

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

**GS-4210-24P4C**

**GS-4210-24PL4C**



# Presentation Outlines

- ◆ **Product Overview**
- ◆ **Product Benefits**
- ◆ **Product Features**
- ◆ **Applications**
- ◆ **Comparison**
- ◆ **Appendix**



# Product Overview



## ◆ PLANET 24 Port PoE+ Gigabit Managed Switch Product Map

Layer 2+



**WGSW-24040HP / WGSW-24040HP4**  
 - 48G  
 - 220-watt PoE Budget(WGSW-24040HP)  
 - 440-watt PoE Budget(WGSW-24040HP4)



**XGSW-28040HP**  
 - 128G  
 - 440-watt PoE Budget



**SGS-5220-24P2X**  
 - 128G  
 - 440-watt PoE Budget

Layer 2



**GS-4210-24P2S**  
 - 52G  
 - 300-watt PoE budget



**GS-4210-24P4C / GS-4210-24PL4C**  
 - 56G  
 - 220-watt PoE Budget(GS-4210-24P4C)  
 - 440-watt PoE budget(GS-4210-24PL4C)









**SGSW-24040HP**  
 - 68G  
 - 360-watt PoE Budget

**Standalone**

**Stackable**

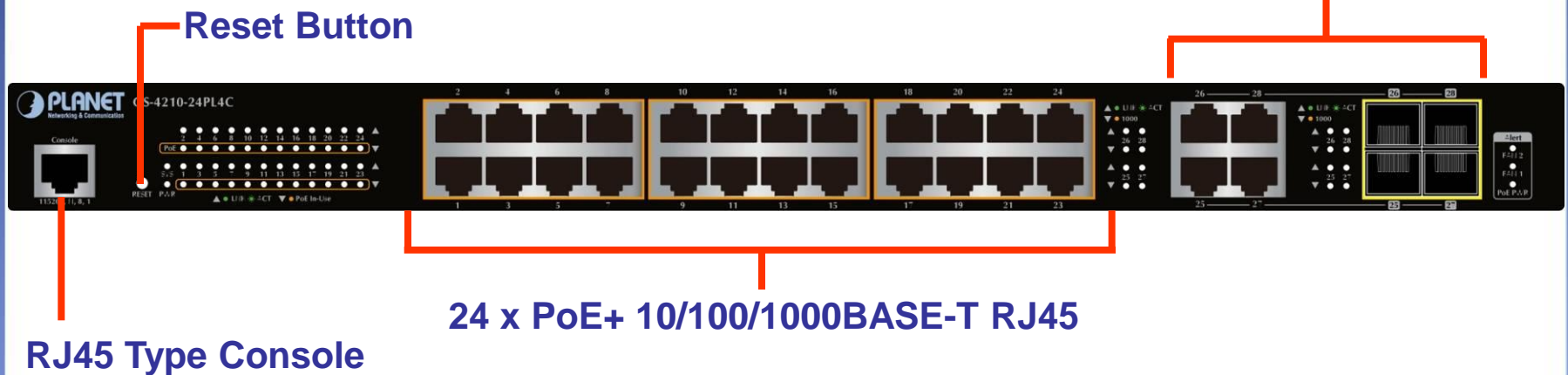
## 24 Port PoE+ Quick Selection Table

Level	L2			L2+		
Model	GS-4210-24P2S	GS-4210-24P4C GS-4210-24PL4C	SGSW-24040HP	WGSW-24040HP WGSW-24040HP4	XGSW-28040HP	SGS-5220-24P2X
Product Outlook						
PoE Budget	300-watt	220/440-watt	360-watt	220/440-watt	440-watt	440-watt
10G Uplink	-	-	-	-	4	2
100/1000X SFP	2	4	4 (shared)	4 (shared)	4 (shared)	4 (shared)
L3 Routing	-	-	-	Software	Hardware	Hardware
IPv6 Mgt.	-	✓	✓	✓	✓	✓
Basic PoE Management	✓	✓	✓	✓	✓	✓
Intelligent PoE	-	💡	💡💡	💡💡	💡💡	💡💡
Stackable	-	-	✓	-	-	✓
Price	\$	\$ \$	\$ \$ \$ \$	\$ \$ \$	\$ \$ \$ \$ \$	\$ \$ \$ \$ \$

# Product Overview

## ◆ Front Panel of GS-4210-24P4C / GS-4210-24PL4C

4 x Gigabit TP/SFP Combo Port



- ✓ Twenty-four 10/100/1000BASE-T PoE+ Injector RJ45 Ports
- ✓ Four Gigabit TP/SFP Combo Ports
- ✓ One RJ45 Type Console
- ✓ Reset Button



