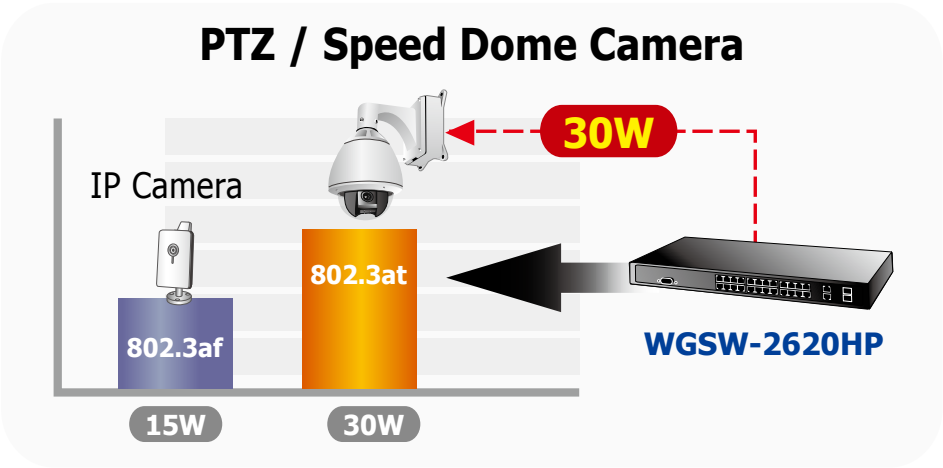
24-Port 10/100Mbps + 2 Gigabit TP / SFP Managed 802.3at PoE Switch

High Power PoE for Security and Public Service PoE Applications

The PLANET **WGSW-2620HP**, the next generation Managed PoE Switch, features **IEEE 802.3af** and **High Power IEEE 802.3at** Power over Ethernet (PoE) that combines up to **30 Watts** power output and data per port over one CAT 5E/6 Ethernet cable. It is designed specifically to satisfy the growing demand of higher power consuming network PD (powered devices) such as **PTZ** (Pan, Tilt & Zoom) / **Speed Dome network cameras**, multi- channel (802.11a/b/g/n) wireless LAN access points and other network devices by providing double PoE power than conventional 802.3af PoE currently.

Flexible PoE System Management

The PoE in-line power following the **IEEE 802.3af** and **IEEE 802.3at** standards makes the **WGSW-2620HP** able to power on 24 IEEE 802.3af PoE devices or 12 IEEE 802.3at PoE devices at the distance up to 100 meters through the 4-pair Cat 5/5e UTP wire. The WGSW-2620HP provides advanced PoE management functions and high reliability. It features System PoE Admin Mode for users to switch PoE system mode between IEEE 802.3af and IEEE 802.3at easily and flexibly. The Temperature Threshold and PoE Usage Threshold also enable more exact reliability control.



Cost-effective Solution with SNMP Monitor for Network Deployment

The cost-effective PoE Managed Switch WGSW-2620HP is released for catering not only to the need of easy Web-Based management but also the centralized SNMP application to monitor the status of Switch and traffic per port. The key features of the WGSW-2620HP are as below:

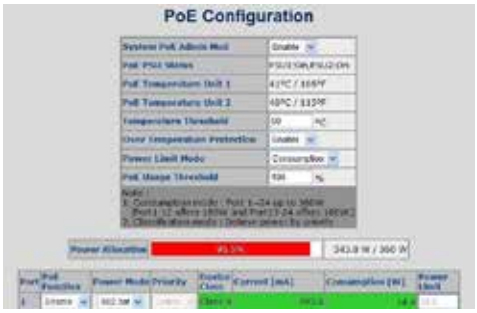
■ 802.3af / 802.3at PoE	■ SNMP and 4 RMON groups
■ WEB / SSL / Telnet	■ Access Control List
■ 802.1Q / Q-in-Q VLAN	■ IGMP Snooping
■ Multiple Spanning Tree Protocol	■ PoE Management / Alarm

