

# 24-Port 100Base-FX SFP + 2- Gigabit Managed Ethernet Switch



## *Multi Port / Flexible 100Base-FX Fiber Optical connective for Distance Extension Solution*

The FTTx network applications are part of our life particularly for the business and home use today. The PLANET FGSW-2624SF is the managed fiber Switch designed to help ISPs, campuses and enterprises improve their backbone and workgroup network applications which need high performance, long distance and stable transmission quality.

The PLANET FGSW-2624SF is equipped with 24-Port 100Base-FX SFP (Small Factor Pluggable) ports and 2 Gigabit TP/SFP combo ports. The 24 100Base-FX SFP slots are highly reliable and flexible to extend the distance

up to 60Km or longer depending on the 100Base-FX SFP transceiver modules. The two Gigabit TP/SFP combo ports of the FGSW-2624SF can be either 1000Base-T for 10/100/1000Mbps or 1000Base-SX/LX through SFP. Therefore, the product will perfectly satisfy the diverse demands while providing reliable and efficient network solutions based on the distance and budgets of installation required.

## *Cost-effective solution with SNMP monitor for Network deployment*

For catering to the need of easy Web-based management and the centralized SNMP application to monitor the status of switches and traffic per port, the cost-effective Managed Switches FGSW-2624SF offers the following key features:

- Rapid Spanning Tree
- SNMP monitoring and SNMP Trap
- IGMP Snooping
- 802.1Q VLAN
- 802.1X Authentication / RADIUS
- Access Control List

## *High Performance Wire-Speed Switching*

PLANET FGSW-2624SF 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 Gigabit Ethernet uplink ports also offer incredible extensibility, flexibility and connectivity to the Core switch or Servers.

## *Remote and Centralized Management installation*

Afford the current network to grow and expand, the PLANET FGSW-2624SF provides advanced Web, telnet and SNMP management interface. With its built-in web-based and telnet management, the FGSW-2624SF offers an easy-to-use, platform-independent management and configuration facility. The FGSW-2624SF supports standard Simple Network Management Protocol (SNMP) and can be monitored via any standard-based management software.

For efficient management, via Web interface, the FGSW-2624SF 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 PLANET FGSW-2624SF 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, Static MAC and Port Security. The administrators can now construct highly secured corporate networks with considerably less time and effort than before.

## KEY FEATURES

### PHYSICAL PORT

- 24-Port 100Base-FX SFP slot
- 2 10/100/1000Mbps TP and SFP shared combo interfaces

### LAYER 2 FEATURES

- Complies with the IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z Gigabit Ethernet standard
- Prevents packet loss Flow Control:
  - IEEE 802.3x FAUSE 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 eliminate erroneous packets to optimize the network bandwidth
- Broadcast / Multicast / Unicast storm control
- 8K MAC address table, automatic source address learning and ageing
- Support VLAN
  - IEEE 802.1Q Tag-based VLAN
  - Port-Based VLAN
  - Q-in-Q tunneling
  - Up to 255 VLANs groups, out of 4041 VLAN IDs
- Support 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
- L2 / L3 / L4 Access Control List (ACL)
- MAC Filtering and Source IP-MAC / Port-Binding
- Port Security for Source MAC address entries filtering

