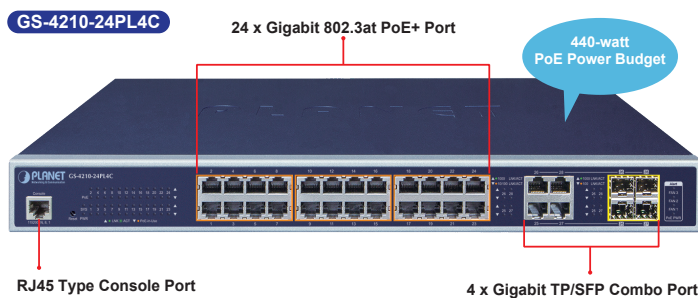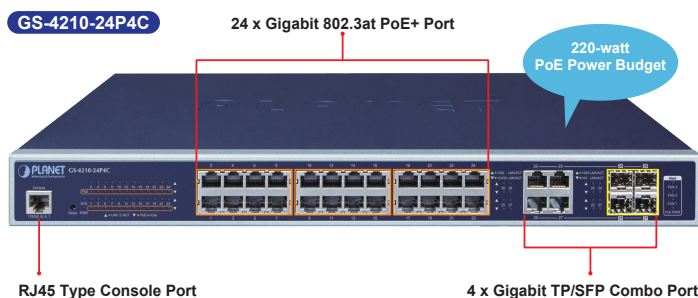# 24-Port 10/100/1000T 802.3at PoE + 4-Port Gigabit TP/SFP Combo Managed Switch

A Perfect Managed PoE+ Switch with Advanced L2/L4 Switching and Security

The GS-4210-24P(L)4C is a cost-optimized, Gigabit PoE+ Managed Switch featuring PLANET **intelligent PoE** functions to improve the availability of critical business applications. It provides IPv6/IPv4 dual stack management and built-in L2/L4 Gigabit switching engine along with **24 10/100/1000BASE-T** ports featuring **36-watt 802.3at PoE+** and **4 additional Gigabit TP/SFP combo ports**. With a total power budget of up to **220 watts** and **440 watts** for different kinds of PoE applications, the GS-4210-24P4C and GS-4210-24PL4C provide a quick, safe and cost-effective Power over Ethernet network solution for small businesses and enterprises.

GS-4210-24P4C

24 x Gigabit 802.3at PoE+ Port

220-watt PoE Power Budget

RJ45 Type Console Port

4 x Gigabit TP/SFP Combo Port

GS-4210-24PL4C

24 x Gigabit 802.3at PoE+ Port

440-watt PoE Power Budget

RJ45 Type Console Port

4 x Gigabit TP/SFP Combo Port

Cybersecurity Network Solution to Minimize Security Risks

The GS-4210-24P(L)4C supports SSHv2 and TLS protocols to provide strong protection against advanced threats. It includes a range of cybersecurity features such as **DHCP Snooping**, **IP Source Guard**, dynamic **ARP Inspection** Protection,

Physical Port

- **28-Port 10/100/1000BASE-T** Gigabit RJ45 copper with 24-Port **IEEE 802.3at/af PoE** Injector (Port-1 to Port-24)
- **4 100/1000BASE-X mini-GBIC/SFP** slots, shared with port-25 to port-28 compatible with 100BASE-FX SFP
- RJ45 console interface for switch basic management and setup

Power over Ethernet

- Complies with IEEE 802.3at Power over Ethernet Plus, end-span PSE
- Backward compatible with IEEE 802.3af Power over Ethernet
- Up to 24 ports of IEEE 802.3af/802.3at devices powered
- Supports PoE power up to 36 watts for each PoE port
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100 meters in standard mode and 250m in extend mode
- PoE management
  - Per port PoE function enable/disable
  - PoE port power feeding priority
  - Per PoE port power limitation
  - PD classification detection
- Intelligent PoE features
  - PD alive check
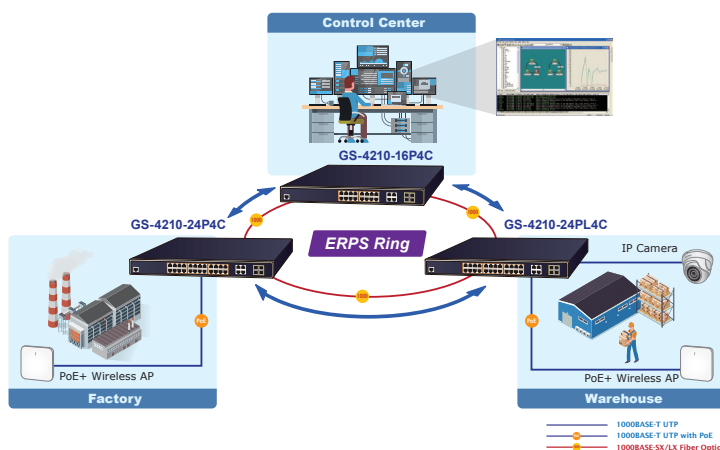 - PoE schedule
  - PoE extension

Layer 2 Features

- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x pause frame flow control (full-duplex)
- High performance Store and Forward architecture, broadcast storm control, runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- Supports **VLAN**
  - IEEE 802.1Q tagged VLAN
  - Provider Bridging (VLAN Q-in-Q) support (IEEE 802.1ad)
  - Protocol VLAN
  - Voice VLAN
  - Private VLAN
  - Management VLAN

802.1x port-based network access control, **RADIUS** and **TACACS+** user accounts management, **SNMPv3** authentication, and so on to complement it as an all-security solution.