# Product Overview

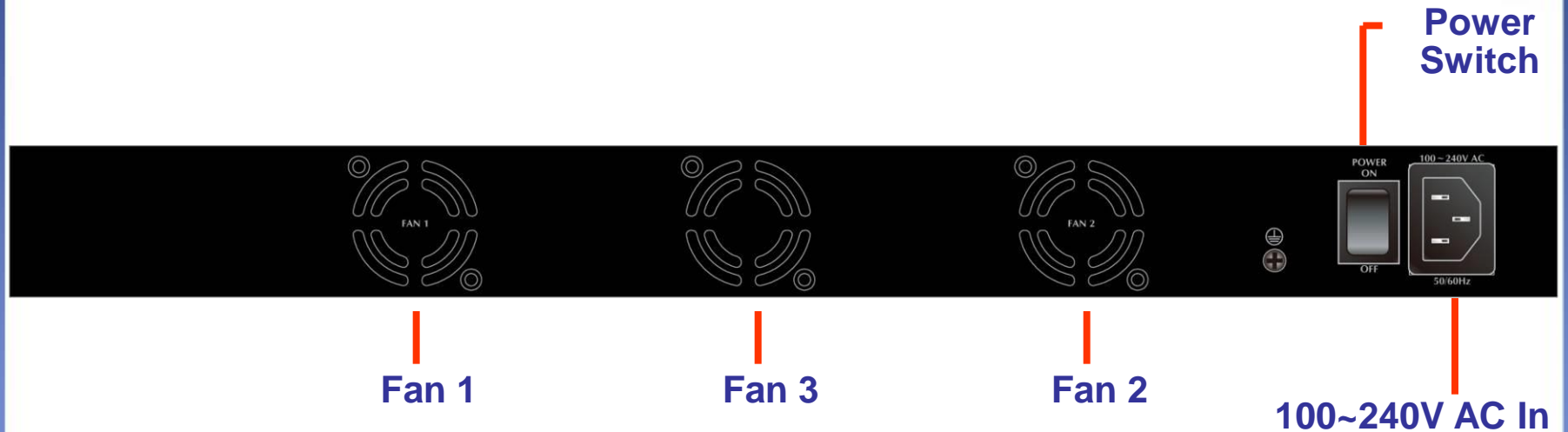
## ◆ Rear Panel of GS-4210-24P4C



- ✓ **Smart Fan Control**
- ✓ **Power Switch**
- ✓ **100~240V AC In**

# Product Overview

## ◆ Rear Panel of GS-4210-24PL4C



- ✓ **Smart Fan Control**
- ✓ **Power Switch**
- ✓ **100~240V AC In**



# Product Benefits

## ◆ Powerful PoE+ Hardware

- ✓ IEEE 802.3at/af standard
- ✓ Per port output of **30.8 watts**
- ✓ Up to **220-watt PoE Budget (GS-4210-24P4C)**
- ✓ Up to **440-watt PoE Budget (GS-4210-24PL4C)**

## ◆ IPv6 Generation, Ready to go

- ✓ MLD Snooping
- ✓ IPv6 ACL
- ✓ IPv6 QoS
- ✓ IPv6 Management
- ✓ IPv6 Embedded Ping



## Product Benefits

- ◆ **Advanced *Intelligent* Power / PD Management Functions**

*PD Alive Check*

*Scheduled Power Recycling*

*PoE Power Schedule*

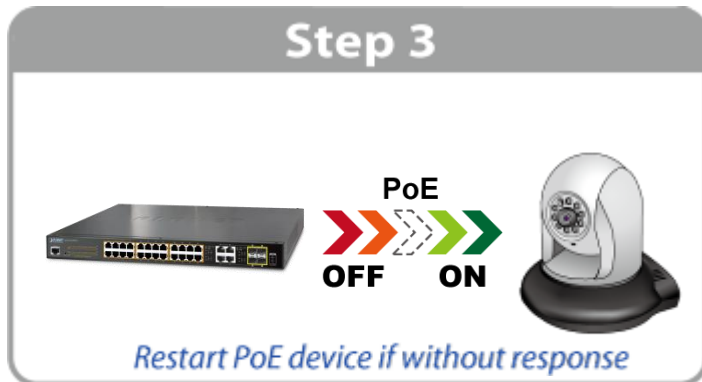
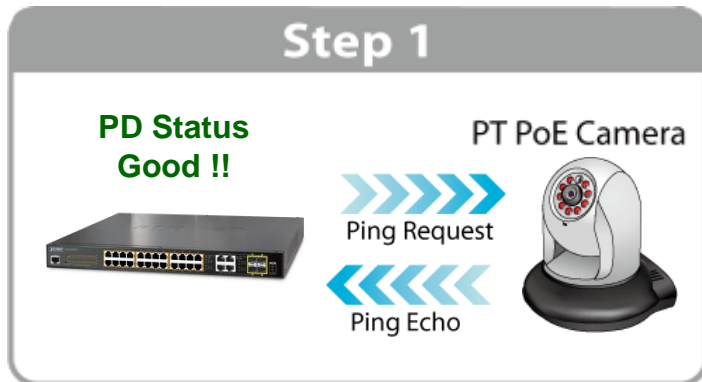
*PoE Port Sequence*

