

## GS-4210-16T2S GS-4210-24T2S

# 16 / 24-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch

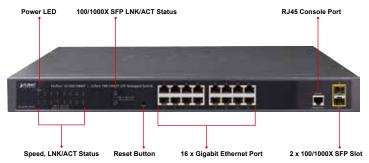


#### Cost-Optimized Managed Switch for Small and Medium Businesses

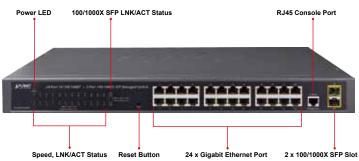
PLANET GS-4210-16T2S / GS-4210-24T2S are an ideal Gigabit Switch which provides cost-effective advantage to local area network and is widely accepted in the SMB office network. It offers **intelligent Layer 2 data packet switching and management functions, friendly web user interface and stable operation**. Besides the hot IPv6 / IPv4 management and abundant L2 / L4 switching functions, the GS-4210-16T2S / GS-4210-24T2S comes with fanless feature and green technology to provide a quiet, energy-saving, high-speed and reliable office network environment.

The GS-4210-16T2S / GS-4210-24T2S are equipped with **16/24 10/100/1000BASE-T** Gigabit Ethernet ports and **2 additional 100/1000BASE-X** SFP interfaces with inner power system. It offers a rack-mountable, affordable, safe and reliable Gigabit network switch solution for SMBs deploying networks, or requiring enhanced data security and network traffic management.

#### GS-4210-16T2S Outlook:



#### GS-4210-24T2S Outlook:



#### **Physical Port**

- 16/24-port 10/100/1000BASE-T Gigabit RJ45 copper
- 2 100/1000BASE-X mini-GBIC/SFP slots
- RJ45 console interface for switch basic management and setup
- · Reset button for system factory default

#### Switching

- Hardware based 10/100Mbps, half / full duplex and 1000Mbps full duplex mode, flow control and autonegotiation and auto MDI/MDI-X
- Features Store-and-Forward mode with wire-speed filtering and forwarding rates
- IEEE 802.3x flow control for full duplex operation and back pressure for half duplex operation
- 9K Jumbo frame
- · Automatic address learning and address aging
- Supports CSMA/CD protocol

#### Layer 2 Features

- Supports VLAN
  - IEEE 802.1Q tagged VLAN
  - Provider Bridging (VLAN Q-in-Q) support (IEEE 802.1ad)
  - Protocol VLAN
  - Voice VLAN
  - Private VLAN (Protected port)
  - Management VLAN
  - GVRP
- · Supports Spanning Tree Protocol
  - STP (Spanning Tree Protocol)
  - RSTP (Rapid Spanning Tree Protocol)
  - MSTP (Multiple Spanning Tree Protocol)
  - STP BPDU Guard, BPDU Filtering and BPDU Forwarding
- Supports Link Aggregation
  - IEEE 802.3ad Link Aggregation Control Protocol (LACP)
  - Cisco ether-channel (Static Trunk)
  - Maximum 8 trunk groups, up to 8 ports per trunk group
- Provides port mirror (many-to-1)
- · Loop protection to avoid broadcast loops



#### Robust Layer 2 Features

The GS-4210-16T2S / GS-4210-24T2S can be programmed for advanced switch management functions such as dynamic port link aggregation, 802.1Q VLAN and Q-in-Q VLAN, Multiple Spanning Tree protocol (MSTP), Loop and BPDU Guard, IGMP Snooping, and MLD Snooping. Via the link aggregation, the GS-4210-16T2S / GS-4210-24T2S allows the operation of a high-speed trunk to combine with multiple ports such as a 16Gbps fat pipe, and supports fail-over as well. Also, the Link Layer Discovery Protocol (LLDP) is the Layer 2 protocol included to help discover basic information about neighboring devices on the local broadcast domain.



#### Efficient Traffic Control

The GS-4210-16T2S / GS-4210-24T2S are loaded with robust QoS features and powerful traffic management to enhance services to business-class data, voice, and video solutions. The functionality includes broadcast / multicast / unicast **storm control**, per port **bandwidth control**, 802.1p / CoS / IP DSCP QoS priority and remarking. It guarantees the best performance at VoIP and video stream transmission, and empowers the enterprises to take full advantage of the limited network resources.

#### Enhanced and Secure Management

For efficient management, the GS-4210-16T2S / GS-4210-24T2S are equipped with console, Web, Telnet and SNMP management interfaces. With the builtin Web-based management interface, the GS-4210-16T2S / GS-4210-24T2S offer an easy-to-use, platform-independent management and configuration facility. By supporting standard Simple Network Management Protocol (SNMP), the switch can be managed via any standard management software. For textbased management, the switch can be accessed via Telnet and the console port. Moreover, the GS-4210-16T2S / GS-4210-24T2S offer secure remote management by supporting HTTPS and SNMPv3 connections which encrypt the packet content at each session.