Redundant Ring, Fast Recovery for Critical Network Applications

The GS-4210-24P(L)4C supports redundant ring technology and features strong, rapid self-recovery capability to prevent interruptions and external intrusions. It incorporates advanced **ITU-T G.8032 ERPS (Ethernet Ring Protection Switching)** technology, Spanning Tree Protocol (802.1s MSTP) into customer's network to enhance system reliability and uptime in various environments.

Built-in Unique PoE Functions for Powered Devices Management

As it is the managed PoE switch for surveillance, wireless and VoIP networks, the GS-4210-24P(L)4C features the following special PoE management functions:

- PD Alive Check
- Scheduled Power Recycling
- PoE Schedule
- PoE Usage Monitoring
- PoE Extension

Intelligent Powered Device Alive-Check

The GS-4210-24P(L)4C can be configured to monitor connected PD (powered device) status in real time via ping action. Once the PD stops working and responding, the GS-4210-24P(L)4C will resume the PoE port power and bring the PD back to work. It will greatly enhance the network reliability through the PoE port resetting the PD's power source, thus reducing the administrator's management burden.

- GVRP
- Supports **Spanning Tree Protocol**
  - STP (Spanning Tree Protocol)
  - RSTP (Rapid Spanning Tree Protocol)
  - MSTP (Multiple Spanning Tree Protocol)
  - STP BPDU Guard, BPDU Filtering and BPDU Forwarding
- Supports **Link Aggregation**
  - IEEE 802.3ad Link Aggregation Control Protocol (LACP)
  - Cisco ether-channel (Static Trunk)
  - Maximum 2 trunk groups, up to 4 ports per trunk group
- Provides port mirror (many-to-1)
- Loop protection to avoid broadcast loops
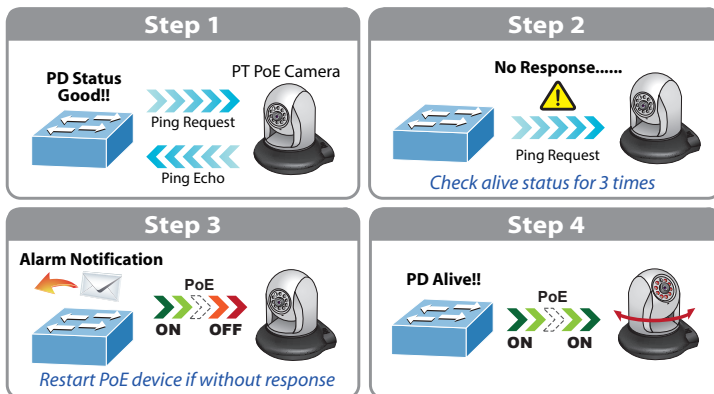- Supports ERPS (Ethernet Ring Protection Switching)

Quality of Service

- Ingress/Egress Rate Limit per port bandwidth control
- Storm Control support
  - Broadcast/Unknown-Unicast/Unknown-Multicast
- Traffic classification
  - IEEE 802.1p CoS
  - TOS / DSCP/IP Precedence of IPv4/IPv6 packets
- Strict priority and Weighted Round Robin (WRR) CoS policies

Multicast

- Supports IPv4 IGMP snooping v2 and v3
- Supports IPv6 MLD snooping v1, v2
- IGMP querier mode support
- IGMP snooping port filtering
- MLD snooping port filtering

Security

- Authentication
  - IEEE 802.1X Port-based network access authentication
  - Built-in RADIUS client to co-operate with the RADIUS servers
  - RADIUS/TACACS+ login user access authentication
- Access Control List
  - IPv4/IPv6 IP-based ACL
  - MAC-based ACL
- MAC Security
  - Static MAC
  - MAC Filtering
- Port Security for Source MAC address entries filtering
- DHCP Snooping to filter distrusted DHCP messages
- Dynamic ARP Inspection discards ARP packets with invalid MAC address to IP address binding

Step 1	Step 2

PD Status Good!! PT PoE Camera
Ping Request
Ping Echo

No Response......
Ping Request
Check alive status for 3 times

Step 3	Step 4

Alarm Notification PoE
ON OFF
Restart PoE device if without response
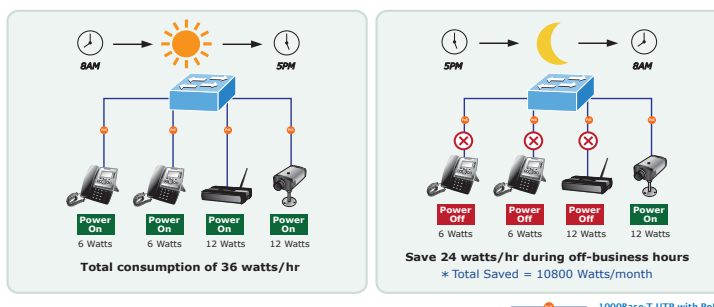
PD Alive!! PoE
ON ON

Scheduled Power Recycling

The GS-4210-24P(L)4C allows each of the connected PoE IP cameras or PoE wireless access points to reboot at a specified time each week. Therefore, it will reduce the chance of IP camera or AP crash resulting from buffer overflow.