*Over Temperature Protection*

# Product Benefits

## ◆ Intelligent Powered Device Alive-Check

- ✓ The GS-4210-24P(L)4C series 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 series will resume the PoE port power and bring the PD back to work.



# Product Benefits

## ◆ PoE Schedule

- ✓ PoE Schedule is a PoE management function for administrator **scheduling to turn on or turn off PoE device**, thus saving electricity.

**Power Over Ethernet Schedule**

Per Hour & Min

**Daily Work**

**4 Profiles**

**Off-Business Hours**

Profile	Hour	End Min
Profile 1	8	0
	5	0
	0	0
	0	0
	0	0
	0	0

**Daily Work**

8AM → → 5PM

Power On 6 Watts   Power On 6 Watts   Power On 12 Watts   Power On 12 Watts

**Total consumption of 36watts / hr**

**Off-Business Hours**

5PM → → 8AM

Power Off 6 Watts   Power Off 6 Watts   Power Off 12 Watts   Power On 12 Watts

**Saves 24watts / hr during off-business hours**  
\* Total Saved = 10800watts / month

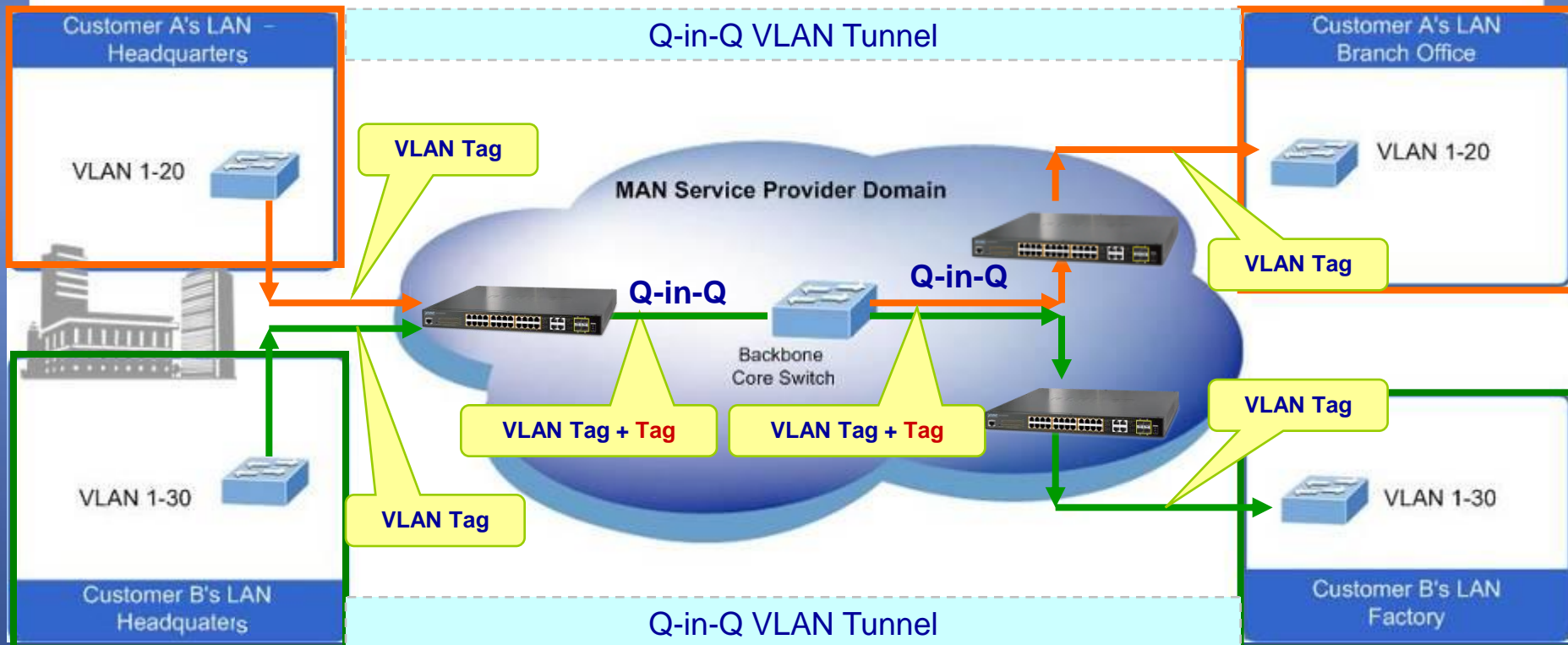
**Daily Work Power Consumption**

**Off-Business Power Saving**

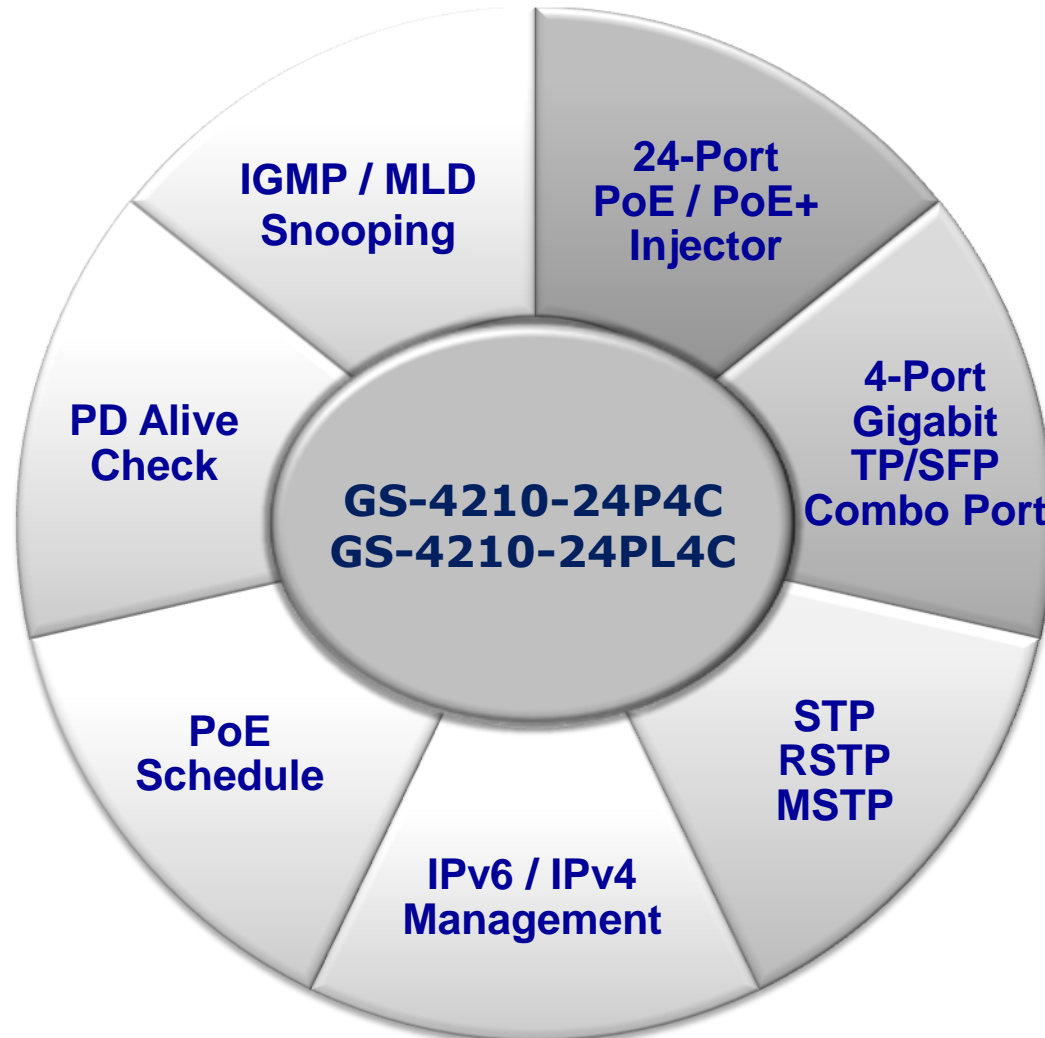
# Product Benefits

## ◆ Q-in-Q VLAN VPN Tunnel

- ✓ Q-in-Q is designed for service providers carrying traffic for multiple customers across their networks.
- ✓ It is used to maintain customer-specific VLAN and Layer 2 protocol configurations even when different customers use the same internal VLAN IDs.



