Multi-port 10/100/1000T + 4-port 10G SFP+ Web Smart Switch

Physical Port
- **10/100/1000BASE-T** Gigabit RJ45 copper ports
- **4 10GBASE-SR/LR SFP+ slots**, compatible with 1000BASE-SX/LX/BX SFP
- RJ45 to RS232 DB9 console interface for basic management and setup

Layer 2 Features
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x pause frame flow control (full-duplex)
- Supports VLAN
  - IEEE 802.1Q tagged VLAN
  - IP subnet-based VLAN
  - MAC-based VLAN
  - Protocol-based VLAN
  - Private VLAN
- Supports Spanning Tree Protocol
  - STP (Spanning Tree Protocol)
  - RSTP (Rapid Spanning Tree Protocol)
  - MSTP (Multiple Spanning Tree Protocol)
- Supports Link Aggregation
  - IEEE 802.3ad Link Aggregation Control Protocol (LACP)
  - Cisco ether-channel (static trunk)
- Provides port mirror (many-to-1)
- Supports Ingress/Egress Rate Limit per port bandwidth control

Multicast
- Supports IGMP snooping v1, v2 and v3
- Querier mode support
- IGMP router port

Security
- DHCP snooping to filter distrusted DHCP messages
- MAC security
  - Static MAC address
  - MAC binding
  - MAC auto binding
  - Per port MAC address entries limitation
- Storm control
  - Broadcast, multicast, unknown-unicast

Management
- IPv4 management
- Switch management interface
  - Web switch management
  - Telnet command line interface
  - Console command line interface
  - SNMP v1, v2c

High-Density, Resilient Deployment Switch Solution for Gigabit Networking of Enterprise, Campus and Data Center

For the growing Gigabit network and IoT (Internet of Things) demand, PLANET has launched a new-generation **Web Smart 1/10 Gigabit Switch solution**, the GS-2240 switch series, to meet the needs of enterprises, telecoms and campuses for a large-scale network deployment. The GS-2240 switch series is a Layer 2 Web Smart Switch, which comes with **multi 10/100/1000Mbps Gigabit Ethernet ports** and **4 10G SFP+ uplink slots**. The GS-2240 switch series also provides a quick, safe and cost-effective 1/10G network solution for small and medium-sized businesses.

24 x 10/100/1000BASE-T RJ45 Port   RJ45 Type Console

48 x 10/100/1000BASE-T RJ45 Port   4 x 1/10G SFP+ Slot
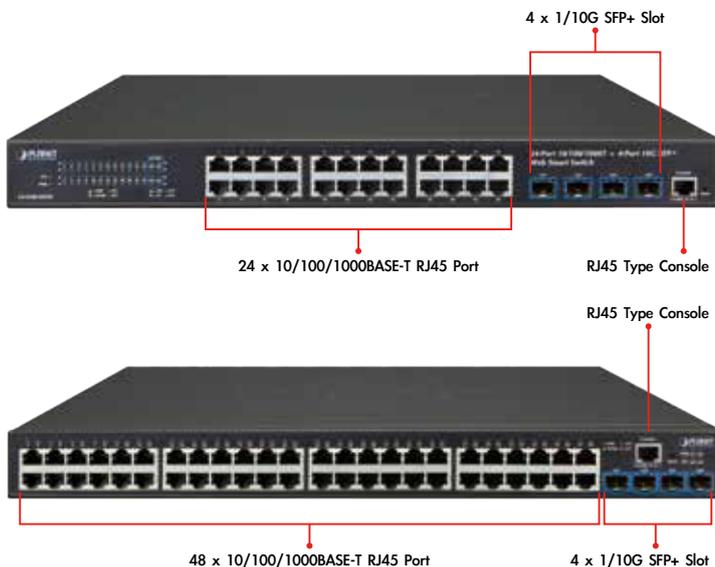
Cost-effective 10Gbps Uplink Capacity

PLANET has made a big leap in the evolution of Ethernet with its launch of the GS-2240 switch series whose four 10G SFP+ slots support **dual-speed**, **10GBASE-SR/LR** or **1000BASE-SX/LX**, meaning the administrator now can flexibly choose a suitable SFP/SFP+ transceiver according to the transmission distance or speed required to extend the network efficiently. They greatly support an SMB network to achieve 10Gbps high performance in a cost-effective way because 10GbE interface usually could be available in Layer 3 Switch, which could be too expensive to SMBs.

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Robust Layer 2 Features

The GS-2240 switch series can be programmed for advanced switch management functions such as **dynamic port link aggregation (LACP), Spanning Tree Protocol (STP), SNMP, bandwidth control, LLDP, DHCP snooping, IGMP snooping** and **L2 MAC security control**. The GS-2240 switch series provides **IEEE 802.1Q** tagged VLAN and **private VLAN**. With the supporting port aggregation, they allow the operation of a high-speed trunk by combining multiple ports and support fail-over as well.