Automatically Reboot Every Friday 23:00

S M T W T F S

CPU/Buffer Load 85%
CPU/Buffer Load 10%

PoE
ON OFF ON

PoE PT Camera
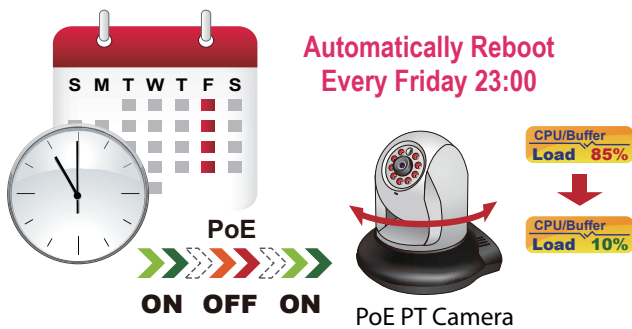
PoE Schedule for Energy Savings

Under the trend of energy savings worldwide and contributing to environmental protection, the GS-4210-24P(L)4C can effectively control the power supply besides its capability of giving high watts power. The **"PoE schedule"** function helps you to enable or disable PoE power feeding for each PoE port during specified time intervals and it is a powerful function to help SMBs or enterprises save power and money. It also increases security by powering off PDs that should not be in use during non-business hours.

8AM 5PM
Power On Power On Power On Power On
6 Watts 6 Watts 12 Watts 12 Watts
Total consumption of 36 watts/hr

5PM 8AM
Power Off Power Off Power Off Power On
6 Watts 6 Watts 12 Watts 12 Watts
Save 24 watts/hr during off-business hours
✳Total Saved = 10800 Watts/month

1000Base-T UTP with PoE

- IP Source Guard prevents IP spoofing attacks
- DoS Attack Prevention

Management

- IPv4 and IPv6 dual stack management
- Switch Management Interface
  - Web switch management
  - Console/Telnet Command Line Interface
  - SNMP v1 and v2c switch management
  - SSHv2, TLSv1.2 and SNMPv3 secure access
- SNMP Management
  - Four RMON groups (history, statistics, alarms, and events)
  - SNMP trap for interface Link Up and Link Down notification
- User Privilege Levels Control
- Built-in Trivial File Transfer Protocol (TFTP) client
- BOOTP and DHCP for IP address assignment
- System Maintenance
  - Firmware upload/download via HTTP/TFTP
  - Configuration upload/download through Web interface
  - Dual Images
  - Hardware reset button for system reboot or reset to factory default
- SNTP Network Time Protocol
- Network Diagnostic
  - ICMPv6/ICMPv4 Remote Ping
  - Cable Diagnostics
  - SFP-DDM (Digital Diagnostic Monitor)
- Link Layer Discovery Protocol (LLDP) Protocol and LLDP-MED
- Event message logging to remote Syslog server
- Smart fan with speed control
- PLANET Smart Discovery Utility for deployment management
- PLANET NMS system and CloudViewer for deployment management

3

PoE Usage Monitoring

Via the power usage chart in the web management interface, the GS-4210-24P(L)4C enables the administrator to monitor the status of the power usage of the connected PDs in real time. Thus, it greatly enhances the management efficiency of the facilities.

802.3at PoE+ Power and Ethernet Data Transmission Distance Extension

In the "Extend" operation mode, the GS-4210-24P(L)4C operates on a per-port basis at 10Mbps duplex operation but can support 36-watt PoE power output over a distance of up to 250 meters overcoming the 100m limit on Ethernet UTP cable. With this brand-new feature, the GS-4210-24P(L)4C provides an additional solution for 802.3at/af PoE distance extension, thus saving the cost of Ethernet cable installation.
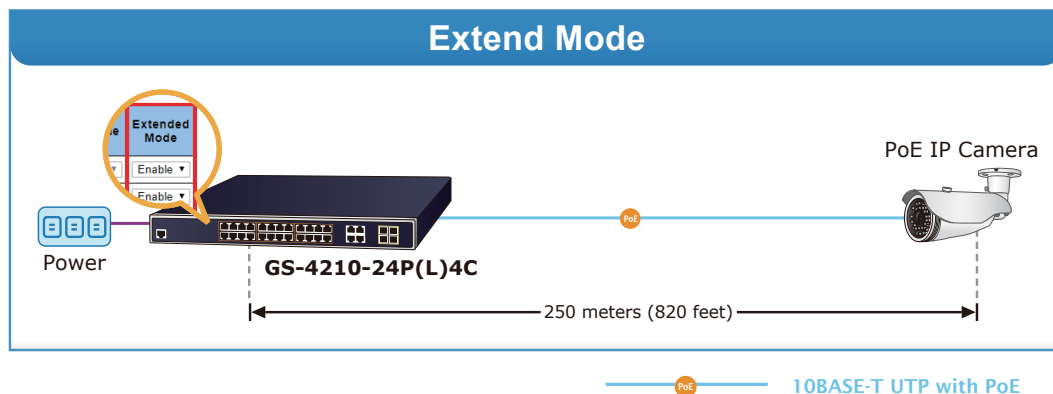