#### **Powerful Security**

PLANET GS-4210-16T2S / GS-4210-24T2S offer comprehensive **IPv4** / **IPv6** Layer 2 to Layer 4 **Access Control List (ACL)** for enforcing security to the edge. It can be used to restrict network access by denying packets based on source and destination IP address, TCP/UDP ports or defined typical network applications. Its protection mechanism also comprises **802.1X port-based** authentication, which can be deployed with RADIUS to ensure the port level security and block illegal users. With the **protected port** function, communication between edge ports can be prevented to guarantee user privacy. Furthermore, **port security** function allows limiting the number of network devices on a given port.

#### Advanced Network Security

The GS-4210-16T2S / GS-4210-24T2S also provides **DHCP snooping**, **IP source guard** and **dynamic ARP inspection** functions to prevent IP snooping from attack and discard ARP packets with invalid MAC address. The network administrators can now construct highly-secured corporate networks with considerably less time and effort than before.

#### **Quality of Service**

- · Ingress / Egress Rate Limit per port bandwidth control
- Traffic classification
- IEEE 802.1p CoS
- · DSCP / IP Precedence of IPv4 / IPv6 packets
- Strict priority and Weighted Round Robin (WRR) CoS policies

#### **Multicast**

- · Supports IPv4 IGMP snooping v2 and v3
- Supports IPv6 MLD snooping v1, v2
- · IGMP querier mode support
- · IGMP snooping port filtering
- · MLD snooping port filtering

#### 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
  - DHCP Option 82
  - RADIUS / TACACS+ authentication
- Access Control List
  - IPv4 / IPv6 IP-based ACL
  - IPv4 / IPv6 IP-based ACE
  - MAC-based ACL
  - MAC-based ACE
- MAC Security
  - Static MAC
  - MAC Filtering
- · Port security for source MAC address entries filtering
- DHCP snooping to filter distrusted DHCP messages
- Dynamic ARP inspection discards ARP packets with invalid MAC address to IP address binding
- · IP source guard prevents IP spoofing attacks
- · DoS attack prevention



#### Flexible Extension Solution

The two mini-GBIC slots built in the GS-4210-16T2S / GS-4210-24T2S are compatible with the 100BASE-FX / 1000BASE-SX/LX SFP (Small Form-factor Pluggable) fiber transceiver to uplink to backbone switch and monitor center in long distance. The distance can be extended from 550 meters to 2km (multi-mode fiber) up to above 10/20/30/40/50/60/70/120 kilometers (single-mode fiber or WDM fiber). They are well suited for applications within the enterprise data centers and distributions.

#### Fanless Design

Adopting the latest chip process and green technology, the GS-4210-16T2S / GS-4210-24T2S successfully reduces substantial power consumption with the fanless and noiseless design collocating with the effective cooler. Therefore, the GS-4210-16T2S / GS-4210-24T2S are able to operate stably and quietly in any environment without affecting its performance.



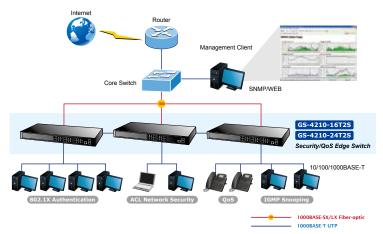
### **Applications**

#### Department / Edge Security and QoS Switch

The GS-4210-16T2S / GS-4210-24T2S connects up to 16/24 high speed workstations in the Ethernet environment, in which its two SFP Mini-GBIC interfaces uplink to a department backbone. Moreover, the Switch provides 36/52 Gigabit per second switch fabric and high bandwidth for backbone connection. The GS-4210-16T2S / GS-4210-24T2S improve the network efficiency and safeguards the network clients with its powerful features:

- IPv6 / IPv4 management
- Layer 2 to Layer 4 security
- QoS
- 802.1x port-based and MAC-based network access authentication security
- Multicast IGMP snooping

The advanced functionality of the GS-4210-16T2S / GS-4210-24T2S eliminates traditional issues associated with the use of Ethernet. Users can be separated with advanced VLAN functionality to enhance security. It makes the GS-4210-16T2S / GS-4210-24T2S one of the best and most cost-effective switch solutions for SMBs.



