

Preface

Thank you for choosing our WH series of POE switch!

WH series is a group of POE switch that can be desktop or wall-mounted with very Cost-effective.

This series of products provide 18,26 Ethernet interface (including two Gigabit Ethernet interfaces), each Fast Ethernet electrical interface to support POE power supply function. POE power supply can provide a maximum power of 15.4W for each port, and can manage POE power supply function and monitor the status through the network management software. Through IP networks for remote network management, network management information can be through routers and firewalls. It provide bare machine configuration, the switch is stored with a duplication of data base of the network management server, so it can rebuilt data base of the network management server at any time.

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1. Technical Features

- POE power supply function can manage and monitor status through network management software.
- POE power supply function can manage priority of port power supply to ensure the key equipment can obtain power preferentially.
- It has powerful network management software.
- It uses a special configuration interface which can conveniently and clearly configure.
- It can manage equipment and monitor its status through ethernet.
- Network management information can pass through the router and firewall.
- It uses a large database to perform date query and storage.
- It has powerful database restore function.
- POE power supply function complying with 802.3af standards.

2.functional details

● Hardware features

- 1) The shell is completely made of 1U steel, and it can be installed through bracket or hung on wall
- 2) The equipment is tested for high temperature aging before delivery to ensure steady and reliable operation under harsh environment
- 3) The switch adopts multiple mechanisms internally to effectively resist violent fluctuation of network voltage and lightning stroke
- 4) The operation and maintenance personnel can configure and control the switch and detect its status at any location through the network management software as the
- 5) Ethernet can remotely configure and control the switch and detect its status
- 6) Network management information of the switch can greatly improve security for configuring and controlling the switch, and avoid illegal operation through double encryption
- 7) POE power supply can provide a maximum power of 15.4W for each port, and can manage POE power supply function and monitor the status through the network management software
- 8) POE power supply function for port can be randomly turned on or off as required
- 9) It can manage port power supply priority, namely, when power consumed by PD equipment is larger than total power provided by WH, it preferentially provides

power for the key equipment it obtains priority ranking in accordance with port number, and priority with a smaller port number can be provided with power preferentially

- 10) Power supply priority is grouped into PORT1~PORT12 and PORT13~PORT24 as in the equipment each group can provide a maximum power of 150W the equipment will enable the power supply priority management function when total power provided externally by each group of port is larger than 140W to prevent the equipment from damaging due to overload, and at that time, the equipment will automatically shut down the port with the lowest power supply priority to ensure reliable power supply of the port with higher power supply priority
- 11) For the group of PORT1~PORT12, power supply priority is from PORT1 to PORT12, decreasing from high to low in turn for the group of PORT13~PORT24, power supply priority is from PORT13 to PORT24, decreasing from high to low in turn

Note: please connect the key equipment needs power supply of Ethernet with the port of the equipment with higher power supply priority

It has power control function the equipment will not allow new load when total power of all loads exceeds power normally provided by WH to ensure power of the equipment will not be damaged due to overload, and even there is newly connected load, the equipment will not supply power for it, and the indicating lamp on the panel will slowly flash (lighting for two seconds and extinguishing for one second) to indicate the operation personnel

- 12) It can automatically detect connections of PD equipment and supply power for it
- 13) It can display power flow and power of current port in real time
- 14) Each port has thermal shutdown function to prevent the equipment from damaging due to high temperature

- 15) Each port has over-current protection function to prevent the equipment from damaging due to short-circuit
- 16) Each port has under-voltage/overvoltage protection
- 17) All said functions can be monitored in real time through the network management software to greatly facilitate fault monitoring and maintenance of the equipment
 - Bare machine mode: ordinary switch mode, the equipment only responses to commands of bare machine configuration software
 - Working mode: works in accordance with configuration information the equipment only communicates or responses to the reported network management commands and equipment status only through Uplink
- 18) It can configure port working mode, including: self-adaption switch, rate mode, duplex mode, back pressure switch, input and output bandwidth, MAC address study switch, broadcast storm suppression switch, port and VLAN priority switch, port mirror setting, port suspension, PVID
- 19) It supports VLAN settings of two modes: VLAN based on port and VLAN based on 802.1Q
- 20) It can set reorder queue of priority
- 21) It can use IGMP Snooping
- 22) The equipment supports relay settings of three groups of ports
- 23) It can perform security setting for IP address or TCP/UDP port