Environmentally-friendly, Smart Fan Design for Silent Operation

The GS-4210-24P(L)4C features a low noise design and an effective ventilation system. It supports the smart fan technology that automatically controls the speed of the built-in fan to reduce noise and maintain the temperature of the PoE switch for optimal power output capability. The GS-4210-24P(L)4C is able to operate reliably, stably and quietly in any environment without affecting its performance.

IPv6/IPv4 Dual Stack Management

Supporting both IPv6 and IPv4 protocols, the GS-4210-24P(L)4C helps the SMBs to step in the IPv6 era with the lowest investment as its network facilities need not be replaced or overhauled if the IPv6 FTTx edge network is set up.
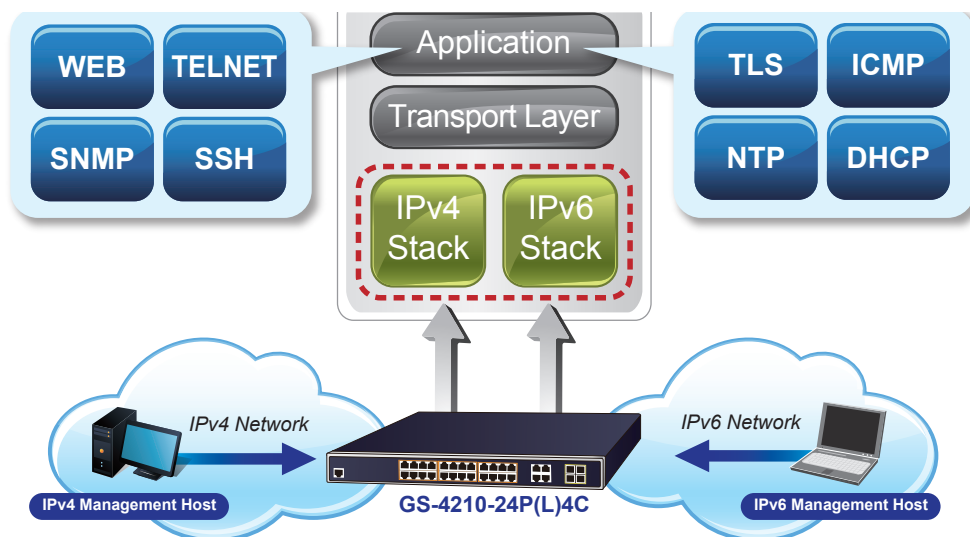
Robust Layer 2 Features

The GS-4210-24P(L)4C can be programmed for advanced switch management functions such as dynamic port link aggregation, 802.1Q VLAN and **Q-in-Q VLAN**, **Multiple Spanning Tree protocol (MSTP)**, loop and **BPDU guard**, **IGMP snooping**, and **MLD snooping**. Via the link aggregation, the GS-4210-24P(L)4C allows the operation of a high-speed trunk to combine with multiple ports, and supports fail-over as well. Also, the **Link Layer Discovery Protocol (LLDP)** is the Layer 2 protocol included to help discover basic information about neighboring devices on the local broadcast domain.

**L2/L4
Managed Switch**

**L2/L4
Managed Switch**
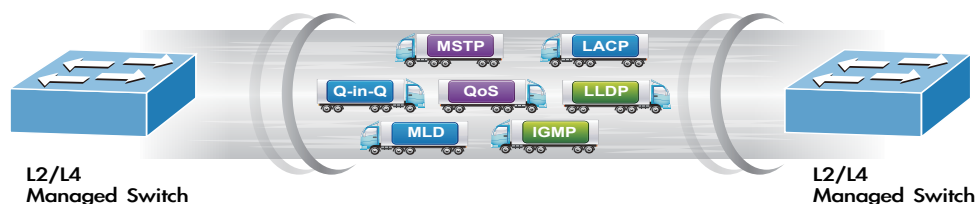
Efficient Traffic Control

The GS-4210-24P(L)4C is loaded with robust QoS features and powerful traffic management to enhance services to business-class data, voice, and video solutions. The functionality includes broadcast / multicast storm control, per port bandwidth control, IP DSCP QoS priority and remarking. It guarantees the best performance for VoIP and video stream transmission, and empowers the enterprises to take full advantage of the limited network resources.

