

### FGSW-2612PVM

# 24-Port 10/100Mbps with 12-Port PoE + 2 Gigabit TP/SFP Managed Switch



### Cost effective Managed PoE Switch for SMB Networking

The PLANET FGSW-2612PVM 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 wireless AP 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, eliminating costs for additional AC wiring and reducing installation time. It provides a compact, affordable, safe and reliable power solution for small to medium enterprises.

- 802.3af PoE
- WEB / SSL / Telnet
- 802.1Q / Q-in-Q VLAN
- Rapid Spanning Tree
- SNMP and 4 RMON groups
- Access Control List
- IGMP Snooping
  - 802.1X Authentication / RADIUS

### Power over Ethernet, Easy Cabling Installation

The PoE in-line power following the standard IEEE 802.3af makes the FGSW-2612PVM able to power on 12 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-2612PVM shall reduce cables deployment and eliminates the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. A wire carries both data and power lowering the installation costs, simplifying the installation effort and eliminating the need for electricians or extension cords. It is also proud of the key feature – energy saving. With more efficient switching power supply, the efficiency of the FGSW-2612PVM would be much better than four linear power adapters in a long run.

### **Physical Port**

- 24 10/100 Mbps Fast Ethernet ports and 12 PoE Injector ports (Port 1 to port 12)
- · 2 10/100/1000Mbps TP and SFP shared combo interfaces
- RS-232 male DB9 console interface for Switch basic management and setup
- · Reset button for system management

### Power over Ethernet

- Complies with IEEE 802.3af Power over Ethernet End-Span PSE
- · Up to 12 IEEE 802.3af devices powered
- · Supports PoE Power up to 15.4 Watts for each PoE port
- Auto detect powered device (PD)
- · Circuit protection prevent power interference between ports
- · Remote power feeding up to 100m
- · PoE Management
  - Total PoE power budget control
  - Over Temperature Protection function enable / disable
  - Pert 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 standards
- 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 FAUSE Frame flow control for Full-Duplex mode
  - Back-Pressure Flow Control in Half-Duplex mode



### Centralized Power Distribution with Remote Management

The remote PoE management functions of FGSW-2612PVM 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 manager can get the PoE devices status and alert immediately. The overtemperature protection of the PoE Switch offers a safety and stable PoE operating by limit the output power according to detected temperature to prevent destructive breakdown due to un-expected overheating.

#### High Performance Wire-Speed Switching

The PLANET FGSW-2612PVM 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. PLANET FGSW-2612PVM 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

Afford the current network to grow and expand, the PLANET FGSW-2612PVM provides console and telnet command line interface, advanced WEB and SNMP management interface to fill this kind of demand. With its built-in Web-Based management, the FGSW-2612PVM offers an easy-to-use, platform-independent management and configuration facility. The FGSW-2612PVM supports standard Simple Network Management Protocol (SNMP) and can be monitored via any standard-based management software. For Text-Based management, the FGSW-2612PVM can also be accessed via Telnet and the console port. Moreover, the FGSW-2612PVM 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-2612PVM 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 PLANET FGSW-2612PVM offers comprehensive Layer 2, Layer 3 and Layer 4 Access Control List (ACL) to filter out unwanted traffic. Its protection mechanisms comprises of 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.

- High performance of 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
- VLANs
  - 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
  - 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

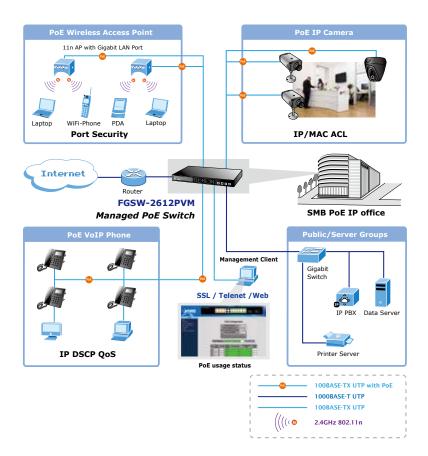


To ensure IP voice and video communication get the quality of service needed, the FGSW-2612PVM classifies traffic and prioritizes Layer 2 802.1p or Layer 3 IP DSCP traffic into four hardware queues that support strict or Weighted Round Robin (WRR) queuing algorithms. It also empowers the SMB IP office to take full advantages of the limited network resources and guarantees the best performance in VoIP and Video conferencing transmission.