High Performance Wire-Speed Switching

The WGSW-2620HP offers 24 10/100Mbps Fast Ethernet ports with 2 Gigabit TP/SFP combo ports (Port-25, 26). The two Gigabit TP/SFP combo ports can be either 1000Base-T for 10/100/1000Mbps or 1000Base-SX/LX through SFP (Small Form-Factor Pluggable) interface. The WGSW-2620HP boasts a high performance switch architecture that is capable of providing non-blocking switch fabric and wire-speed throughput as high as 8.8Gbps. Its two built-in GbE uplink ports also offer incredible extensibility, flexibility and connectivity to the Core switch or Servers.

Remote and Centralized Management

Afford the current network to grow and expand, the WGSW-2620HP provides advanced Web and SNMP management interface for efficient network operation. With its built-in Web-Based management, the WGSW-2620HP offers an easy-to-use, platform-independent management and configuration facility. It also supports standard Simple Network Management Protocol (SNMP) and can be monitored via any standard-based management software.



For efficient management, via Web interface the WGSW-2620HP can be programmed for basic switch management functions such as port speed configuration, Port Trunking, VLAN, Port Mirroring, Rapid Spanning Tree and Misc Configuration. Additionally, the firmware includes advanced features such as IGMP snooping, QoS (Quality of Service), broadcast storm and bandwidth control, to enhance bandwidth utilization.

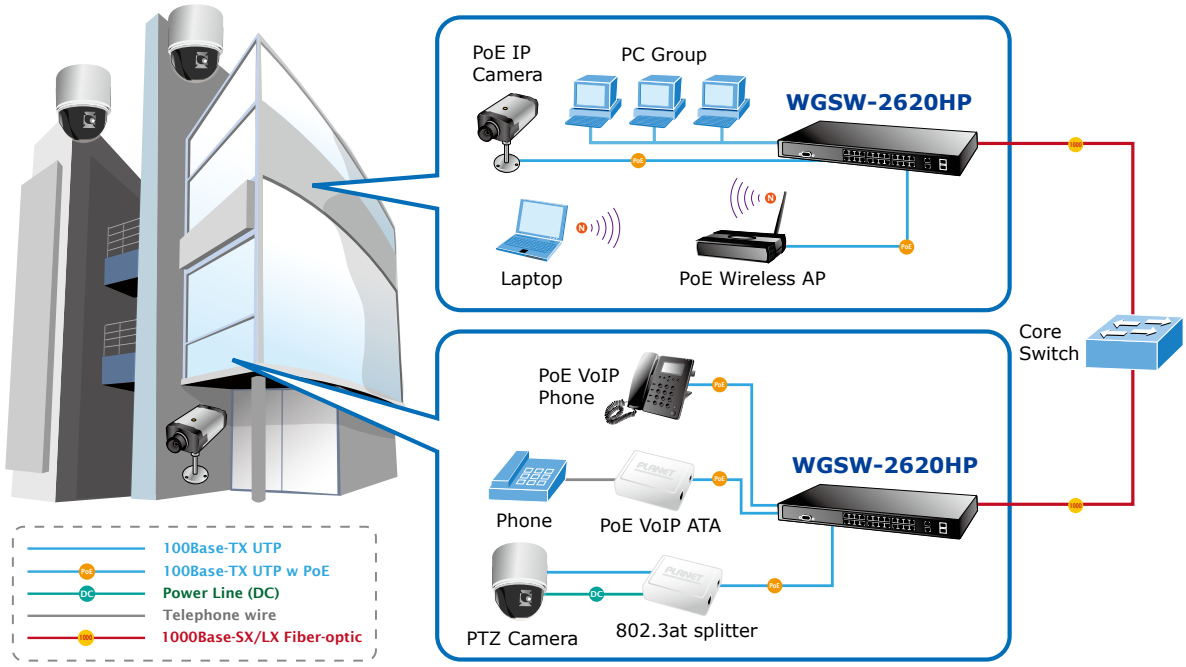
Powerful Security

The WGSW-2620HP offers comprehensive Access Control List (ACL) for enforcing security to the edge. Its protection mechanisms comprises of Port-Based 802.1X user and device authentication. Moreover, the Switch provides MAC filter and Static MAC to enforce security policies to the edge. The administrators can now construct highly secured corporate networks with considerably less time and effort than before.