Powerful Security

PLANET GS-4210-24P(L)4C offers comprehensive **IPv4/IPv6** Layer 2 to Layer 4 **Access Control List (ACL)** for enforcing security to the edge. It can be used to restrict network access by denying packets based on source and destination IP address, TCP/UDP ports or defined typical network applications. Its protection mechanism also comprises **802.1X port-based** user and device authentication, which can be deployed with RADIUS and TACACS+ to ensure the port level security and block illegal users. With the protected port function, communication between edge ports can be prevented to guarantee user privacy. Furthermore, Port security function allows to limit the number of network devices on a given port.

Friendly and Secure Management

For efficient management, the GS-4210-24P(L)4C is equipped with **web**, **Telnet** and **SNMP** management interfaces.

■ With the built-in **Web-based** management interface, the GS-4210-24P(L)4C offers an easy-to-use, platform-independent management and configuration facility.

■ For **text-based** management, the switch can be accessed via Telnet and the console port.

■ By supporting the standard SNMP, the switch can be managed via any standard management software

Moreover, the GS-4210-24P(L)4C offers secure remote management by supporting **SSHv2**, **TLSv1.2** and **SNMPv3** connections which encrypt the packet content at each session.

Secure Management

Flexibility and Long-distance Extension Solution

The GS-4210-24P(L)4C provides 4 extra Gigabit TP interfaces supporting 10/100/1000BASE-T RJ45 copper to connect with surveillance network devices such as NVR, Video Streaming Server or NAS to facilitate surveillance management. Or through these **dual-speed fiber SFP slots**, it can also connect with the **100BASE-FX/1000BASE-SX/LX SFP** (Small Form-factor Pluggable) fiber transceiver to uplink to backbone switch and monitoring center in long distance. The distance can be extended from 550 meters to 2 kilometers (multi-mode fiber) and up to above 10/20/40/60/80/120 kilometers (single-mode fiber or WDM fiber). They are well suited for applications within the enterprise data centers and distributions.

Intelligent SFP Diagnosis Mechanism

The GS-4210-24P(L)4C supports **SFP-DDM (Digital Diagnostic Monitor)** function that can easily monitor real-time parameters of the SFP for network administrator, such as optical output power, optical input power, temperature, laser bias current, and transceiver supply voltage.
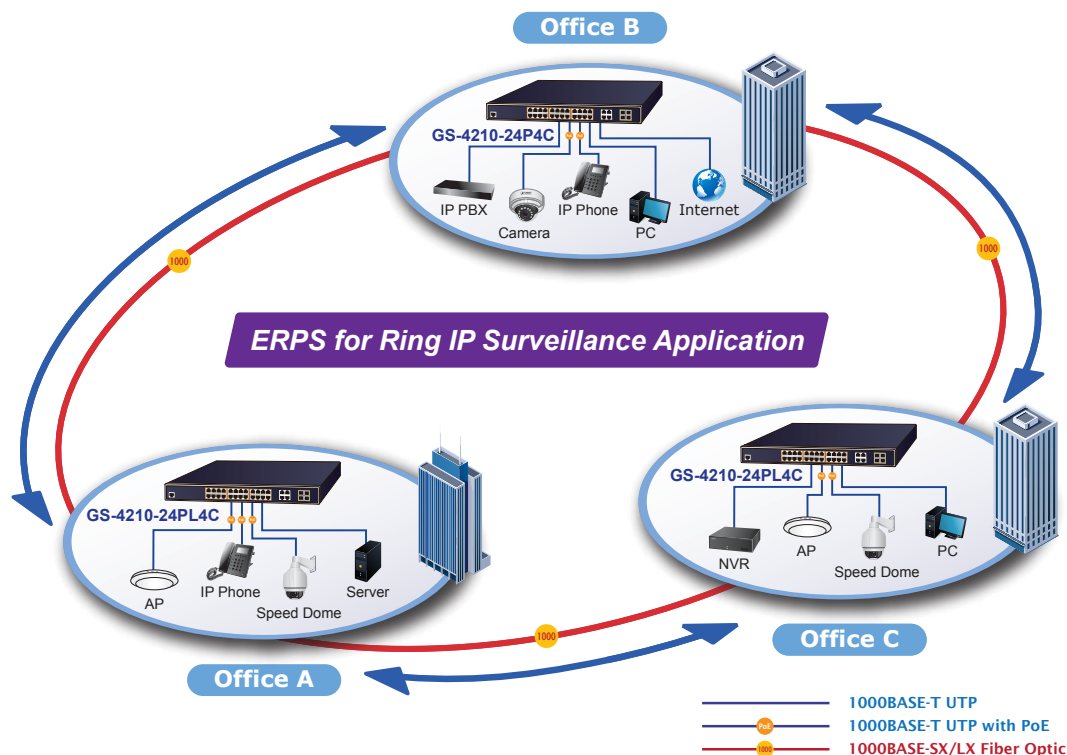
Applications

High Scalability and Best Security for Today's IP Networking and Cyber Security Solution

