



4-Port Gigabit Network Switch, 1 SFP Uplink



Quick Installation Guide

DN-80120

1. Product Introduction

DIGITUS® 4-Port Gigabit Network Switch, 1 SFP Uplink.

The product provides high-speed packet forwarding capability and ample backplane bandwidth to ensure clear and smooth image transmission. It is embedded in static electricity and surge protection circuit to improve product stability. It also supports VLAN configuration mode, which enables network storm suppression, protects security information, and prevents the spread of viruses and network attacks. It fully meets the requirements of network video surveillance system.

2. Product Feature

1. 4-port 10/100/1000 Mbps RJ45 LAN port
2. 1-port 1000Mbps fiber port (SFP slot)
3. VLAN configuration by DIP switch
4. Long distance mode support distance of 330m at 10Base-T data rate.
5. VLAN configuration: Port Isolation & 1 to 1 Isolation
6. Full power range 100~240V AC
7. IEEE802.3, IEEE802.3u, IEEE802.3ab, IEEE802.3z
8. Provide wall-mount bracket

3. Package Content

- Network switch
- Wall mount bracket
- Power cord
- QIG

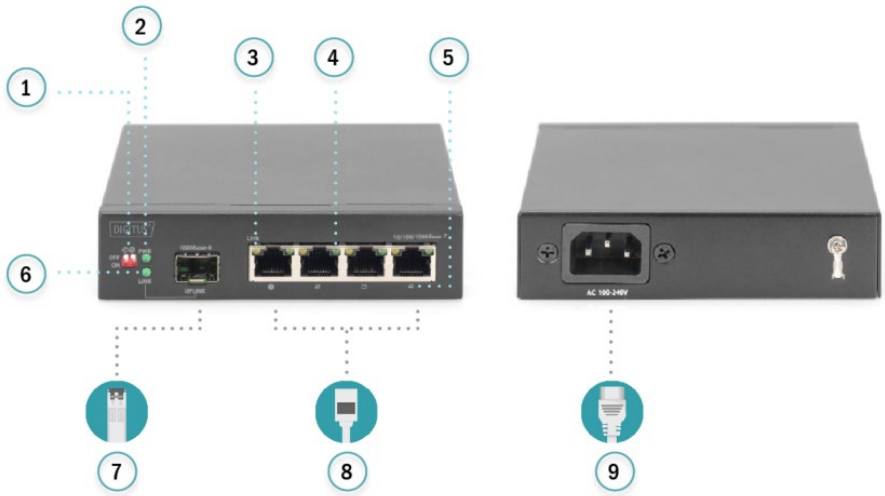


4. Specifications

| | | |
|-------------------------|----------------------------|-----------------------------------------------------------------------------------------------------|
| Power part | Power supply | AC |
| | Adapt to the voltage range | AC 100 ~ 240V |
| | Power consumption | <10W |
| Port parameters | Ports | 1~4 Electrical interface: 10/100/1000 Mbps Fiber interface: 1000 Mbps |
| | Transmission distance | Electrical interface : Normal mode, 0-100m Long-distance mode,0-330m Fiber interface: 20km |
| Switching Specification | Network standards | IEEE802.3/802.3u/802.3z/802.3ab |
| | Packet cache | 512 Kbits (5 ports switch) 1 Mbits (9 ports switch) |
| | MAC-Address capacity | 1K |
| Status indicator | Power LED | 1(green) |
| | SPD LED L/A LED | SPD: On is 100M(1000M), Off is 10M(10/100M) L/A: On is Link Off is Down, Flash is Act |
| | Fiber LED | 1(green) |
| Environmental Limits | Operating Temperature | -20 °C ~ 60 °C |
| | Storage Temperature | -40 °C ~ 85 °C |
| | Ambient Relative Humidity | 5-95% |