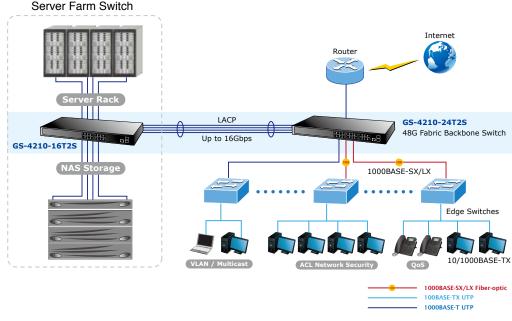
#### Management

- · IPv4 and IPv6 dual stack management
- Switch Management Interface
  - Local Command Line Interface
  - IPv4 / IPv6 Web switch management
  - Telnet Command Line Interface
  - SNMP v1, v2c and v3
  - HTTPs secure access
- Built-in Trivial File Transfer Protocol (TFTP) client
- · Static and DHCP for IP address assignment
- · System Maintenance
  - Firmware upload / download via HTTP / TFTP
  - Configuration upload / download through HTTP / TFTP
  - Hardware reset button for system reset to factory default
- SNTP Network Time Protocol
- · Cable diagnostics
- Link Layer Discovery Protocol (LLDP) Protocol and LLDP-MED
- SNMP trap for interface Link Up and Link Down notification
- · Event message logging to remote Syslog server
- Four RMON groups (history, statistics, alarms and events)
- PLANET Smart Discovery Utility



#### High Performance Backbone / Server Farm Switch

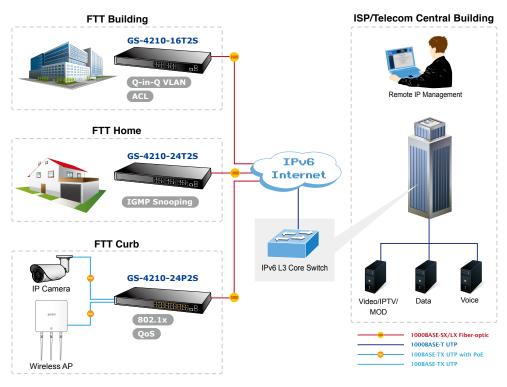
Gigabit Ethernet supported equipment has become the fundamental unit of enterprises and network servers. With up to 36/52 Gigabits per second of nonblocking switch fabric, the GS-4210-16T2S / GS-4210-24T2S can easily provide the high bandwidth required from now on. It can easily provide a local high bandwidth Gigabit Ethernet network for backbone of enterprises or telecoms. With its port trunking function, a 16 GB fat pipe is provided to connect to the backbone if required. It is ideal to be used as a server farm switch connecting to servers. The GS-4210-16T2S / GS-4210-24T2S can offer the uplink to the edge network through Gigabit Ethernet LX/SX SFP modules with the two SFP ports.



#### FTTX / MAN Application

The GS-4210-16T2S / GS-4210-24T2S applies the **double tag VLAN (Q-in-Q)** technology to providing low cost and easy operation for service providers carrying traffic for multiple customers across their networks. It features SNMPv3 and RMON Groups. The SNMPv3 security structure consists of security models, with each model having its own security levels. With two dual-speed SFP slots built in, the deployment distance of the GS-4210-16T2S / GS-4210-24T2S can be extended up to 120 kilometers (Single-mode fiber), which provides a high-performance edge service 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 enterprises, the various distances of SFP and Bidi (WDM) transceivers are optional for customers' choices. For security and various applications, the 16/24 Gigabit ports of the GS-4210-16T2S / GS-4210-24T2S can be configured with VLAN settings and connected to different units, offices, flowers, houses and departments.





