

DH-S5452-48GT4XF-400

52-Port L2+ Managed Switch with 48-Port PoE



System Overview

The device is an 10 Gbps uplink switch with a high-performance switch engine and large cache. With its full metal and fanless design, the switch has great heat dissipation and can operate in temperatures ranging -10°C to 55°C. It offers EMC and has protection against overvoltage, overcurrent, static electricity, lightning strikes, pulses and other types of interference. The switch can be remotely managed through webpage and SNMP. The red port provides up to 90 W. The device supports link aggregation and STP to ensure high network stability. It is widely used in digital transformation and network construction by small and medium-sized enterprises, chain business, branches, government structures, schools, hotels, and more.

Functions

Long Distance PoE

The transmission distance of a PoE port can be up to 250 m, meeting the requirement of wired transmission (bandwidth reduced to 10 Mbps).

PoE Watchdog

Adopts the innovative PoE Watchdog. It enables the switch to automatically detect port status and restart the failed ports to recover connection in case of IPC connection exception. This enables intelligent operation and maintenance management in its true sense and effectively reduces manual maintenance costs.

- All-gigabit port design (10 gigabit uplink port).
- Meets the requirements of IEEE 802.3af and IEEE 802.3at power supply standards. The red port additionally complies with Hi-PoE/IEEE 802.3bt standard.
- 250 meter long distance PoE.
- PoE watchdog real-time monitors camera statuses and automatically reboots faulty network cameras.
- Supports STP, RSTP and ERPS.
- IEEE802.1Q-based VLAN configuration.
- Static link aggregation and dynamic link aggregation.
- Easy to manage the device through the webpage.
- EMC compliant, the device is lightning proof.
- Desktop mount and rack mount.



Intelligent PoE

Provides power consumption control and real-time monitoring to guarantee priority of power supply for important ports and prevent malfunctioning caused by power consumption change. Supports ultra wide power supply, able to adapt to IPC power fluctuation.

Wide Operating Temperature

Supports working at ambient temperatures of -10 °C to +55 °C, and has built-in professional lightning-proof circuits that effectively reduce the impact of thunderstorms on network systems and improve system robustness, allowing the device to adapt to harsh environments.

BT 90W (Red Port)

The red ports support IEEE802.3af, IEEE802.3at, IEEE802.3bt and Hi-PoE standards, with a maximum output power consumption of 90W per port. Suitable for powering high-power devices.

Minimal WEB

Designed with a minimalist graphical WEB, easy to operate, which improves configuration efficiency.

Technical Specification

Basic

| | |
|-------------------------------|--|
| Layer | Layer 2 |
| Switching Capacity | 176 Gbps |
| Packet Forwarding Rate | 130.944 Mpps |
| Description of Function Slots | Port 1-48: 48 × RJ-45 10/100/1000 Mbps Port 49-52: 4 × SFP+ 1/10 Gbps |
| Operating Temperature | -10 °C to +55 °C (14 °F to +131 °F) |
| Operating Humidity | 5%–95% (RH), non-condensing |
| Storage Humidity | 5%–95% (RH), non-condensing |
| Power Supply | Built-in power supply: 100–240 VAC, 50/60 Hz, 6 A Max |
| Power Consumption | Idling: 39.8 W Full load: ≤ 460 W |
| Statics Protection | Air discharge: 8 kV Contact discharge: 6 kV |
| Lightning Protection | Common mode: 4 kV Differential mode: 2 kV |
| Net Weight | 5.4 kg (11.90 lb) |
| Gross Weight | 6.7 kg (14.77 lb) |
| Product Dimensions | 440 mm × 391 mm × 44.0 mm (17.32" × 15.39" × 1.73") (L × W × H) |
| Packaging Dimensions | 561 mm × 513 mm × 146 mm (22.09" × 20.20" × 5.75") (L × W × H) |
| Installation | Rack mount; desktop mount |

PoE

| | |
|----------------------------------|--|
| PoE | Yes |
| PoE Power | Port 1-4 ≤ 90 W, Port 5-48 ≤ 30 W, total ≤ 400 W |
| PoE Protocol | IEEE 802.3af; IEEE 802.3at; Hi-PoE; IEEE 802.3bt |
| PoE Power Consumption Management | Yes |
| PoE Pin Assignment | 1, 2, 4, 5 (V+), 3, 6, 7, 8 (V-) |
| Long Distance PoE Transmission | Yes |
| Reset Button | 1 |
| Storage Humidity | 5%–95% (RH), non-condensing |

Hardware

| | |
|---------------|------------------|
| Ethernet Port | 48 |
| Debugging | 1 × Console port |
| Reset Button | 1 |

