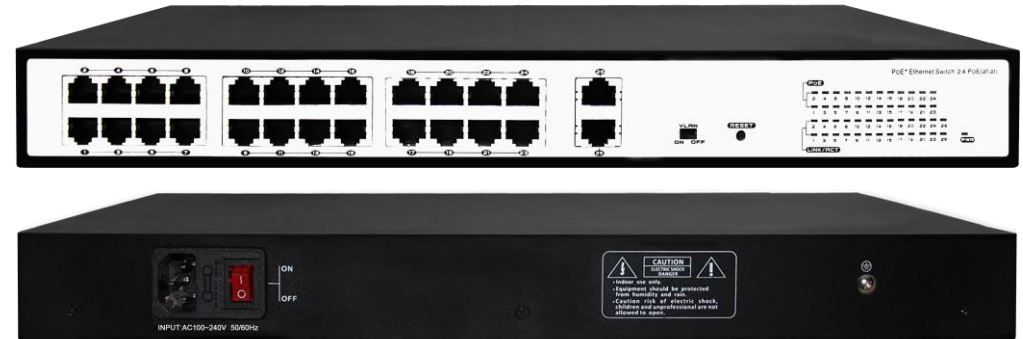


Model: FS-S1024EP-2G(420W)

Features

24-Port 10/100Mbps IEEE 802.3af/at PoE Switch (End-Span PSE)

- Comply with IEEE802.3, IEEE802.3u, IEEE802.3af/at standards
- Support IEEE802.3x full-duplex flow control; support Auto MDI/MDIX
- Provide 15.4W or 30W power to powered devices
- 420watts PoE budget
- Built-in 420W power supply
- Gigabit uplink port: 2 *10/100/1000Mbps RJ-45 port
- PoE data & power transmission distance up to 100meters
- Port based VLAN for Enhancing Security
- Transmission distance max up to 250 meters when VLAN is enabled
- Backplane Bandwidth: 8.8Gbps
- Restart function helps master IC reset wholly
- Excellent anti-thunder, anti-static and anti-interference ability
- Surge Protection: 2KV
- Easy and convenient to use, plug & play, no need to configure
- Galvanized housing for stable and durable working life



Overview

The FS-S1024EP-2G provides 24 port 10/100Mbps IEEE 802.3af/at Power over Ethernet with a total of 420 watts of PoE budget, which is an ideal solution to fulfill the demand of sufficient PoE power for network applications.

The FS-S1024EP-2G is an ideal solution for securing IP surveillance infrastructure. It provides both 802.3af/at PoE functions along with 24x10/100Base-TX ports featuring 15.4-watt-802.3af/30-watt 802.3at PoE in RJ-45 interfaces and extra 2 x 10/100/1000Mbps UPLINK RJ-45 Ports to keep a cascade connection with another switch or NVR. For instance, one FS-S1024EP-2G can be combined with one 24 Channel NVR and 24 PoE IP cameras as a kit for the administrators to centrally and efficiently manage the surveillance system in the local LAN and the remote site via Internet.

