

Industrial Switch

USR-ISGX424-SFP



Introduction

USR-ISGX424-SFP switch is a 10G three-layer switch launched by our company. It is equipped with 4 10G SFP+ optical ports and 24 10/100/1000M Base-T adaptive electrical ports. It has advanced hardware processing capabilities and The richest business features. It supports IPv4/IPv6 hardware dual stack and line-speed forwarding, allowing customers to calmly cope with the upcoming IPv6 era. It provides high-capacity switching capabilities. USR-ISGX424-SFPThe switch has an operating temperature of -40°C to 85°C, and has super robustness to adapt to various harsh environments. Guide rail installation features and wide temperature operation make USR-ISGX424-SFP the switch becomes a plug-and-play industrial-grade device, providing a reliable and convenient solution for users' Ethernet device networking.

Product Features

- **Rich port types, flexible port expansion**

The USR-ISGX424-SFP switch supports a variety of ports and can meet the different networking needs of large-scale network aggregation or small and medium-sized network cores.

- **Powerful processing power**

The USR-ISGX424-SFP switch is based on the powerful and stable processing capabilities of VCore-III MIPS-based CPU;

- **Complete security control strategy**

Supports port-based user IP+MAC address authentication and port-based 802.1X authentication;

Supports ACL functions based on Layer 3 and Layer 4 to effectively defend against ARP attacks and viruses;

Supports complete storm control functions, which can suppress broadcast, multicast, and unicast storms.

Supports unique ARP intrusion detection function, which can effectively prevent hackers or attackers from carrying out increasingly popular "ARP spoofing attacks" through ARP messages;

Supports the IP Source Guard feature to prevent illegal address spoofing including MAC spoofing, IP spoofing, MAC/IP spoofing, and DoS attacks caused by high-traffic address spoofing.

Provides DHCP Snooping (listening) function. By establishing and maintaining DHCP Snooping binding table, it can listen to the MAC address, IP address, lease period and other information of access users, solving the problem of IP and port tracking and positioning of DHCP users.

- **Complete reliability protection mechanism and convenient management and maintenance**

The USR-ISGX424-SFP switch uses the CPU protection policy to classify and limit the flow rate of packets sent to the CPU to avoid illegal attack packets from attacking the CPU and consuming resources;

Supports multiple spanning tree protocols such as STP, RSTP, MSTP, etc., quickly converges, improves fault tolerance, ensures stable network operation and link load balancing, rationally uses network channels, and improves redundant link utilization;

Supports industrial-grade Ethernet ring network protocol ERPS, providing millisecond-level fast service switching performance to ensure uninterrupted services. Moreover, the protocol is simple and reliable, has high switching performance, is easy to maintain, and has flexible topology, which can greatly facilitate users to manage and plan the network;

It uses industrial-grade components, has lightning protection, over-voltage protection, surge protection design, and dual power input to ensure the normal operation of the network in adverse natural weather and unstable voltage environments.

Through a simple visual WEB interface (supports http and https protocols), various functions of the switch can be operated simply and conveniently;

Supports SNMP V1/V2/V3 network management to configure and manage devices;

Supports command line configuration (CLI) and management through Telnet and Console port;

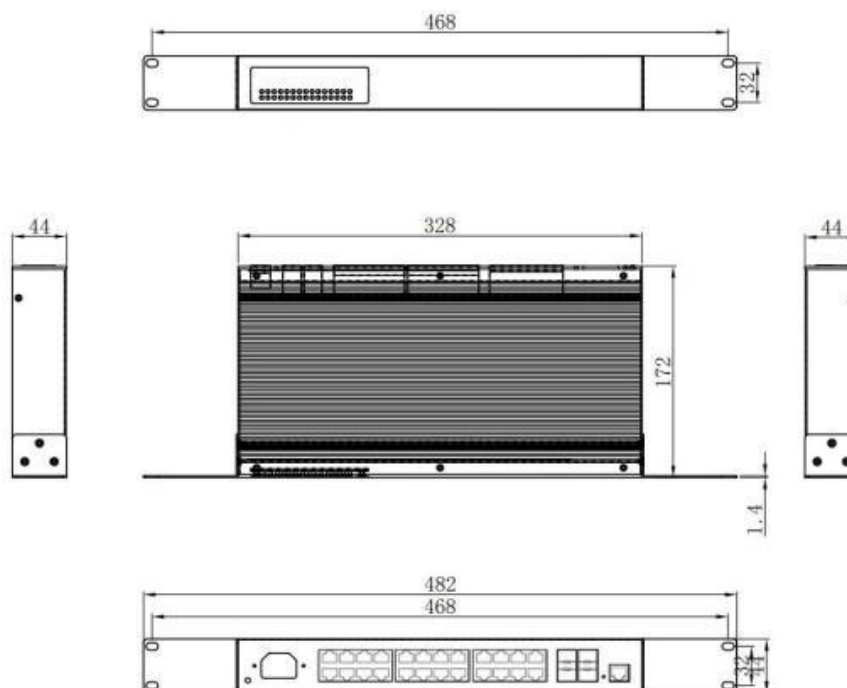
Supports encryption methods such as SSH2.0, making management more secure;