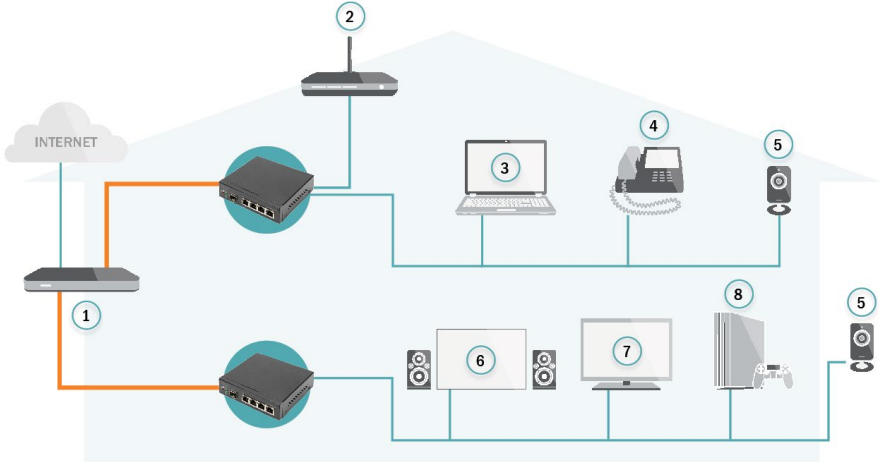
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| Physical Characteristics | Dimensions | 109mm×125mm×32mm (5 Port Switch) |
| | Housing | Aluminum shell, IP30 protection |
| | Color | black |
| | Weight | 0.43kg (5 Port Switch) |
| | Installation | DIN-rail mounting, wall mounting (with optional kit) |
| Reliability | MTBF | ≥500000h |



5. Product Overview



| | | | |
|---|------------------------|---|--------------------|
| 1 | DIP Switch | 6 | Fiber Link LED |
| 2 | Power LED | 7 | SFP Uplink Port |
| 3 | Electric port Link LED | 8 | RJ-45 Port |
| 4 | Electric port rate LED | 9 | AC Power connector |
| 5 | Electric port number | | |

5.1 Product Diagram



| | | | |
|---|-----------------------|-------------------------------------------------------------------------------------------------|-------------|
| 1 | Broadband Router | 6 | Home Cinema |
| 2 | Wireless Access Point | 7 | IPTV |
| 3 | Laptop | 8 | Game Player |
| 4 | VoIP Phone |  Network cable | |
| 5 | IP Camera |  Fiber cable | |

5.2 LED Indicator

| LED | status | Description |
|-------------------------------------|--------|---------------------------------------------------|
| PWR | on | Power Operating normally |
| | off | PWR is not connected or is not operating properly |
| Link | on | Port link UP |
| | flash | Port forwarding data |
| | off | Port link DOWN or not connect |
| 10/100/1000 Base-T (Gigabit switch) | on | 1000Base-T |
| | off | 10/100Base-T |

5.3 DIP switch


The switch defaults to the standard network mode at the factory, and the dial keys ① and ② are in the off position. After the device is power on, all of ports are interoperable.

One-to-one isolation: Dial key ① to on position, dial key ② default off position. After the device is power on, it starts the one-to-one isolation mode configuration and implements the corresponding ports of the two ports. In this case, the ports on the same device cannot be forwarded to each other. They can only communicate with the corresponding port on the peer device.

Port Isolation: Dial key ② to on position, Dial key ① default off position. After the device is power on, port isolation is achieved. The RJ45 ports cannot communicate with each other, the communication takes place between the SFP port and the individual RJ45 ports.

Long distance mode: Dial key ① and ② to on position. After the device is power on, the long-distance mode configuration is enabled and the electrical port rate is 10Base-T. The transmission distance of the electrical port is increased. At this time the device port transmission distance of 0-330 meters.

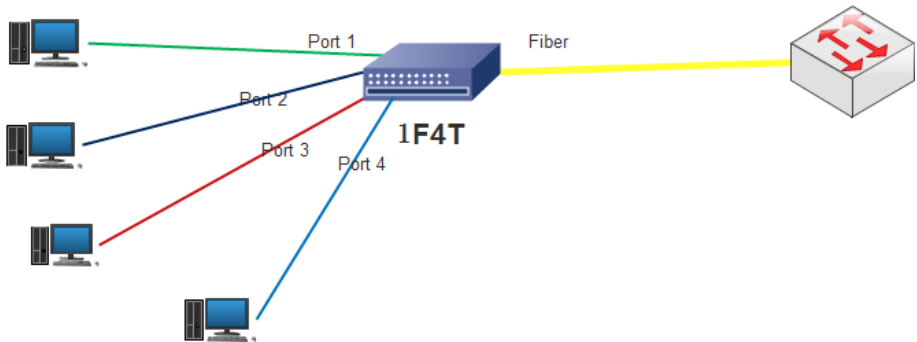


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|  <p>Notes</p> | 1 to 1 isolation mode must require two identical switches, through the optical port docking network can be used. |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|

