

## ND-GS0412SFP Intelligent AI PoE Switch



### OVERVIEW:

ND-GS0412SFP the switch with 4 Gigabit RJ45 PoE ports + 1 Gigabit uplink RJ45 ports + 2 Gigabit SFP ports, Ports 1-4 support Power over Ethernet based on IEEE 802.3af/at standards. The maximum power of a single port reaches 30W. The output power of the device is 78W. PoE ports support watchdog servo function, if a port communication fault occurs, the corresponding port restarts automatically to recover network communication by itself, reducing manual intervention and maintenance. As a PoE power supply device, it can automatically detect and identify the PSE devices and supply power to them via twisted pair.

ND-GS0412SFP the switch adopts standard PSE chip, non-blocking design; lightning surge protection 6KV design; AI watchdog function, and PoE power usage indicator. It will save more costs, reduce more risks and bring more value to the establishment and operation of the security transmission ecosystem, and help to build the AI intelligent security transmission ecosystem.

### FEATURE:

#### Gigabit Fast Ethernet Access

- ◇ Provides 4\* 10/100/1000Base-T RJ45 ports + 1\*1000Mbps uplink port and 2\*1000Mbps fiber optic interfaces for flexible network to meet the networked needs of various scenarios.
- ◇ All ports support non-blocking wire-speed forwarding for smoother transmission.
- ◇ Support IEEE 802.3x full-duplex flow control and Backpressure half-duplex flow control.

#### Intelligent Power over Ethernet function

- ◇ 4 10/100/1000Base-TX RJ45 ports support Power over Ethernet to meet the demand of Power over Ethernet in various security scenarios
- ◇ Comply with IEEE 802.3af/at Power over Ethernet standard, automatically identifies PoE devices and supply power, without damaging non-PoE devices. The output power of the whole machine is 78W, and the maximum output power of a single port is 30W.
- ◇ The 4 ports of Power over Ethernet support watchdog function, which automatically detects the data communication status in real time. When a port communication fault occurs, the corresponding port restarts automatically to recover the network communication and avoid manual maintenance.

## Easy to operate

- ◇ Plug-and-play, no need to configure, easy to use and maintain.
- ◇ Users can easily know the device status through the PoE work indicators.

## Innovative function

- ◇ Long distance mode (1): the switch is set to "ON" (default "OFF"), and the rate of ports 1-4 is reduced to 10M, so that the existing twisted-pair cable can be used to break the limitation of twisted-pair transmission of 100 meters, and the transmission distance can reach up to 250 meters. On the other hand, it can solve the problem of poor transmission caused by the aging of the line.
- ◇ VLAN mode (2): switch to "ON" (default "OFF") to open the physical VLAN isolation function of ports 1-4 to suppress broadcast storms and improve network performance.
- ◇ AI self-healing mode (3): switch to "ON" (default "OFF"), ports 1-4 open the watchdog function, which automatically detects the data communication status in real time, and when the port communication fails, the corresponding port POE will automatically restart and repair itself. Network communication, eliminating the trouble of manual maintenance.
- ◇ Fiber conversion mode (4): When the switch is set to "ON" (default "OFF"), the fiber optic interface is immediately will be converted to 2.5G, the fiber optic port is gigabit by default.

## Stable and reliable equipment

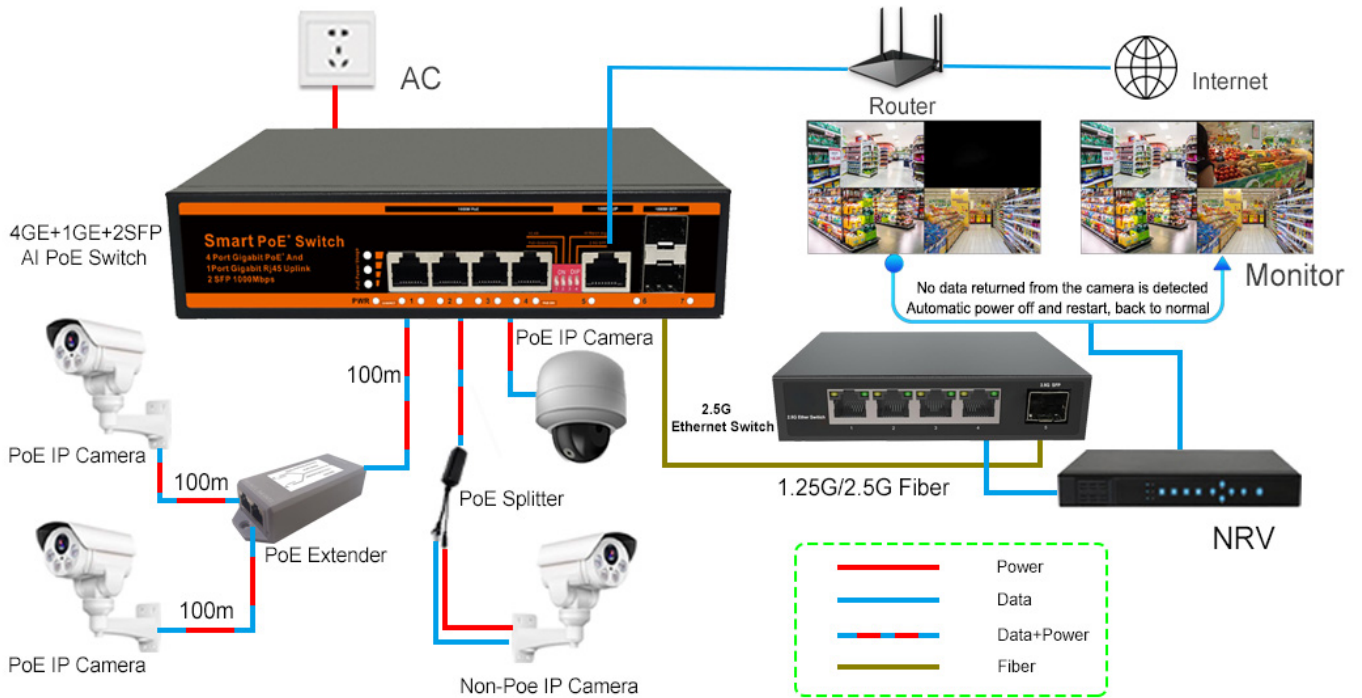
- ◇ The host has low power consumption, fanless and silent design, galvanized steel metal shell, excellent heat dissipation, ensuring stable operation of the product.
- ◇ The equipment fully meets the requirements of 3C, CE and FCC safety regulations, and is safe and reliable to use.

