

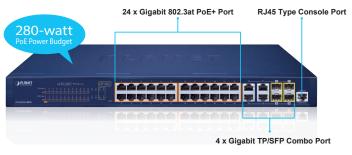
# 24-Port 10/100/1000T 802.3at PoE + 4-Port Gigabit TP/SFP Combo Managed Switch



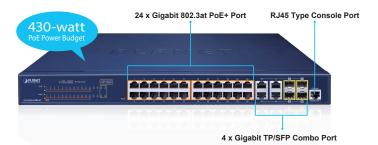
# A Perfect Managed PoE+ Switch with Advanced L2/L4 Switching and Security

PLANET 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 **30-watt 802.3at PoE+** and **4 additional Gigabit TP/SFP combo ports**. With a total power budget of up to **280 watts** and **430 watts** for different kinds of PoE applications, the GS-4210-24P(L)4C provides a quick, safe and cost-effective Power over Ethernet network solution for small businesses and enterprises.

# GS-4210-24P4C



#### GS-4210-24PL4C



# Cybersecurity Network Solution to Minimize Security Risks

The cybersecurity feature included to protect the switch management in a mission-critical network virtually needs no effort and cost to install. Both SSHv2 and TLSv1.2 protocols are utilized to provide strong protection against advanced threats. The network administrator can now construct highly-secure corporate networks with considerably less time and effort than before.

# **Physical Port**

- 28-Port 10/100/1000BASE-T Gigabit RJ45 copper with 24-Port IEEE 802.3at/af PoE Injector function (Ports 1 to 24)
- 4 100/1000BASE-X SFP ports (Ports 25 to 28), compatible with 100BASE-FX SFP
- RJ45 console interface for switch basic management and setup
- · Reset button for system factory default and reboot

### Switching

- Hardware-based 10/100Mbps, half/full duplex and 1000Mbps full duplex mode, flow control and auto-negotiation, and auto MDI/MDI-X
- Features Store-and-Forward mode with wire-speed filtering and forwarding rates
- IEEE 802.3x flow control for full duplex operation and back pressure for half duplex operation
- 10K jumbo frame
- Supports ESD protection
  - Contact Discharge 4KV DC
  - Air Discharge 8KV DC
- · Automatic address learning and address aging
- Supports CSMA/CD protocol

#### Power over Ethernet

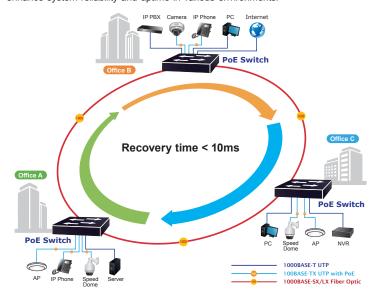
- Complies with IEEE 802.3at Power over Ethernet Plus, endspan PSE
- · Backward compatible with IEEE 802.3af Power over Ethernet
- Up to 24 ports of IEEE 802.3af/802.3at devices powered
- Supports PoE power up to 30 watts for each PoE port
- · 280/430-watt PoE budget
- · Auto detects powered device (PD)
- · Circuit protection prevents power interference between ports
- Remote power feeding up to 100 meters in standard mode and 250m in extend mode
- · PoE management
  - Total PoE power budget control
  - Per port PoE function enable/disable
  - PoE Port Power feeding priority
  - Per PoE port power limitation
  - PoE delay
  - PD classification detection
- Intelligent PoE features
  - PD alive check





#### 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.

- 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
  - 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)
- 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 cooperate with the RADIUS servers



# **PD Alive Check**



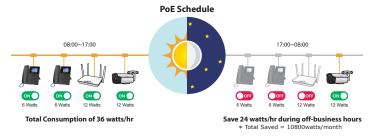
#### Scheduled Power Recycling

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.



#### 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.



# 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

- DHCP Option 82
- RADIUS/TACACS+ login user access authentication
- · Access Control List
  - IPv4/IPv6 IP-based ACL
  - IPv4/IPv6 IP-based ACE
  - MAC-based ACL
  - MAC-based ACE
- 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
- · 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 SNMP v3 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
- PLANET Smart Discovery Utility for deployment management
- PLANET NMS system and CloudViewer for deployment management