### Application

### PoE IP Telephony Office

With the business office expansion, 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 FGSW-2612PVM PoE Managed Switch helps SMB to create an integrated data, voice, and powered network. PLANET 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-2612PVM. PoE IP Phones and Analog Telephony Adapter work perfectly with the FGSW-2612PVM which injects power through the Ethernet cables and the IP DSCP priority of QoS feature improves the voice communicating. With FGSW-2612PVM, IP Telephony deployment becomes more reliable and cost effective, which helps SMB save tremendous cost when upgrading from the traditional telephony to IP Telephony communications infrastructure.



### 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
  - Console / 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
- Ping function

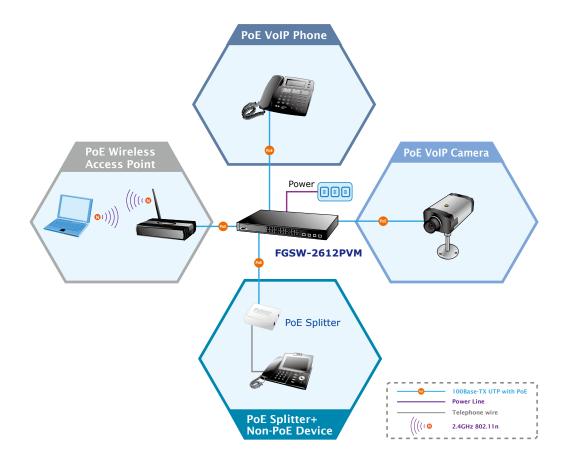


### Department / Workgroup PoE Switch

Providing up to 12 PoE, in-line power interface, the FGSW-2612PVM Managed PoE Switch can easily build a power centrally controlled IP phone system, IP camera system, or Wireless AP group for the enterprises. For instance, 12 cameras or 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, the PoE Switch makes the installation of cameras or WLAN AP more easily and efficiently.

#### 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 not easily found in the ceiling or in the outdoor. 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 manager can get the status and alert of PoE devices immediately. The PoE IP cameras could also be controlled remotely, which increases the administrator management efficiency and improve the productivity.





