

# 9005-16GP2GS Series

Managed 16 x 10/100/1000 PoE+ &  
2 x FX/GbE SFP Industrial Switch

## Description

The 9005-16GP2GS series Managed Gigabit switches designed for growing demands of IP surveillance applications. Switch includes 16 PoE+ (802.3af/at) ports and 2 FX/GbE SFP slots for having daisy chain connection. It is suitable for hardened environments with fanless requirement. Switch can support maximum 480 Watt PoE power budget in 48V DC power input type.

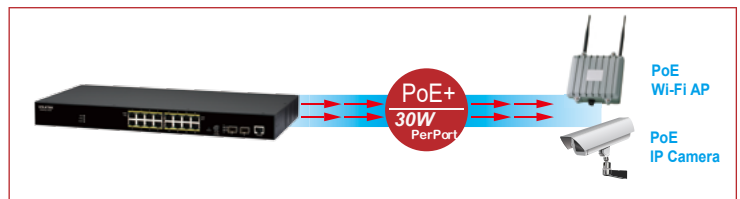
The switch includes intelligent PoE features like PD (Powered Device) alive check, PoE scheduling and PoE budget control. By offering optimization for network efficiency, operational cost saving and easy user management, the 9005-16GP2GS allows quick deployment within a friendly enterprise budget. It includes IEEE 802.3az Energy Efficient Ethernet for better power consumption saving.



## Features Highlight

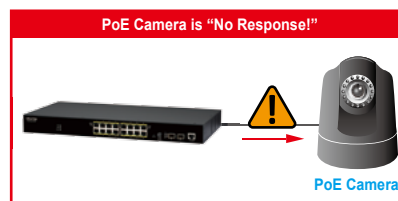
### High-Power Budget for PoE Network Devices

To fulfill the growing demand of high-bandwidth, high-power PoE for network applications and eliminating the cost of electrical cabling and circuits, the 9005-16GP2GS series is designed under IEEE 802.3at standard PoE+. With enough PoE power budget capability for whole system, the switch allows simple "plug-n-play" PoE for various types of high power consuming PoE devices. This makes the 9005-16GP2GS series a very convenient solution for applications far away from power outlets satisfying PoE extension applications in much longer distances.



### Intelligent PoE Alive Checking

The 9005-16GP2GS series is designed with intelligent PoE+ features to utilize power more efficient. To monitor real-time status of PDs, the switch sends alive-checking packets to PDs. If a PD fails to respond, the switch's PD live check feature detects the failure and reactivates the PD. This reduces management burden and increases system reliability.



### Future-proof Fiber Connectivity with Dual 100FX/Gigabit SFP Slots

With two dual-speed 100/1000Mbps SFP slots, the 9005-16GP2GS easily establishes fiber channel for gigabit Ethernet connectivity and allows to take advantage of fiber based daisy chain topology. The switch provides long distance, high-speed fiber connectivity while offering enhanced noise immunity and data security across deployed systems. The 9005-16GP2GS is a well-suited robust, cost-effective and future-proof solution for fiber based surveillance networks.

### Fanless Design

9005-16GP2GS operates silently and provides flexibility as to where it could be placed. While it is also resistant to harsh environment, a fanless design protects it from malfunctioning by stopping the inflow of debris as dust and dirt that builds up in fan integrated devices, avoiding small pieces to break and other interference with its electronic components to assure its longevity.