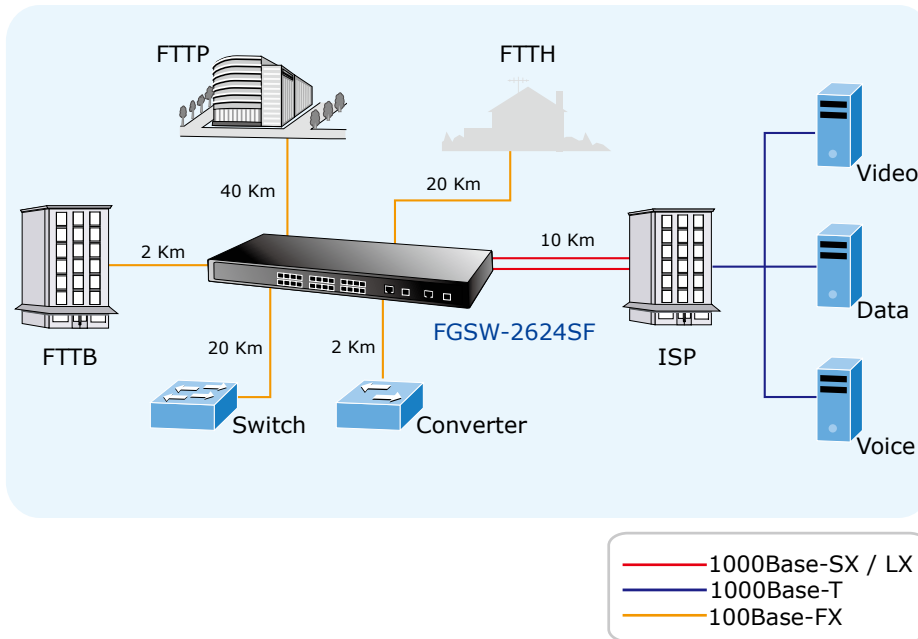
### MANAGEMENT

- Switch Management Interface
  - Telnet Command Line Interface
  - Web switch management
  - SNMP v1, and 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**

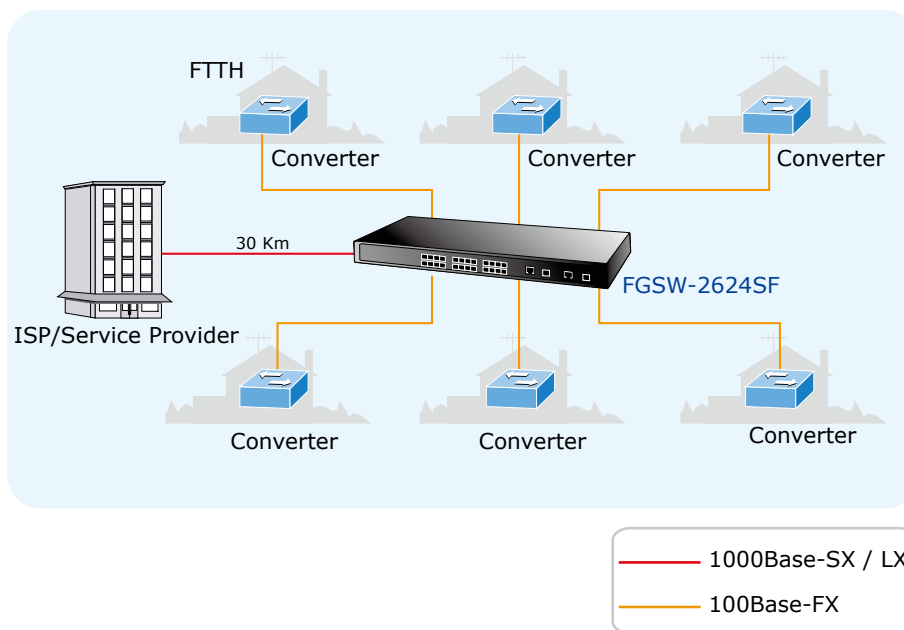
**FTTx Node Switch**

With 24 100Base-FX SFP ports and 2 Gigabit TP/SFP combo ports, the switch provides a cost-effective, high-performance for FTTx solutions. To build a network solution of FTTH (Fiber to the Home) or FTTC (Fiber to the Curb) for ISPs and FTTB (Fiber to the Building) for enterprise, the various distances of SFP (small-form factor) and Bidi (WDM) transceivers are optional for customers. Compared with traditional fiber switch that equipped fixed distance (2Km) and connection mode (SC only), the 24 SFP ports provides flexible solution for ISPs and enterprises. In addition, the two Gigabit TP/SFP combo ports can be used as uplink port which connects to the data centers and backbones.