- 24) It supports intersecting line/through line self-adaption to facilitate installation of the equipment
- 25) Products of the series can store the newest configuration information, and every time when the equipment is electrified, the used settings shall be the same, and data storage time will not shorter than 10 years
- 26) The switch is stored with a duplication of data base of the network management server, so it can rebuilt data base of the network management server at any time
- 27) It can remotely upgrade network management software of bottom layer through Ethernet to avoid upgrading risk after equipment deployment
- 28) Ethernet to avoid upgrading risk after equipment deployment
- 29) The switch can return to bare machine mode from working mode conveniently, to facilitate redeployment of the equipment

● **Software Features**

Network management software mainly consists of three parts: (server-side and client-side for the daily management and configuration, bare machine configuration software for the switch on-site deployment and configuration)

- server-side software
 - 1) The software and database of all equipment will form a manageable, scalable control, detection systems.
 - 2) It can manage all of the network management equipment

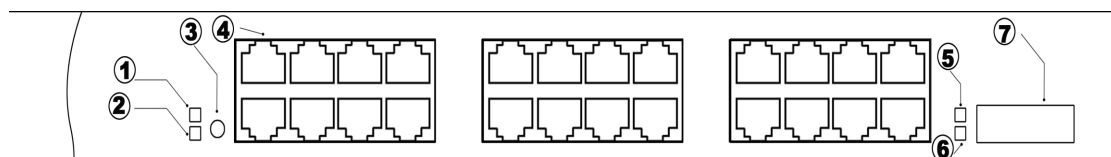
- 3) You can operate the database and equipment by the client software, and it can retain all operating records
 - 4) It can compare the settings in database records with the device settings, to prevent unintended use, or database records does not match the actual settings
 - 5) Database provides software interface, you can plug other programs, such as billing systems, etc
 - 6) Through IP networks for remote network management, network management information can be through routers and firewalls
 - 7) By using layer encryption to enhance the security of network management server, It can avoid illegal attacks and operations, filtering, isolation, preservation unlawful attack packets and alarm, so that operator can analysis and process the attack at first time
 - 8) It can manage the network managers and allocate authority
 - 9) It can automatic register the configured devices (non-bare machine), and also register the device by manual control through the client software. In the same Ethernet LAN network devices can also be bare-machine configuration and initialization.
 - 10) catastrophic accidents (such as the network management server, all the data is lost) can be collected after the device configuration information and re-issued by the database.
 - 11) Database can automatically or manually backup and recovery
- Client -side software

- 1) use of C/S mode, and each client program on the server have a unique registration number to make illegal copies of the client software can not operate the server in order to improve operational safety
- 2) It can view the list of registered devices and equipment the current state at any time.
- 3) It can modify the basic properties of the device, such as:
 - Address categories: equipment, IP address, subnet mask, gateway IP address.
 - Information categories: equipment, location, device name, user ID, Notes.
- 4) It can configure the port functions of device, such as:
 - POE power port management and status monitoring functions: power function of open or closed, the port power priority level management, supply power, over current protection, over voltage \ under voltage, thermal shutdown protection of the state of monitoring.
 - configure port mode: adaptive switches, Speed mode, duplex mode, back-pressure switch, input-output bandwidth, MAC address learning, switching, broadcast storm suppression switch, port and VLAN priority switch, port mirroring settings, port suspended, PVID
- 5) It provide two kinds of models VLAN settings
- 6) It can set the priority weights
- 7) It can use IGMP Snooping
- 8) It supports three-port relay settings

