16-port PoE 2.0 Managed Gigabit Ethernet Switch

PoE 2.0

- Layer 2 Network Management PoE Ethernet Switch
- Gigabit Ports
- Total PoE Budget: 240 W
- Eighteen (18) 1000 Mbps Ethernet Ports and Two (2) 1000 Mbps Uplink Optical Ports
- Complies with IEEE802.3af, IEEE802.3at, Hi-PoE, and IEEE802.3bt Standards
- **Supports PoE 2.0:** Up to 90 W Output per Red Port, Long-Distance Transmission Up to 820 ft, PoE Watchdog, Intelligent PoE

System Overview

The DH-S4220-16GT-240 managed PoE switch comes with 16 gigabit PoE Ethernet ports and two (2) gigabit optical ports. Highly reliable, it can carry a full load of 240 W. It also has a strong switching capability and optimizes transmission performance when accessing Ultra HD videos. With its full metal design, the device has great heat dissipation and low power co sumption, working in environments ranging from-10°C to 55°C (+14°F to +131°F). It also has powerful network management functions, supporting various types of web and network management software based on SNMP. As part of our line of PoE 2.0 transmission products, this switch has PoE watchdog, long-distance transmission, Red Port 90 W, and intelligent PoE functions, ensuring it can handle the most demanding applications.

Functions

Minimal Web

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

All-gigabit Ports

Designed with large buffer memory and all-Gigabit ports, enabling high-definition access of large stream.

Red Port 90W (PoE 2.0)

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

Long-Distance PoE (PoE 2.0)

By dialing or enabling long-range transmission on the WEB interface, 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 (PoE 2.0)

PoE Watchdog functionality allows for intelligent operation and maintenance management. With watchdog functionality enabled, the switch automatically detects port status and restarts failed ports to recover connection in case of an IPC connection exception.

Intelligent PoE (PoE 2.0)

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.

Technical Specification

Hardware

Power Adapter		Included
PoE		Supported
Ethernet Port		18
Optical Port		Two (2)
Ethernet Port Speed		10/100/1000 Mbps
Optical Port Speed		1000 Mbps
Description of Function Slots	Port 1 to 16	16 × RJ45 10/100/1000 Mbps(PoE)
	Port 17 to 18	Two (2) × RJ45 10/100/1000 Mbps
	Port 19 to 20	Two (2) × SFP 1000 Mbps
Debugging		One (1) x Console
Reset Button		One (1)

Performance

Layer		Layer 2+
Management Type		Web (HTTP/HTTPS), Telnet, SNMP V1/V2C/V3
MTBF		467,125.73 hours
Switching Capacity		56 Gbps
Packet Forwarding Rate		29.76 Mpps
Packet Buffer Size		4.1 Mbit
Jumbo Frame		10K Byte
MAC Table Size		8K
VLAN Number		4K
VLAN Interface		10
Dynamic ARP		512
Communication Standard		IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3ad

Feature

PoE Protocol		IEEE802.3af (PoE), IEEE802.3at (PoE+), IEEE802.3bt (PoE++), Hi-PoE
PoE Power	Port 1 to 2	≤ 90 W
	Port 3 to 16	≤ 30 W
	Total	≤ 240 W
PoE Power Consumption Management		Supported
PoE Pin Assignment		1,2,4,5 (V+),3,6,7,8 (V-)
Long-Distance PoE Transmission		Supported
Spanning Tree Protocol		STP, RSTP
VLAN Function		Supported
Link Aggregation		Static Link, LACP
IEEE 802.3x Flow Control		IEEE 802.3X-Based Flow Control (Full-Duplex)
Multicast		IGMP Snooping
DHCP		Client, Server, Snooping
Security		IEEE 802.1x, ACL

Electrical

Power Supply		100-240 VAC, 50/60 Hz, 3.5 A
Power Consumption	Idling Load	≤ 20 W
	Full Load	240 W

Environmental

Operating Temperature		–10°C to 55°C (+14°F to +131°F)
Operating Humidity		5% to 95% (RH)
Statics Protection	Air Discharge	8 kV
	Contact Discharge	6 kV
Lighting Protection	Common Mode	4 kV
	Differential Mode	2 kV

Construction

Net Weight	3.405 kg (7.51 lb)
Gross Weight	4.51 kg (9.94 lb)
Product Dimensions	440 mm × 300 mm × 44 mm (17.32 in. × 11.81 in. × 1.73 in.)
Packaging Dimensions	525 mm × 410 mm × 110 mm (20.67 in. × 16.14 in. × 4.33 in.)

Certifications

CE	IEC 62368-1:2014 EN 55032:2015+A11:2020+A1:2020 EN IEC 61000-3-2: 2019+A1:2021 EN 61000-3-3: 2013+A1: 2019+A2:2021 EN 55024: 2010+A1: 2015 EN 55035:2017+A11 :2020 EN 50130-4: 2011+A1: 2014
FCC	47 CFR FCC PartIS, Subpart B, Class A ANSI C63.4:2014

Transmission Performance

Switch Power Supply Voltage 53V
CAT5E/CAT6 Max. DC Resistance <10 Ω/100 m

Cable (m)	Load Capacity (W)	Bandwidth (Mbps)
IEEE802.3bt 90W		
100	71.3	100
150	62	10
200	51	10
250	40	10
Hi-PoE 60W		
100	53	100
150	50	10
200	47	10
250	37	10
IEEE802.3at 30W		
100	25.5	100
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.

Ordering Information

Type	Part Number	Description
SFP Module	GSFP-1310T-20-SMF	1.25G 1310/1550nm, 20 km, LC, Single-mode
	GSFP-1310R-20-SMF	1.25G 1550/1310nm, 20 km, LC, Single-mode
	GSFP-1310-20-SMF	1.25G 1310nm, 20 km, LC, Single-mode
	GSFP-850-MMF	1.25G 850nm, 550 km, LC, Single-mode

Dimensions