6. Important function

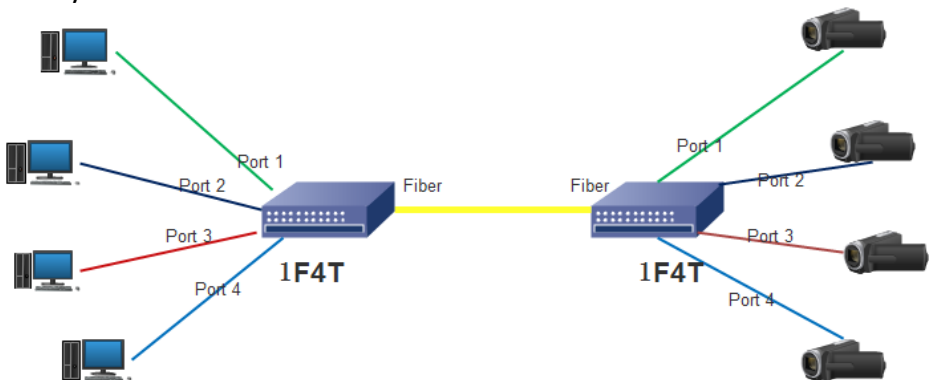
6.1 Port Isolation

The switch cannot carry out data transfer between each other, only to the optical port to communicate, so the data conversion more efficient, the system is running more secure.



6.2 One-to-one Isolation

When two switches A and B are connected through the optical interface, the A switch port 1 can only communicate with the B switch port 1. Similarly, A switch port 2 can only communicate with B switch port 2, and so on. To establish one-to-one isolation mode between A and B switches' RJ45 ports, it requires 2 pcs of same switch. It prevents the network storm, eliminating the paralysis of the system.



6.3 Long distance mode

By default, the switch electrical port transmission distance of 0-100 meters, open long distance mode, the electrical port for 10Mbit/s, to meet the high-definition video transmission bandwidth while increasing the maximum transmission distance of 330 meters. Thus enabling the ability to install IP cameras at the front of the field.

7. Installation

7.1 Precautions

When placing the switch, please pay attention to stability, drop will cause serious consequences.

Should be in the correct power supply to work properly, please confirm before using the power supply and switch the power requirements specified in line.

To reduce the risk of electric shock, do not open the case when the switch is working, even if it is not charged, do not open it yourself.

When the switch works, the network cable can be inserted or pulled out at the port without interrupting the work of the switch.

Before cleaning the switch, pull the switch's power plug first, wipe it with a moisturizing fabric, and do not use liquid cleaning.

Do not place the switch in a watery or humid place and prevent water and moisture from entering the switch housing.

When placing the switch, please avoid dusty and strong areas of electromagnetic interference

7.2 Install style

There are two install methods that can be installed on the desktop and wall mounted.



Notes

This product does not contain other fixed accessories other than fixed mounting screws;
When installing or moving, please unplug the power cord.

7.2.1 Install to the desktop

You can place this product directly on a clean, solid, grounded desk.

7.2.2 Wall mounted

You can also place this product on a clean, solid vertical wall. The installation process is as follows:

1. Fix the mounting brackets with screws
2. Insert the capsules into the holes on the wall. (The capsules are not included in the package.)
3. Insert the screw into the hole of the dowel. Please use screws with a diameter of 3-5 mm. Fix the network switch with the screws.

8. Connect the cable

- 1) Before installation, please turn off the power of each signal source and the device to be displayed. The installation of the power supply may cause damage to the transmission equipment.
- 2) Use the network cable to connect the network camera and the 1-4 Electrical port of the device respectively;
- 3) Connecting the optical fiber interface of the device with the optical fiber interface of the uplink equipment using the optical fiber line.
- 4) To connect the power supply equipment.
- 5) Check whether the installation is correct, equipment damage, to ensure that all connections are reliable, to the system power.
- 6) To confirm whether the network equipment, power supply, work is normal.

9. Appendix - Port Properties

9.1 Electrical port properties

| | |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Interface Type | RJ45 |
| Speed | 10/100/1000Mbps (Gigabit switch) |
| Duplex mode | Half-duplex, full-duplex, adaptive |
| Cable standard | MDI/MDI-X |
| Support standards | IEEE 802.3/802.3u |
| Cable type | <ul style="list-style-type: none">• 10Base-T: 3/4/5 twisted pair, supports a maximum transmission distance of 300m• 100/1000Base-TX: 5/6 twisted pair, supports a maximum transmission distance of 100m |

9.2 Fiber port properties

| | |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Interface Type | SFP slot |
| Speed | 1000Mbits (Gigabit switch) |
| Duplex mode | Full-duplex |
| Support standards | IEEE802.3u, IEEE802.3z |
| Media and transmission distance | <ul style="list-style-type: none">• 50/125um multimode fiber, supports 550m transmission distance• 62.5/125um multimode fiber, supports 270m transmission distance• 9/125um single-mode fiber, supports 1-120km transmission distance |

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