The GS-4210-24P(L)4C comes with non-blocking design and SFP fiber-optic modules, bringing network infrastructure higher flexibility but lower in cost. Providing twenty-four 10/100/1000BASE-T PoE ports and four Gigabit TP/SFP combo ports, the GS-4210-24P(L)4C can easily build a networking security on the cyber security system for the enterprises. For instance, it can work with the router and UTM to perform comprehensive security for today's businesses.
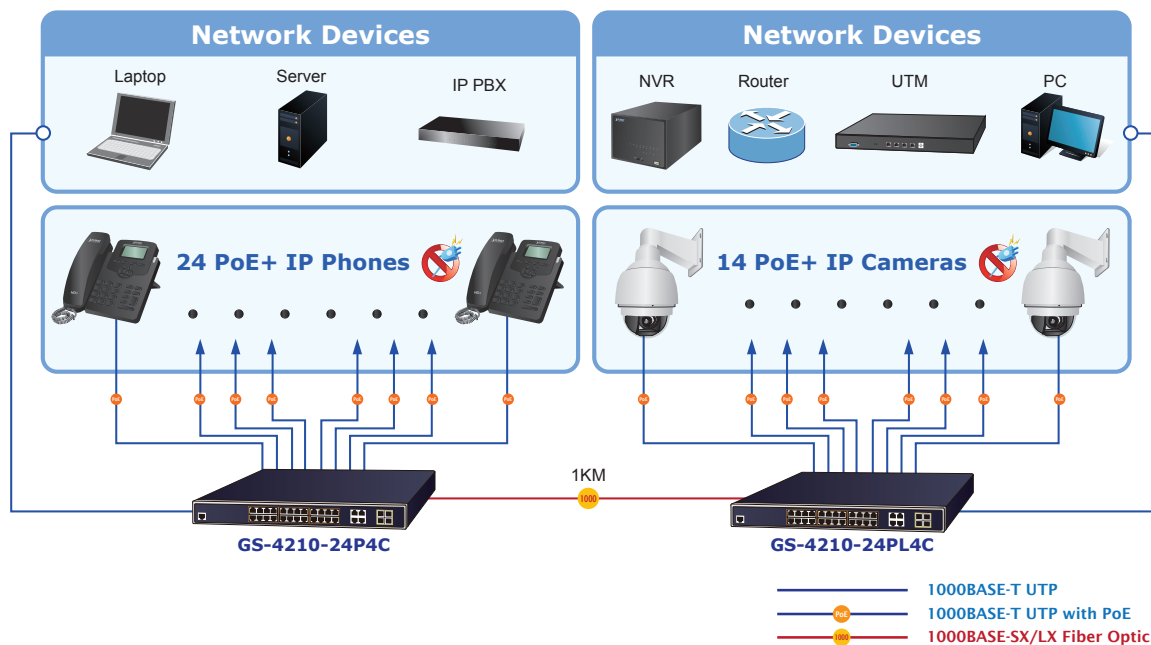
ITU-T G.8032 ERPS with PoE IP Surveillance System for SMBs/Workgroups

The GS-4210-24P(L)4C features strong rapid self-recovery capability to prevent interruptions and external intrusions. It incorporates **ITU-T G.8032 ERPS (Ethernet Ring Protection Switching)** technology into customer's automation network to enhance system reliability and uptime. Applying the IEEE 802.3at Power over Ethernet standard, the GS-4210-24P(L)4C can directly connect with any IEEE 802.3at end-nodes like PTZ (Pan, Tilt & Zoom) network cameras and speed dome cameras. The GS-4210-24P(L)4C can easily build a power that can centrally control a wireless AP/IP camera/VoIP system for SMBs and workgroups in the enterprises with high availability network infrastructure.

Specifications

Product	GS-4210-24P4C	GS-4210-24PL4C
Hardware Specifications		
Copper Ports	28 x 10/100/1000BASE-T RJ45 Auto-MDI/MDI-X ports	
SFP/mini-GBIC Slots	4 x 100/1000BASE-X SFP interfaces with Port-25 to Port-28. Supports 100/1000Mbps dual mode and DDM	
PoE Injector Port	24 ports with 802.3at/af PoE injector function with Port-1 to Port-24	
Console	1 x RS-232-to-RJ45 serial port (115200, 8, N, 1)	
Reset Button	< 5 sec: System reboot > 5 sec: Factory default	
Dimensions (W x D x H)	440 x 300 x 44.5 mm, 19-inch, 1U height	
Weight	4.2kg	4.8kg
ESD Protection	Contact Discharge **4KV** DC Air Discharge **8KV** DC	
Enclosure	Metal	
Power Requirements	AC 100~240V, 50/60Hz, auto-sensing	
Power Consumption / Dissipation	288 watts (max.)/982 BTU	520 watts (max.)/1774 BTU
Fan	3 smart fans	
LED	**System:** PWR x1(**Green**) SYS x1 (**Green**) **Per PoE Port (Port 1 to Port 24):** LNK/ACT x1 (**Green**) PoE-in-use x1 (**Orange**) **Per Gigabit RJ45 Port (Port 25 to Port 28):** 1000 LNK/ACT x1 (**Green**) 10/100 LNK/ACT x1 (**Orange**) **Per Gigabit SFP Port (Port 25 to Port 28):** 1000 LNK/ACT x1 (**Green**) 100 LNK/ACT x1 (**Orange**)	
Switching		
Switch Architecture	Store-and-Forward	
Switch Fabric	56Gbps/non-blocking	
Switch Throughput@64Bytes	41.67Mpps	
Address Table	8K entries	
Shared Data Buffer	4.1 megabits	
Flow Control	IEEE 802.3x pause frame for full duplex Back pressure for half duplex	
Jumbo Frame	10K bytes	
Power over Ethernet		
PoE Standard	IEEE 802.3af/802.3at PoE/PSE	
PoE Power Supply Type	End-span	
PoE Power Output	Per Port 54V DC, 36 watts (max.)	
Power Pin Assignment	1/2(+), 3/6(-)	
PoE Power Budget	220 watts (max.) @ 25 degrees C 190 watts (max.) @ 50 degrees C	440 watts (max.) @ 25 degrees C 380 watts (max.) @ 50 degrees C
Number of 802.3af PDs	17 units	24 units
Number of 802.3at PDs	8 units	17 units
PoE Management	PD Alive Check Scheduled Power Recycling PoE Schedule PoE Usage Monitoring PoE Extension	
PoE Management Functions		
Active PoE device alive detects	Yes	
PoE Power Recycle	Yes, daily or predefined schedule	
PoE Schedule	4 schedule profiles	
PoE Extend Mode	Yes, max. up to 250 meters	
Layer 2 Functions		
Port Mirroring	TX/RX/both Many-to-1 monitor Up to 4 sessions	