## Specification

Product         2x-Port 10/100Mtpps with 12-Port PDE +2 Gigabit TPI/SEP Combo Managed Switch           Michanes Sanguer Ports         24 10/100 Base TX RAF Auto MDIMD K puris           10100Mbps Copper Ports         21 1000 Differs PL45 Auto MDIMD K puris           Streme Sanguer Ports         21 1000 Differs PL45 Auto MDIMD K puris           Streme Sanguer Ports         21 1000 Differs PL45 Auto MDIMD K puris           Streme Sanguer Ports         21 000 Differs PL45 Auto MDIMD K puris           Streme Sanguer Ports         21 000 Differs PL45 Auto MDIMD K puris           Streme Sanguer Ports         21 000 Differs PL45 Auto MDIMD K puris           Streme Sanguer Ports         21 000 Differs PL45 Auto MDIMD K puris           Streme Sanguer Ports         21 000 Differs PL45 Auto MDIMD K puris           Streme Sanguer Ports         21 000 Differs PL45 Auto MDIMD K puris           Streme Sanguer Ports         21 000 Differs PL45 Auto MDIMD K puris           Streme Sanguer Ports         21 000 Differs PL45 Auto MDIMD K puris           Streme Sanguer Ports         21 000 Differs PL45 Auto MDIMD K puris           Streme Sanguer Ports         21 000 Differs PL45 Auto MDIMD K PURIS           Streme Sanguer Ports         21 000 Differs PL45 Auto MDIMD K PURIS           Streme Sanguer Ports         21 000 Differs PL45 Auto MDIMD K PURIS           Streme Sanguer Ports         21 000 Differs Pl45 Auto MDIMD		50014 00400 44
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1000Mbps Cooper Fortis2 10002as 201/L24 Auto- M010Mb1 / port 3900mb120 Cooper Fortis2 10002as 201/L24 Auto-M010Mb1 / port 3901 Fortis2 10002as 201/L24 Auto-M010Mb1 / port 12)Sutch Anton88.05 / non-blocking901 Fortis88.05 / non-blockingSutch Fahric88.05 / non-blockingSutch Fahric98.05 / non-blockingFile98.05 / non-blocking <td< td=""><td>Hardware Specification</td><td></td></td<>	Hardware Specification	
SPI min. SQIC Skiss         21 0001 to 01 13)           South A Anhabcue         12 0001 to 01 13)           South A Anhabcue         0507 and - forward           South A Anhabcue         0507 mode - forward           South Throughput         0547 Mpsg @049/ms           South Throughput         Back pressout for Hall-Duplok           Effect         052 A Pause Finane for Full Duplok           Effect         054 Mps (Genon)           Post Forkio         1000 LNK / ACT (Genon)           1000 LNK / ACT (Genon)         1000 LNK / ACT (Genon)           1000 LNK / ACT (Genon)         1000 LNK / ACT (Genon)           1000 LNK / ACT (Genon)         1000 LNK / ACT (Genon)           1000 LNK / ACT (Genon)         1000 LNK / ACT (Genon)           1000 LNK / ACT (Genon)         1000 LNK / ACT (Genon)           1000 LNK / ACT (Genon)         1000 LNK / ACT (Genon)           1000 LNK	10/100Mbps Copper Ports	24 10/ 100Base-TX RJ-45 Auto-MDI/MDI-X ports
SPI min. SQIC Skiss         21 0001 to 01 13)           South A Anhabcue         12 0001 to 01 13)           South A Anhabcue         0507 and - forward           South A Anhabcue         0507 mode - forward           South Throughput         0547 Mpsg @049/ms           South Throughput         Back pressout for Hall-Duplok           Effect         052 A Pause Finane for Full Duplok           Effect         054 Mps (Genon)           Post Forkio         1000 LNK / ACT (Genon)           1000 LNK / ACT (Genon)         1000 LNK / ACT (Genon)           1000 LNK / ACT (Genon)         1000 LNK / ACT (Genon)           1000 LNK / ACT (Genon)         1000 LNK / ACT (Genon)           1000 LNK / ACT (Genon)         1000 LNK / ACT (Genon)           1000 LNK / ACT (Genon)         1000 LNK / ACT (Genon)           1000 LNK / ACT (Genon)         1000 LNK / ACT (Genon)           1000 LNK	1000Mbps Copper Ports	2 10/100/1000Mbps RJ-45 Auto-MDI/MDI-X ports
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Share Dails Buffer         61240-yles           Maximum Frame Size         9K By/es           Flow Control         Back pressure for Half-Duplex. IEEE 802.5x Pause Frame for Full-Duplex           IEEE S02.5x Pause Frame for Full-Duplex.         Prefin-In-Duplex.           IDIM SIG (Vice S0.1)         S05 St At Am. 10 Height           Weight         450 St S0 At AM.           Power Requirement.         100-2400 AC.50-00 Hz           Power Consemption / Dissipation         102-24 Power over Element / PSE           Pole Standard         IEEE 802.34 Power over Element / PSE           Pole Standard         12(+), 36(-)           Pole Standard         12(+), 36(-) <td></td> <td></td>		
Maximum Frame Size         WR Bytes           Flow Control         Back pressure for Half-Ouplex IEEE BO2S A Pause Frame for Full-Ouplex           EED         Dever, FAN Alarm Luck Activity (Green) POE In-Use (Amber) 10/100 LNK / ACT(Green) 10/100 LNK / ACT(Green)		
Flow Control         Back pressure for Half-Duplex           LEEB 8022.3x Pause Frame for Full-Duplex         Reset Pause Frame for Full-Duplex           Link / Activity (Green)         Power, FAN Alarm           Link / Activity (Green)         Power, FAN Alarm           1000 LNK / ACT (Green)         1000 LNK / ACT (Green)           1000 LNK / ACT (Green)         1000 LNK / ACT (Green)           Power Fander         65 sec: System rebot           > 9 sec: Factory Default         900 - 200 / AC. 50: 60 Hz           Power Consumption / Dissipation         150 Watts maximum / 511.5 BTU/hr maximum           Power Consumption / Dissipation         150 Watts maximum / 511.5 BTU/hr maximum           Power Consumption / Dissipation         150 Watts maximum / 511.5 BTU/hr maximum           Power Consumption / Dissipation         150 Watts maximum / 511.5 BTU/hr maximum           Power Consumption / Dissipation         150 Watts maximum / 511.5 BTU/hr maximum           Power Consumption / Dissipation         162 Power Over Ethernet / PSE           Power Budget         10 Watts           Aux. muther of Class 3 PD         12           Power Budget         10 Watts           Max. muther of Class 3 PD         12           Port Configuration         10 Watts           Nuch resplation statuus, trunks atuus         10/100 Notps full and higup		