# Specifications

Product	GS-4210-16T2S	GS-4210-24T2S	
Hardware Specifications	63-4210-10125	G3-4210-24123	
10/100/1000T Copper Ports	16 x R I/15 auto-MDI/MDI-X ports	24 x R I45 auto-MDI/MDI-X ports	
SFP/mini-GBIC Slots	16 x RJ45 auto-MDI/MDI-X ports   24 x RJ45 auto-MDI/MDI-X ports     2 100/1000BASE-X SFP interfaces, supporting 100/1000Mbps dual mode		
Console	1 x RS-232-to-RJ45 serial port (115200, 8, N, 1)	a roomspa dua mode	
Reset Button			
Switch Architecture	System factory default		
Switch Fabric	36Gbps / non-blocking	Store-and-Forward     36Gbps / non-blocking     52Gbps / non-blocking	
Switch Throughput@64 bytes	26.7Mpps @64 bytes	38.6Mpps @64 bytes	
MAC Address Table	8K entries	oo.omppa @o+ bytea	
Shared Data Buffer	4.1 megabits		
	IEEE 802.3x pause frame for full-duplex		
Flow Control	Back pressure for half-duplex		
Jumbo Frame	9216 bytes		
Reset Button	> 5 sec: Factory default		
		System:	
	System:	Power (Green)	
	Power (Green)	10/100/1000T RJ45 Interfaces	
	10/100/1000T RJ45 Interfaces	(Port 1 to Port 24):	
LED	(Port 1 to Port 16):	1000 LNK / ACT (Green),	
LED	1000 LNK / ACT (Green), 10/100 LNK/ACT (Orange)	10/100 LNK/ACT (Orange)	
	100/100 LINK/ACT (Orange)	100/1000Mbps SFP Interfaces	
	(Port 17 to Port 18): 1000 LNK / ACT (Green),	(Port 25 to Port 26):	
	100 LNK/ACT (Orange)	1000 LNK / ACT (Green),	
		100 LNK/ACT (Orange)	
Power Requirements	100~240V AC, 50/60Hz, 0.8A (max.)		
Power Consumption / Dissipation	Max. 10.4 watts / 35 BTU	Max. 14 watts / 47 BTU	
Dimensions (W x D x H)	445 x 207 x 45 mm (1U height)		
ESD Protection	2KV DC		
Weight	2kg	2.1kg	
ESD Protection	Yes		
Enclosure	Metal		
Layer 2 Functions			
Port Mirroring	TX / RX / Both Many-to-1 monitor		
VLAN	802.1Q tagged-based VLAN Up to 256 VLAN groups, out of 4094 VLAN IDs 802.1ad Q-in-Q tunneling (VLAN stacking) Voice VLAN Protocol VLAN Private VLAN (Protected port) GVRP Management VLAN	Up to 256 VLAN groups, out of 4094 VLAN IDs 802.1ad Q-in-Q tunneling (VLAN stacking) Voice VLAN Protocol VLAN Private VLAN (Protected port) GVRP	
Link Aggregation	IEEE 802.3ad LACP and static trunk Supports 8 groups of 8-port trunk		
Spanning Tree Protocol	MSTP, IEEE 802.1s Multiple Spanning Tree Protoc		
IGMP Snooping	IPv4 IGMP (v2/v3) Snooping IGMP Querier Up to 256 multicast groups		
MLD Snooping	IPv6 MLD (v1/v2) snooping, up to 256 multicast gro	pups	
Access Control List	IPv4/IPv6 IP-based ACL / MAC-based ACL IPv4/IPv6 IP-based ACE / MAC-based ACE		
QoS	8 mapping ID to 8 level priority queues - Port Number - 802.1p priority - DSCP / IP Precedence of IPv4 / IPv6 packets Traffic classification based, strict priority and WRR Ingress / Egress Rate Limit per port bandwidth cont	trol	