Supports LLDP protocol, making network management simpler;

Supports NTP clock protocol and can automatically synchronize network time;

Dimensions

Unit: mm



Specifications

Switch Property	
Backplane bandwidth	1.2T
Transmission mode	Store and forward
Transmission rate	406Mpps
MAC address	32K. supports automatic update and two-way learning
Packet Buffer Size	32Mbits
Software feature	
Security	The hardware supports IP ACL, MAC ACL, Vlan ACL, and supports ACL functions based on layer 3 and layer 4; Hardware supports port-based IP+MAC binding; Support IP Source Guard; Support ARP Detection function; Support IEEE 802.1x port authentication; Support Radius authentication;
VLAN	Supports a maximum of 4096 VLANs; Supports 802.1Q standard VLAN; Support QinQ Support Voice VLAN, MAC VLAN, IP VLAN;
Port Aggregation	Support static aggregation and dynamic aggregation
Industrial Ring Network Protocol	Support industrial-grade ring network protocol ERPS
Multicast	Support IGMP Snooping; Support MLD Snooping (Multicast Listener Discovery Snooping);
Spanning Tree	Support STP spanning tree protocol; Support RSTP Rapid Spanning Tree Protocol; Support MSTP multiple spanning tree protocol;

Port Mirroring	Supports many-to-one port mirroring, with no limit on the number of mirroring source ports
QoS	SP (Strict Priority), strict priority rotation algorithm; WFQ (Weighted Fair Queuing) weighted fair queuing; WRR (Weighted Round Robin), weighted priority rotation algorithm; Random Early Detect (RED), random early detection algorithm; WeightedRandomEarlyDetection (WRED), a weighted random early detection algorithm; Head Of Line, congestion prevention mechanism; Best-Effort Service, try your best to serve; First come first served, first come first served algorithm; 802.1p port queue priority algorithm; Cos/Tos, QOS mark;
Storm Suppression	Supports suppression of broadcast, multicast, unicast, etc.
IP routing	Supports port-based input/output bandwidth management Support static routing; Support dynamic routing RIP, RIPvng, OSPF, OSPFv3; Support VRRP (Virtual Router Redundancy Protocol)
DHCP	Support DHCP Client; Support DHCP Server; Support DHCP Snooping; Support DHCP Relay;
System maintenance	Support configuration file upload/download; Support upgrade package upload; Support WEB restore to factory configuration; Support system log function; Supports Ping detection, tracert detection, and network cable detection; Support WEB interface management (support http and https protocols); Support CLI interface management; support Telnet remote management; Support SSH 2.0; Support SNMP network management; Support RMON; Support LLDP;
Ethernet Ports	
Interface	4x10Gigabit SFP slot(compatible with 1000M/2500M/10000M) 24x10/100/1000M RJ45 port 1x Console port
Feature	For RJ45 port: auto MDI/MDIX, auto negotiation, Full/Half duplex mode
Standards	IEEE 802.3ad, link aggregation protocols IEEE802.3 10BASE-T; IEEE802.3i 10Base-T; IEEE802.3u;100Base-TX/FX; IEEE802.3ab 1000Base-T; IEEE802.3z 1000Base-X; IEEE 802.3ae,10G IEEE 802.3x, Full duplex Ethernet data link Laminar flow control IEEE 802.3az,EEE high efficient ethernet
Power Supply	
Connetor	--
Input voltage	AC 110~240V, redundant power supply

Power consumption	<30W
Overload Current Protection	Built-in over-current 4.0A protection
Anti-reverse connection protection	--
Physical Characteristic	
Installation	
Housing	Mental housing, IP40 protection
Dimension	328x172x44mm
Heat dissipation	Fanless
Weight	3KG
Environmental Limit	
Operating temperature	-40~85°C (-40~185°F)
Storage temperature	-40~85°C (-40~185°F)
Relative humidity	10% ~ 90% (no condensation)
MTBF	300,000 hours
Warranty	3 years
Industrial Standard	FCC CFR47 Part 15, EN55032, Class A IEC61000-4-2 (ESD): ±8kV (contact), ±12kV (air) IEC61000-4-3 (RS): 10V/m (80~1000MHz) IEC61000-4-4 (EFT): Power Port: ±4kV; Data Port: ±2kV IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data Port: ±2kV IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz) IEC61000-4-16 (Common mode conduction): 30V (cont.), 300V (1s)

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