**TECHNICAL SPECIFICATION:**

Model	ND-GS0412SFP
Fixed Port	<p>4*10/100/1000Base-TX PoE ports (Data/Power)</p> <p>1*10/100/1000Base-TX uplink RJ45 port (Data)</p> <p>2*1000/2500Mbps SFP Slot</p>
Ethernet Port	<p>Port 1-4 support 10/100/1000Base-T(X) auto-sensing, full/half duplex</p> <p>MDI/MDI-X self-adaption</p>
Function Switch	<p>1 (1,2,3,4) four-position dip switch, the default state "OFF", "ON" after opening the function description as follows.</p>
	<p>1 is the "ON" state, port 1-4 can support long-distance transmission 10M/250m,when "OFF", 100 meters transmission.</p>
	<p>2 is the "ON" state,port 1-4 can support VLAN transmission mode</p>
	<p>3 is the "ON" state, port 1-4 can support AI self-healing mode; when"OFF", no communication self-healing function.</p>
	<p>4 is the "ON" state, SFP optical port is 2.5G, when "OFF", SFP optical port is 1000Mbps</p>
Network Protocol	<p>IEEE802.3 10BASE-T; IEEE802.3i 10Base-T;</p> <p>IEEE802.3u 100Base-TX;</p> <p>IEEE802.3ab 1000Base-T;</p> <p>IEEE802.3z 1000Base-X;</p> <p>IEEE802.3x</p>
Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	14Gbps
Forwarding Rate@64byte	10.416Mpps
MAC	8K

Buffer Memory	4M
Twisted pair Transmission	10BASE-T : Cat3,4,5 UTP(≤250 meter) 100BASE-TX : Cat5 or later UTP(≤100 meter) 1000BASE-TX : Cat5 or later UTP(≤100 meter)
PoE Port	Port 1 to 4 IEEE802.3af/at @ POE
Power Supply Pin	Default 1/2 (+), 3/6 (-), optional 4/5(+), 7/8(-)
Single-port Max Power	30W, IEEE802.3af/at
Total PWR/ Input Voltage	78W (52VDC)
Power Supply	External power adapter, AC100~240V 50-60Hz 1A
Power Consumption	Standby<4W, Full load<78W
LED Indicator	POE work indicator: three lights are not lit, POE power indication: P <20W, LED1 light, 20W <p <40W (light 1 light); LED2 light, 40W <p <60W (light 2 lights); LED3 light, 60W <p <80W (light 3 lights); three lights flash at the same time, 80W <p
Operation TEMP/Humidity	-20°C+55°C, 5%~90% RH Non condensing
Storage TEMP/Humidity	-40°C+75°C, 5%~95% RH Non condensing
Dimension (L*W*H)	220mm*140mm*45mm
Weight	1.05kg
Installation	Desktop.Wall-mounted
Lightning protection / protection level	Port lightning protection: 6KV 8/20us, Protection level: IP30
Warranty	1 years, lifelong maintenance

**APPLICATION**



**Ordering Information:**

Part No	Description of product	Unit
ND-GS0412SFP	4*10/100/1000Mbps PoE+Port,1*10/100/1000Mbps Uplink port, 2*1000Mbps SFP Slot . 1. Standard PSE chip ,Non-blocking design ,Support 8MP 2.AI watch dog function . 3.Lightning surge protection:6KV 4. DIP switch design :can freely choose 250m extended ,Vlan ,AI and 1.25G or 2.5G optical channel . 5 .3pcs LED indicators show power usage condition 6.power supply 78W	pc