

## 24-Port 10/100Mbps + 2-Port Gigabit TP/SFP Combo Managed PoE Switch - 380W



### Cost-effective Managed PoE Switch for SMB Networking

PLANET FGSW-2620VMP4 Switch features IEEE 802.3af Power over Ethernet (PoE) function which optimizes the installation and safe power management of network devices such as wireless access points (AP), Voice over IP (VoIP) phones and IP surveillance cameras. IEEE 802.3af PoE capabilities reduce installation costs of add-in network productivity devices. It frees the network device deployment from restrictions of power outlet locations. With PoE features, power and data switching are integrated into one unit and delivered over a single cable, which eliminates costs for additional AC wiring and reduces time for installation. It provides a compact, affordable, safe and reliable power solution for small to medium enterprises.

For catering to the need of easy management and centralized SNMP application to monitor the status of Switch and traffic per port, the cost-effective Managed PoE Switch, FGSW-2620VMP4 offers the following key features:

- 380W PoE Power Budget
- 802.3af Power over Ethernet
- WEB / SSL / Telnet
- 802.1Q / Q-in-Q VLAN
- IGMP Snooping
- 802.1w Rapid Spanning Tree
- TOS/DSCP QoS
- SNMP and SNMP Trap
- Access Control List
- 802.1X Authentication / RADIUS
- UL and cUL certificate

### Full PoE Power Budget, Easy Cabling Installation

The FGSW-2620VMP4 PoE Managed Switch offers totally 380-watt PoE power budget. The PoE in-line power following IEEE 802.3af standard makes the FGSW-2620VMP4 able to power on 24 PoE compliant devices at the distance up to 100 meters through the 4-pair Cat 5/5e UTP wire. With data and power over Ethernet from one unit, the FGSW-2620VMP4 will reduce cable deployment and eliminate the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. An Ethernet wire carries both data and power bringing the benefits of lower installation costs, fewer installation effort and less need for electricians or extension cords. And the key feature of the solution is energy saving. With more efficient switching power supply, the efficiency of the FGSW-2620VMP4 would be much better than four linear power adapters in a long run.

### Physical Port

- 24 10/100Mbps Fast Ethernet ports with PoE Injector function
- 2 10/100/1000Mbps TP and 1000Mbps SFP shared combo interfaces
- Reset button for system management
- 1 RS-232 male DB9 console interface for basic Switch management and setup

### Power over Ethernet

- Complies with IEEE 802.3af Power over Ethernet End-Span PSE
- Provides 380 watts power to maximum 24 IEEE 802.3af devices
- Supports PoE Power up to 15.4 watts for each PoE port
- Auto detects powered device (PD)
- Circuit protection prevents power interference between each port
- Remote power feeding up to 100m
- PoE Management
  - Total PoE power budget control
  - Per port PoE function enable/disable
  - PoE Port Power feeding priority
  - Per PoE port power limit
  - PD classification detection

### Layer 2 Features

- Complies with the IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z Gigabit Ethernet standard
- Supports auto-negotiation and full-duplex / half-duplex modes for all 10Base-T/100Base-TX and 1000Base-T ports
- Auto-MDI/MDI-X detection for each RJ-45 port
- 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 Store-and-Forward architecture, runt/CRC filtering eliminate erroneous packets to optimize the network bandwidth
- Broadcast / Multicast / Unicast storm control
- 8K MAC address table, automatic source address learning and ageing
- 2Mbit embedded memory for packet buffers
- Supports VLAN
  - IEEE 802.1Q Tag-based VLAN

### Centralized Power Distribution with Remote Management

The remote PoE management functions of the FGSW-2620VMP4 make it easy to survey and control the PoE power provision to the devices and ensure interoperability with equipment from other vendors. Via Web interface, SNMP trap and SNMP monitoring, the network manager can get the PoE device status and alert immediately. The over-temperature protection of the PoE Switch offers a safe and stable PoE operating by limiting the output power according to detected temperature in order to avoid destructive breakdown due to unexpected overheating.