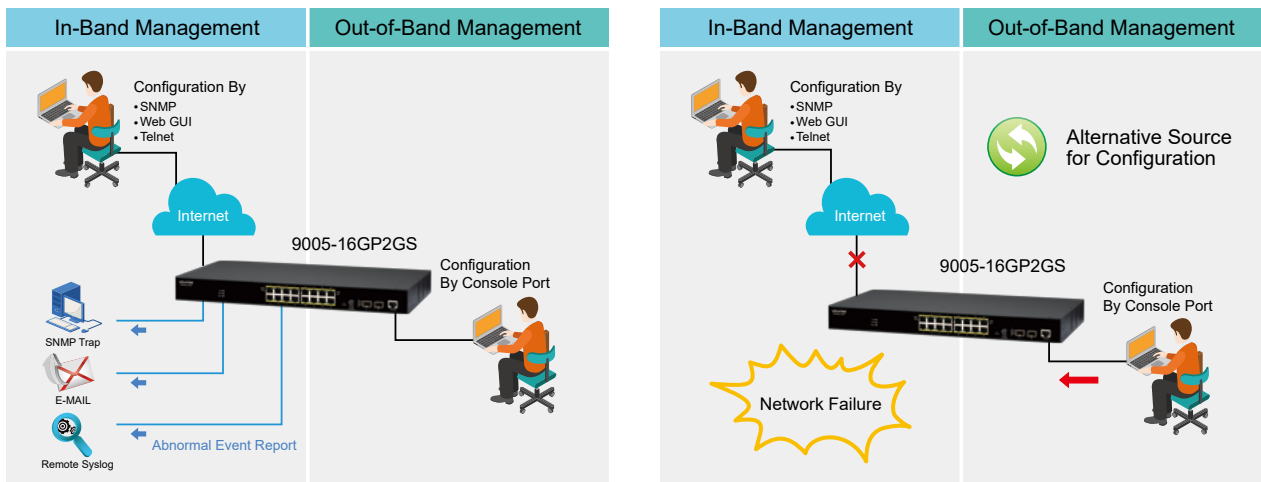
## Features Highlight

### Maintain a Redundant and Resilient Network

The 9005-16GP2GS series supports RSTP and LACP for maintaining seamless transmission within the network. RSTP reduces the network convergence time by providing a backup path in case of primary link failure, resulting a secure, reliable and loop free network. LACP contributes for constructing a protected virtual single high bandwidth channel by enclosing multiple physical ports together to achieve redundancy on condition of link failure that assures security and reliability of the network.

### Efficient Network Monitoring and Proactive Capability

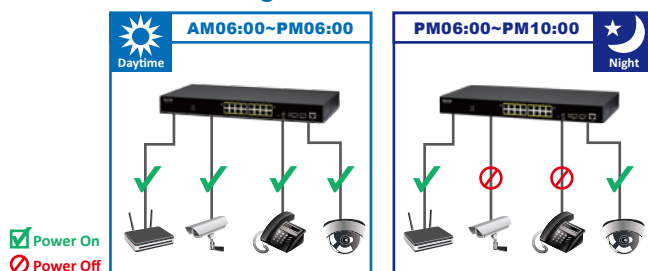
The 9005-16GP2GS series is configured with SNMPv1/v2c/v3 which gives an enhanced approach for traffic analysis, monitoring and management within a surveillance network. The switch is assimilated with intelligent e-mail alarm system and SNMP Trap functionality to detect system abnormality along with Faster Troubleshooting. In addition to this, the device maintains a system log for the subsequent analysis of abnormal and unwanted flaws. For efficient network management, the switch is integrated with a Console Port (Out-of-Band Management) which provides an alternative source to deal with network failure (Web GUI, SNMP and Telnet).



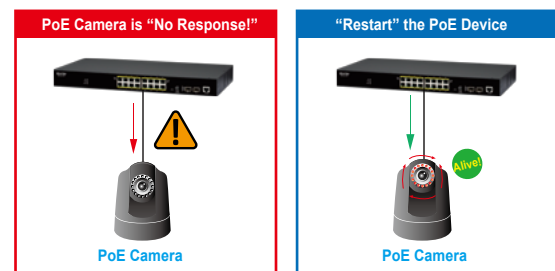
### Intelligent PoE Features

The 9005-16GP2GS series is designed with intelligent PoE features to utilize power more efficiently. With user-configurable power budget limit feature, administrators can set power on each port to a desired hourly/weekly schedule and can enable or disable the power output to the powered devices accordingly. To monitor real-time status of PDs, the switch sends alive-checking packets to PDs which reduces management burden and increases system reliability.