How Control         IEEE 802.3x Pause Frame for Full-Duplex           Brown, FAA Jahrn         Reset Button         Power, FAA Jahrn         Kontwork           Power, FAA Jahrn         Kontwork         Power, Pow	Maximum Frame Size	
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Reser         S acc. Factory Default           Dimension (W x D x H)         440 x 265 x 44 mm, 1U height           Weight         3.6kg           Power Requirement         100-240V AC, 50 40 Hz           Power Rousumption / Dissipation         150 Water maximum / 511.5 BTU/hr maximum           Power Gonsumption / Dissipation         150 Water maximum / 511.5 BTU/hr maximum           Power Opensumption / Dissipation         150 Water maximum / 511.5 BTU/hr maximum           Power Opensumption / Dissipation         150 Water maximum / 511.5 BTU/hr maximum           Power Opensumption / Dissipation         150 Water maximum / 511.5 BTU/hr maximum           Power Opensumption / Dissipation         150 Water maximum / 511.5 BTU/hr maximum           Power Output         Per Forker Output         Per Forker Output           Power Power Suppt Type         EEE 602.30 FM. Max. 15.4 Watts           Power Power Budget         12 (24).36(-)           Max. number of Class 2 PD         2           Layer 2 Function         Console, Telnet, Web Browser, SSL, SNMPv1, v2c           Management Interface         Console, Telnet, Web Browser, SSL, SNMPv1, v2c           Port Configuration         Dirforo 1000000/bps full and half duplex mode selection Flow Control disable / enable           Post Status         Max number of Class 3 PD         EEE 602.10 Tag-Based VLAN	LED	Link / Activity (Green) PoE In-Use (Amber) 1000 LNK / ACT(Green)
Dimension (W x D x H)     440 x 265 x 4 mm, 1U height       Weight     36kg       Power Requirement     100-240 V AC, 50-60 Hz       Power Consumption / Dissipation     150 Watts maximum / 511.5 BTU/hr maximum       Power Requirement     100-240 V AC, 50-60 Hz       Power Requirement     150 Watts maximum / 511.5 BTU/hr maximum       Power Power Ethernet     F       Power Supply Type     End-Span       Power Power Supply Type     End-Span       Power Power Budget     110 (Vatts       Max. number of Class 2 PD     12       Asa, number of Class 2 PD     12       Layer 2 Function     -6       Layer 2 Function     Console, Teinet, Web Browser, SSL, SNMPv1, v2c       Port Configuration     101/001/000Mbps full and half duplex mode selection       Flow Control disable / enable     Port disable / enable       Port Status     Display each port's speed duplex mode, link status and Flow control status       Auto negotation status, trunk status     EEE 802.10 Tag-Based VLAN       VLAN     EEE 802.10 Tag-Based VLAN       Port-Based VLAN     Support's 13 groups of 8-Port trunk support       Link Aggregation     Static Port Trunk       EEE 802.21 Tag-Based VLAN     Support's 13 groups of 8-Port trunk support       CoSO     Static Port Trunk       EEE 802.21 Tag-Based VLAN     Support's 13 groups of 8	Reset Button	
Weight         3.6kg           Power Requirement         100-240V AC, 50-60 Hz           Power Oorsumption / Dissipation         150 Watts maximum / 511.5 BTU/hr maximum           Power over Ethernet         IEEE 802.3af Power over Ethernet / PSE           Poel Standard         IEEE 802.3af Power over Ethernet / PSE           Poel Power Supply Type         End-Span           Poel Power Supply Type         End-Span           Poel Power Budget         110 Watts           Max. number of Class 3 PD         -           Poel Conser Budget         110 Watts           Max. number of Class 3 PD         -           Poel Configuration         -           Weidshich Control         -           Max. number of Class 3 PD         -           Poel Configuration         -           Max. number of Class 3 PD         -           Port Configuration         -           Nuch-Negotiation         -	Dimension (W x D x H)	
Power Requirement         100-240V AC, 50-60 Hz           Power Consumption / Dissipation         150 Watts maximum / 511.5 BTU/hr maximum           Power Supply Type         151.5 BTU/hr maximum           Poet Standard         IEEE 802.3af Power over Ethernet / PSE           PoE Power Output         Per Port 490 DC, 350mA . Max. 15.4 Watts           Poet Power Dutgate         12(2(+). 30(-)           Poet Power Budget         110 Watts           Max. number of Class 2 PD         -6           Layer 2 Function         -6           Port Configuration         Port disable / enable           Auto-Negotiation         10/100/1000Mbps full and half duplex mode selection           Port Configuration         Display each port's speed duplex mode, link status and Flow control status           Port Status         Display each port's speed duplex mode, link status and Flow control status           Auto-Negotiation         Auto-Negotiation           Iow control disable / enable         Auto negotiation status, trunk status           Bandwidth Control         IBrees Flow Status           VLAN         EEE 802.10 Tag-Based VLAN           Out-D tunneling         Up to 255 VLANs groups, out of 4041 VLAN IDs           Una Aggregation         IEEE 802.20 ad LACP (Link Aggregation Control Protocol)           Support 13 groups of 8-Port trunk support		