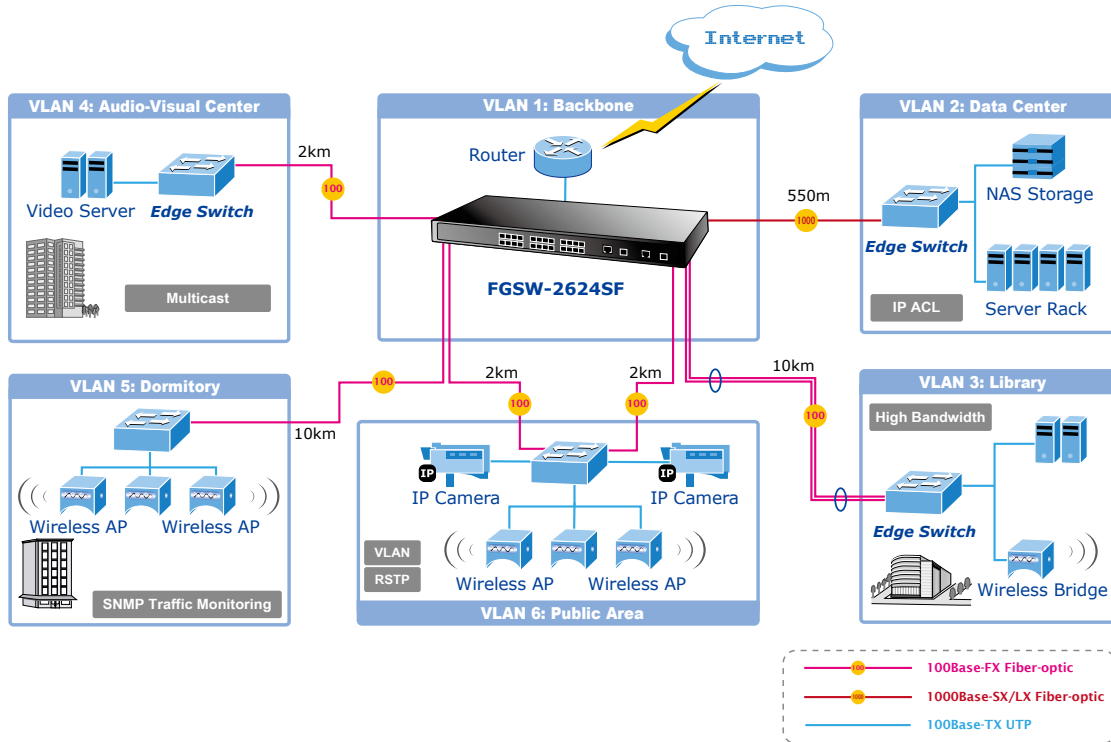
**MTU Switch**

In an MTU (Multi Tenant Unit) / MDU (Multi Dwelling Unit) application, the advanced functionality of the FGSW-2624SF eliminates traditional problems associated with Ethernet. Using the built-in VLAN functionality can segregate users. This coupled with the flexible fiber module options makes the FGSW-2624SF one of the best cost-effective switch solutions for multi-tenant service providers.



**Backbone Switch**

With up to 8.8 Gigabits per second of non-blocking switch fabric, the FGSW-2624SF can easily provide the high bandwidth required for now and future. With the two Gigabit TP/SFP combo ports, the FGSW-2624SF provides the uplink to the core network through Gigabit Ethernet SXLX modules.



