DH-IS4420-16GT-240

20-Port Managed Industrial Gigabit Switch with 16-Port PoE(Managed)

PoE 2.0

- All-gigabit port design.
- Supports IEEE802.3af, IEEE802.3at, Hi-PoE and IEEE802.3bt (red port) standards.
- 250 m long-distance PoE transmission (10 Mbps).
- PoE Watchdog.
- Supports STP, RSTP, and ERPS.
- IEEE802.1Q-based VLAN configuration.
- Manual link aggregation and static LACP.
- Desktop mount and DIN-rail mount.

System Overview

Highly reliable, the L2 industrial switch is equipped with a high performance switching engine, has large buffer memory and optimizes transmission performance. With its solid full metal design, the device has great heat dissipation, working in environments ranging from –40 °C to +75 °C. It also has protection against overcurrent, overvoltage and EMC, resisting interference from static electricity, lightning and pulses. The redundant power supply ensures that the switch performs stably. It can also be remotely managed through Telnet, the webpage, SNMP and more, and can directly connect to iLinks-View.

Functions

PoE Watchdog

Adopts the innovative PoE Watchdog. PoE Watchdog can be switched on by dialing or turning on the WEB page switch. It enables the switch to automatically detect port status and restart failed ports to recover connection in case of IPC connection exception. This enables intelligent operation and maintenance management in its truest sense, effectively reducing manual maintenance costs.

Long-distance PoE

By dialing or enabling long-diatance transmission on the WEB interface, the transmission distance of a PoE port can be up to 250 m, meeting the requirements of wired transmission (bandwidth reduced to 10 Mbps).

Red Port 90W

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

Wide Operating Temperature

Developed to operate in extreme conditions, the device functions in temperatures ranging from –40 °C to +75 °C, easily adapting to harsh environments.

Redundant Power Supply

Redundant power supply ensures that the device is still powered when one power port malfunctions, vastly improving device reliability.

Fast Loop Convergence

Supports the ERPS protocol to provide loop protection. Fast convergence is performed when the network disconnects.

Scene

The device is applicable for use in different scenarios, including corridors and offices.

Technical Specification

Hardware

Included Power Adapter	No
PoE	Yes
Ethernet Port	16
Optical Port	4
Ethernet Port Speed	10/100/1000 Mbps
Optical Port Speed	1000 Mbps
Description of Function Slots	Port1-16: 16 × RJ45 10/100/1000 Mbps Port17-20: 4 × SFP 1000 Mbps
Debugging	1 × console port
Reset Button	1
Power Supply	53 VDC
Operating Temperature	–40 °C to +75 °C (–40 °F to +167 °F)
Operating Humidity	5%–95% (RH), non-condensing
Power Consumption	Idling: ≤ 6 W Full load: 240 W

Performance

Layer	L2
Management Type	Yes
MTBF	467,125.73 hours
Switching Capacity	56 Gbps
Packet Forwarding Rate	29.76 Mpps
Packet Buffer Size	4.1 Mbit
Jumbo Frame	10 kByte
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+)/Hi-PoE/ IEEE802.3bt
PoE Power	Port 1-2 ≤90 W Port 3-16 ≤30 W Full load ≤240W
PoE Power Consumption Management	Yes
PoE Pin Assignment	1, 2, 4, 5 (V+), 3, 6, 7, 8 (V-)
Long Distance PoE Transmission	Yes
Spanning Tree Protocol	STP, RSTP, ERPS
VLAN Function	Yes
Link Aggregation	Static link aggregation; LACP
IEEE 802.3x Flow Control	IEEE 802.3X-based flow control (full-duplex)
Multicast	IGMP Snooping
DHCP Function	DHCP Client DHCP-Server DHCP-Snooping
Security	IEEE 802.1× ACL ERPS
Equipment Management	WEB (http and https) Telnet CLI SNMP V1/V2C/V3

General

Statics Protection	Air discharge: 8 kV Contact discharge: 6 kV
Lighting Protection	Common mode: 6 kV Differential mode: 4 kV
Net Weight	1.35 kg (2.98 lb)
Gross Weight	1.75 kg (3.86 lb)
Product Dimensions	125.4 mm × 75.0 mm × 175.0 mm (4.94" × 2.95" × 6.89") (L × W × H)
Packaging Dimensions	325 mm × 190 mm × 125 mm (12.80" × 7.48" × 4.92") (L × W × H)
Certifications	CE, FCC

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 90 W		
100	71.3	100
150	62	10
200	51	10
250	40	10
Hi-PoE 60 W		
100	53	100
150	50	10
200	47	10
250	37	10
IEEE802.3at 30 W		
100	25.5	100
150	25.5	10
200	25.5	10
250	25.5	10

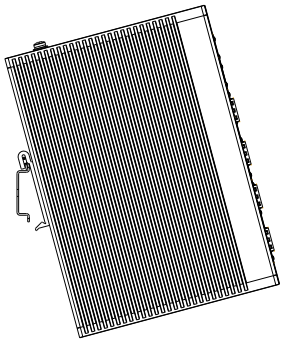
Note: Data from this table was collected by Dahua test lab and is for reference only . The actual transmission distance may vary due to power consumption of connected devices or the cable type and status.

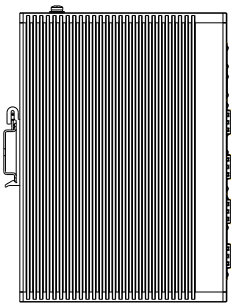
Ordering Information

Type	Model	Description
SFP module	GSFP-1310T-20-SMF	1.25G 1310/1550 nm, 20 km, LC, Single-mode
	GSFP-1310R-20-SMF	1.25G 1550/1310 nm, 20 km, LC, Single-mode
	GSFP-1310-20-SMF	1.25G 1310 nm, 20 km, LC, Single-mode
	GSFP-850-MMF	1.25G 850 nm, 550 m, LC, Multi-mode
DIN-Rail Power Supply	EDP-240-48	240 W, 100 VAC~240 VAC-48V 5A

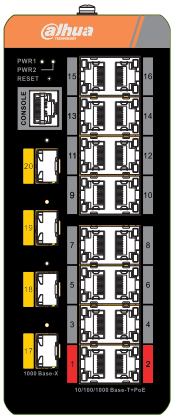
Note: This product does not include a power adapter, the power adapter needs to be purchased separately to use with the product.

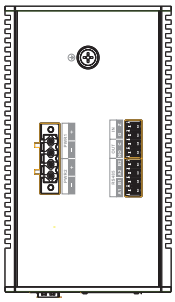
Installation





Panels





Dimensions (mm[inch])