

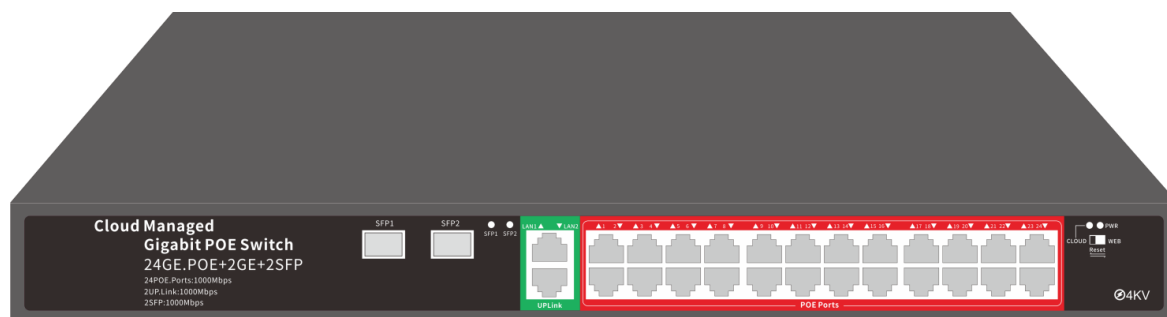
## Category

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## Specification Document Of POE Switch Of Cloud Network Management Series

### 1. Product Introduction:

This product is an Ethernet POE-powered switch of the Cloud Network Management series independently developed by our company. It provides 24 1000Mbps adaptive POE-powered RJ45 ports, 2 Upstream 1000Mbps adaptive RJ45 interfaces and 2 1000Mbps SFP interfaces. It can be used as an Ethernet-powered device. All power supply ports can automatically detect and identify powered devices that comply with the IEEE 802.3af/at standard. It supports remote mobile phone access for monitoring the operating status of the switch and the management of various network functions. The switch can be remotely managed through the APP "Amitres IOT", and the switch ports can be remotely viewed and managed. It also supports management through web page login.



### 2. Features:

- Comply with IEEE802.3 Ethernet and IEEE802.3u Fast Ethernet protocol standard
- Supports 802.3af/at standard protocol, intelligently detects power supply, and does not burn out non-powered equipment
- Support App "Amitres IOT" to remotely manage switch, support local web management;
- Support 802.1Q VLAN, MTU-VLAN, Port VLAN, suitable for a variety of networking business needs;
- Second gear pull code: WEB + CLOUD (domestic factory default CLOUD, overseas default WEB);
- Overcurrent, overload and short-circuit protection to eliminate hidden dangers and ensure power supply safety;  
Support common mode differential mode lightning protection
- Support spanning tree protocols: STP (IEEE802.1d), RSTP (IEEE802.1w)
- Cloud network management: visual remote management, on-site problems, remote resolution
- Provides 24\*1000MPOE ports, 2\*1000M RJ45 ports and 2\*1000M SFP ports
- All ports support Auto MDI/MDI-X function
- Supports IEEE802.3X full-duplex flow control and Backpressure half-duplex flow control
- Supports autonomous learning and aging of MAC address
- Full metal casing, power output 360W
- plug and play

### 3. Definition Of Indicator Light:



#### Indicator Light:

| Indicator Light      | Definition | Functional Description                                                         |
|----------------------|------------|--------------------------------------------------------------------------------|
| Functional Indicator | PWR        | Switch power status indicator, light up to indicate that the device is started |
|                      | CLOUD      | ON: Remote cloud management function is turned on                              |
| Port Indicator       | Link/ACT   | ON: the port link is normal; Flashing: data transmission is in progress        |

#### Gear Description

| Gear  | Definition             | Functional Description                                                                                                          |
|-------|------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| CLOUD | Remote Management Mode | Enable local WEB management and remote APP management functions                                                                 |
| WEB   | Local Management Mode  | WEB local management mode                                                                                                       |
| RESET |                        | The switch is at WEB, within 1 second, unplug to CLOUD and then unplug back to WEB, switch restart and restore factory settings |

### 4. Basic Specification

| Item                                       | Data                                                                                                                                                |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Port                                       | 24 1000Mbps POE.RJ45 ports + 2 1000Mbps Cascading RJ45 ports+2 1000Mbps SFP ports                                                                   |
| Backplane bandwidth                        | 56G                                                                                                                                                 |
| MAC Address                                | 8K                                                                                                                                                  |
| Packet forwarding rate@64byte (throughput) | 41.664Mpps                                                                                                                                          |
| Power supply                               | AC Input 100-250V , Standard configuration 360W Power Supply                                                                                        |
| Network media and transmission distance    | 1000Base-T: 4 to Cat5e or higher UTP/STP(≤100m)<br>100Base-TX: 2 to Cat5 or higher UTP/STP(≤100m)<br>10Base-TX: 2 to Cat5e or higher UTP/STP(≤250m) |
| Line Sequence Of Power Supply              | 12/36、 45/78 all line sequence                                                                                                                      |