Security   EEEE 802-1X port-based authentication     Builtin FADUIS (inter too operate with RADIUS arener     Security   PAAK Cort lineing     Based MAC differing and DHCP Option82     STE BEDU guint. BPOL Untering and BDUI forwarding     Does attack prevention     ARP imprection     Pre surce guint     Design and DHCP Option82     STE BEDU guint. BPOL Unterning and BDUI forwarding     Does attack prevention     ARP imprection     Pre surce guint     Surge Management Interfaces     Pre surge guint     Pre surge guint	Security   Builtin FADUS denie to co-operate MIN FADUS server     FADUS / TACACS- user access authenication   FADUS / TACACS- user access authenication     Beach Management / Functions   BUCP services authenication     Security   BUCP services authenication     Margement / Functions   BUCP services authenication     Management / Functions   BUCP services authenication     Management / Functions   Functions     Beach Management / Functions   Functions     Beach Management / Interfaces   Finance usprate by HTTP / TFTP protocol through Element network     Configuration upded / dowinde through HTTP / TFTP protocol through Element network   Finance usprate by HTTP / TFTP protocol through Element network     Secure Management Interfaces   PHTS 2803 Element Red MIB PrC			
Basic Management Interfaces   RJ45 Console / Web browser / Teinst / SNMP V1, V2c, v3     Basic Management Interfaces   Firmware upgrade by HTTP / ITFTP protocol through Ethernet network     Configuration updiod / download intrough HTTP / ITFTP   Remote / Local Sysiog     System log   LLDP protocol     SNMP   PLANET Smart Discovery Utility     Secure Management Interfaces   HTTPs, SNMP V3     SNMP MiBs   RFC 2803 Interface Group MIB     RFC 1433 Birdge MIB   RFC 2803 Interface Group MIB     RFC 1433 Birdge MIB   RFC 1433 Birdge MIB     Standards Conformance   FCC Part 15 Class A, CE     Regulation Compliance   FIEE 802.3 100RASE-T     IEEE 802.3 100RASE-T   IEEE 802.3 100RASE-T     IEEE 802.3 00RASE-T   IEEE 802.3 00RASE-T     IEEE 802.3 00RASE-T   IEEE 802.3 00RASE-T     IEEE 802.3 00RASE-T   IEEE 802.3 00RASE-T     IEEE 802.3 00RASE-T   IEEE 802.2 Nov Control and Back pressure     IEEE 802.2 Nov Control and Back pressure   IEEE 802.2 Nov Control and Back pressure     IEEE 802.1 PC And Thrak With LACP   IEEE 802.1 Nort Trunk With LACP     IEEE 802.1 SVILX   IEEE 802.1 Nort Trunk With LACP     IEEE 802.1 PC Advelopsing Tree protocol   IEEE 802.1 Nort Authentication Ne	Basic Management Interfaces   R45 Console / Web browser / Tellnet / SNMP V1, V2, v3     Basic Management Interfaces   Remote / Local Systep     SwTP   Punker / Smart Discovery Utility     Secure Management Interfaces   HTTPs, SNMP v3     Secure Management Interfaces   HTTPs, SNMP v3     SMMP MIBs   RFC 2885 Interface Group MIB RFC 2885 Interface Group MIB RFC 2895 Interface Group MIB RFC 1493 Bridge MIB     Standards Compliance   FCC Part 15 Class A. CE     FEE 802.3 10BASE-T7 IEEE 802.3 10BASE-TX IEEE 802.3 10BASE-TX IEEE 802.3 AD YON CONTOI and Back pressure IEEE 802.3 AD YON CONTOI and Back pressure IEEE 802.3 ID Spanning Tree protocol IEEE 802.1 M Spanning Tree protocol IEEE 802.1 M Spanning Tree protocol IEEE 802.1 N DLO VENIN - N Spanning Tree protocol IEEE 802.1 N DLO VENIN - N Spanning Tree protocol IEEE 802.1 N D	Security	Built-in RADIUS client to co-operate with RADIUS server RADIUS / TACACS+ user access authentication IP-MAC port binding MAC filtering Static MAC address DHCP snooping and DHCP Option82 STP BPDU guard, BPDU filtering and BPDU forwarding DoS attack prevention ARP inspection IP source guard Storm control support	