#### PoE Scheduling



#### PoE Alive-Checking



### Eco-friendly Green Ethernet Design

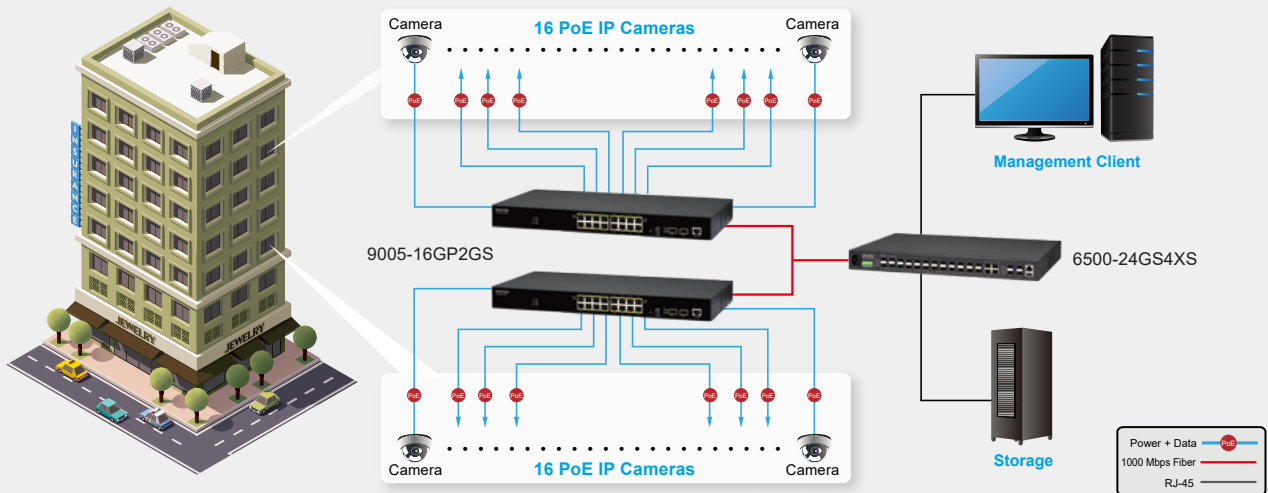
To address the concerns of increasing power consumption, the 9005-16GP2GS implements IEEE 802.3az Energy Efficient Ethernet (EEE) compliant Green Ethernet technology. This eco-friendly design allows the switch to automatically adjust power consumption and conserve energy during the periods of low data activity. This helps you to lower energy usage significantly and save your operational costs.



## Applications

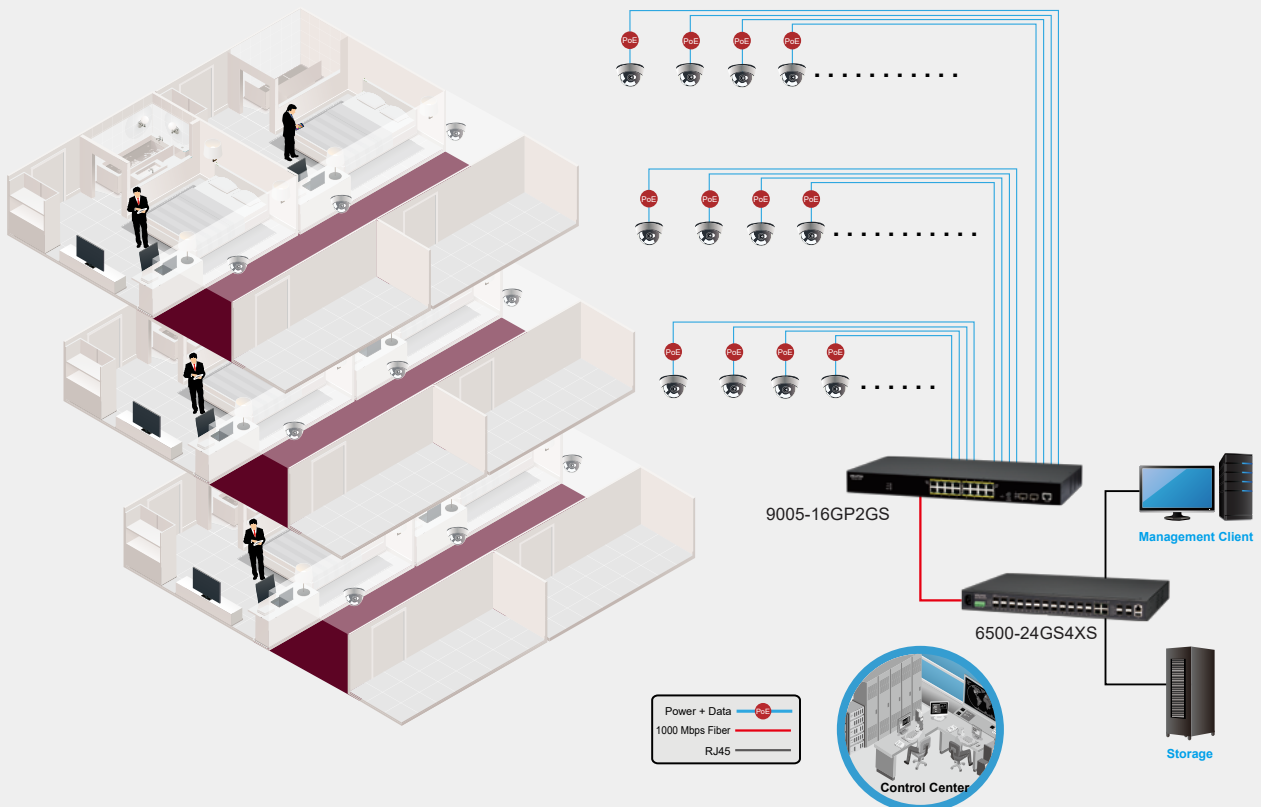
## Long distance connectivity using fiber ports

