FU SWAI 3024M2+2SFP

Layer2 Manage PoE Switch

Layer 2 OSI Model, IEEE802.3af/at (Power Over Ethernet)
Signal light indicates all network connection
AI Smart POE Switch, 24* 100Mbps RJ45 port,
2* 1000Mbps Combo port(POE is available).
Support the management of Apollo cloud.
5 working modes:
Standard switching mode: All ports communicate freely;
AI VLAN: Avoid the internet storm and enhance the network ability;
AI Extend: Extend 250M transmission;
AI PoE: Automatic self checking, reboot the device while find it fake dead;
AI QoS, Video data first, more fluent transmission.

A new generation of high-performance hardware and software platforms that provide flexible, cost-effective Gigabit access and uplink ports. Supports complete security protection mechanisms, comprehensive ACL/QoS policies, and various VLAN functions. It is easy to manage and maintain, and meets the user's needs for easy management, high security and low cost for network devices, applicable for network access, aggregation and core application scenarios in campus, hotel and enterprise areas.Support OC Linux Kernel version 3.18 in web site.Support the Web management of Apollo cloud.Support the management of Apollo cloud.

• 24 100Mbps RJ45 ports
• 2 Gigabit combo ports,1 console port (support PoE power supply)
• Supports 5 working modes: standard switching, AI VLAN, AI Extend ,AI PoE,AI QoS mode.
• Support port management, PoE management, link aggregation, spanning tree,loop protection, multicast,and attack defense
• Support HI PoE,IEEE802.3af/at, Max.46W output power single port
• Total power:250W

Support APOLLO visual cloud management operation and maintenance-"139" mode
· 1: The equipment is centralized on one platform, namely the APOLLO platform, which manages operations and maintenance in a unified manner.
· 3: The device can be managed, operated, and maintained in three ways: mobile, PC, and local.
· 9: APOLLO platform can realize 9 core technical service sections——cloud topology, resource visualization, risk early warning, prevention before they occur, AI blessing intelligent scheduling, business analysis and decision-making support, real-world map, fast fault location, cloud Operation and maintenance, configuration, upgrade batch processing, multi-user, multi-dimensional authority, hierarchical management and control, open interfaces, and customer service import.

Intelligent control
· Standard switching mode: All ports communicate freely, suitable for ordinary data transmission environment.
· AI VLAN mode: Separating 1-24 ports from each other, can effectively restrain network storm and improve network performance.
· AI Extend mode: Designed for monitoring application scenarios, 1-8 ports support 250 meters long distance power supply.
· AI PoE：Automatic self checking, reboot the device while find it fake dead
· AI QoS：Video data first, more fluent transmission
· Intelligent PoE management：Custom port PoE output power, custom PD working time, custom port priority.
· Hardware watchdog：Monitor the working status of the equipment and find abnormal quick restart.
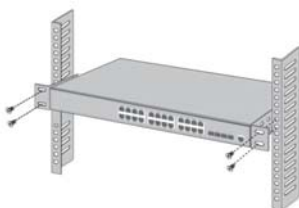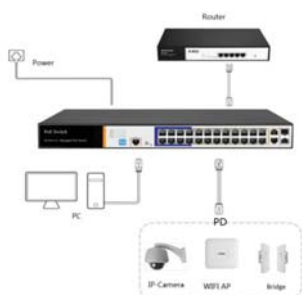
Powerful multi-service processing capabilities

· Supports IEEE 802.1Q VLANs, MAC VLANs, IP VLANs, and voice VLANs. You can flexibly assign VLANs according to different requirements.
· Supports GVRP to implement dynamic VLAN distribution, registration, and attribute propagation. This reduces manual configuration and ensures correct configuration.
· Supports the VLAN VPN function. The public network access device encapsulates the outer VLAN tag for the private network packets of the user, so that the packets carry two VLAN tags across the public network.
· Support QoS, support port-based, 802.1P-based and DSCP-based three priority modes and WFQ, SP, WRR, SP+WRR four queue scheduling algorithms.
· Supports ACLs by configuring matching rules, processing operations, and time permissions to filter packets and provide flexible security access control policies.
· Supports IGMP V1/V2 multicast protocol and supports IGMP Snooping to meet the requirements of multi-terminal HD video surveillance and video conference access.
· Supports PoE management POE power limitation, POE chip status check, setting PoE port priority, and custom PoE power supply time period.
· Support hardware watchdog, the device has a suspended animation state and automatically restarts to resume normal working state.
· Support IPV6 Ping, IPv6 Tracert, IPv6 Telnet IPV6 SSH IPv6 SSL.

Complete security protection mechanism

· Supports IP address, MAC address, and port ternary binding to filter packets.
· Supports ARP protection, and protects against ARP spoofing and ARP flood attacks, such as gateway spoofing and man-in-the-middle attacks.
· Support IP source protection to prevent illegal address spoofing including MAC spoofing, IP spoofing, and MAC/IP spoofing.

· Supports DoS protection and supports attacks such as Land Attack, Scan SYNFIN, Xmascan, and Ping Flooding.