Power Consumption / Dissipation         150 Watts maximum / 511.5 BTU/hr maximum           Power over Ethernet         FEE           Power over Ethernet         FEE           Poes Standad         EEEE 802.3af Power over Ethernet / PSE           Poes Power Output         Per Port 48V DC, 350mA . Max. 15.4 Watts           Power Pin Assignment         112 (+). 36 (-)           Max. number of Class 2 PD         12           Max. number of Class 3 PD         - 6           Layer 2 Function         Port disable / enable           Much-Negoliation         10/100/1000Mbps full and half duplex mode selection Flow Control disable / enable           Port Configuration         Display each port's speed duplex mode, link status and Flow control status Auto-Negoliation status, trunk status         Flow Control disable / enable           Port Status         Display each port's speed duplex mode, link status and Flow control status Auto-Negoliation status, trunk status         Flow Control disable / enable           VLAN         EEE 802.10 Tag-Based VLAN Ou-D tumeling Up to 255 VLANs groups, out of 4041 VLAN IDs           Static Port Trunk Supports 13 groups of 8-Port trunk support         Fleee 802.304 LACP (Link Aggregation Control Protocool)	-	
Power over Ethemet         Post Standard         IEEE 802 and Power over Ethemet / PSE           PoeE Standard         EeE 802 and Power over Ethemet / PSE           PoeE Power Output         Per Port 48V DC, 350mA . Max. 15.4 Watts           Power Pin Assignment         12(+), 36(-)           Power Pin Assignment         12(+), 36(-)           Power Power Budget         110 Watts           Max. number of Class 2 PD         12           Max. number of Class 3 PD         -6           Layer 2 Function         Console, Teinet. Web Browser, SSL, SNMPv1, v2c           Port Configuration         On'ol'ol'ol'Ol'ObMbys 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, runk status           Bandwidth Control         Ingress / Egress Rate Control Altor to configure per 128Kops           VLAN         Carbo Lunenling Up to 255 VLANs groups, out of 4041 VLAN IDs           Up to 255 VLANs groups, out of 4041 VLAN IDs         Static Port Tunk IEEE 802.30 al LACP (Link Aggregation Control Protocol) Supports 13 groups of 8-Port trunk support           QoS         Ifaffic also 10 IP Packet         Static Port Tunk           IEEE 802.10 to pin in IP Packet         ICMP Querier support           IGMP Snooping         IGM Querier support	-	
PoE Standard         IEEE 802.3af Power over Ethemet / PSE           PoE Power Supply Type         End-Span           PoE Power Output         Per Port 48V DC, 350mA . Max. 15.4 Watts           Power Pin Assignment         1/2(+), 36(-)           Poe Power Budget         110 Watts           Max. number of Class 2 PD         12           Max. number of Class 3 PD         -6           Layer 2 Function         -6           Management Interface         Console, Teinet, Web Browser, SSL, SNMPv1, v2c           Port Configuration         Port disable / enable Auto-Negotiation           10/00/1000Mbps 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 Status         IEEE 802.10 Tag-Based VLAN Port-Based VLAN Port-Based VLAN Port-Based VLAN Qui-o Turneling Qui-o 2torNameling           VLAN         Static Port Trunk           Link Aggregation         IEEE 802.30 LAG P (Link Aggregation Control Protocol) Supports 13 groups of 8-Port trunk support           QoS         Cost joi pointly - DSCP / TOS field in IP Packet           IGMP Snooping         IGMP (v1 / v2) Snooping, up to 256 multicast Groups IGMP Quere support	· · ·	
PoE Power Supply Type         End-Span           PoE Power Output         Per Port 48V DC, 350mA . Max. 15.4 Watts           Power Pin Assignment         1/2(+), 3/6(-)           PoE Power Budget         110 Watts           Max. number of Class 2 PD         12           Max. number of Class 3 PD         -6           Layer 2 Functon         -6           Watts         Console, Teinet, Web Browser, SSL, SNMPv1, v2c           Port Configuration         Port disable / enable           Auto-Negotiation         10/1001/000Mbps full and half duplex mode selection           Flow Control disable / enable         Auto-Negotiation           10/1001/000Mbps full and half duplex mode, link status and Flow control status         Auto negotiation status, trunk status           Bandwidth Control         Ingress / Egress Rate Control           Auto negotianon status, trunk status         EEEE 802.10 Tag-Based VLAN           VLAN         Port-Based VLAN           Qui-o tunneling         Up to 255 VLANs groups, out of 4041 VLAN IDs           Link Aggregation         IEEE 802.302 Tag-Based VLAN           -Dort priority         -05CP / Link Aggregation Control Protocol)           Supports 13 groups of 8-Port trunk support         Supports 13 groups of 8-Port trunk support           CaS         Link Mg0regation Status, Trunk         IEEE 802		IEEE 000 3ef Dewer ever Ethernet / DSE