- 9) It can be targeted IP address or TCP/UDP port security settings
 - 10) It can query logs.
 - 11) You can specify the jurisdiction of each network operator.
- bare machine configuration software
- 1) It used for the deployment of equipment to test and device initialization
 - 2) It can automatically detect the device which is not configured in the Ethernet LAN, and configured the basic information and initialize the properties of the device
 - 3) It can record all the configured devices and reported to the server to delete records
 - 4) The device can be configured via network management software to query, control

3.Panel Description

- Front Panel



【Figure 1】 WH-26 Front panel diagram

- ① Power LED(PWR),when the device is working properly, PWR LED constant light
- ② Device Status Indicator (RUN), There are several State:

Continuously bright

Device during startup just power-RUN indicator continuously bright 3-5 seconds, equipment to start out after the completion device software upgrade is successful, RUN indicator Continuously bright 3-5 seconds, and then extinguished If the device is in a bare-machine state, press the RESET button, RUN indicator light will be continuously bright;

Dodges quickly one time(Light 0.5 seconds, off 2 seconds)

When the device receives network management for each data, RUN indicator light will quickly flash once;

Continuous flash (light 0.5 seconds, 0.5 seconds off)

If the device has been configured, you want to bring equipment back to the bare-metal state, hold down the RST button, RUN indicator light will rapidly flash 6 seconds after the RUN indicator light and panel lights are lit all the time, equipment, bare machine restoration success;

Slow flash (light 3 seconds, off 1 second)

When all the load of the total power more than equipment normal load power, the device will not be allowed to increase the load at this time if the connected load equipment will not be on their power, while the indicator light on the panel will slow flash (lit 3 seconds, off 1 second) prompts the operator;

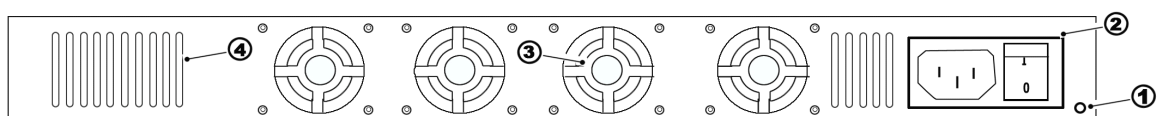
③ Restore factory settings button (RESET)

Used to clear the equipment set up, so that equipment back to the bare-machine state, hold down the RST button for more than 6 seconds, while RUN indicator light

will flash continuously, and then all the lights up once, the equipment is restored to bare-machine state;

- ④ Using standard RJ45 crystal head, each interface has two lights, green lights for the LINK light, when the data passed the light is flashing. Yellow lights for the SPEED light, work in the 100M the lamp is light, work in 10M the lamp is flash slowly (light 1 second, off 1 second).
- ⑤ Optical interface (No. 25) LINK light: when the interface state is LINK the lamp is light, when data are passed the lamp is flashes.
- ⑥ optical interface (No. 26) LINK light: when the interface state is LINK the lamp is light, when data are passed the lamp is flashes.
- ⑦ Gigabit Ethernet optical interface, using a standard SFP interface, SFP optical module PECL level;

- Rear Panel



【Figure 2】 Rear Panel Diagram

- ① grounding stud
- ② power outlet, power input is AC 220V
- ③ Fan

④ vents

■ The main technical indicators and the use of environmental

◆ Equipment use of the environment

Power Supply	AC 220V/1.5A
Temperature	0°C ~ 45°C
Relative Humidity	10% ~ 90%

◆ Ethernet Specifications

Physical Interface Type	RJ45/SFP
Transmission distance	100 m / from the SFP module to determine the parameters
Work mode	10M/100M/1000M、full / half duplex, adaptive
Maximum packet size	1536 bytes
Support standard	IEEE802.3

◆ POE Power Specifications

Power supply	Endpoint, spare lines of the power supply
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Maximum power supply port	15.4W
Output Voltage	48V/DC
Support standard	IEEE802.3af

◆ Device dimension parameters

440 mm × 365 mm × 44 mm (L × W × H)