Basic Management Interfaces   RJ45 Console / Web browser / Teinet / SNMP V1, V2c, v3     Basic Management Interfaces   Firmware upgrade by HTTP / ITFTP protocol through Ethernet network     Standards Configuration updrad / download intrough HTTP / ITFTP   Remote / Local Sysiog     Switer Iog   Suptem log     Standards Conformation updrad / download intrough HTTP / ITFTP   Remote / Local Sysiog     SNMP   MBs     Standards Conformation   RFC 2893 Interface Group MIB     RFC 1493 Birdge MIB   RFC 2893 Interface Group MIB     RFC 1493 Birdge MIB   RFC 1493 Birdge MIB     Standards Conformance   FCC Part 15 Class A, CE     Regulation Compliance   FCC Part 15 Class A, CE     EEE 802.2 a 100BASE-T   IEEE 802.3 100BASE-T     IEEE 802.3 VIDBASE-T   IEEE 802.3 00BASE-T     IEEE 802.2 a Color Trunk with LACP   IEEE 802.2 a Color Trunk with LACP     IEEE 802.2 IN DOT Trunk with LACP   IEEE 802.2 N FOW Control and Back pressure     IEEE 802.1 Nort Trunk with LACP   IEEE 802.1 Nort Trunk with LACP     IEEE 802.1 Nort Trunk with LACP   IEEE 802.1 Nort Trunk with LACP     IEEE 802.1 Nort Trunk with LACP   IEEE 802.1 Nort Trunk with LACP     IEEE 802.1 Nort Trunk with LACP   IEEE 802.1 Nort Trunk with LACP	Basic Management Interfaces   R45 Console / Web browser / Tellnet / SNMP V1, V2, v3     Basic Management Interfaces   Remote / Local Systep     SwTP   Punker / Smart Discovery Utility     Secure Management Interfaces   HTTPs, SNMP v3     Secure Management Interfaces   HTTPs, SNMP v3     SMMP MIBs   RFC 2885 Interface Group MIB RFC 2885 Interface Group MIB RFC 2895 Interface Group MIB RFC 1493 Bridge MIB     Standards Compliance   FCC Part 15 Class A. CE     FEE 802.3 10BASE-T7 IEEE 802.3 10BASE-TX IEEE 802.3 10BASE-TX IEEE 802.3 AD YON CONTOI and Back pressure IEEE 802.3 AD YON CONTOI and Back pressure IEEE 802.3 ID Spanning Tree protocol IEEE 802.1 M Spanning Tree protocol IEEE 802.1 M Spanning Tree protocol IEEE 802.1 N DLO VENIN - N Spanning Tree protocol IEEE 802.1 N DLO VENIN - N Spanning Tree protocol IEEE 802.1 N D	Management Functions		
SNMP MIBs   RFC 3635 Ethernet-like MIB RFC 2863 Interface Group MIB RFC 2819 RMON (1, 2, 3, 9) RFC 1439 Bridge MIB     Standards Conformance   FCC Part 15 Class A, CE     Regulation Compliance   FCC Part 15 Class A, CE     IEEE 802.3 109ASE-T7   IEEE 802.3 109ASE-T7 / 100BASE-T7 / 100BASE-T7     IEEE 802.3 ab Gigabit SVLX   IEEE 802.3 ab Gigabit SVLX     IEEE 802.3 ab Gigabit SVLX   IEEE 802.3 ab Gigabit SVLX     IEEE 802.3 ab Gigabit SVLX   IEEE 802.3 ab Gigabit SVLX     IEEE 802.2 Sc Flow Control and Back pressure   IEEE 802.3 ab Gigabit SVLX     IEEE 802.2 Sc Flow Control and Back pressure   IEEE 802.2 Sc Flow Control and Back pressure     IEEE 802.1 N Paning Tree protocol   IEEE 802.1 N Rapid Spanning Tree protocol     IEEE 802.1 N Rapid Spanning Tree protocol   IEEE 802.1 P Class of Service     IEEE 802.1 P Class of Service   IEEE 802.1 N DUP     RFC 793 IFTP   RFC 793 IFTP     RFC 793 IFTP   RFC 793 IFTP     RFC 2306 IMDP version 1   RFC 2306 IMDP version 1     RFC 2306 IMDP version 1   RFC 2306 IMDP version 1     RFC 2310 MLD version 1   RFC 2310 MLD version 1     RFC 2310 MLD version 1   RFC 2310 MLD version 1     RFC 3310 MLD version 1   RFC 3310 MLD version 1	SNMP MIBs     RFC 3635 Ethermet-like MIB RFC 2863 Interface Group MIB RFC 2863 Interface Group MIB RFC 24819 RMON (1, 2, 3, 9) RFC 1493 Bridge MIB       Standards Conformance     FCC Part 15 Class A, CE       Regulation Compliance     FCC Part 15 Class A, CE       IEEE 802.3 10BASE-T IEEE 802.3 0BASE-TX / 100BASE-TX IEEE 802.3 0GBASE-TX / 100BASE-TX IEEE 802.3 ab Gigabit 1000BASE-T IEEE 802.3 ab Gigabit 1000BASE-T       IEEE 802.3 b Gigabit 1000BASE-T       IEEE 802.1 D Spanning Tree protocol       IEEE 802.1 D Spanning Tree protocol       IEEE 802.1 N Rapid Spanning Tree protocol       IEEE 802.1 N Port Authentication Network Control       IEEE 802.1 N Port Authentication Network Control       IEEE 802.1 N Port Authentication Network Control       IEEE 802.1 S Compliance       RFC 768 UDP       RFC 768 UDP       RFC 2710 MLD version 1       RFC 2710 MLD version 2       RFC 3376 IGMP version 3       RFC 3376 IGMP version 3       RFC 3376 IGMP version 1		Firmware upgrade by HTTP / TFTP protocol through Ethernet network Configuration upload / download through HTTP / TFTP Remote / Local Syslog System log LLDP protocol SNTP	