VLAN	802.1Q tagged-based VLAN Up to 256 VLAN groups, out of 4094 VLAN IDs 802.1ad Q-in-Q tunneling Voice VLAN Protocol VLAN Private VLAN (Protected port) GVRP
Link Aggregation	IEEE 802.3ad LACP/Static Trunk Supports 2 trunk groups with 4 ports per trunk
Spanning Tree Protocol	STP, IEEE 802.1D Spanning Tree Protocol RSTP, IEEE 802.1w Rapid Spanning Tree Protocol MSTP, IEEE 802.1s Multiple Spanning Tree Protocol STP BPDU Guard, BPDU Filtering and BPDU Forwarding
IGMP Snooping	IGMP (v2/v3) Snooping IGMP Querier Up to 256 multicast groups
MLD Snooping	MLD (v1/v2) Snooping, up to 256 multicast groups

QoS	8 mapping ID to 8 level priority queues
	  - Port number
	  - 802.1p priority
	  - 802.1Q VLAN tag
	  - DSCP field in IP packet
	Traffic classification based, strict priority and WRR

Ring	Supports ERPS, and complies with ITU-T G.8032
Security Functions	
Access Control List	IPv4/IPv6 IP-based ACL/MAC-based ACL
Port Security	IEEE 802.1X – Port-based authentication Built-in RADIUS client to co-operate with RADIUS server RADIUS/TACACS+ user access authentication
MAC Security	IP-MAC port binding MAC filter Static MAC address
Enhanced Security	DHCP Snooping and DHCP Option82 STP BPDU guard, BPDU filtering and BPDU forwarding DoS attack prevention ARP inspection IP source guard
Management Functions	
Basic Management Interfaces	RS232 to RJ45 Console Web browser Telnet SNMP v1, v2c
Secure Management Interfaces	SSHv2, TLS v1.2, SNMPv3
System Management	Firmware upgrade by HTTP/TFTP protocol through Ethernet network Remote/Local Syslog System log LLDP protocol SNTP PLANET Smart Discovery Utility PLANET NMS System/CloudViewer
SNMP MIBs	RFC 1213 MIB-II RFC 1215 Generic Traps RFC 1493 Bridge MIB RFC 2674 Bridge MIB Extensions RFC 2737 Entity MIB (Version 2) RFC 2819 RMON (1, 2, 3, 9) RFC 2863 Interface Group MIB RFC 3635 Ethernet-like MIB RFC 3621 Power Ethernet MIB
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE

Standards Compliance	IEEE 802.3 10BASE-T	IEEE 802.3at Power over Ethernet Plus
	IEEE 802.3u 100BASE-TX/100BASE-FX	IEEE 802.3az Energy Efficient Ethernet (EEE)
	IEEE 802.3z Gigabit SX/LX	RFC 768 UDP
	IEEE 802.3ab Gigabit 1000T	RFC 793 TFTP
	IEEE 802.3x flow control and back pressure	RFC 791 IP
	IEEE 802.3ad port trunk with LACP	RFC 792 ICMP
	IEEE 802.1D Spanning Tree protocol	RFC 2068 HTTP
	IEEE 802.1w Rapid Spanning Tree protocol	RFC 1112 IGMP version 1
	IEEE 802.1s Multiple Spanning Tree protocol	RFC 2236 IGMP version 2
	IEEE 802.1p Class of Service	RFC 3376 IGMP version 3
	IEEE 802.1Q VLAN tagging	RFC 2710 MLD version 1
	IEEE 802.1x Port Authentication Network Control	RFC 3810 MLD version 2
	IEEE 802.1ab LLDP	ITU G.8032 ERPS Ring
	IEEE 802.3af Power over Ethernet	
Environment		
Operating	Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing)	
Storage	Temperature: -20 ~ 70 degrees C Relative Humidity: 5 ~ 95% (non-condensing)	