# Product Key Features



# Product Features

## ◆ Multicast

- ✓ Supports IPv4 IGMP Snooping v1, v2 and v3
- ✓ Supports IPv6 MLD Snooping v1 and v2
- ✓ IGMP Querier mode support
- ✓ IGMP Snooping filtering
- ✓ MLD Snooping filtering

## ◆ Link Aggregation

- ✓ IEEE 802.3ad Link Aggregation Control Protocol (LACP)
- ✓ Cisco ether-channel (Static Trunk)
- ✓ 8 trunk groups, up to 8 ports per trunk group



# Product Features

## ◆ VLAN

- ✓ IEEE 802.1Q Tagged VLAN
- ✓ Up to 256 VLAN groups, out of 4094 VLAN IDs
- ✓ Provider Bridging (VLAN **Q-in-Q**) support (IEEE 802.1ad)
- ✓ Supports **Protected Port**
- ✓ Supports **GVRP**

## ◆ 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)

# Product Features

## ◆ Quality of Service

- ✓ **Ingress / Egress Rate Limit per port bandwidth control**
- ✓ **8 priority queues on all switch ports**
- ✓ **Traffic Classification**
  - 802.1p CoS
  - IP **DSCP** of IPv4 / IPv6 packets
- ✓ **Strict priority and Weighted Round Robin (WRR) CoS policies**
- ✓ **DSCP remarking**
- ✓ **Voice VLAN**

# Product Features

## ◆ Security

### ✓ Storm Control support

- Broadcast / Unknown-Unicast / Unknown-Multicast

### ✓ Authentication

- IEEE **802.1X Port-based** network access authentication
- Built-in **RADIUS client** to co-operate with the RADIUS servers
- Built-in **TACACS+ client** to co-operate with the TACACS+ servers

### ✓ MAC Security

- Static MAC
- Source / Destination MAC filtering
- **Port Security** for sourcing MAC address entries filtering

### ✓ DHCP Snooping

### ✓ DoS



# Product Features

## ◆ **ACL**

- ✓ **MAC-based Access Control Entries (ACE)**
- ✓ **MAC-based Access Control List (ACL)**
- ✓ **IPv4 / IPv6 Access Control Entries (ACE)**
- ✓ **IPv4 / IPv6 Access Control List (ACL)**

## ◆ **LLDP**

## ◆ **RMON**

- ✓ **RMON Event**
- ✓ **RMON Alarm**
- ✓ **RMON History**

# Applications

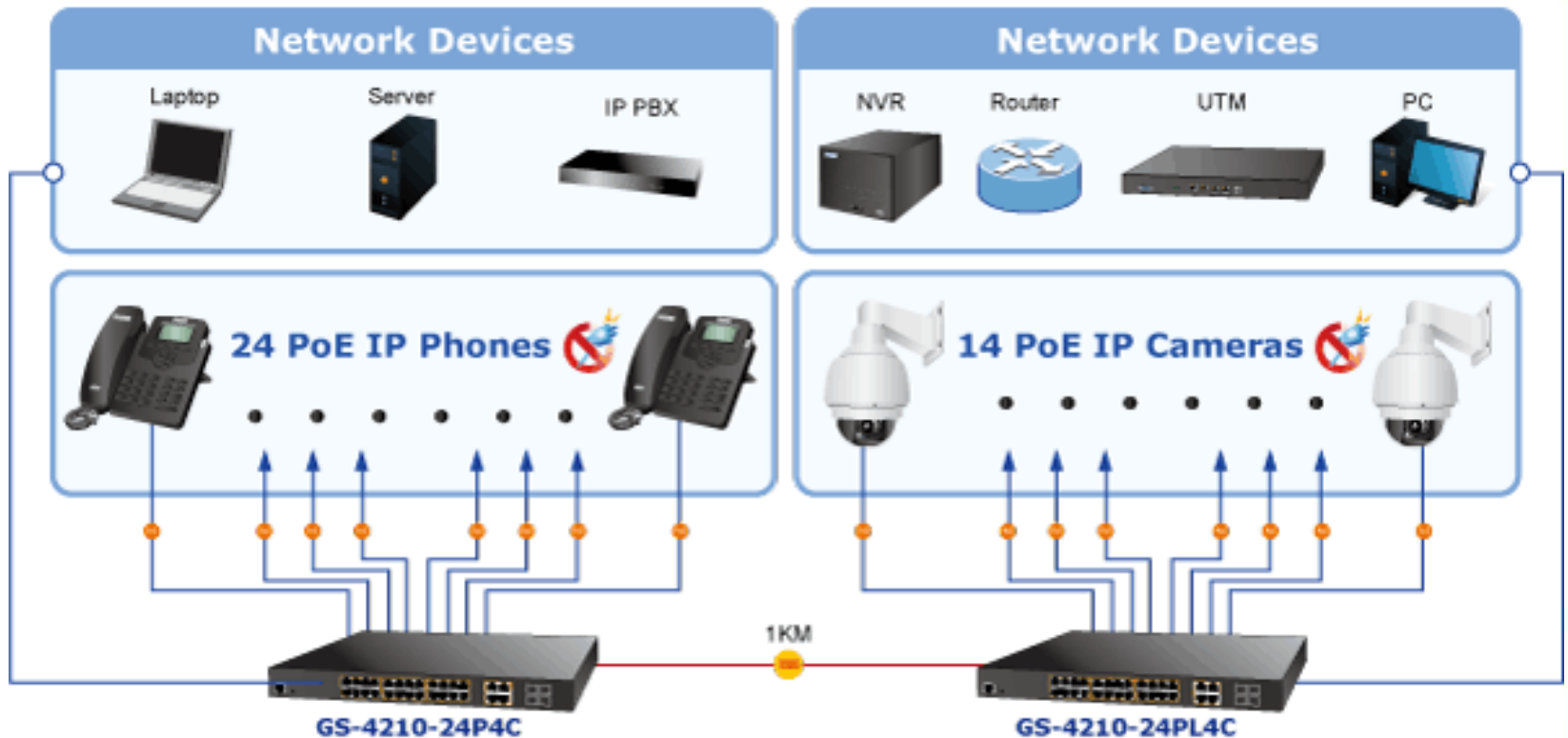
## ◆ Spanning Tree Protocol for Highly Available Network System

