1p/DSCP/ToS traffic classification Eight priority queues per port SP, WRR, DRR, SP+WRR, SP+DRR, RED/WRED queue scheduling mechanisms
Mirror	Flow-based local and remote mirroring One-to-one mirroring, many-to-one port mirroring and one-to-many port mirroring RSPAN, ERSPAN
DHCP	DHCP Server DHCP Client DHCP Snooping DHCP Relay IPv6 DHCP Snooping IPv6 DHCP Client IPv6 DHCP Relay
Security	Binding of the IPv6 and MAC address; Port-based and MAC-based 802.1x; MAB; Portal and Portal 2.0 authentication; ARP-check; DAI; Gateway anti-ARP spoofing; Hierarchical management by administrators and password protection; RADIUS and TACACS+; SSH V1.5 and SSH V2.0; IP source guard; CPP, NFPP; Port protection

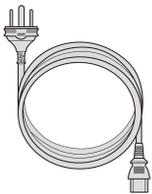
FEATURES

Functionality	Description
Cable Detection	Support
Reliability	GR for OSFP
EEE	Support IEEE 802.3az standard
ERPS	Support G.8032 international standard ERPS, switch time ≤ 50 ms, can be compatible with devices support ERPS
Port Sleeping	Support
PoE	IEEE 802.3af and 802.3at Auto supply, energy-saving, static PoE management Consistent power supply by hot startup Regular power on/off settings based on time Port priority Stacking
IP Routing	IPv4/IPv6 Static routing RIP, RIPng, OSPFv2 , OSPFv3 Routing Policy
Basic IPv6 Protocols	IPv6 addressing, Neighbor Discovery (ND), IPv6 ACL, ICMPv6, IPv6 Ping, IPv6 Tracert
Stacking	Stacking technology Local stacking and remote stacking Support link binding of stacking intercrates Support virtualization through standard service ports

FEATURES

Functionality	Description
Minimalist web	Support the construction of a large two-layer network with core equipment, and realize network resource pooling through virtualization technologies such as stacking. Only core equipment management is needed, thereby simplifying the management and maintenance of horizontal and vertical networks
Zero Configuration	Support CWMP(TR069) protocol
Management	SNMP, CLI(Telnet/Console), RMON, SSH, Syslog/Debug, NTP/SNTP, FTP, TFTP, Web, sFLOW

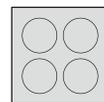
Accessories



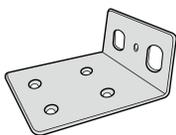
Power Cord x2



Grounding Cable x1



Rubber Pad x4



Mounting Bracket x2



M4 Screw x8



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