

# DH-PFS4218-16ET-240

16-port 100 Mbps + 2-port Gigabit Managed PoE Switch



\* The parameters and datasheets below can only be applied to V2.0 (version 2.0)

- Intelligent PoE
- Red port supports 90W IEEE802.3bt
- Web management with friendly interface and easy operation
- 250 m long distance PoE transmission
- PoE watchdog
- Plug and play



## System Overview

DH-PFS4218-16ET-240 is a type of layer-two managed PoE switch. It provides 16 100 Mbps PoE ports and 2 gigabit uplink combo ports. The full load is 240W.

With all metal design, the product has good heat dissipation and low power consumption, which can work in environments from  $-10^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$ .

The product owns powerful network management functions. Network management system supports CLI, iLinksView, web and network management software based on SNMP.

## Functions

### Uplink Combo Port

Two of the uplink ports support a self-adaptive 10/100/1000 Mbps RJ-45 port or a 1000 Mbps optical port.

### Intelligent PoE

The switch features intelligent PoE power consumption management to help keep the power and data flowing, even when the switch experiences a power fault. Intelligent PoE monitors the power consumption of the connected devices, and in the event of large power fluctuations, the switch shuts down one port at a time rather than shutting down all ports. Unlike typical switches that shut down all ports as once, this switch shuts down the highest number port first, then the next highest number until the switch detects the power consumption is below the PoE budget. Green PoE can power on and power off according to time strategy. It can also realize PoE legacy support.

### BT 90W

The red port supports the IEEE802.3bt and the Hi-PoE standards. The maximum power consumption is 90W.

### PoE Watchdog

The switch employs an innovative PoE watchdog function that automatically detects a network port failure and restarts network communication on the port. This functionality avoids manual maintenance and network restarts, saving time and reducing costs.

### Long Distance PoE

Long-distance PoE transmission extends the maximum transmission distance to 250 m (from 100 m), but reduces transmission speed to a maximum of 10 Mbps (from 1000 Mbps).

### Various Operating Environments

The switch is designed to operate in severe environments and in temperatures ranging from  $-10^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$  ( $14^{\circ}\text{F}$  to  $131^{\circ}\text{F}$ ). The switch includes a professional-grade surge protection circuit that offers 4 kV (common mode) and 2 kV (differential mode) all-port lightning protection. This protection reduces damage to the network from a lightning storm. The switch meets the Class B EMC standard and is suitable for residential, commercial, and light-industrial applications.

## Scene

Applicable to small and micro-scale monitoring networks such as office desktops, schools, hotels, supermarkets and hospitals.

| Technical Specification |                                                              |
|-------------------------|--------------------------------------------------------------|
| Performance             |                                                              |
| Layer                   | Layer 2                                                      |
| Managed                 | Yes                                                          |
| Switching Capacity      | 8.8 Gbps                                                     |
| Packet Forwarding Rate  | 5.36 Mpps                                                    |
| Packet Buffer Memory    | 2.75 Mbit                                                    |
| MAC Table Size          | 4K                                                           |
| Communication Standard  | IEEE802.3; IEEE802.3u; IEEE802.3x; IEEE 802.3ab; IEEE 802.3z |

|                                |                                                                                                                                           |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Hardware Feature               |                                                                                                                                           |
| Standard Power Supply          | Yes                                                                                                                                       |
| PoE                            | Yes                                                                                                                                       |
| Ethernet Port                  | 16                                                                                                                                        |
| Optical Port                   | 2                                                                                                                                         |
| Ethernet Port Rate             | 100 Mbps                                                                                                                                  |
| Optical Port Rate              | 1 Gbps                                                                                                                                    |
| Number of Bussiness Card Slots | Port 1-16: 16 × RJ-45 10 M/100 M (PoE)<br>Port 17-18: 2 × RJ-45 10 M/100 M/1000 M (uplink)<br>Port 17-18: 2 × SFP 1000 M (uplink) (combo) |
| Debugging                      | Console × 1                                                                                                                               |
| Power Supply                   | 100V–240V AC                                                                                                                              |
| Operating Temperature          | –10 °C to +55 ° (14 °F to 131 °F)                                                                                                         |
| Operating Humidity             | 10% RH–90% RH                                                                                                                             |
| Power Consumption              | Idling: 10W<br>Full load: 240W                                                                                                            |

