

specification

19 Gigabit PoE switches

H3016PFD-2BT



Product Overview

The H3016PFD-2BT series PoE switches (non-managed) feature 18 Gigabit Ethernet ports and 1 Gigabit SFP optical port slot. Ports 1-2 support PoE++ power supply with 60W per-port capacity and backward compatibility, while Ports 3-16 use PoE+ with 30W per-port. Ports 9-16 incorporate watchdog servo functionality that automatically restarts PoE power when communication fails, restoring network connectivity without disrupting other ports. This reduces manual intervention and maintenance costs. As PoE-powered devices, they automatically detect compliant power-hungry devices and deliver power via Ethernet cables. These switches power wireless APs, network cameras, VoIP phones, and video intercom systems, meeting high-density/high-power PoE demands in hotels, campuses, government offices, banks, hospitals, and industrial zones for cost-effective network deployment.

Non-network management models are plug-and-play, requiring no configuration and

offering simple, convenient operation.

Product Features

■ Full gigabit access with gigabit optical uplink

- ◇ Supports a combination of Ethernet port and Gigabit optical uplink port, enabling users to flexibly configure networks and meet diverse networking requirements.

All ports support non-blocking line-speed forwarding for smoother transmission.

Support IEEE 802.3x full duplex flow control and Backpressure half duplex flow control.

■ Smart PoE power supply function

- ◇ 16 Gigabit RJ45 ports support PoE power supply, meeting diverse PoE power requirements in security applications.
- ◇ Compatible with PoE power supply standards, backward compatible, automatically identifies and powers PoE devices without damaging non-PoE devices; the maximum PoE output power for 1-2 single ports is 60W, while the maximum PoE output power for other single ports is 30W.

■ simplicity of operator

- ◇ Plug and play, no configuration, simple and convenient to use and maintain.
- ◇ Users can easily monitor the device's status through the Power Indicator (PWR), Port Status Indicator (Link), and PoE Indicator.

■ Innovation

- ◇ PoE watchdog: The system automatically enables watchdog functionality on ports 9-16 by default, continuously monitoring data communication status. When a port fails, its PoE module will automatically restart to restore network connectivity, eliminating manual maintenance and significantly reducing both equipment servicing frequency and operational costs.
- ◇ Long-distance mode (E): Set the switch to "ON" (default "OFF") to reduce port speeds from

9-16 to 10M. This enables transmission beyond the 100-meter limit of standard twisted-pair cables, extending the range up to 250 meters. Additionally, it resolves transmission issues caused by aging wiring.

■ **The device is stable and reliable.**

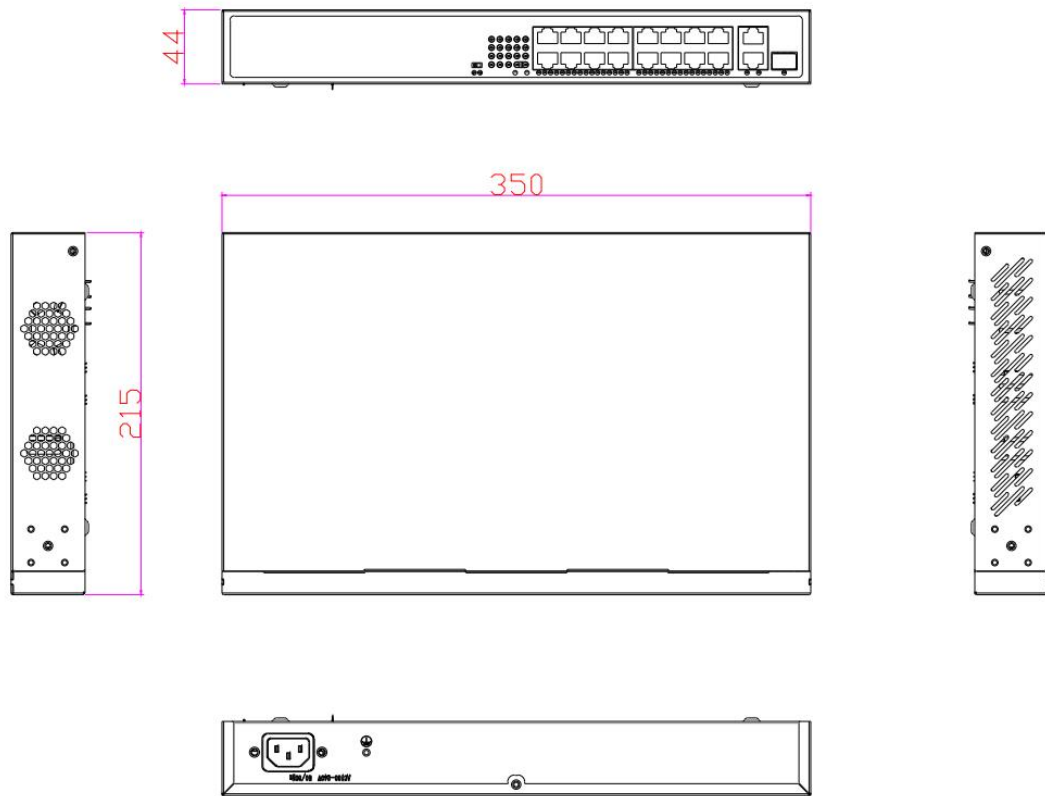
- ◇ The host features low power consumption and active cooling fan design, with a galvanized steel metal casing for excellent heat dissipation, ensuring stable operation.
- ◇ The equipment fully complies with CQC, CE, FCC, and RoHS safety standards, ensuring safe and reliable operation.