### High Performance Wire-Speed Switching

PLANET FGSW-2620VMP4 offers 24 10/100Mbps Fast Ethernet ports and 2 Gigabit TP/SFP combo ports. The two Gigabit TP/SFP combo ports can be either 1000Base-T for 10/100/1000Mbps or 1000Base-SX/LX through SFP (Small Factor Pluggable) interface. The FGSW-2620VMP4 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.

### Efficient Management

To meet the growing network, PLANET FGSW-2620VMP4 provides console and telnet command line interface, advanced WEB and SNMP management interface. With its built-in Web-based management, the FGSW-2620VMP4 offers an easy-to-use, platform-independent management and configuration facility. The FGSW-2620VMP4 supports standard Simple Network Management Protocol (SNMP) and can be monitored via any standard-based management software. For text-based management, the FGSW-2620VMP4 can also be accessed via Telnet and the console port. Moreover, the FGSW-2620VMP4 offers secure remote management by supporting Secure Socket Layer (SSL) connection which encrypts the packet content at each session.

### Robust Layer 2 Features

For efficient management, via WEB interface the FGSW-2620VMP4 can be programmed for basic switch management functions such as port speed configuration, Port Link Aggregation, IEEE 802.1Q VLAN and Q-in-Q VLAN, Port Mirroring, Rapid Spanning Tree and ACL security. Additionally, the firmware includes advanced features such as IGMP snooping, QoS (Quality of Service), broadcast storm and Bandwidth Control to enhance bandwidth utilization.

### Advanced Security and Quality of Service

The FGSW-2620VMP4 offers comprehensive Layer 3 and Layer 4 Access Control List (ACL) to filter out unwanted traffic. Its protection mechanisms comprises RADIUS and Port-based 802.1x user and device authentication. Moreover, the Switch provides MAC filter, Static MAC, IP/MAC binding and Port Security for enforcing security policies to the edge. The administrators can now construct highly secured corporate networks with considerably less time and effort than before.

To ensure IP voice and video communication get the quality of service needed, the FGSW-2620VMP4 classifies traffic and prioritizes Layer 2 802.1p or Layer 3 IP DSCP traffic into four hardware queues that support strict or Weighted Round Robin (WRR) queuing algorithms. It also empowers the SMB IP office to take full advantages of the limited network resources and guarantees the best performance in VoIP and Video conferencing transmission.

- Port-based VLAN
- Q-in-Q tunneling
- Up to 255 VLANs groups, out of 4041 VLAN IDs
- 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)
  - RSTP, IEEE 802.1w (Rapid Spanning Tree Protocol)
- 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

### 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)
- MAC Filtering and Source IP-MAC / Port-Binding
- Port Security for Source MAC address entries filtering