## 5. Software Specification

| Item                             | Data                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Basic functions                  | Comply with IEEE 802.3 Ethernet IEEE802.3u Fast Ethernet protocol standards<br>Compatible with PDs compliant with IEEE 802.3af/at standard<br>Compatible with certified non-standard PD<br>store and forward<br>MAC automatic learning and aging<br>IEEE802.3X full-duplex flow control & Backpressure half-duplex flow control                                                                                                                               |
| Ethernet protocols and standards | IEEE 802.3 Ethernet Media Access Control Protocol<br>IEEE 802.3i 10BASE-T Ethernet<br>IEEE 802.3u 100BASE-TX Fast Ethernet<br>IEEE 802.3ab 1000BASE-T Gigabit Ethernet<br>IEEE802.3z 1000BASE-X SFP Interface<br>IEEE 802.3af realizes the power supply of Ethernet devices through Ethernet data lines or devices.<br>IEEE 802.3at realizes the high-power power supply of Ethernet devices through Ethernet data lines or devices. IEEE 802.3x flow control |
| Data transmission rate           | Ethernet 10Mbps half-duplex, 20Mbps full duplex<br>Fast Ethernet 100Mbps half-duplex, 200Mbps full duplex<br>Gigabit Ethernet 2000Mbs Full Duplex                                                                                                                                                                                                                                                                                                             |

| Item                               | The supported contents of the remote control end (through the APP "Amitres IOT")                                                                                                                                 |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cloud Management: Information View | Switch SN information, device model, firmware version, real-time IP, real-time port power, port LINK status, link duplex, up and down rate, VLAN status;                                                         |
| Cloud Management: Device Operation | Port isolation setting, port restart, port POE switch, port speed limit, port ultra-long switch, switch whole machine restart, whole machine setting reset, port duplex setting, firmware upgrade, VLAN setting; |
| Security Features                  | Order-based protection<br>Support MAC/PORT binding<br>Support DHCP snooping and DHCP attack protection<br>Support end-port security and end-port isolation<br>Support CPU protection function                    |
| Access control (ACL)               | Support port mirroring, port redirection, flow rate limiting, and QoS remarking                                                                                                                                  |
| Quality of Service (QoS)           | Support port priority, 802.1P priority, DSCP priority Support SP, WRR, SP, WRR, Equ priority scheduling algorithm                                                                                                |
| STP Protocol                       | Support STP(IEEE 802.1d), RSTP(IEEE 802.1w) protocols                                                                                                                                                            |
| Management and Maintenance         | Support WEB network management<br>Support PC client management<br>Support remote management via APP "Amitres IOT"                                                                                                |

## 6. POE Performance

| 项目                                                            | 参数      |
|---------------------------------------------------------------|---------|
| IEEE802.3af                                                   | Support |
| IEEE802.3at                                                   | Support |
| Port MAX output                                               | 30W     |
| Overcurrent protection                                        | Support |
| Overvoltage protection                                        | Support |
| Short circuit protection                                      | Support |
| Sequential startup (to avoid excessive instantaneous current) | Support |
| Soft startup for high-power PD                                | Support |

## 7. Environmental Requirements

| Environment | Parameter                                                                                              |
|-------------|--------------------------------------------------------------------------------------------------------|
| Temperature | Working temperature: 0°C ~ 40°C<br>Storage temperature: -40°C ~ 70°C                                   |
| Humidity    | Working humidity: 10% ~ 90% RH non-condensing<br>Storage humidity: 5% ~ 90% RH non-condensing          |
| Altitude    | Working altitude: Maximum 6500 feet (2000 meters)<br>Storage altitude: Maximum 6500 feet (2000 meters) |

## 8. Weight

| Item       | Weight |
|------------|--------|
| Bare Metal | 2.5kg  |
| FCL(5PCS)  | 15kg   |

## 9. Lightning surge protection (10/700us)

| 性能                | 参数  |
|-------------------|-----|
| Differential mode | 4KV |
| Common mode       | 4KV |

## 10. Size Specification

| Item       | Data                                |
|------------|-------------------------------------|
| Bare Metal | 440mm*180mm*45mm<br>(With ear hook) |

|                  |                   |
|------------------|-------------------|
| Complete machine | 465mm*265mm*90mm  |
| FCL(5PCS/Carton) | 480mm*470mm*280mm |

## 11. Package、Transportation、Storage

| Packing Contents  | Data                                                                                                                                    |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Filled Protection | Wrapped on the left and right by pearl cotton sleeves for comprehensive protection.                                                     |
| Packing Box       | Premium cow card cardboard box, sized 480mm*470mm*280mm                                                                                 |
| Packing Number    | 5PCS(carton)                                                                                                                            |
| QR code           | The packaging box and the device body should have a unique device SN number.                                                            |
| Others            | The packaging box should have a label marking the product model code and quantity. This model can be adapted to the rack mounting ears. |

**Transport Requirement:** Domestic designated express logistics can transport the whole box, and it is suitable for transportation by car, ship and plane. During transportation, it should be covered, sun-proof, and loaded and unloaded in a civilized manner.

### Store Requirement:

| Index                   | Requirements                                                                                                                                                                                          |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Humidity Environment    | 5% to 90% RH (relative humidity) without condensation                                                                                                                                                 |
| Temperature Environment | -40 °C to 70 °C, considering in combination with the humidity, the most reasonable state is recommended to be the room temperature condition                                                          |
| Stacking Limit          | In the complete packaging state, the maximum upper limit is 4 layers.                                                                                                                                 |
| Points For Attention    | Storage warehouses should be clean, ventilated, free of corrosive gases, free of flammable, explosive and other corrosive chemicals, and away from heat sources, strong mechanical vibration sources. |
| Storage Cycle           | According to the above requirements, reasonable storage can last for one year, and it is recommended to re-examine and use again after two years.                                                     |