|                                |                                                                                                                  |
|--------------------------------|------------------------------------------------------------------------------------------------------------------|
| PoE                            |                                                                                                                  |
| PoE Standard                   | IEEE802.3af/ IEEE802.3at/ Hi-PoE/IEEE802.3bt                                                                     |
| PoE Budget                     | Port 1-2 ≤ 90W, Port 3-16≤ 30W, total ≤ 240W                                                                     |
| PoE Pin Assignment             | 1, 2, 4, 5 (V+), 3, 6, 7, 8 (V-)                                                                                 |
| PoE Management                 | Power consumption management<br>Power on and power off<br>Power down for overload<br>Green PoE<br>Legacy support |
| Long Distance PoE Transmission | 250 m long-distance power supply                                                                                 |

|                        |                                                                                             |
|------------------------|---------------------------------------------------------------------------------------------|
| Function               |                                                                                             |
| Spanning Tree Protocol | IEEE 802.1d (STP); 802.1w (RSTP)                                                            |
| VLAN                   | IEEE802.1q Standard VLAN                                                                    |
| Flow Control           | Support IEEE 802.3x (full duplex flow control) and back pressure flow control (half duplex) |
| Link Aggregation       | Static; LACP                                                                                |
| Port Mirroring         | One-to-one; multiple-to-one                                                                 |

|           |                                                                                                                     |
|-----------|---------------------------------------------------------------------------------------------------------------------|
| Multicast | GMP snooping based on port                                                                                          |
| DHCP      | DHCP client                                                                                                         |
| Security  | Hardware supports IP and MAC binding based on port, MAC filtering based on port, and IEEE802.1x port authentication |
| QoS       | High and low priority<br>WRR<br>802.1P<br>DSCP<br>Priority based on protocol                                        |

|                      |                                                                                                                                                                |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General              |                                                                                                                                                                |
| ESD                  | Air discharge: 8kV<br>Contact discharge: 6kV                                                                                                                   |
| Thunder-proof        | Common mode: 4kV<br>Differential mode: 2kV                                                                                                                     |
| Dimensions           | 440 mm × 300 mm × 44 mm (17.32" × 11.81" × 1.73") (L × W × H)                                                                                                  |
| Packaging Dimensions | Packing box: 527 mm × 412 mm × 110 mm (20.75" × 16.22" × 4.33") (L × W × H)<br>Protective box: 584 mm × 549 mm × 446 mm (22.99" × 21.61" × 17.56") (L × W × H) |

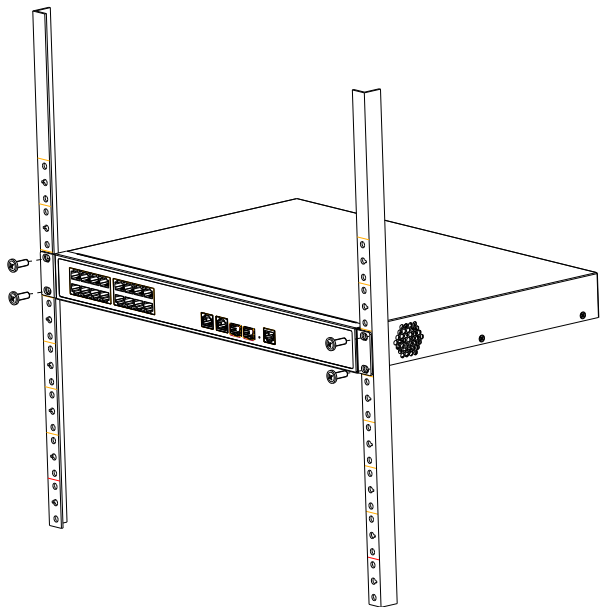
| Transmission Performance:                                                       |                  |                 |
|---------------------------------------------------------------------------------|------------------|-----------------|
| Switch power supply voltage 53V.<br>CAT5E/CAT6. Max. DC resistance < 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  |

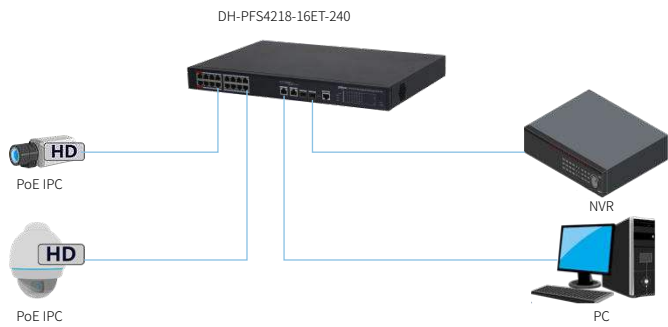
|                  |      |     |
|------------------|------|-----|
| IEEE802.3at 30 W |      |     |
| 100              | 25.5 | 100 |
| 150              | 25.5 | 10  |
| 200              | 25.5 | 10  |
| 250              | 25.5 | 10  |

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.

Installation



Application



Ordering Information

|            |                   |                                          |
|------------|-------------------|------------------------------------------|
| 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          |

Dimensions (mm[inch])