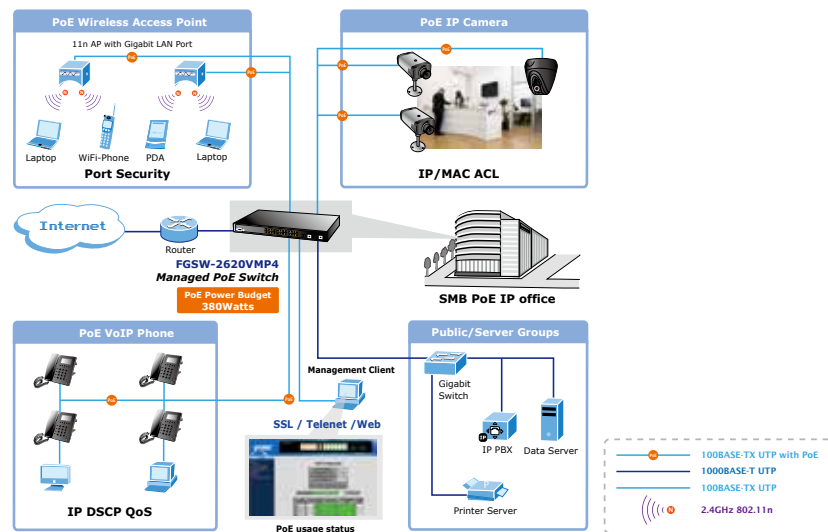
### Management

- Switch Management Interface
- Telnet Command Line Interface
- Web switch management
- SNMP v1, v2c switch management
- SSL switch management
- DHCP client for IP address assignment
- Built-in Trivial File Transfer Protocol (TFTP) client
- Firmware upgrade via TFTP or HTTP
- Configuration upload/download via TFTP or HTTP
- 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

## Applications

### PoE IP Telephony Office

With the business office expansion, the additional telephones required can be installed at less cost via the implementation of PoE IP Telephony system than that of the traditional circuit wiring telephony system. PLANET FGSW-2620VMP4 Managed PoE Switch helps SMBs to create an integrated data, voice, and powered network. PLANET IEEE 802.3af compliant IP phones can be installed without the need of an additional power cables because the power can be provided from the standard Ethernet cable connecting to the FGSW-2620VMP4. PoE IP phones and analog Telephony adapter work perfectly with the FGSW-2620VMP4 which injects power through the Ethernet cables and the IP DSCP priority of QoS feature improves the voice communicating. With the FGSW-2620VMP4, IP Telephony deployment becomes more reliable and cost effective which helps SMBs save tremendous cost when upgrading from the traditional telephony to IP Telephony communications infrastructure.

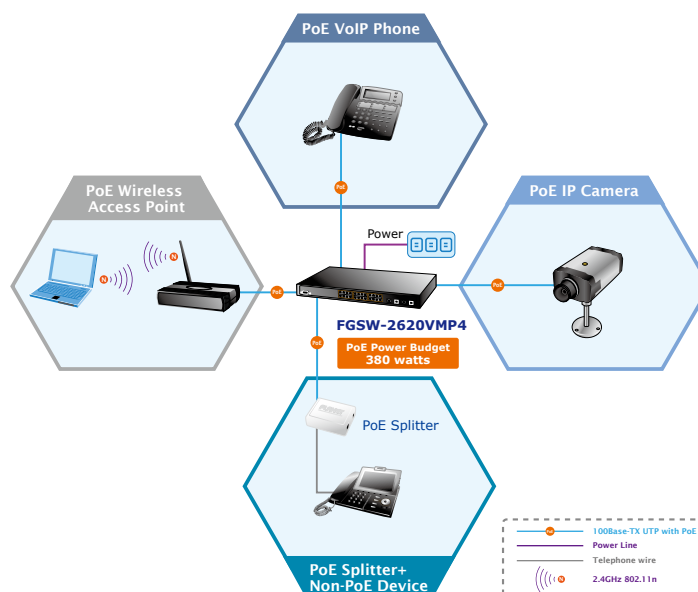


### Department / Workgroup PoE Switch

Providing up to 24 PoE, in-line power interface, the FGSW-2620VMP4 Managed PoE Switch can easily build a central power controlled IP phone system, IP camera system, or wireless AP group for the enterprises. For instance, PoE IP cameras can be easily installed in the company for surveillance demands or PoE wireless APs be installed to build a wireless roaming environment in the office. Without the power-socket limitation, the PoE Switch makes the installation of IP cameras or WLAN APs easier and more efficient.

### Factory / Warehouse Applications

While video surveillance system becomes more and more important for visible security in the factory and warehouse, the IP cameras with PoE function would be a lot helpful for the surveillance deployment when the power outlet is not easily found on the ceiling or in the outdoors. For example, in the factory operation or in the warehouse storage security, the PoE IP cameras can be installed anywhere when needed regardless of the restrictions of power outlet location. With the PoE Switch as the central control manager and offering remote power monitoring via Web interface or SNMP trap and SNMP monitoring, the network manager can get the status and alert of PoE devices immediately. The PoE IP cameras can also be controlled remotely, which increases the administrator management efficiency and improves the productivity.