APPLICATIONS

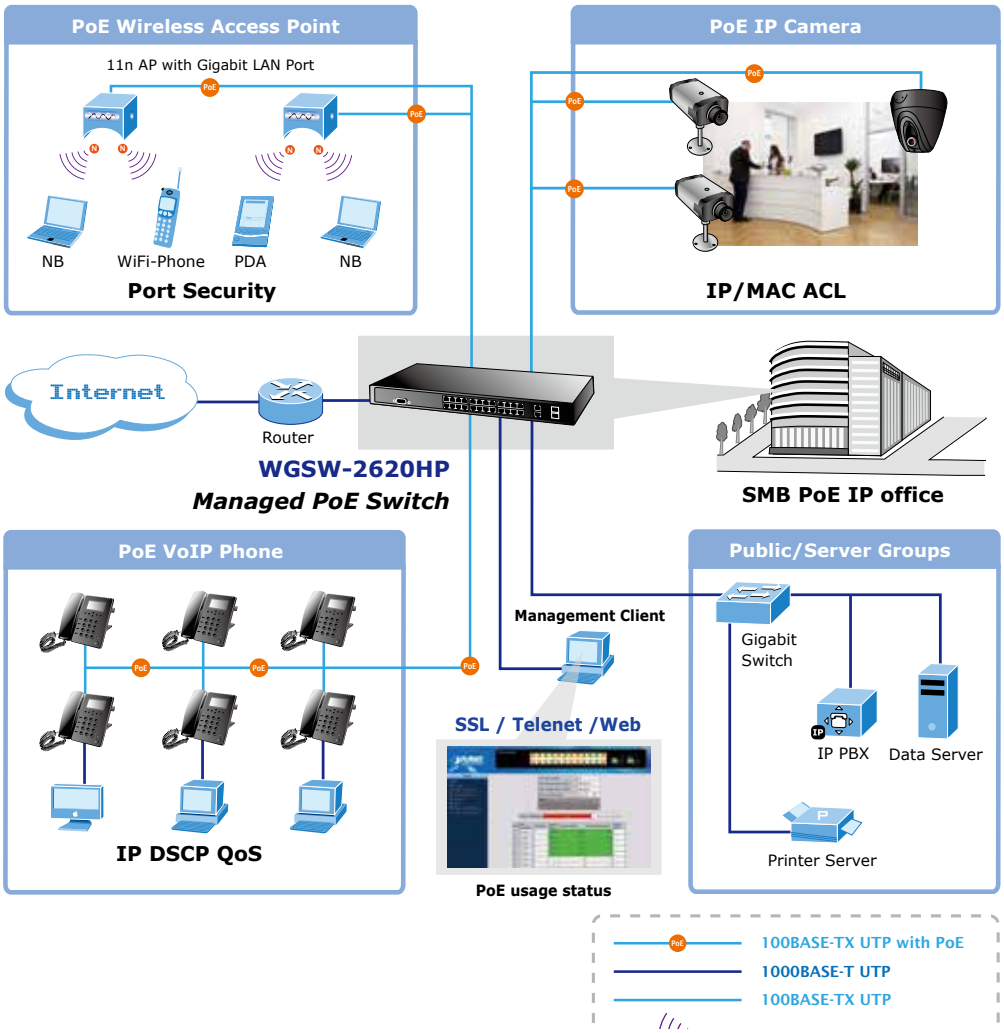
IP Office Department / Workgroup PoE Switch

As the business expands, the additional telephones required could be installed in less cost via the implementation of PoE IP Telephony system than that of the traditional circuit wiring telephony system. PLANET WGSW-2620HP Managed PoE Switch helps enterprises to efficiently create an integrated data, voice, and powered VoIP network. PLANET IEEE 802.3af compliant IP Phones can be installed without any power cable because it can be powered via the standard Ethernet cable from the connected WGSW-2620HP. With the WGSW-2620HP, IP Telephony deployment becomes more reliable and cost effective, which helps enterprises save tremendous cost when upgrading from the traditional telephony system to IP Telephony communications infrastructure.