PoE Power Output         Per Port 48V DC, 350mA . Max. 15.4 Watts           Power Pin Assignment         172(+), 36(-)           PoE Power Budget         110 Watts           Max. number of Class 2 PD         12           Max. number of Class 3 PD         - 6           Layer 2 Function         -           Wanagement Interface         Console, Telnet, Web Browser, SSL, SNMPv1, v2c           Port Configuration         Port disable / enable           Auto-Negotiation         -           10/10/01/000Mbps full and half duplex mode selection         Flow           Flow Configuration         Display each port's speed duplex mode, link status and Flow control status           Auto negotiation status, funk status         Ingress / Egress Rate Control           Auto negotiation status, funk status         Port-Based VLAN           Ori-Based VLAN         Ori-Based VLAN           Ori-Based VLAN         Ori-Based VLAN           Ori-Based VLAN         Ori-Based VLAN           Ori-Based VLAN         Port-Based VLAN           Ori-Based VLAN         Port-Based VLAN           Ori-Based VLAN         Port-Based VLAN           Ori-Durineling         Up to 255 VLANs groups, out of 4041 VLAN IDs           Link Aggregation         Static Port Trunk         EEEE 802.3ad LACP (Link Aggregation Control Protocol)		
Power Pin Assignment         12(+), 36(-)           PoE Power Budget         110 Watts           Max. number of Class 2 PD         12           Max. number of Class 3 PD         -6           Layer 2 Function         -0           Management Interface         Console, Telnet, Web Browser, SSL, SNMPv1, v2c           Port Configuration         Ort disable / enable           Auto-Negotiation         10/100/1000Mbps full and half duplex mode selection           Flow Control disable / enable         Auto-Negotiation 10/100/100Mbps full and half duplex mode, link status and Flow control status           Port Status         Ingress / Egress Rate Control           Auto negotiation status, runk status         Auto negotiation status, runk status           VLAN         EEE 802.10 Tag-Based VLAN           Port-Based VLAN         Ort-Based VLAN           Ort-Based VLAN         Ort-Based VLAN           Out-BEE 802.10 Tag-Based VLAN         EEE 802.10 Tag-Based VLAN           VLAN         EEE 802.10 Tag-Based VLAN           VI-Based VLAN         Ort-Based VLAN           Ort-Based VLAN         Ort-Based VLAN           Ort-Based VLAN         Ort-Based VLAN           Ort-Based VLAN         Ort-Based VLAN           Ort-Based VLAN         Ort-Based VLAN           Ort-D Unnneling		
PoE Power Budget         110 Watts           Max. number of Class 2 PD         12           Max. number of Class 3 PD         -6           Layer 2 Function         Console, Telnet, Web Browser, SSL, SNMPv1, v2c           Management Interface         Console, Telnet, Web Browser, SSL, SNMPv1, v2c           Port Configuration         Port disable / enable Auto-Negotiation 10/10/00/00Mbps 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           Bandwidth Control         Ingress / Egress Rate Control Allow to configure per 128Kbps           VLAN         EEE 802.10 Tag-Based VLAN Port-Based VLAN Ori-Boc Lunneling Up to 255 VLANs groups, out of 4041 VLAN IDs           Link Aggregation         Static Port Trunk IEEE 802.30 LaCP (Link Aggregation Control Protocol) Supports 13 groups of 8-Port trunk support           Qos         Traffic classification based on: -Port priority -BOC / TOS field in IP Packet           IGMP Snooping         IGMP (1 / V2) Snooping, up to 256 multicast Groups IGMP Querier support           Port Mirror         RX / TX / Both	•	
Max. number of Class 2 PD       12         Max. number of Class 3 PD       -6         Layer 2 Function       For Console, Telnet, Web Browser, SSL, SNMPv1, v2c         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         Bandwidth Control       Ingress / Egress Rate Control Allow to configure per 128Kbps         VLAN       EEEE 802.10 Tag-Based VLAN Port-Based VLAN Q-in-Q tunneling Up to 255 VLANs groups, out of 4041 VLAN IDs         Static Port Trunk       IEEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 13 groups of 8-Port trunk support         QoS       Traffic classification based on: -Port priority -802.9 Lip priority -802.9 Lip priority -802.9 Lip priority -802.9 Lip priority -802.9 Lip priority -802.9 Lip priority         ORP Snooping       IGMP (v1 / v2) Snooping, up to 256 multicast Groups IGMP Querier support         Port Mirror       RX / TX / Both	-	
Max. number of Class 3 PD       -6         Layer 2 Function       Console, Telnet, Web Browser, SSL, SNMPv1, v2c         Management Interface       Console, Telnet, Web Browser, SSL, SNMPv1, v2c         Port Configuration       Port disable / enable         Auto-Negotiation       10/10/00/Bps full and half duplex mode selection         Flow Control disable / enable       Flow Control disable / enable         Port Status       Display each port's speed duplex mode, link status and Flow control status         Bandwidth Control       Ille Es 02.1Q Tag-Based VLAN         Auto negotiation status, trunk status       Ingress / Egress Rate Control         Autonegotiation status, trunk status       Port-Based VLAN         Q-in-Q tunneling       Up to 255 VLANs groups, out of 4041 VLAN IDs         Link Aggregation       EEE 802.3ad LACP (Link Aggregation Control Protocol)         Supports 13 groups of 8-Port trunk support       Supports 13 groups of 8-Port trunk support         IGMP Querier support       IGMP Querier support         Rot Protority       -DSCP / TOS field in IP Packet         IGMP Querier support       RX / TX / Both	e e	
Layer 2 Function         Management Interface       Console, Telnet, Web Browser, SSL, SNMPv1, v2c         Port disable / enable       Port disable / enable         Auto-Negotiation       10/10/00/100/Bys full and half duplex mode selection         Flow Control disable / enable       Display each port's speed duplex mode, link status and Flow control status         Port Status       Display each port's speed duplex mode, link status and Flow control status         Bandwidth 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       EEEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 13 groups of 8-Port trunk support         QoS       Traffic classification based on: -DSCP / TOS field in IP Packet         IGMP Querier support       IGMP Querier support         Port Viros       IGMP Querier support         Port Mirror       RX / TX / Both		