SNMP MIBs   RFC 3635 Ethernet-like MIB RFC 2863 Interface Group MIB RFC 2819 RMON (1, 2, 3, 9) RFC 1433 Bridge MIB     Standards Conformance   FCC Part 15 Class A, CE     Regulation Compliance   FCC Part 15 Class A, CE     IEEE 802.3 108ASE-T   IEEE 802.3 108ASE-TX / 100BASE-TX / 100BASE-TX / 102BASE-TX / 102BASE-T     IEEE 802.3 ab Gigabit SXLX   IEEE 802.3 ab Gigabit SXLX     IEEE 802.3 Ab Ort Trunk with LACP   IEEE 802.3 A Ford Control and Back pressure     IEEE 802.1 No Paning Tree protocol   IEEE 802.1 N Rapid Spanning Tree protocol     IEEE 802.1 P Class of Service   IEEE 802.1 P Class of Service     IEEE 802.1 P Class of Service   IEEE 802.1 P Class of Service     IEEE 802.1 P Class of Service   IEEE 802.1 P Class of Service     IEEE 802.1 P Class of Service   IEEE 802.1 P Class of Service     IEEE 802.1 P Class of Service   IEEE 802.1 P Class of Service     IEEE 802.1 P Class of Service   IEEE 802.1 P Class of Service     IEEE 802.1 P Class of Service   IEEE 802.1 P Class of Service     IEEE 802.2 Tab LLDP   RFC 788 UDP     RFC 7201 IP   RFC 730 IFTP     RFC 2306 GMP version 1   RFC 2306 GMP version 1     RFC 2301 GMP version 1   RFC 2301 GMP version 1     RFC 2310 MLD version 1   RFC 2310 MLD version	SNMP MIBs     RFC 3635 Ethermet-like MIB RFC 2863 Interface Group MIB RFC 2863 Interface Group MIB RFC 24819 RMON (1, 2, 3, 9) RFC 1493 Bridge MIB       Standards Conformance     FCC Part 15 Class A, CE       Regulation Compliance     FCC Part 15 Class A, CE       IEEE 802.3 10BASE-T IEEE 802.3 0BASE-TX / 100BASE-TX IEEE 802.3 0GBASE-TX / 100BASE-TX IEEE 802.3 ab Gigabit 1000BASE-T IEEE 802.3 ab Gigabit 1000BASE-T       IEEE 802.3 b Gigabit 1000BASE-T       IEEE 802.1 D Spanning Tree protocol       IEEE 802.1 D Spanning Tree protocol       IEEE 802.1 N Rapid Spanning Tree protocol       IEEE 802.1 N Port Authentication Network Control       IEEE 802.1 N Port Authentication Network Control       IEEE 802.1 N Port Authentication Network Control       IEEE 802.1 S Compliance       RFC 768 UDP       RFC 768 UDP       RFC 2710 MLD version 1       RFC 2710 MLD version 2       RFC 3376 IGMP version 3       RFC 3376 IGMP version 3       RFC 3376 IGMP version 1	Secure Management Interfaces	HTTPs, SNMP v3	
Regulation Compliance   FCC Part 15 Class A, CE     IEEE 802.3 10BASE-T   IEEE 802.3 10BASE-TX / 100BASE-FX     IEEE 802.32 Gigabit SX/LX   IEEE 802.32 Gigabit SX/LX     IEEE 802.33 Flow Control and Back pressure   IEEE 802.33 Flow Control and Back pressure     IEEE 802.13 NUBLER 802.13 Flow Control and Back pressure   IEEE 802.13 Flow Control and Back pressure     IEEE 802.13 Nultiple Spanning Tree protocol   IEEE 802.13 Nultiple Spanning Tree protocol     IEEE 802.13 Nultiple Spanning Tree protocol   IEEE 802.13 Nultiple Spanning Tree protocol     IEEE 802.13 Nultiple Spanning Tree protocol   IEEE 802.10 VLAN Tagging     Standards Compliance   IEEE 802.1x Port Authentication Network Control     IEEE 802.1x Port Authentication Network Control   IEEE 802.1ab LLDP     RFC 768 UDP   RFC 768 UDP     RFC 793 IFTP   RFC 793 IFTP     RFC 793 IGMP version 1   RFC 2236 IGMP version 2     RFC 376 IGMP version 1   RFC 23376 IGMP version 2     RFC 2370 MLD version 1   RFC 393 IGMP version 1     RFC 3701 MLD version 1   RFC 3910 MLD version 2     RFC 3710 MLD version 1   RFC 301 Gentrees C	Regulation Compliance   FCC Part 15 Class A, CE     IEEE 802.3 10BASE-T   IEEE 802.3 100BASE-TX / 100BASE-FX     IEEE 802.3 cligabit 100BASE-T   IEEE 802.3 cligabit SXLX     IEEE 802.3 cligabit 1000BASE-T   IEEE 802.3 cligabit 1000BASE-T     IEEE 802.3 cligabit 1000BASE-T   IEEE 802.3 cligabit 1000BASE-T     IEEE 802.3 cligabit 1000BASE-T   IEEE 802.3 cligabit 1000BASE-T     IEEE 802.3 ab Control and Back pressure   IEEE 802.3 cligabit 1000BASE-T     IEEE 802.3 cligabit 1000BASE-T   IEEE 802.3 cligabit 1000BASE-T     IEEE 802.3 ab Control and Back pressure   IEEE 802.3 cligabit 1000BASE-T     IEEE 802.3 bit previous   IEEE 802.3 cligabit 1000BASE-T     IEEE 802.1 b Spanning Tree protocol   IEEE 802.1 b Spanning Tree protocol     IEEE 802.1 p Class of Service   IEEE 802.1 p Class of Service     IEEE 802.1 ab LLDP   RFC 768 UDP     RFC 791 IP   RFC 792 ICMP     RFC 792 ICMP version 1   RFC 2026 IGMP version 2     RFC 2026 IGMP version 2   RFC 376 IGMP version 2     RFC 2037 IG IMP version 1   RFC 23710 MLD version 2     RFC 2038 IGMP version 2   RFC 377 IGMLD version 2     RFC 3710 MLD version 2   Non-condensing)     Operating   O ~ 50 degrees C		RFC 2863 Interface Group MIB RFC 2819 RMON (1, 2, 3, 9)	