Ordering Information

GS-4210-24P4C	24-Port 10/100/1000T 802.3at PoE + 4-Port Gigabit TP/SFP Combo Managed Switch (220W PoE Budget)
GS-4210-24PL4C	24-Port 10/100/1000T 802.3at PoE + 4-Port Gigabit TP/SFP Combo Managed Switch (440W PoE Budget)

Related PoE Products

GS-4210-16P4C	16-Port 10/100/1000T 802.3at PoE + 4-Port Gigabit TP/SFP Combo Managed Switch
GS-4210-16P2S	16-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Managed Switch
GS-4210-8P2T2S	8-Port 10/100/1000T 802.3at PoE + 2-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch
GS-4210-8P2S	8-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Managed Switch
GS-4210-8T2S	8-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch
POE-161S	IEEE 802.3at Gigabit Power over Ethernet Plus Splitter with 5V/12VDC output (10/100/1000Mbps)
POE-162S	IEEE 802.3at Gigabit Power over Ethernet Plus Splitter with 12V/24VDC output (10/100/1000Mbps)
IPOE-162S	Industrial IEEE 802.3at Gigabit High Power over Ethernet Splitter
POE-E201	IEEE 802.3at Power over Gigabit Ethernet Extender
POE-E202	1-Port 802.3at PoE+ to 2-Port 802.3af/at Gigabit PoE Extender
LRP-101CH	1-Port 10/100TX PoE PD + 1-Port Coax Long Reach PoE Injector
LRP-101UH	1-Port 10/100TX PoE PD + 1-Port UTP Long Reach PoE Injector

Available 1000Mbps Modules

Gigabit Ethernet Transceiver (1000BASE-X SFP)

Model	DDM	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
MGB-GT	--	1000	Copper	--	100m	--	0 ~ 60 degrees C
MGB-SX(V2)	YES	1000	LC	Multi Mode	550m	850nm	0 ~ 60 degrees C
MGB-SX2(V2)	YES	1000	LC	Multi Mode	2km	1310nm	0 ~ 60 degrees C
MGB-LX(V2)	YES	1000	LC	Single Mode	20km	1310nm	0 ~ 60 degrees C
MGB-L40	YES	1000	LC	Single Mode	40km	1310nm	0 ~ 60 degrees C
MGB-L80	YES	1000	LC	Single Mode	80km	1550nm	0 ~ 60 degrees C
MGB-L120(V2)	YES	1000	LC	Single Mode	120km	1550nm	0 ~ 60 degrees C

Gigabit Ethernet Transceiver (1000BASE-BX, Single Fiber Bi-directional SFP)

Model	DDM	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (TX)	Wavelength (RX)	Operating Temp.
MGB-LA10(V2)	YES	1000	WDM(LC)	Single Mode	10km	1310nm	1550nm	0 ~ 60 degrees C
MGB-LB10(V2)		1000	WDM(LC)	Single Mode	10km	1550nm	1310nm	0 ~ 60 degrees C
MGB-LA20(V2)	YES	1000	WDM(LC)	Single Mode	20km	1310nm	1550nm	0 ~ 60 degrees C
MGB-LB20(V2)		1000	WDM(LC)	Single Mode	20km	1550nm	1310nm	0 ~ 60 degrees C
MGB-LA40(V2)	YES	1000	WDM(LC)	Single Mode	40km	1310nm	1550nm	0 ~ 60 degrees C
MGB-LB40(V2)		1000	WDM(LC)	Single Mode	40km	1550nm	1310nm	0 ~ 60 degrees C
MGB-LA80	YES	1000	WDM(LC)	Single Mode	80km	1490nm	1550nm	0 ~ 60 degrees C
MGB-LB80		1000	WDM(LC)	Single Mode	80km	1550nm	1490nm	0 ~ 60 degrees C

Available 100Mbps Modules

Fast Ethernet Transceiver (100BASE-X SFP)

Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
MFB-FX	100	LC	Multi Mode	2km	1310nm	0 ~ 60 degrees C
MFB-F20	100	LC	Single Mode	20km	1310nm	0 ~ 60 degrees C
MFB-F40	100	LC	Single Mode	40km	1310nm	0 ~ 60 degrees C
MFB-F60	100	LC	Single Mode	60km	1310nm	0 ~ 60 degrees C
MFB-F120	100	LC	Single Mode	120km	1310nm	0 ~ 60 degrees C

Fast Ethernet Transceiver (100BASE-BX, Single Fiber Bi-directional SFP)

Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (TX)	Wavelength (RX)	Operating Temp.
MFB-FA20	100	WDM(LC)	Single Mode	20km	1310nm	1550nm	0 ~ 60 degrees C
MFB-FB20	100	WDM(LC)	Single Mode	20km	1550nm	1310nm	0 ~ 60 degrees C

GS-4210-24P4C/GS-4210-24PL4C

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