**SPECIFICATION**

<b>Product</b>	<b>24-Port 100Base-FX Slot + 2 Gigabit TP / SFP Managed Switch</b>
<b>Model</b>	<b>FGSW-2624SF</b>
<b>Hardware Specification</b>	
<b>Hardware version</b>	Version 3
<b>100Mbps SFP Slots</b>	24 100Base-FX SFP slots, suport 100Base-FX
<b>1000Mbps Copper Ports</b>	2 10/100/1000Mbps RJ-45 Auto-MDI/MDI-X ports
<b>SFP/mini-GBIC Slots</b>	2 1000Base-SX/LX/BX, shared with Port-25~Port-26
<b>Switch Architecture</b>	Store-and-Forward
<b>Switch Fabric</b>	8.8Gbps / non-blocking
<b>Switch Throughput</b>	6.547Mpps @64Bytes
<b>Address Table</b>	8K entries
<b>Share Data Buffer</b>	2 Mbits
<b>Flow Control</b>	Back pressure for Half-Duplex IEEE 802.3x Pause Frame for Full-Duplex
<b>LED</b>	Power, Link/Act per port
<b>Reset Button</b>	< 5 sec: System reboot > 5 sec: Factory Default
<b>Dimension (W x D x H)</b>	440 x 200 x 44 mm, 1U height
<b>Weight</b>	2.6kg
<b>Power Requirement</b>	100~240V AC, 50-60 Hz
<b>Power Consumption / Dissipation</b>	23.5 Watts maximum / 80 BTU/hr maximum
<b>Layer 2 Function</b>	
<b>Management Interface</b>	Telnet, Web Browser, SSL, SNMPv1/v2c
<b>Port Configuration</b>	Port disable/enable Auto-negotiation 10/100/1000Mbps Full and Half-Duplex mode selection Flow Control disable / enable
<b>Port Status</b>	Display each port's speed duplex mode, link status and Flow control status. Auto negotiation status, trunk status.
<b>Bandwidth Control</b>	Ingress / Egress Rate Control Allow to configure per 128Kbps IEEE 802.1Q Tag-based VLAN
<b>VLAN</b>	Port-based VLAN Q-in-Q tunneling Up to 255 VLANs groups, out of 4094 VLAN IDs
<b>Link Aggregation</b>	Supports 13 groups of 8-Port trunk, IEEE 802.3ad LACP Traffic classification based on :
<b>QoS</b>	- Port priority - 802.1p priority - DSCP/TOS field in IP Packet
<b>IGMP Snooping</b>	IGMP (v1/v2) Snooping, up to 256 multicast Groups
<b>Access Control List</b>	IP-Based ACL / MAC-Based ACL Up to 220 ACL rule entries

**Standards Conformance**

<b>Regulation Compliance</b>	FCC Part 15 Class A, CE	
<b>Standards Compliance</b>	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	

**Environment Specifications**

<b>Temperature</b>	Operating:	0~50 Degree C
	Storage	-40~70 Degree C
<b>Humidity</b>	Operating:	10~90%,
	Storage:	5~95% (Non-condensing)

Remark: The specification is for FGSW-2624SF hardware version 3 only.

**ORDERING INFORMATION**

<b>FGSW-2624SF</b>	24-Port 100Base-FX SFP Slots +2 Gigabit TP/SFP Combo Ports Managed Ethernet Switch
--------------------	------------------------------------------------------------------------------------

**AVAILABLE MODULES FOR FGSW-2624SF 100BASE-FX SFP SLOTS**

<b>MFB-FX</b>	SFP-Port 100Base-FX Transceiver (1310nm) -2KM
<b>MFB-F20</b>	SFP-Port 100Base-FX Transceiver (1310nm) - 20KM
<b>MFB-F40</b>	SFP-Port 100Base-FX Transceiver (1310nm) - 40KM
<b>MFB-F60</b>	SFP-Port 100Base-FX Transceiver (1310nm) - 60KM
<b>MFB-FA20</b>	SFP-Port 100Base-BX Transceiver (WDM,TX:1310nm) -20KM
<b>MFB-FB20</b>	SFP-Port 100Base-BX Transceiver (WDM,TX:1550nm) -20KM

**AVAILABLE MODULES FOR FGSW-2624SF 1000BASE-SX/LX SFP SLOTS**

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

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