Standards Compliance   IEEE 802.3 10BASE-T IEEE 802.32 Gigabit SX/LX     Standards Compliance   IEEE 802.32 Gigabit SX/LX     Environment   IEEE 802.32 Gigabit SX/LX     IEEE 802.33 Gigabit SX/LX   IEEE 802.33 Gigabit SX/LX     IEEE 802.33 Gigabit SX/LX   IEEE 802.34 Gigabit 100BASE-T     IEEE 802.34 Flow Control and Back pressure   IEEE 802.10 Spanning Tree protocol     IEEE 802.10 Spanning Tree protocol   IEEE 802.10 Spanning Tree protocol     IEEE 802.10 LO LANT agging   IEEE 802.10 VLANT agging     IEEE 802.10 VLANT agging   IEEE 802.10 VLANT agging	IEEE 802.3 10BASE-T     IEEE 802.3 10DBASE-TX / 100BASE-FX     IEEE 802.32 Gigabit SXLX     IEEE 802.33 Gigabit 1000BASE-T     IEEE 802.34 Cigabit 1000BASE-T     IEEE 802.34 Cigabit 1000BASE-T     IEEE 802.34 Cigabit 1000BASE-T     IEEE 802.34 Ort Trunk with LACP     IEEE 802.14 Seaning Tree protocol     IEEE 802.15 Seaning Tree protocol     IEEE 802.10 VLAN Tagging     RFC 793 IFTP     RFC 793 ICMP     RFC 793 ICMP     RFC 2068 HTTP     RFC 1112 IGMP version 1     RFC 2710 MLD version 1     RFC 2710 MLD version 1     RFC 3731 GIMP version 2     Environment     Operating     Temperature:   0 ~ 50 degrees C     Relative Humidit	Standards Conformance		
Standards Compliance   IEEE 802.3u 100BASE-TX / 100BASE-FX     IEEE 802.3c Gigabit 1000BASE-T     IEEE 802.3a Flow Control and Back pressure     IEEE 802.3a Flow Control and Back pressure     IEEE 802.10 Spanning Tree protocol     IEEE 802.110 Summing Tree protocol     IEEE 802.110 VLAN Tagging     IEEE 802.120 LDP     REC 780 LDP     RFC 768 UDP     RFC 778 UDP     RFC 791 IP     RFC 2068 HTTP     RFC 2068 IGMP version 1     RFC 2376 IGMP version 2     RFC 2376 IGMP version 1     RFC 2376 IGMP version 1     RFC 2710 MLD version 2     RFC 2710 MLD version 1     RFC 2710 MLD version 2     RFC 2710 MLD version 1     RFC 2710 MLD version 2     RFC 2710 MLD version 2     RFC 2710 MLD version 2     RFC 376 IGMP version 3     RFC 2710 MLD version 1     RFC 2710 MLD version 1     RFC 2710 MLD version 2	IEEE 802.3u 100BASE-TX / 100BASE-TX     IEEE 802.3c Glgabit SXLX     IEEE 802.3a Glgabit SXLX     IEEE 802.3a Glgabit 1000BASE-T     IEEE 802.3a Flow Control and Back pressure     IEEE 802.1b Spanning Tree protocol     IEEE 802.1b Spanning Tree protocol     IEEE 802.1b Class of Service     RFC 793 IFTP     RFC 793 IFTP     RFC 793 ICMP     RFC 793 ICMP     RFC 793 ICMP     RFC 793 ICMP     RFC 793 ICMP version 1     RFC 793 ICMP version 2     RFC 793 ICMP version 1     RFC 793 ICMP version 2     RFC 793 ICMP version	Regulation Compliance	FCC Part 15 Class A, CE	
Temperature: $0 \sim 50$ degrees C	Operating Temperature: 0 ~ 50 degrees C   Relative Humidity: 5 ~ 95% (non-condensing)   Storage Temperature: -10 ~ 70 degrees C	Standards Compliance	IEEE 802.3u 100BASE-TX / 100BASE-FXIEEE 802.3z Gigabit SX/LXIEEE 802.3ab Gigabit 1000BASE-TIEEE 802.3x Flow Control and Back pressureIEEE 802.3ad Port Trunk with LACPIEEE 802.1D Spanning Tree protocolIEEE 802.1b Spanning Tree protocolIEEE 802.1s Multiple Spanning Tree protocolIEEE 802.1p Class of ServiceIEEE 802.1x Port Authentication Network ControlIEEE 802.1ab LLDPRFC 768 UDPRFC 791 IPRFC 791 IPRFC 792 ICMPRFC 1112 IGMP version 1RFC 2336 IGMP version 3RFC 2710 MLD version 1	
Temperature: $0 \sim 50$ degrees C	Operating Temperature: 0 ~ 50 degrees C   Relative Humidity: 5 ~ 95% (non-condensing)   Storage Temperature: -10 ~ 70 degrees C	Environment		
Operating Relative Humidity: 5 ~ 95% (non-condensing)	Storage	Operating		
Storade		Storage		

# Ordering Information

GS-4210-16T2S	16-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch
GS-4210-24T2S	24-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch



## Available Gigabit SFP Modules for GS-4210-16T2S & GS-4210-24T2S

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

## Available Fast Ethernet SFP Modules for GS-4210-16T2S & GS-4210-24T2S

MFB-FX	SFP-Port 100BASE-FX Transceiver (1310nm)-2km
MFB-F20	SFP-Port 100BASE-FX Transceiver (1310nm)-20km
MFB-F40	SFP-Port 100BASE-FX Transceiver (1310nm)-40km
MFB-F60	SFP-Port 100BASE-FX Transceiver (1310nm)-60km
MFB-FA20	SFP-Port 100BASE-BX Transceiver (WDM,TX:1310nm)-20km
MFB-FB20	SFP-Port 100BASE-BX Transceiver (WDM,TX:1550nm)-20km