Product technology and specifications

model	H3016PFD-2BT
port characteristic	
Fixed port	1610/100/1000Base-T POE ports (Data/Power) Two RJ45 ports (Data) for 10/100/1000Base-T uplink 11000Base-X upstream SFP optical port slot (Data)
port characteristics	1-18 ports with 100/1000Base-T (X) auto-detection, full/half-duplex MDI/MDI-X adaptive
Twisted pair transmission	10BASE-T: Cat3,4,5 UTP(≤250 meter) 100BASE-TX: Cat5 or later UTP(≤100 meter) 1000BASE-T: Cat5e or later UTP(≤100 meter)
open port characteristic	The Gigabit SFP optical interface does not come with an optical module by default and requires separate purchase. (Optional: order mode/multi-mode, single/fiber dual optical modules, LC/SC)
optical cable	Multimode: 850nm, 0-550M Single mode: 1310 nm 0-40 km, 1550 nm 0-120 km
functional switch	E class: Long-distance transmission + VLAN isolation. Default: - "OFF", Enable: - "ON"
	When enabled, ports 9-16 support 10M/250m long-distance transmission.
Switch chip parameters	
networking protocol	IEEE802.3 10BASE-T; IEEE802.3i 10Base-T; IEEE802.3u 100Base-TX; IEEE802.3ab 1000Base-T; IEEE802.3z 1000Base-X; IEEE802.3x

Forward mode	store and forward (full line speed)
backplane bandwidth	38Gbps (non-blocking)
Packet forwarding rate @64byte	28.27Mpps
MAC address list	4K
packet forwarding cache	4Mbits
giant frame	9.2Kbytes
LED pilot lamp	Power indicator: PWR (green); Network indicator: Link (green); POE status indicator: PoE (red); Function switch indicator: EXTEND (green)
PoE and Power Supply Characteristics	
PoE port	Ports 1-2 support PoE++ power supply, while ports 3-16 support PoE+ power supply.
power supply pin	Port 1-2 defaults to 1/2, 4/5 (+), 3/6, 7/8 (-) with 8-pin power supply. Ports 3-16 defaults to 1/2 (+), 3/6 (-) with 4-pin power supply.
Maximum single-port PoE power	60W, PoE++
Total power / input voltage	250W (AC100-240V)
Total power consumption	Standby power: <12W; Full load power: <250W
power supply	Built-in power supply AC: 100-240V,50-60Hz, 4.1A
Physical specification parameters	
Working temperature and humidity	-20 to +55°C; 5% to 90% RH without condensation
storage temperature and humidity	-40 to +80°C; 5% to 95% RH without condensation
Dimensions (L*W*H)	350*215*44mm
Net weight / Gross weight	< 2.4kg / < 2.9kg
way to install	Desktop and rack installation
Product certification and quality assurance	
Lightning protection/Protection level	Port lightning protection: 4KV 8/20μs; Protection rating: IP30
Safety certification	CQC; CE mark, commercial; CE/LVD EN62368-1; FCC Part 15 ; RoHS;
guarantee period	Switches are maintained for 1 year with lifetime maintenance

size of product



product connection topology

packing list

packing list	item name	quantity	unit
	19 full Gigabit POE power switches	1	tower
	AC power line	1	root
	Quick Start Guide, Warranty Card, and Certificate of Conformity	1	portion

Order information

device name	facility information	Standard power supply
H3016PFD-2BT	The switch features 18 non-managed 10/100/1000M RJ45 ports plus a 1000M upstream SFP optical port slot. By default, PoE watchdog (automatic reboot for network self-healing) is enabled on ports 9-16. With adjustable function switches, it supports 10M/250m long-distance transmission across ports 9-16. The device includes a built-in power supply.	52V/250W
Note: This product does not include an optical module by default. If needed, you must purchase it separately.		

Optical Module Selection Table

name	model	description	unit
1.25G optical module	2630	SFP optical module with 1.25G multi-mode dual-fiber 850nm transmission, supporting 550m distance, LC interface, DDM function, and hot-swap capability.	single
	2632	SFP optical module with 1.25G single-mode dual-fiber 1310nm transmission, supporting 20km distance, LC interface, DDM functionality, and hot-swap capability.	single
	2612-T	SFP optical module with 1.25G transmission rate, featuring single-mode single-fiber design (TX: 1310nm/RX: 1550nm), supporting 20km transmission distance, LC interface, DDM functionality, and hot-swap capability.	single
	2613-R	SFP optical module with 1.25G transmission rate, featuring single-mode single-fiber design (TX: 1550nm/RX: 1310nm), supporting 20km transmission distance, LC interface, DDM functionality, and hot-swap capability.	single
	2612-T-G	Industrial SFP optical module with 1.25G transmission rate, featuring single-mode single-fiber design (TX: 1310nm/RX: 1550nm). Supports 20km transmission distance, LC interface, DDM functionality, and hot-swap capability.	single
	2613-R-G	Industrial-grade SFP optical module with 1.25G transmission rate, featuring single-mode single-fiber design (TX: 1550nm/RX: 1310nm). Supports 20km transmission distance, LC interface, DDM functionality, and hot-swap capability.	single
	2612-T-SC	SFP optical module with 1.25G transmission rate, featuring single-mode single-fiber TX at 1310nm and RX at 1550nm. Supports 20km transmission distance, SC interface, DDM functionality, and hot-swap capability.	single
	2613-R-SC	SFP optical module with 1.25G transmission rate, featuring single-mode single-fiber design (TX: 1550nm/RX: 1310nm), supporting 20km transmission distance, SC interface, DDM functionality, and hot-swap capability.	single
electrical module	2633	1.25G SFP optical module converted to 10/100/1000M RJ45 network port (optical-to-electrical conversion)	single