IP Office Backbone PoE Switch

Providing up to 24 PoE, in-line power interfaces and 2 Gigabit TP / SFP combo interfaces, the WGSW-2620HP can easily build a power centrally controlled IP phone system, IP Camera system, or wireless AP group for the enterprises. For instance, IP cameras or wireless APs can be easily installed in the company for surveillance demands or building a wireless roaming environment in the office. Without the power-socket limitation, this Managed PoE Switch makes the deployment of IP cameras or Wireless LAN AP more easily and efficiently. The 2 Gigabit TP / SFP combo interfaces in the WGSW-2620HP also provide flexible Gigabit TP or fiber connection for uplink to public server groups.



Key Features

PHYSICAL PORT

- **24-Port 10/100Base-TX** Fast Ethernet ports with **IEEE 802.3af / IEEE 802.3at PoE** injector
- **2 10/100/1000Base-T** TP combo interfaces
- **2 1000Base-X mini-GBIC/SFP** slots, shared with Port-25 and Port-26
- Reset button for system management
- 1 RS-232 male DB9 console interface for Switch basic management and setup

POWER OVER ETHERNET

- Complies with IEEE 802.3af / IEEE 802.3at Power over Ethernet End-Span PSE
- Up to 24 IEEE 802.3af devices powered
- Up to 12 IEEE 802.3at devices powered
- Supports PoE Power up to 15.4 Watts / 30 Watts for each PoE ports
- Auto detect powered device (PD)
- Circuit protection prevent power interference between ports
- Remote power feeding up to 100m
- PoE Management
  - IEEE 802.3af and IEEE 802.3at mode switch control
  - Total PoE power budget control
  - Per port PoE function enable/disable
  - PoE Admin-mode control
  - PoE Port Power feeding priority
  - PD classification detection
  - Over Temperature Protection function
  - Temperature Threshold Control
  - PoE Usage Threshold Control

LAYER 2 FEATURES

- Prevents packet loss Flow Control
  - IEEE 802.3x PAUSE Frame flow control for Full-Duplex mode
  - Back-Pressure Flow Control in Half-Duplex mode
- High performance of Store-and-Forward architecture, runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- Broadcast / Multicast / Unicast storm control
- 8K MAC address table, automatic source address learning and ageing
- Supports **VLAN**
  - IEEE 802.1Q Tag-based VLAN
  - Port-Based VLAN
  - Q-in-Q tunneling
  - GVRP for dynamic VLAN Management
  - Private VLAN Edge (PVE / Protect Port)
- Supports **Link Aggregation**
  - up to 13 trunk groups
  - up to 8 ports per trunk group with 1.6Gbps bandwidth (Full Duplex Mode)
  - IEEE 802.3ad LACP (Link Aggregation Control Protocol)
  - Cisco ether-channel (Static Trunk)
- **Spanning Tree Protocol**
  - STP, IEEE 802.1D (Classic Spanning Tree Protocol)
  - MSTP, IEEE 802.1s (Multiple Spanning Tree Protocol, spanning tree by VLAN)
- Port Mirroring to monitor the incoming or outgoing traffic on a particular port

QUALITY OF SERVICE

- 4 priority queues on all Switch ports
- Traffic classification
  - IEEE 802.1p CoS
  - IP TOS / DSCP to 802.1p priority mapping
  - Port-Based priority
- Strict priority and Weighted Round Robin (WRR) CoS policies
- Supports QoS and In/Out bandwidth control on each port
- In/Out rate limit control on each port