The 9005-16GP2GS series provides 16-port 10/100/1000BASE-T PoE+ and 2-slot FX/GbE SFP for optical connectivity to settle lengthen communication within the heighten infrastructure.



## Provide Suitable Network Infrastructure

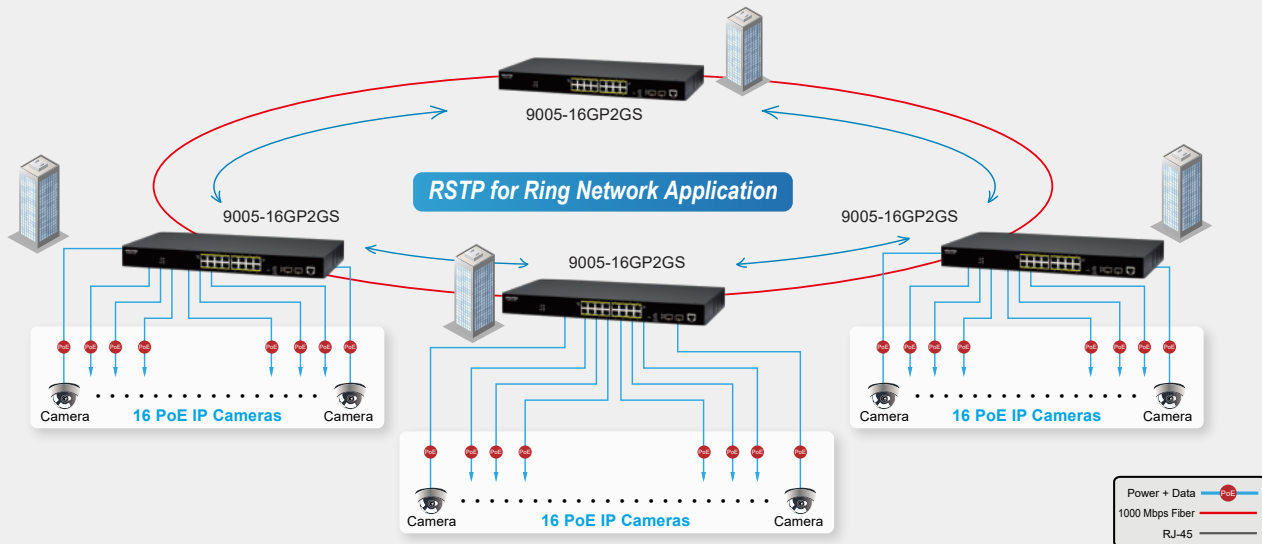
The 9005-16GP2GS series supports high performance PoE+ (802.3af/at) standard and provides power to connected PD devices via CAT 5e twisted cables. The switch can easily satisfy up to 16 powered devices such as Wireless AP, IP Cameras or VoIP Phones which gives a cost effective suitable network infrastructure.



## Applications

## Maintain Link Redundancy and Loop Free Network

The 9005-16GP2GS series supports Rapid Spanning Tree Protocol (IEEE 802.1w RSTP) which provides redundant links to achieve faster link switching and loop free surveillance network ensuring reliability and security.