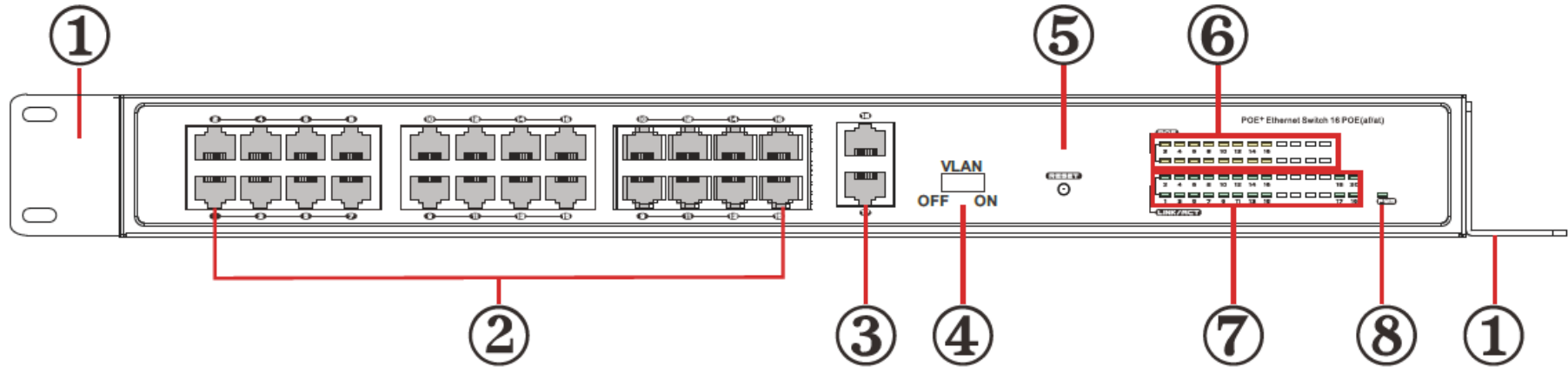
The FS-S1024EP-2G RJ-45 interfaces support 10/100Mbps Auto-Negotiation at downlink port from 1 to 24 and uplink port from 1 to 2 for optimal speed detection through RJ-45 Category 6, 5e or 5 cables. It also supports standard Auto-MDI/MDI-X that can detect the type of connection to any Ethernet device without requiring special straight or crossover cables.

The FS-S1024EP-2G supports port-based VLAN function, which effectively prevent the whole system from internet broadcast storm to make the data transfer much safer. When the VLAN mode is enabled, the data cannot be forwarded among DOWNLINK RJ-45 ports, but DOWNLINK ports and UPLINK RJ-45 port can communicate with each other. The bandwidth of DOWNLINK RJ-45 port is forced to 10Mbps mode to adapt to long distance transmission of max 250meters. The bandwidth of UPLINK RJ-45 port is still 100Mbps.

With data and power over Ethernet formed one unit, the FS-S1024EP-2G reduces cabling requirements and eliminates the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. A wire that carries both data and power can lower the installation costs, simplify the installation effort and eliminate the need for electricians or extension cords. Providing 24 PoE interfaces, the FS-S1024EP-2G is ideal for small businesses and work-groups requiring deploying the PoE for the wireless access points, IP-based surveillance IP phones in any place easily, efficiently and cost-effectively.