MULTICAST

- Supports IGMP Snooping v1 and v2
- IGMP Snooping v2 fast leave
- Querier mode support

SECURITY

- IEEE 802.1x Port-Based network access control protocol
- RADIUS users access authentication
- L3 / L4 Access Control List (ACL)
- Source IP-MAC / Port-Binding
- Port Security for Source MAC address entries filtering

MANAGEMENT

- Switch Management Interface
  - Telnet Command Line Interface
  - Web switch management
  - SNMP v1, v2c, v3 switch management
  - SSL switch management
- Three user privilege levels control (Admin, Operator, viewer)
- DHCP client for IP address assignment
- DHCP Option82 and DHCP Relay
- Link Layer Discovery Protocol (LLDP) for easy network management
- Built-in Trivial File Transfer Protocol (TFTP) client
- Firmware upgrade via TFTP or HTTP
- Configuration restore / backup via TFTP or HTTP
- Event message logging to remote Syslog server
- Alarm records extractable in standard CSV format for post processing
- Four RMON groups 1, 2, 3, 9 (history, statistics, alarms, and events)
- SNMP trap for interface Link Up and Link Down notification
- Supports Ping function
- Supports Simple Network Protocol (SNTP)

SPECIFICATION

Product	24-Port 10/100Mbps + 2 Gigabit TP / SFP Managed 802.3at PoE Switch
Model	WGSW-2620HP
Hardware Specification	
10/100Mbps Copper Ports	24 10/100Base-TX RJ-45 Auto-MDI/MDI-X ports
1000Mbps Copper Ports	2 10/100/1000Mbps RJ-45 Auto-MDI/MDI-X ports
SFP/mini-GBIC Slots	2 1000Base-SX/LX/BX, shared with Port-25 and Port-26
Switch Architecture	Store-and-Forward
Switch Fabric	8.8Gbps / non-blocking
Switch Throughput	6.547Mpps @64Bytes
Address Table	8K entries
Share Data Buffer	512Kbytes
Flash	4MB
DRAM	32MB
Maximum Frame Size	9K Bytes
Flow Control	Back pressure for Half-Duplex IEEE 802.3x Pause Frame for Full-Duplex
LED	Power, PoE Power, FAN Alert Link / Activity (Green) PoE In-Use (Amber) 1000 LNK / ACT (Green) 10/100 LNK / ACT (Amber)
Dimension (W x D x H)	440 x 300 x 44.5 mm, 1U height
Weight	4.6kg
Power Requirement	100 - 240VAC, 50 - 60Hz, Auto-sensing.
Power Consumption	System: 110V: 29 Watts / 98BTU, 220V: 31 Watts / 105BTU Ethernet Full Loading: 110V: 34 Watts / 116BTU, 220V: 35 Watts / 119BTU PoE Full Loading: 110V: 360 Watts / 1228BTU, 220V: 360 Watts / 1228BTU
Reset Button	< 5 sec: System reboot > 10 sec: Factory Default
Power over Ethernet	
PoE Standard	IEEE 802.3af / IEEE 802.3at Power over Ethernet / PSE
PoE Power Supply Type	End-Span
PoE Power Output	Per Port 52V DC, 350mA . Max.15.4 Watts (IEEE 802.3af) Per Port 52V DC, 590mA. Max. 30 Watts (IEEE 802.3at)
Power Pin Assignment	1/2(+), 3/6(-)
PoE Power Budget	360 Watts (Port 1 to port 12: 180 Watts, port 13 to port 24: 180 Watts)
Max. number of Class 1 PD	24
Max. number of Class 2 PD	24
Max. number of Class 3 PD	24
Max. number of Class 0, 4 PD	12
Layer 2 Function	
Management Interface	Console, Telnet, Web Browser, SSL, SNMPv1, v2c, v3
Port Configuration	Port disable / enable Auto-Negotiation 10/100/1000Mbps full and half duplex mode selection Flow Control disable / enable
Port Status	Display each port's speed duplex mode, link status and Flow control status Auto negotiation status, trunk status
Port Mirroring	TX / RX / Both 1 to 1 monitor
Bandwidth Control	Ingress / Egress Rate Control • Allow to configure per 128Kbps
VLAN	IEEE 802.1Q Tag-Based VLAN, up to 255 VLANs groups, out of 4041 VLAN IDs Port-Based VLAN Q-in-Q tunneling GVRP for VLAN Management, up to 128 dynamic VLAN entries Private VLAN Edge (PVE / Protected port) with two protected port groups
Link Aggregation	Static Port Trunk IEEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 13 groups of 8-Port trunk support