Performance

| | |
|------------------------|--|
| Packet Buffer Size | 16 Mbit |
| Jumbo Frame | 12288 Byte |
| MAC Table Size | 32K |
| Communication Standard | IEEE 802.3; IEEE 802.3u; IEEE 802.3x; IEEE 802.3ab; IEEE 802.3z; IEEE 802.3ad |

| | |
|----------------|------|
| VLAN Number | 4094 |
| VLAN Interface | 10 |

Feature

| | |
|--------------------------|---|
| Ethernet Loop Protection | STP/RSTP/ERPS |
| VLAN Function | Port-based VLAN |
| Link Aggregation | LACP Static link aggregation Dynamic link aggregation |
| Port Feature | IEEE 802.3x flow control Unknown unicast suppression Multicast storm control Broadcast storm control |
| IEEE 802.3x Flow Control | Yes |
| Multicast | IGMP Snooping |
| Reliability | LLDP |
| DHCP Function | DHCP Client |
| Security | 802.1X Port isolation Radius HTTPS |
| QoS/ACL | SP/WRR queue scheduling 802.1p and DSCP priority mapping Port speed limit |
| Equipment Management | Web SNMP V1/V2C/V3 NTP Logs Ping |

General

| | |
|--------------|---|
| Packing List | 1 × User Manual 1 × Legal and Regulatory Information 1 × Warranty Card 1 × List of Hazardous Substances 1 × Power Cord 1 × Rack-mounting Kit |
|--------------|---|

Transmission Performance:

Switch power supply voltage 53V.
CAT5E/CAT6. Max. DC resistance < 10Ω/100m

| Cable(m) | Load Capacity(W) | Bandwidth(Mbps) |
|----------|------------------|-----------------|
|----------|------------------|-----------------|

IEEE802.3bt 90W

| | | |
|-----|------|------|
| 100 | 71.3 | 1000 |
| 150 | 62 | 10 |
| 200 | 51 | 10 |
| 250 | 40 | 10 |

Hi-PoE 60W

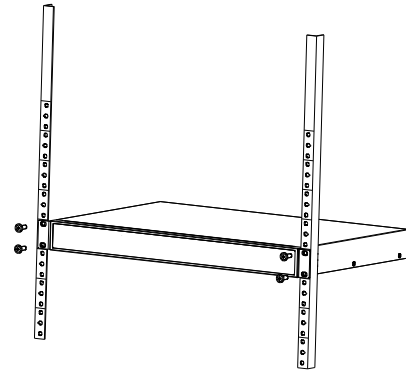
| | | |
|-----|----|------|
| 100 | 53 | 1000 |
| 150 | 50 | 10 |
| 200 | 47 | 10 |
| 250 | 37 | 10 |

IEEE802.3at 30W

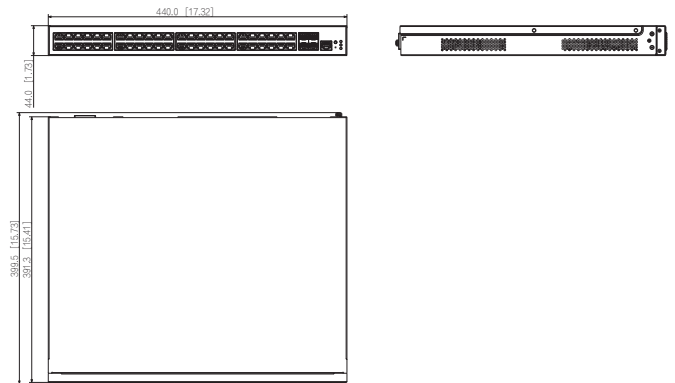
| | | |
|-----|------|------|
| 100 | 25.5 | 1000 |
| 150 | 25.5 | 10 |
| 200 | 25.5 | 10 |
| 250 | 25.5 | 10 |

Note: Data from this table was collected by Dahua test lab and is for reference only. The actual transmission distance may vary due to power consumption of connected devices or the cable type and status.

Installation



Dimensions (mm[inch])



Ordering Information

| Type | Model | Description |
|------------|-------------------|--|
| SFP module | GSFP-RJ45 | Gigabit RJ45 SFP Module |
| | GSFP-1310T-20-SMF | Gigabit 1310/1550nm,20km,LC, Single-mode |
| | GSFP-1310R-20-SMF | Gigabit 1550/1310nm,20km,LC, Single-mode |
| | GSFP-1310-20-SMF | Gigabit 1310nm,20km,LC, Single-mode |
| | GSFP-850-MMF | Gigabit 850nm,550m,LC, Multi-mode |
| | TSFP-1270T-20-SMF | 10G 1270/1330nm,20km,LC, Single-mode |
| | TSFP-1270R-20-SMF | 10G 1330/1270nm,20km,LC, Single-mode |
| | TSFP-1310-20-SMF | 10G 1310nm,20km,LC, Single-mode |
| | TSFP-1550-40-SMF | 10G 1550nm,40km,LC, Single-mode |
| | TSFP-850-MMF | 10G 850nm,300m,LC, Multi-mode |