· Supports 802.1X authentication, provides authentication functions for LAN computers, and controls the authorization status of controlled ports based on the authentication results.

· Supports port security. When the port learns the maximum number of MAC addresses, it stops learning to prevent MAC address attacks and control port network traffic.

· Support DHCP Snooping to effectively prevent private DHCP servers and ensure the legality of the DHCP server.

Various reliability protection

· Support loop protection, automatically detect switch loop status, and block loop ports.
· Supports the STP/RSTP/MSTP spanning tree protocol to eliminate Layer 2 loops and implement link backup.

· Supports spanning tree security to prevent devices in the spanning tree network from being subjected to various forms of malicious attacks.

· Supports static aggregation and dynamic aggregation, which effectively increases link bandwidth, implements load balancing, link backup, and improves link reliability.

Easy operation and maintenance

· Supports various management and maintenance methods such as Web network management, CLI command line (Console, Telnet), and SNMP (V1/V2/V3).
· Supports encryption methods such as HTTPS, SSL V3, and SSHV1/V2 for more secure management.
· Support RMON, system log, and port traffic statistics for network optimization and transformation.
· Supports cable detection, ping detection, and Tracert detection operations to easily analyze failed network nodes.
· Support LLDP to facilitate the network management system to query and judge the communication status of the link.
· Supports CPU monitoring, memory monitoring, ping detection, Tracert detection, and cable detection.

Software specification

Network protocol standard	IEEE 802.3i IEEE 802.3u IEEE 802.3x
	IEEE 802.3abIEEE 802.3afIEEE 802.3at
Network Port	24 10/100Mbps RJ45 port
	2 10/100/1000Mbps RJ45 port
	2 Gigabit SFP port
	1 Console port
PoE	24 10/100Mbps RJ45 port support PoE
	Max 250W
	Single port max 46W
LED	26 Link/Act LED
	24 POE LED
	1 System LED
	1 Power LED
Performance	Forwarding mode: store and forward
	Switching Capacity ： 30Gbps
	8K MAC address table
Lightning protection	6KV
Input	100-240V/50-60Hz
Environment	Operating Temperature ： 0°~40°C
	Operating Humidity ： 10%~90%， Non-condensing
safety regulations	CE/ROHS/FCC/CCC
Dimension （L×W×H）	440mm×180mm×44mm

Hardware specification

Shortcut function	One key VLAN
	One key CCTV(1-8 port 250meters PoE distance)
	One key AI power supply
DHCP	Support DHCP Snooping
VLAN	Support 4K VLAN
	Support 802.1Q VLAN、 Port VLAN、 Voice VLAN
PoE	Support setting the PoE port priority
	Support setting PoE power supply period
	Support setting port power
MAC address table	Comply the IEEE 802.1d standard
	Support MAC address learning and aging automatically
	Support static, dynamic, filter address table
Safety	Based on user rating management and password protection
	Support based on the port number, IP address, MAC address restrictions on user access
	Icmp-echo、 DoS protection
	Support DHCP Snooping、 DHCP attack protection
	Support port security, port isolation
Access control (ACL)	Support L2(Layer 2)～L4(Layer 4) packet filtering function
	Support port mirroring, port redirection, flow rate limit, QoS re-marking

Multicast	Support IGMP v1/v2 Snooping
	Support static multicast
	Support multicast VLAN
QoS	Support 8 port queue
	Support port priority, 802.1p priority, DSCP priority
	Support SP RR WRR WFQ Priority scheduling algorithm
Spanning Tree	Support STP(IEEE 802.1d), RSTP(IEEE 802.1w) and MSTP(IEEE 802.1s) protocol
	Support loop protection, BPDU protection
Management and maintenance	Support WEB management（HTTP）
	Support CLI （Telnet、 local serial port）
	Support SNMP V1/V2/V3, Compatible with public MIBS
	Support LLDP、 RMON
	Support IP Source protection、 DoS protection
	Support CPU monitor、 memory monitoring
	Support system log
	Support cable testing
Multicast	Support IGMP v1/v2 Snooping
	Support static multicast
	Support multicast VLAN
	Support multicast filtering, message statistics, unknown multicast discarding
Storm suppression	Support for multicast suppression
	Support broadcast suppression
	Support for unknown unicast suppression
Link aggregation	Support static aggregation
	Support dynamic aggregation
	Support IP, MAC, hybrid load balancing mode
	Supports up to 32 aggregation groups
IPv6	Support IPv6 Ping, IPv6 Tracert, IPv6, Telnet
	Support IPv6 SSH, IPv6 SSL
Management and maintenance	Support WEB management （HTTP,HTTPS, SSL V3）
	Support CLI （Telnet, SSH V1/V2, local serial port)
	Support SNMP V1/V2/V3
	Support LLDP, RMON
	Support SNMP
	Support ARP Protection, IP Source protection, DoS protection
	Support CPU monitor, memory monitoring
	Support system log
	Support Ping, Tracert detect cable Testing