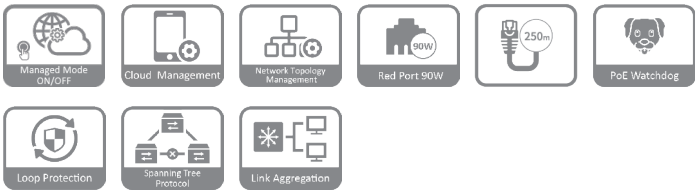
DH-CS4220-16GT-190

20-Port Cloud Managed Desktop Gigabit Switch with 16-Port PoE



- 16 × RJ-45 Gigabit PoE ports, 2 × RJ-45 Gigabit ports,2 × SFP Gigabit ports.
- 190 W total PoE budget, 802.3af/at on all PoE ports, additional 802.3bt on red port.
- DIP switch to fast turn on/off working mode of Cloud-Managed, PoE Watchdog, Long Distance PoE.
- Wide operating temperature ranging from –10 °C to 55 °C.
- Supports VLAN, STP, RSTP and link aggregation.
- WEB-managed and centralized cloud management through the DoLynk app and performs real-time monitoring of the network.
- Easy config to auto detect and set up network and security systems.



System Overview

Highly intuitive, the Cloud Managed Switch can be managed in local networks. With the DoLynk Cloud-Management platform, it additionally enables seamless cloud management capabilities. With just one click, you can start both the CCTV and IT system through EasyConfig. The switch performs operation and maintenance using topology visualization on front-end, transmission and back-end storage devices. The device supports link aggregation and STP to ensure high network stability. It can effortlessly turn on and off its managed mode with the simple flip of a switch. Additionally, the switch supports abundant PoE 2.0 features. With full metal design, it has great heat dissipation and can operate in temperatures ranging –10 °C to 55 °C (+14°F to +131°F). It also features surge protection against up to 6 kV, resisting interference from static electricity, lightning and pulses. The switch can be used in small and medium-sized businesses such as supermarkets, offices, restaurants, cafés and hotels.

Functions

Managed Mode ON/OFF

Easily switches between managed and unmanaged mode with just the flip of a switch. When in managed mode, you can perform management through the webpage locally or the cloud platform. This allows the device to seamlessly adapt to a variety of scenes.

Cloud Management

Devices can be managed through the DoLynk Care app and performs real-time monitoring of the network. The app also displays the status of devices, triggers alarms for errors in real time and sends notifications.

Network Topology Management

Supports the LLDP protocol and is able to generate and display the network topology, so that you can quickly identify issues, and perform operation and maintenance remotely on devices that are in the topology.

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.

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.

Loop Protection

When a loop is detected, the loop alarm will be triggered and the elimination mechanism will activate to prevent broadcast storms from occurring.

Spanning Tree Protocol (STP)

Uses algorithms that calculate the best loop-free path through a Layer 2 network while providing path redundancy to prevent the occurrence of broadcast storms and enhance the stability of operations and services.

Link Aggregation

Combines multiple physical links into one virtual channel for dynamic redundancy and load balancing, ensuring that the connection remains stable.

Scene

Suitable for scenes such as factories and office buildings.

Specification

Basic

Layer	Layer 2
Switching Capacity	40 Gbps
Packet Forwarding Rate	29.76 Mpps
Description of Function Slots	Port 1-16: 16 × RJ-45 10/100/1000 Mbps (PoE) Port 17-18: 2 × RJ-45 10/100/1000 Mbps (uplink) Port 19-20: 2 × SFP 1000 Mbps (uplink)
Operating Temperature	–10 °C to +55 °C (+14 °F to +131 °F)
Operating Humidity	10%–90% (RH), non-condensing
Storage Temperature	-40 °C to +75 °C (-40 °F to +167 °F)
Storage Humidity	5%–95% (RH), non-condensing
Power Supply	Built-in power supply: 100–240 VAC, 47–63 Hz, max 4 A
Power Consumption	Idling: 10.6 W; Full load: 202.8 W
Statics Protection	Air discharge: 8 kV Contact discharge: 6 kV
Lightning Protection	Common mode: 6 kV Differential mode: 1 kV
Net Weight	2.5 kg (5.51 lb)
Gross Weight	3.2 kg (7.05 lb)
Product Dimensions	440 mm × 228.81 mm × 43.65 mm (17.32" × 9.01" × 1.72") (L × W × H)
Packaging Dimensions	540 mm × 342 mm × 90 mm (21.26" × 13.46" × 3.54") (L × W × H)
Casing Material	Sheet metal
Installation	Desktop mount; rack mount
Certifications	CE