- ✓ Features strong **rapid self-recovery** capability to prevent interruptions and external intrusions. It incorporates Spanning Tree Protocol (**802.1s MSTP**) and **auto loop protection** into customer's automation network to enhance system reliability and uptime.







# Applications

- ◆ **High Scalability & Security for IP Networking and Cyber Security Solution**
  - ✓ 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.





# Product Comparison

Brand	PLANET	PLANET	PLANET	PLANET
Model Name	GS-4210-24P4C	WGSW-28040P	GS-4210-24PL4C	WGSW-28040P4
Product Outlook				
Interface				
Switching Capacity	56Gbps	56Gbps	56Gbps	56Gbps
10/100/1000BASE-T	28	28	28	28
SFP / mini-GBIC	4 (Combo)	4 (Combo)	4 (Combo)	4 (Combo)
802.3at PoE Ports	24	-	24	-
802.3af PoE Ports	Compatible	24	Compatible	24
Console	RJ45 Type	RJ232 Type	RJ45 Type	RJ232 Type
Power over Ethernet				
PoE Standard	IEEE 802.3af / 802.3at PoE / PSE	IEEE 802.3af PoE / PSE	IEEE 802.3af / 802.3at PoE / PSE	IEEE 802.3af PoE / PSE
PoE Power Supply Type	End-Span	End-Span	End-Span	End-Span
PoE Power Output	Per port 56V DC, 30.8W (max.)	Per port 48V DC, 15.4W (max.)	Per port 56V DC, 30.8W (max.)	Per port 48V DC, 15.4W (max.)
Power Pin Assignment	1/2(+), 3/6(-)	1/2(+), 3/6(-)	1/2(+), 3/6(-)	1/2(+), 3/6(-)
PoE Power Budget	220W (max.)	180W (max.)	440W (max.)	380W (max.)
PD Alive Check	■		■	
PoE Schedule	■		■	
Over Temperature Protection	■	■	■	■

# Product Comparison

Brand		PLANET	PLANET	PLANET	PLANET
Model Name		GS-4210-24P4C	WGSW-28040P	GS-4210-24PL4C	WGSW-28040P4
Layer 2 Features					
Jumbo Frame		10K	9K	10K	9K
Bandwidth Control		In / Out	In / Out	In / Out	In / Out
Link Aggregation	Static	8 Trunks / 8 Ports	8 Trunks / 8 Ports	8 Trunks / 8 Ports	8 Trunks / 8 Ports
	LACP	8 Trunks / 8 Ports	8 Trunks / 8 Ports	8 Trunks / 8 Ports	8 Trunks / 8 Ports
VLAN	802.1Q	■	■	■	■
	Q-in-Q	■	■	■	■
	Private VLAN	■	■	■	■
	GVRP	■	-	■	-
	Voice VLAN	■	■	■	■
Spanning Tree	Protocol	802.1D / 802.1w / 802.1s	802.1D / 802.1w / 802.1s	802.1D / 802.1w / 802.1s	802.1D / 802.1w / 802.1s
	STP BPDUs Guard	■	■	■	■
	BPDUs Filtering	■	■	■	■
IGMP Snooping		V1 / V2 / V3	V1 / V2 / V3	V1 / V2 / V3	V1 / V2 / V3
IGMP Query mode		■	■	■	■
MLD Snooping		■	-	■	-
DHCP Relay/Option 82		- ■	- ■	- ■	- ■
Quality of Service					
QoS	802.1p	■ / 8 queues	■ / 8 queues	■ / 8 queues	■ / 8 queues
	TOS / DSCP	■ / ■	- / ■	■ / ■	- / ■
	Strict / WRR	■ / ■	■ / ■	■ / ■	■ / ■

