

# Fiche technique : Switch

# 4-Port 10/100/1000T 802.3at PoE + 2-Port 10/100/1000T

# **Overview**

#### Centralized Power Distribution for HD IP Surveillance System Solution

This switch provides four 802.3at PoE+ ports for catering to small-scale IP surveillance networks at a lower total cost. With **Dual** 10/100/1000BASE-T uplink ports, the recorded HD video files from the 4 PoE IP cameras can be powered by the switch and saved in the 4-channel NVR systems or surveillance software to perform comprehensive security monitoring and manage the surveillance system in the local LAN or the remote site via Internet.

- The switch's advanced features are as follows:
- 4-port PoE+, 55-watt PoE budget
- Two 10/100/1000Mbps uplink ports
- Port-based VLAN and Loop Protection features



#### **Two Gigabit Uplink Ports**

The switch comes with two uplink ports with 1000Mbps transfer rate to ensure high-speed data and video transmission, reliable assurance for connection between the surveillance system and outside network where the four PoE+ ports can be used to their full potential.

#### Innovative Port-based VLAN and Loop Protection features

The switch features "Port-based VLAN and Loop Protection" whose ports can be isolated from each other via one DIP switch. This can help to prevent the IP camera's multicast or broadcast storm from influencing each other. Even more, the switch can block and protect the loop network storm from the client, thus fully meeting the requirements of the IP surveillance systems and Ethernet projects.

Port Isolated







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#### Loop Protection



#### Environment-friendly, Fanless Design for Silent Operation

The switch comes with a desktop-sized, compact metal housing, making the placement of the unit convenient. It features a ventilated construction in which a cooling fan is not necessary, thereby making its operation noiseless. Moreover, the switch is able to operate reliably and stably in any environment without affecting its performance. The deployment of PoE PDs with constant power feeding can be easily and quickly done.

#### **Robust Protection**

The switch protects against the ESD 6kV surge to improve product stability and also protects users' networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.

#### Ideal Solution for SOHO Having Secure IP Surveillance Infrastructure

Targeting the growing popular IP surveillance applications, the switch PoE+ Switch is also positioned as a Surveillance Switch **for a quick and easy PoE IP camera deployment with power feeding**. The switch supports both 802.3at and 802.3af PoE standards along with 4 10/100/1000BASE-T ports featuring up to 30 watts per RJ45 copper interface, and 2 extra Gigabit Ethernet TP interfaces supporting high-speed transmission of surveillance images and videos.

#### Easy Cable Connection

With data switching and power over Ethernet integrated into one unit, the switch reduces cabling requirements and eliminates the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. A wire that carries both data and power can lower the installation costs, simplify the installation effort and eliminate the need for electricians or extension cords. With 4 PoE interfaces, the switch is ideal for small businesses and workgroups making the deployment of the PoE facility including wireless access points, IP-based surveillance camera and IP phones in any places easier, more efficient and more cost-effective.





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# Application

### Perfectly Integrated Solution for PoE IP Camera and NVR System

The switch provides four 802.3at/af PoE ports for catering to small-scale home and SOHO IP surveillance networks at a lower total cost. The switch comes with a high-performance switch architecture and 55-watt PoE power budget. The recorded video files from the 4 PoE IP cameras can be powered by the switch and saved in the 4-channel NVR system or using surveillance software to perform comprehensive security monitoring.

For instance, one switch can be combined with one 4-channel NVR; that is, each of its PoE port can be linked to a specific 802.3af/at PoE IP camera for the administrators to centrally and efficiently manage the surveillance system in one site. The switch's Gigabit Ethernet TP interface also provides Gigabit Ethernet TP connection for uplink to NVR systems or public server groups.



Perfect Combination 4-Port PoE Switch + 4-Ch NVR

### IP Office Department/Workgroup PoE Switch

To further expand the office premises, the additional telephones required could be installed in less cost via the PoE IP telephony system, better than the traditional circuit wiring telephony system. The switch PoE+ Switch helps enterprises to create an integrated data, voice, and powered network. The IEEE 802.3af/at compliant IP phones can be installed without the need of an additional power cable because the power can be provided via the standard Ethernet cable from the connected GSD-604HP. With the GSD-604HP, IP telephony deployment becomes more reliable and cost effective, thus helping enterprises save tremendous cost when upgrading from the traditional telephony system to IP telephony communications infrastructure.





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# **Key features**

## **RJ45 Interface**

- 6 10/100/1000Mbps Gigabit Ethernet ports
- 4 ports support 54V DC power to PoE powered device

### **Power over Ethernet**

- Complies with IEEE 802.3af/at Power over Ethernet end-span PSE
- Up to 4 IEEE 802.3af/at devices powered
- Supports PoE power up to 30 watts for each PoE port
- 55-watt PoE budget
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m

### Switching

- Hardware based 10/100/1000Mbps auto-negotiation and auto MDI/MDI-X
- Flow control for full duplex operation and back pressure for half duplex operation
- 9216 bytes jumbo packet size support
- Integrates address look-up engine, supporting 8K absolute MAC addresses
- Automatic address learning and address aging
- Supports port-based VLAN and loop protection

### Hardware

- LED indicators for PoE ready and LINK/ACT
- One 55V DC power jack



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# **Specifications**

Hardware Specifications		
Network Connector	6-port RJ45 for 10/100/1000BASE-T, auto MDI / MDIX	
PoE Inject Port	4-port with 802.3af/at PoE injector function (port 1 to port 4)	
LED Display	System: Power (Green) Per PoE port: PoE (Orange, port 1 to port 4) PoE max. (Orange) Ethernet port: 1000 LNK (Green) 10/100 LNK (Orange)	
Thermal Fan	Fanless design	
Switch Architecture	Store and Forward switch architecture	
MAC Address Table	8K MAC address table with auto learning function	
Switch Fabric	12Gbps	
Switch Throughput	8.92Mpps @64 bytes	
Jumbo Packet	9216 bytes	
Flow Control	Back pressure for half-duplex IEEE 802.3x pause frame for full-duplex	
Power Requirements	55V DC, 1.1A	
ESD Protection	6kV DC	
Power Consumption	Max. 60 watts, 204.6 BTU	
Dimensions (W x D x H)	160 x 92.5 x 28 mm	
Weight	374g	
Power over Ethernet		
PoE Standard	IEEE 802.3af Power over Ethernet/PSE IEEE 802.3at Power over Ethernet Plus/PSE	
PoE Power Supply Type	End-span	
Power Pin Assignment	1/2(+), 3/6(-)	
PoE Power Output	Per port 54V DC, 300mA. max. 15.4 watts (IEEE 802.3af) Per port 54V DC, 600mA. max. 30 watts (IEEE 802.3at)	
PoE Power Budget	55 watts	
Standard Conformance		
EMI Safety	FCC Class B, CE	
Standard Compliance	IEEE 802.3: Ethernet IEEE 802.3u: Fast Ethernet IEEE 802.3ab: Gigabit Ethernet IEEE 802.3x: Flow Control IEEE 802.3af: Power over Ethernet IEEE 802.3at: Power over Ethernet Plus	



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Environment	
Operating Environment	0 ~ 50 degrees C
Storage Environment	-10 ~ 70 degrees C
Operating Humidity	5 ~ 95%, relative humidity, non-condensing
Storage Humidity	5 ~ 95%, relative humidity, non-condensing



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