QoS	4 priority queue Traffic classification based on: - Port priority - 802.1p priority - DSCP/TOS field in IP Packet	
IGMP Snooping	IGMP (v1/v2) Snooping, up to 256 multicast Groups	
Access Control List	IP-Based Layer 3 / Layer 4 ACL Up to 200 ACL rule entries	
SNMP MIBs	RFC-1213 MIB-II RFC-2863 Interface MIB RFC-2665 EtherLike MIB RFC-1493 Bridge MIB RFC-2819 RMON MIB (Group 1, 2, 3,9) RFC-2737 Entity MIB POWER-ETHERNET-MIB	
Standards Conformance		
Standards Compliance	IEEE 802.3	10Base-T
	IEEE 802.3u	100Base-TX
	IEEE 802.3z	1000Base-SX/LX
	IEEE 802.3ab	1000Base-T
	IEEE 802.3x	Flow Control and Back pressure
	IEEE 802.3ad	Port trunk with LACP
	IEEE 802.1D	Spanning Tree Protocol
	IEEE 802.1s	Multiple Spanning Tree Protocol
	IEEE 802.1p	Class of Service
	IEEE 802.1Q	VLAN Tagging
	IEEE 802.1x	Port Authentication Network Control
	IEEE 802.3af	Power over Ethernet
	IEEE 802.3at	Power over Ethernet (Pre-Standard)
	RFC 768	UDP
	RFC 793	TFTP
	RFC 791	IP
	RFC 792	ICMP
	RFC 2068	HTTP
	RFC 1112	IGMP version 1
	RFC 2236	IGMP version 2
Environment		
Operating Temperature	0 ~ 50 Degree C	
Operating Humidity	10 ~ 95% (non-condensing)	
Storage Temperature	-20 ~ 70 Degree C	
Storage Humidity	10 ~ 95% (non-condensing)	

Ordering Information

WGSW-2620HP	24-Port 10/100Mbps + 2 Gigabit TP / SFP Managed 802.3at PoE Switch

Relative Products

FGSD-1022HP	8-Port 10/100Mbps + 2 Gigabit TP / SFP combo Managed 802.3at PoE Switch
POE-161S	IEEE 802.3at Gigabit High Power over Ethernet Splitter

Available Modules for WGSW-2620HP

MGB-GT	SFP-Port 1000Base-T Module
MGB-SX	SFP-Port 1000Base-SX mini-GBIC module - 220/550m
MGB-LX	SFP-Port 1000Base-LX mini-GBIC module - 10km
MGB-L30	SFP-Port 1000Base-LX mini-GBIC module - 30km
MGB-L50	SFP-Port 1000Base-LX mini-GBIC module - 50km
MGB-L70	SFP-Port 1000Base-LX mini-GBIC module - 70km
MGB-L120	SFP-Port 1000Base-LX mini-GBIC module - 120km
MGB-LA10	SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module - 10km
MGB-LB10	SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module - 10km
MGB-LA20	SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module - 20km
MGB-LB20	SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module - 20km
MGB-LA40	SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module - 40km
MGB-LB40	SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module - 40km

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