PoE

PoE	Yes
PoE Power	Port 3-16≤30 W, port 1-2≤90 W, total≤190 W
PoE Protocol	IEEE 802.3af; IEEE 802.3at; Hi-PoE; IEEE 802.3bt
PoE Power Consumption Management	PoE power consumption management; PoE power on/off; turns off PoE if overload is detected
PoE Pin Assignment	Port 1-2: 1,2,4,5 (V+),3,6,7,8 (V-) Port 3-16: 1,2, (V+), 3,6, (V-)
Long Distance PoE Transmission	Yes

Hardware

DIP Switch	Managed Mode: On by default for both local web and cloud management. Off for Unmanaged Mode. PoE Watchdog: Monitors ports 1-16 and auto-restarts the PoE port when there is no traffic for 2 min. (Only works when Managed Mode is Off) Extend Mode: Ports 1-16; transmission distance up to 250 meters at 10 Mbps. (Only works when Managed Mode is Off)
Reset Button	1

Performance

MTBF	1,092,753 hours
Packet Buffer Size	4 Mbit
Jumbo Frame	15360 Byte
MAC Table Size	8K
Communication Standard	IEEE 802.3; IEEE 802.3u; IEEE 802.3x; IEEE 802.3ab; IEEE 802.3z; IEEE 802.3az; IEEE 802.3ad
VLAN Number	32

Feature

Ethernet Loop Protection	STP; RSTP
VLAN Function	IEEE 802.1Q VLAN
Link Aggregation	Static Aggregation
Port Feature	IEEE 802.3x Flow Control Unknown Unicast Suppression Multicast Storm Control Broadcast Storm Control MAC+Port Binding Loop Prevention
Mirror	Local Port Mirroring N:1 Mirroring
Reliability	LLDP
DHCP Function	DHCP Client
Security	Port Isolation
Equipment Management	Web Management Cloud Management Logs Fault Alarm

General

Packing List	1 × User Manual 1 × Legal and Regulatory Information 1 × Power Cord 1 × Rack-mounting Kit

Transmission Performance:

Switch power supply voltage 54V.
CAT6. Max. DC resistance < 8 Ω/100 m

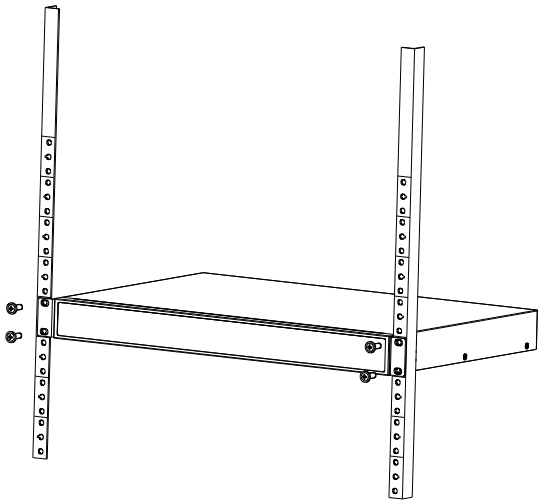
Cable(m)	Load Capacity(W)
IEEE802.3bt 90 W	
100	71.3
150	62
200	51
250	40
Hi-PoE 60 W	
100	46
150	42
200	37
250	32
IEEE802.3at 30 W	
100	25.5
150	25.5
200	25.5
250	24

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.

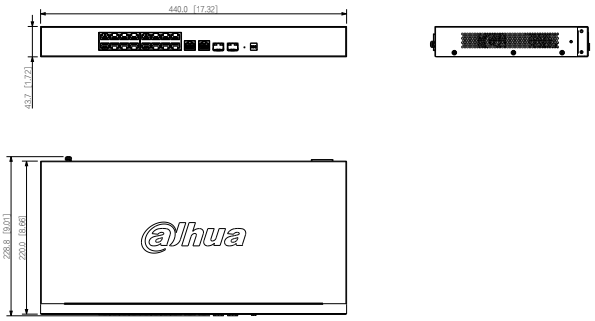
Ordering Information

Type	Model	Description
SFP module	GSFP-1310T-20-SMF	1.25G 1310/1550nm,20km,LC, Single-mode
	GSFP-1310R-20-SMF	1.25G 1550/1310nm,20km,LC, Single-mode
	GSFP-1310-20-SMF	1.25G 1310nm,20km,LC, Single-mode
	GSFP-850-MMF	1.25G 850nm,550m,LC, Multi-mode

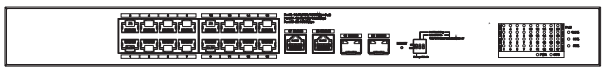
Installation



Dimensions (mm[inch])



Panels





Rev 002.000 © 2025 Dahua. All rights reserved. Design and specifications are subject to change without notice.
The images, specifications and information mentioned in the document are only for reference, and might differ from the actual product.