## Product Specifications

Product	FGSW-2620VMP4 24-Port 10/100Mbps + 2 Gigabit TP/ SFP Combo Managed PoE Switch - 380W
<b>Hardware Specifications</b>	
10/100Mbps Copper Ports	24 10/100Base-TX RJ-45 auto-MDI/MDI-X 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~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
Maximum Frame Size	9K Bytes
Flow Control	Back pressure for half-duplex IEEE 802.3x pause frame for full-duplex
LED	Power, Fan Alarm Link/Activity (Green) PoE In-Use (Amber) 1000 LNK/ ACT(Green) 10/100 LNK/ ACT(Green)
Dimensions (W x D x H)	440 x 300 x 44 mm, 1U height
Weight	4.2kg
Reset Button	< 5 secs: System reboot > 10 secs: Factory default
Power Input	100 ~ 240V AC, 50 / 60Hz, Auto-sensing
Power Consumption	400 watts / 1372.4 BTU
<b>Power over Ethernet</b>	
PoE Standard	IEEE 802.3af Power over Ethernet / PSE
PoE Power Supply Type	End-span
Power Pin Assignment	1/2(+), 3/6(-)
PoE Power Output	Per Port 48V DC, 350mA . Max. 15.4 watts
PoE Power Budget	380 watts
Max. number of Class 2 PD	24
Max. number of Class 3 PD	24
<b>Layer 2 Function</b>	
Management Interface	Console, Telnet, Web Browser, SSL, SNMPv1, v2c
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 Port-based VLAN Q-in-Q tunneling Up to 255 VLANs groups, out of 4041 VLAN IDs
Link Aggregation	Supports 13 groups of 8-port trunk, IEEE 802.3ad LACP
QoS	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 ACL / MAC-based ACL Up to 220 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) Power-over-Ethernet-MIB

Standards Conformance		
Regulation Compliance	FCC Part 15 Class A, CE	
Safety	UL, cUL	
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 802.1w	Rapid Spanning Tree Protocol
	IEEE 802.1p	Class of Service
	IEEE 802.1Q	VLAN Tagging
	IEEE 802.1x	Port Authentication Network Control
	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 degrees C	
	Relative Humidity: 20 ~ 95% (non-condensing)	
Storage	Temperature: -10 ~ 70 degrees C	
	Relative Humidity: 20 ~ 95% (non-condensing)	

## Ordering Information

FGSW-2620VMP4	24-Port 10/100Mbps + 2-Port Gigabit TP/SFP Combo Managed PoE Switch - 380W
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## Available Modules for FGSW-2620VMP4

MGB-GT	SFP-Port 1000Base-T mini-GBIC Module
MGB-SX	SFP-Port 1000Base-SX mini-GBIC module
MGB-LX	SFP-Port 1000Base-LX mini-GBIC module
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 mini-GBIC module - LC WDM (TX:1310nm), SM, 10km
MGB-LB10	SFP-Port 1000Base-LX mini-GBIC module - LC WDM (TX:1550nm), SM, 10km
MGB-LA20	SFP-Port 1000Base-LX mini-GBIC module - LC WDM (TX:1310nm), SM, 20km
MGB-LB20	SFP-Port 1000Base-LX mini-GBIC module - LC WDM (TX:1550nm), SM, 20km
MGB-LA40	SFP-Port 1000Base-LX mini-GBIC module - LC WDM (TX:1310nm), SM, 40km
MGB-LB40	SFP-Port 1000Base-LX mini-GBIC module - LC WDM (TX:1550nm), SM, 40km

\*Longer distance modules (up to 120km) are available upon request.

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