## Specifications

Standards	
IEEE 802.3	10BASE-T
IEEE 802.3u	100BASE-TX/FX
IEEE 802.3ab	1000BASE-T
IEEE 802.3z	1000BASE-SX/LX
IEEE 802.3x	Flow Control
IEEE 802.1ad	QinQ
IEEE 802.3af	Power over Ethernet
IEEE 802.3at	Power over Ethernet Plus
IEEE 802.3az	Energy Efficient Ethernet
IEEE 802.3ad	Link Aggregation
IEEE 802.1D	STP
IEEE 802.1w	RSTP
IEEE 802.1p	Class of Service
IEEE 802.1Q	VLAN Tagging
IEEE 802.1AB	LLDP
Features	
Performance	Switching Capacity: 36Gbps
	Forwarding Rate 26.79Mpps
	Jumbo frame Size: 10KB
	Packet Buffer: 4.1Mbits
	MAC Table Entries: 8K
Management	Active VLAN: 4K
	CLI, Telnet/SSH, HTTP, SNMP v1/v2c/v3, SNMP Trap, MVLAN, Firmware Upgradable, Configuration Backup/Restore, Syslog, STMP, LLDP, DHCP Client/Relay/Option 82, E-mail Alarm, Server Control, Mirroring, DDM, SFP Info, Auto-Provisioning, EEE, RMON Statistics, ModbusTCP, ERPS
	Reliability
	STP/RSTP, Dual Homing, LACP, Static Trunk
	VLAN
	IEEE 802.1Q, Port-based VLAN, MAC-based VLAN

Traffic Control	IGMP Snooping, QoS, Flow Control, Rate Limit, Storm Control, Traffic Monitor, Port Isolation, Loop Detection
Security	ACL, SSH, Port-based 802.1x, Port Security, MAC Search, Static MAC, DHCP Snooping, DHCP Server Screening, ARP Inspection, BPDU Guard/Filter, Root Guard, Managed Host
PoE/PoE+	Scheduling, PD Alive Check, PoE Power On/OFF, Feeding Power Budget Control
Power	
Input Voltage	9005-16GP2GS-A-C/9005-16GP2GS-A-H: 100~240VAC, 50/60Hz 9005-16GP2GS-D-I: 48~57VDC
Power Consumption	20W (System Only)
PoE+ Functions	
PoE+ Functions	Up to 16 IEEE 802.3af/802.3at powered devices PoE Power Budget: 9005-16GP2GS-A-C version: 220~240V AC 330Watt @ 50°C (122°F) Derating to 280Watt @ 60°C (140°F) 9005-16GP2GS-A-H version: 100~127V AC 260Watt @ 50°C (122°F) Derating to 240Watt @ 60°C (140°F) 9005-16GP2GS-D-I version: 48~57V DC 480Watt @ 75°C (167°F)
Interface	
Ports	16 x 10/100/1000BASE-T (PoE RJ45) 2 x FX/GbE SFP 1 x RJ45 Console Port
Mechanical and Environment	
Rack Space	19"



Form Factor	Rackmount / DIN Rail
FAN	Fanless
Operating Temperature	9005-16GP2GS-A-C: 0°C to 50°C (32°F~122°F)
	9005-16GP2GS-A-H: -10°C to 60°C (14°F~140°F)
	9005-16GP2GS-D-I: -40°C to 70°C (-40°F~158°F)
Storage Temperature	-40°C~85°C (-40°F~185°F)
Altitude	2,000m (6561.68 ft)
Operating Humidity	5 to 95% RH (non-condensing)
Storage Humidity	5 to 95% RH (non-condensing)
Weight	4,000g (8.8 lb)
Dimension (WxHxD)	440 x 44 x 284mm (17.3 x 1.73 x 11.2in)
<b>Standards and Certifications</b>	
Electromagnetic Compatibility	FCC Part 15 Subpart B Class A
	EN 55032 Class A, BS EN 55032 Class A
	EN 55035, BS EN 55035
	9005-16GP2GS-A-C/9005-16GP2GS-A-H: EN IEC 61000-3-2 Class A, BS EN IEC 61000-3-2 Class A
	EN 61000-3-3, BS EN 61000-3-3
	9005-16GP2GS-D-I: EN 55011, EN 61000-6-4, EN 61000-6-2

RoHS	Present
Shock Test	IEC 60068-2-27
Freefall Test	IEC 60068-2-31
Vibration	IEC 60068-2-6
<b>Ordering Information</b>	
9005-16GP2GS-A-C	Managed 16 x 10/100/1000 PoE+ & 2 x FX/GbE SFP Switch, Internal AC power supply, 50°C (122°F)
9005-16GP2GS-A-H	Managed 16 x 10/100/1000 PoE+ & 2 x FX/GbE SFP Industrial Switch, Internal AC power supply, 60°C (140°F)
9005-16GP2GS-D-I	Managed 16 x 10/100/1000 PoE+ & 2 x FX/GbE SFP Industrial Switch, DC power input, 70°C (158°F)

**Note:**

\* The SFP communication distance upon the request.

\* Industrial SFP with wide operating temperature from -40°C~85°C (-40°F~185°F) is available upon request.

\* Specifications subject to change without notice.

**Dimension**