Maragement Interface         Console, Teinet, Web Browser, SSL, SNMPv1, v2c           Port Configuration         Port disable / enable           Auto-Negotiation         Auto-Negotiation           10/100/100Mbps full and half duplex mode selection         Flow           Port Status         Display each port's speed duplex mode, link status and Flow control status           Bandwidth Control         Ingress / Egress Rate Control           Alto w configure per 128Kbps         IEEE 802.1Q Tag-Based VLAN           Port-Based VLAN         Orit-Based VLAN           Orit-During Up to 255 VLANs groups, out of 4041 VLAN IDs         Static Port Trunk           Link Aggregation         Static Port Trunk         IEEE 802.3ad LACP (Link Aggregation Control Protocol)           Supports 13 groups of 8-Port trunk support         Traffic classification based on:        Port priority           -DSCP / TOS field in IP Packet         IGMP Querier support         RX / TX / Both		-0
Port Configuration       Port disable / enable         Auto-Negotiation       10/100/1000Mbps full and half duplex mode selection         Port Status       Display each port's speed duplex mode, link status and Flow control status         Auto negotiation status, trunk status       Auto negotiation status, trunk status         Bandwidth Control       Ingress / Egress Rate Control         Allow to configure per 128Kbps       Allow to configure per 128Kbps         VLAN       Port-Based VLAN         Port-Based VLAN       Port-Based VLAN         Port-Based VLAN       Port-Based VLAN         Port 255 VLANs groups, out of 4041 VLAN IDs       Static Port Trunk         Link Aggregation       Static Port Trunk         REEE 802.30 LACP (Link Aggregation Control Protocol)       Supports 13 groups of 8-Port trunk support         Port priority       -Port priority         -802.1p priority       -802.1p priority         -804.1p Querier support       FGMP Querier support         Port Mirror       FX / TX / Both		
Port Configuration       Auto-Negotiation         10/10/000Mbps 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         Bandwidth Control       Auto negotiation status, trunk status         Bandwidth Control       Auto negotiation status, trunk status         VLAN       EEE 802.1Q Tag-Based VLAN         Port-Based VLAN       Port-Based VLAN         Port-Dunneling       Up to 255 VLANs groups, out of 4041 VLAN IDs         Link Aggregation       Static Port Trunk         Supports 13 groups of 8-Port trunk support       Traffic classification based on:         -Port priority       -802.1 p priority         -802.1 p priority	Management Interface	Console, Telnet, Web Browser, SSL, SNMPv1, v2c
Port Status       Auto negotiation status, trunk status         Bandwidth Control       Ingress / Egress Rate Control         Allow to configure per 128Kbps       IEEE 802.1Q Tag-Based VLAN         VLAN       Port-Based VLAN         Q-in-Q tunneling       Up to 255 VLANs groups, out of 4041 VLAN IDs         Link Aggregation       Static Port Trunk         IEEE 802.3ad LACP (Link Aggregation Control Protocol)       Supports 13 groups of 8-Port trunk support         Traffic classification based on:       -Port priority         - Dott priority       -Dott priority         - DSCP / TOS field in IP Packet       IGMP Querier support         RX / TX / Both       RX / TX / Both	Port Configuration	Auto-Negotiation 10/100/1000Mbps full and half duplex mode selection
Bandwidth Control       Allow to configure per 128Kbps         VLAN       IEEE 802.1Q Tag-Based VLAN         Port-Based VLAN       Port-Based VLAN         Q-in-Q tunneling       Up to 255 VLANs groups, out of 4041 VLAN IDs         Link Aggregation       Static Port Trunk         IEEE 802.3ad LACP (Link Aggregation Control Protocol)       Supports 13 groups of 8-Port trunk support         QoS       Traffic classification based on:         - Port priority       - S02.1p priority         - DSCP / TOS field in IP Packet       IGMP Querier support         Port Mirror       RX / TX / Both	Port Status	
VLANPort-Based VLAN Q-in-Q tunneling Up to 255 VLANs groups, out of 4041 VLAN IDsLink AggregationStatic Port Trunk IEEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 13 groups of 8-Port trunk supportQoSTraffic classification based on: - Port priority - BSCP / TOS field in IP PacketIGMP SnoopingIGMP (v1 / v2) Snooping, up to 256 multicast Groups IGMP Querier supportPort MirrorRX / TX / Both	Bandwidth Control	
Link Aggregation       IEEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 13 groups of 8-Port trunk support         QoS       Traffic classification based on: - Port priority - 802.1p priority - 802.1p priority - SOCP / TOS field in IP Packet         IGMP Snooping       IGMP (v1 / v2) Snooping, up to 256 multicast Groups IGMP Querier support         Port Mirror       RX / TX / Both	VLAN	Port-Based VLAN Q-in-Q tunneling
QoS     - Port priority - 802.1p priority - DSCP / TOS field in IP Packet       IGMP Snooping     IGMP (v1 / v2) Snooping, up to 256 multicast Groups IGMP Querier support       Port Mirror     RX / TX / Both	Link Aggregation	IEEE 802.3ad LACP (Link Aggregation Control Protocol)
IGMP Querier support Port Mirror RX / TX / Both RX / TX / Both	QoS	<ul> <li>Port priority</li> <li>802.1p priority</li> </ul>
Port Mirror	IGMP Snooping	IGMP Querier support
	Port Mirror	