Front & Rear Panel

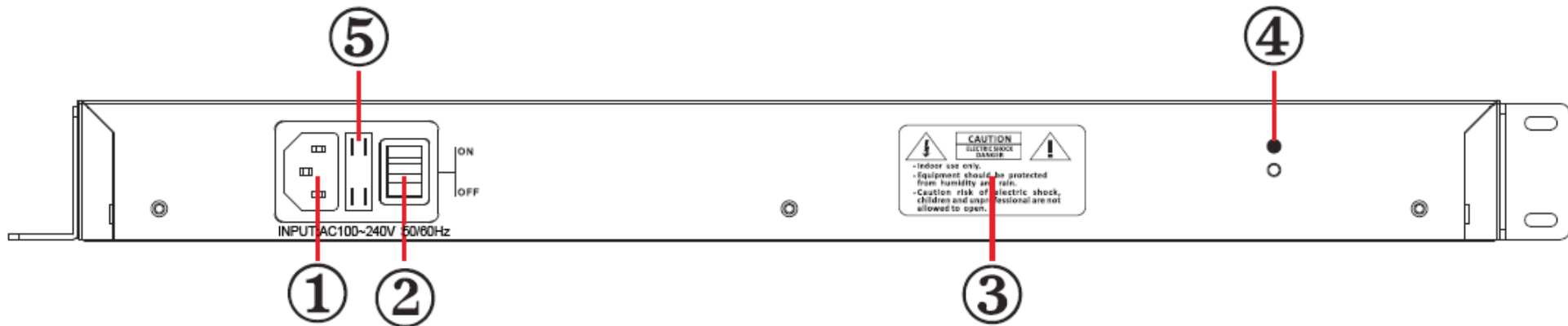
Front Panel



- ① Rack-mounting ears: Cabinets for product installation or Wall installation
- ② Downlink Port: Transfer data from other IP devices to the switch
- ③ Gigabit Uplink RJ-45 port: Transfer data from PoE ports to other devices (NVR/Switch/ADSL)
- ④ VLAN Button: Turn on VLAN button: indicator on and VLAN function starts
Turn off VLAN button: indicator off and VLAN function stops
- ⑤ Reset Button: Whole machine will restart while press the button
- ⑥ PoE Indicator: Yellow Light on: when device is powered
Light off: when device is not detected or powered
- ⑦ Link/ Act Indicator: Green LED on: link up off: link down blinks: data transferring
- ⑧ Power Indicator: Red Light on: with power Light off: no power

Rear Panel

Rear Panel



- ① Input AC 100~240V
- ② Power Switch: Turn on with power, Turn off no power
- ③ Warning contents
- ④ Ground Connection
- ⑤ Fuse: Max 10A

VLAN Introduction

At present, applications of Ethernet switch are very wide. To satisfy the needs of various customers, it is urgent for network services to solve the problems of broadcast domains, bandwidth and security, so a new kind of technology of VLAN emerged.

Each DOWNLINK RJ-45 port and UPLINK RJ-45 port form a separate workstation respectively. In the same VLAN workstation, regardless of which switch they are actually connected to, the communication between them is as if they were on a separate switch. Broadcasts in the same VLAN can only be heard by members of the VLAN, but not in other VLANs, which can control the generation of unwanted broadcast storms. At the same time, if there is no routing, different VLANs cannot communicate with each other, which increases the security of different departments in the enterprise network.

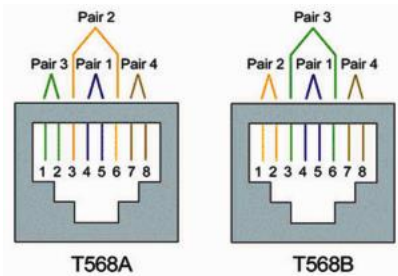
When the VLAN mode is enabled, the data cannot be forwarded among DOWNLINK RJ-45 ports, but DOWNLINK ports and UPLINK RJ-45 port can communicate with each other. The bandwidth of DOWNLINK RJ-45 port is forced to 10Mbps mode to adapt to long distance transmission of max 250meters. The bandwidth of UPLINK RJ-45 port is 100Mbps, which keeps a cascade connection with another switch or NVR.

Note:

1. When you turned on VLAN button, please press reset button or reboot the device, then VLAN mode is enabled.
2. The maximum extended distance up to 250 meters.

The actual extended distance will vary according to the quality of the cable, specific camera and on-site environment.

RJ 45 Define



	1	2	3	4	5	6	7	8
T568A	White Green	Green	White Orange	Blue	White Blue	Orange	White Brown	Brown
T568B	White Orange	Orange	White Green	Blue	White Blue	Green	White Brown	Brown

How to make a network cable

To create a network cable, you will first need the equipment listed below.

1. Cat5e, Cat6, or Cat7 cable
2. RJ-45 connectors
3. Crimping tool
4. Wire stripper or Knife

The wire sequence of RJ45 connector must comply with international standard of EIA/TIA 568A or EIA/TIA 568B.

- 1) We recommend stripping at least half an inch of the cable to expose the inner wires.
- 2) Separate the wires within the cable after the network cable jacket has been removed so that they can be put into the RJ-45 connector.
- 3) The CAT5 twisted-pair cable consists of four twisted wires, each color coded; 8 wires must be correctly lined as the standards of EIA/TIA 568A or EIA/TIA 568B.
- 4) Cut thread residue and leave 1.5cm wire exposed outside the insulating layer and ensure 8 wires are straighten and neat.
- 5) Place the cable into the RJ-45 connector and then use the crimping tool to attach the connector.
- 6) Repeat above steps for the other end of the cable; the wire sequence of both ends of the cable is suggested to be identical.
- 7) Make sure to test the cables before installing them once both ends of the cable have been completed.