# Product Comparison

Brand		PLANET	PLANET	PLANET	PLANET
Model Name		GS-4210-24P4C	WGSW-28040P	GS-4210-24PL4C	WGSW-28040P4
Security					
802.1X		Port-based	Port-based	Port-based	Port-based
TACACS+		■	-	■	-
ACL		L2 / L3 / L4	L2 / L3 / L4	L2 / L3 / L4	L2 / L3 / L4
RADIUS		■	■	■	■
Guest VLAN		■	-	■	-
Port Security (MAC Limit)		■	■	■	■
MAC Security		■	■	■	■
DHCP Snooping		■	■	■	■
ARP Inspection		■	■	■	■
IP Source Guard		■	■	■	■
SNMP	V1, V2c	■	■	■	■
	V3	■	■	■	■
	Trap	■	■	■	■
	RMON	■	■	■	■
System Log / Syslog		■ ■	■ ■	■ ■	■ ■
Management		Web, Telnet, Console	Web, Telnet, Console	Web, Telnet, Console	Web, Telnet, Console
SSH / SSL		■ / ■	■ / ■	■ / ■	■ / ■
IPv6 Management		■	■	■	■
Other Management		SNTP	SNTP	SNTP	SNTP
Cable Diagnostic		■	■	■	■

# Appendix Sales Target

## ◆ Target Markets

- ✓ **Enterprise / SMB Office / Government / Campus / SOHO**
- ✓ **ISP / Telecom / Service Provider**
- ✓ **System Integrator**

## ◆ Profitable Products

- ✓ **Who wants to extend edge network infrastructure and runs Ring Network (RSTP Protocol) with the fiber?**
- ✓ **Who needs 24-port PoE+ injector and extra 4 Uplink port?**
- ✓ **Popular PoE+ Gigabit Switch Solutions:**
  - **WGSD-10020HP**
  - **WGSW-24040HP/HP4**
  - **WGSW-48040HP**

# Appendix

## ◆ Available Gigabit Ethernet Fiber Optic SFP Modules

### Gigabit Ethernet Transceiver (1000BASE-X SFP)

Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
MGB-GT	1000	Copper	--	100m	--	0 ~ 60 °C
MGB-SX	1000	LC	Multi Mode	550m	850nm	0 ~ 60 °C
MGB-SX2	1000	LC	Multi Mode	2km	1310nm	0 ~ 60 °C
MGB-LX	1000	LC	Single Mode	10km	1310nm	0 ~ 60 °C
MGB-L30	1000	LC	Single Mode	30km	1310nm	0 ~ 60 °C
MGB-L50	1000	LC	Single Mode	50km	1550nm	0 ~ 60 °C
MGB-L70	1000	LC	Single Mode	70km	1550nm	0 ~ 60 °C
MGB-L120	1000	LC	Single Mode	120km	1550nm	0 ~ 60 °C
MGB-TSX	1000	LC	Multi Mode	550m	850nm	-40 ~ 75 °C
MGB-TLX	1000	LC	Single Mode	10km	1310nm	-40 ~ 75 °C
MGB-TL30	1000	LC	Single Mode	30km	1310nm	-40 ~ 75 °C
MGB-TL70	1000	LC	Single Mode	70km	1550nm	-40 ~ 75 °C

# Appendix

## ◆ Available Gigabit Ethernet WDM Fiber Optic SFP Modules Gigabit Ethernet Transceiver (1000BASE-BX, Single Fiber Bi-directional SFP)

Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (TX)	Wavelength (RX)	Operating Temp.
MGB-LA10	1000 <sup>e</sup>	WDM(LC)	Single Mode	10km	1310nm	1550nm	0 ~ 60 °C
MGB-LB10	1000 <sup>e</sup>	WDM(LC)	Single Mode	10km	1550nm	1310nm <sup>e</sup>	0 ~ 60 °C
MGB-LA20	1000 <sup>e</sup>	WDM(LC)	Single Mode	20km	1310nm	1550nm	0 ~ 60 °C
MGB-LB20	1000 <sup>e</sup>	WDM(LC)	Single Mode	20km	1550nm	1310nm <sup>e</sup>	0 ~ 60 °C
MGB-LA40	1000 <sup>e</sup>	WDM(LC)	Single Mode	40km	1310nm	1550nm	0 ~ 60 °C
MGB-LB40	1000 <sup>e</sup>	WDM(LC)	Single Mode	40km	1550nm	1310nm <sup>e</sup>	0 ~ 60 °C
MGB-LA60	1000 <sup>e</sup>	WDM(LC)	Single Mode	60km	1310nm	1550nm	0 ~ 60 °C
MGB-LB60	1000 <sup>e</sup>	WDM(LC)	Single Mode	60km	1550nm	1310nm <sup>e</sup>	0 ~ 60 °C
MGB-TLA10	1000	WDM(LC)	Single Mode	10km	1310nm	1550nm	-40 ~ 75 °C
MGB-TLB10	1000	WDM(LC)	Single Mode	10km	1550nm	1310nm	-40 ~ 75 °C
MGB-TLA20	1000	WDM(LC)	Single Mode	20km	1310nm	1550nm	-40 ~ 75 °C
MGB-TLB20	1000	WDM(LC)	Single Mode	20km	1550nm	1310nm	-40 ~ 75 °C
MGB-TLA40	1000	WDM(LC)	Single Mode	40km	1310nm	1550nm	-40 ~ 75 °C
MGB-TLB40	1000	WDM(LC)	Single Mode	40km	1550nm	1310nm	-40 ~ 75 °C
MGB-TLA60	1000	WDM(LC)	Single Mode	60km	1310nm	1550nm	-40 ~ 75 °C
MGB-TLB60	1000	WDM(LC)	Single Mode	60km	1550nm	1310nm	-40 ~ 75 °C



# Appendix

## ◆ Available **Fast Ethernet Fiber Optic SFP 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 °C
MFB-F20	100	LC	Single Mode	20km	1310nm	0 ~ 60 °C
MFB-F40	100	LC	Single Mode	40km	1310nm	0 ~ 60 °C
MFB-F60	100	LC	Single Mode	60km	1310nm	0 ~ 60 °C
MFB-F120	100	LC	Single Mode	120km	1550nm	0 ~ 60 °C
MFB-TFX	100	LC	Multi Mode	2km	1310nm	-40 ~ 75 °C
MFB-TF20	100	LC	Single Mode	20km	1550nm	-40 ~ 75 °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 °C
MFB-FB20	100	WDM(LC)	Single Mode	20km	1550nm	1310nm	0 ~ 60 °C
MFB-TFA20	100	WDM(LC)	Single Mode	20km	1310nm	1550nm	-40 ~ 75 °C
MFB-TFB20	100	WDM(LC)	Single Mode	20km	1550nm	1310nm	-40 ~ 75 °C
MFB-TFA40	100	WDM(LC)	Single Mode	40km	1310nm	1550nm	-40 ~ 75 °C
MFB-TFB40	100	WDM(LC)	Single Mode	40km	1550nm	1310nm	-40 ~ 75 °C

# Appendix

## ◆ Related PoE Products:

### ✓ IP Surveillance

- ✓ **ICA-1200** Full HD PoE Cube IP Camera
- ✓ **ICA-2200** Full HD PoE Box IP Camera
- ✓ **ICA-2250VT** Industrial PoE Plus Outdoor IR IP Camera
- ✓ **ICA-2500** 5 Mega-pixel PoE Box IP Camera
- ✓ **ICA-3250V** Full HD Outdoor IR PoE IP Camera
- ✓ **ICA-3350V** 3 Mega-pixel Vari-focal Bullet IR IP Camera
- ✓ **ICA-4200V** Full HD 20M IR Vari-focal Dome IP Camera
- ✓ **ICA-4500V** 5 Mega-pixel 20M IR Vari-focal Dome IP Camera
- ✓ **ICA-5250** Full HD Ultra-mini Vandal Dome
- ✓ **ICA-5250V** 3 Mega-pixel Vandalproof IR IP Camera
- ✓ **ICA-HM620** 2 Mega-pixel PoE Plus Speed Dome Internet Camera



# Appendix

## ◆ Related PoE Products:

### ✓ Wireless

- ✓ **WNAP-W2200** 802.11n 300Mbps In-Wall Access Point w/ USB Charger (EU Type)
- ✓ **WNAP-C7400** 900Mbps Dual Band Ceiling Mount Wireless Access Point
- ✓ **WDAP-C7200AC** 1200Mbps 802.11ac Dual Band Ceiling Mount Wireless Access Point
- ✓ **WNAP-7350** 5GHz 300Mbps 802.11a/n Wireless Access Point
- ✓ **WNAP-6350** 2.4GHz 300Mbps 802.11b/g/n Wireless Access Point

### ✓ VoIP

- ✓ **VIP-256PT** 802.3af PoE SIP IP Phone
- ✓ **VIP-2020PT** Enterprise HD PoE IP Phone (2-Line)
- ✓ **VIP-5060PT** Professional HD PoE IP Phone (6-Line)



# ACTIVATING IP POWER