Security	IEEE 802.1x Port-Based Network access control Port Security Static MAC MAC Filtering MAC / IP Binding
Access Control List	IP-Based Layer 3 / Layer 4 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-ETHERNET-MIB
Standards Conformance	
Regulation Compliance	FCC Part 15 Class A, CE
Standards Compliance	IEEE 802.310Base-TIEEE 802.3u100Base-TXIEEE 802.3z1000Base-SX/LXIEEE 802.3ab1000Base-TIEEE 802.3ab1000Base-TIEEE 802.3adPort trunk with LACPIEEE 802.1DSpanning tree protocolIEEE 802.1wRapid spanning tree protocolIEEE 802.1pClass of serviceIEEE 802.1QVLAN TaggingIEEE 802.1xPort Authentication Network ControlIEEE 802.3afPower over Ethernet
Environmental	
Operating	Temperature: 0 ~ 50 Degree C Relative Humidity: 20% ~ 95%
Storage	Temperature: -10 ~ 70 Degree C Relative Humidity: 20% ~ 95% (non-condensing)

### **Ordering Information**

FGSW-2612PVM

24-Port 10/100Mbps with 12-Port PoE +2 Gigabit TP/SFP Combo Managed Switch

### Available Modules for FGSW-2612PVM

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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# F©CE

### FGSW-2612PVM

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