Note:

1. All RJ-45 Ports of this device support Auto MDI/MDIX, so the different wire sequence of both ends of the cable is allowed.
2. Up to two units can be cascaded.

Quick Setup Guide

Package Contents

- | | |
|------------------------|-----------------------|
| 1) FS-S1024EP-2G: 1pc | 2) AC power cord: 1pc |
| 3) Screw: 10pcs | 4) Manual: 1pc |
| 5) Mounting-ears: 2pcs | 6) Rubber feet: 4pcs |

Step 1: Begin with all input/output devices turned off and power cables are removed.

Step 2: Connect RJ-45 port of PoE cameras with Downlink RJ-45 port of PoE switches over standard Cat 5e/6 cables.

Step 3: Connect Uplink RJ-45 port of PoE switches with RJ-45 port of NVR or computer or other devices over standard Cat 5e/6 cables.

Step 4: Input AC power cord into power socket of PoE switches.

Step 5: Make sure above connection is properly finished, then turn on the power.

Technical Specifications

Model		FS-S1024EP-2G(420W)
Product Name		24-Port 10/100Mbps IEEE 802.3af/at PoE Switch (End-Span PSE)
Power Supply	Power Supply Mode	Built-in Power Supply
	Voltage Range	AC100~240V
	Power Consumption	The device <10W PoE power supply ≤420W
Network Port Parameter	Network Port	Ethernet Downlink RJ-45 Port: 24*10/100Mbps Gigabit Uplink RJ-45 Port: 2*10/100/1000Mbps
	Transmission Distance	1~24 Ethernet Downlink RJ-45 Port: 100m Mandatory 10 Mbps reach up to 250m Gigabit Uplink RJ-45 Port: 100m
	Transmission Medium	1~24 Ethernet Downlink RJ-45 Port: Cat5e/6 standard cable Gigabit Uplink RJ-45 Port: Cat5e/6 standard cable
	PoE Standards	IEEE802.3af/at
	PoE Power Supply Mode	End-span method
	PoE Power Supply Wattage	Each port ≤30W Whole device≤420W
Network Switch Specification	Network Standards	IEEE802.3, IEEE802.3ab, IEEE802.3ad, IEEE802.3u, IEEE802.3az, IEEE802.3z
	Swap Mode	Store-and- forward
	Data-Caching Mechanism	4M
	MAC Address List	16K
	Backplane Bandwidth	8.8Gbps
	Throughput	6.5472Mpps
Indicator/ Button	Power Indicator	Red LED on: power on
	Uplink Gigabit Port	Green LED on: link up, off: link down, blinks: data transferring
	PoE Indicator	24 PoE indicators (Yellow)
	PoE Network Port Indicator	24 port indicators blink while data transferring
	Reset Button	Press the reset button to turn on indicator (green) and the device restarts
	VLAN Button	Turn on VLAN button: indicator on and VLAN function restarts Turn off VLAN button: indicator off and VLAN function stops
Protection Level	Surge Protection	2KV (common mode),10/700us IEC61000-4-5 500V (differential mode),10/700us IEC610000-4-5
	Electrostatic Protection	Contact Discharge: ±2KV Air Discharge: ±2KV Standard: IEC61000-4-2
Reliability	Mean time between failures (MTBF)	> 50000h
Mechanical	Dimensions (L*W*H)	440mmx292mmx43.6mm
	Housing	Galvanized
	Body Color	Black
	Net Weight	4.25g
Environmental	Operating Temperature	0°C~55°C
	Storage Temperature	-40°C~85°C
	Relative Humidity	0~95% (non-condensing)

Applications

- Security Monitoring System
- Multimedia Network Teaching System
- Medical Monitoring Display System
- Industrial Automation Control System
- Banking, securities, financial information display system
- Remote Network Server Monitoring
- Department Store Security
- Casino Security
- Hospitals, Airports and banks
- School Campuses

Application Diagram