L2/L4
Managed Switch

L2/L4
Managed Switch
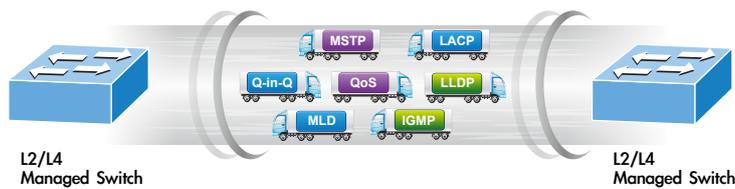
- System maintenance
  - Firmware upload/download via HTTP
  - Configuration upload/download through web interface
  - Hardware reset button for system reboot or reset to factory default
- Link Layer Discovery Protocol (LLDP)
- Ping diagnostics
- Trace-route
- SNMP trap for interface linkup and linkdown notification
- Log management

Efficient Traffic Control

The GS-2240 switch series is loaded with powerful traffic management to enhance services to business-class data, voice, and video solutions. The functionality includes **broadcast, multicast and unknown unicast storm control**, and per port **bandwidth control**. It guarantees the best performance for VoIP and video stream transmission, and empowers the enterprises to take full advantage of the limited network resources.

Friendly and Secure Management

For efficient management, the GS-2240 switch series is equipped with **web**, **console**, **Telnet** and **SNMP** management interfaces. With the built-in web-based management interface, the GS-2240 switch series offers an easy-to-use, platform-independent management and configuration facility. By supporting the standard SNMP, the switch can be managed via any standard management software. For text-based management, the switch can be accessed via Telnet.
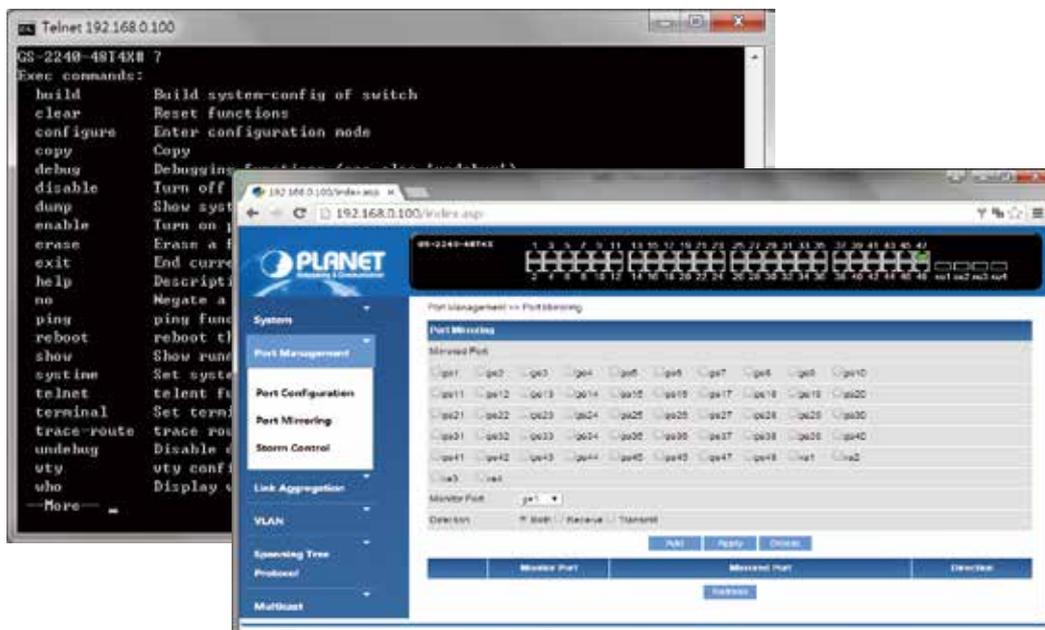
Applications

High Availability Mesh Networking Solution for Big Data System

By means of improving the technology of Optical Fiber Ethernet with highly-flexible, highly-extendable and easy-to-install features, the GS-2240-48T4X offers up to **176Gbps** data exchange speed via Optical Fiber interface and the transmission distance can be extended to 10km. The GS-2240 switch series features strong rapid self-recovery capability to prevent interruptions and external intrusions. It incorporates **Multiple Spanning Tree Protocol (802.1s MSTP)** into customer's automation network to enhance system reliability and uptime. The GS-2240 switch series is the ideal **Big Data solution** for data centers, service providers and telecoms to build redundant connection and establish high bandwidth for server farm.
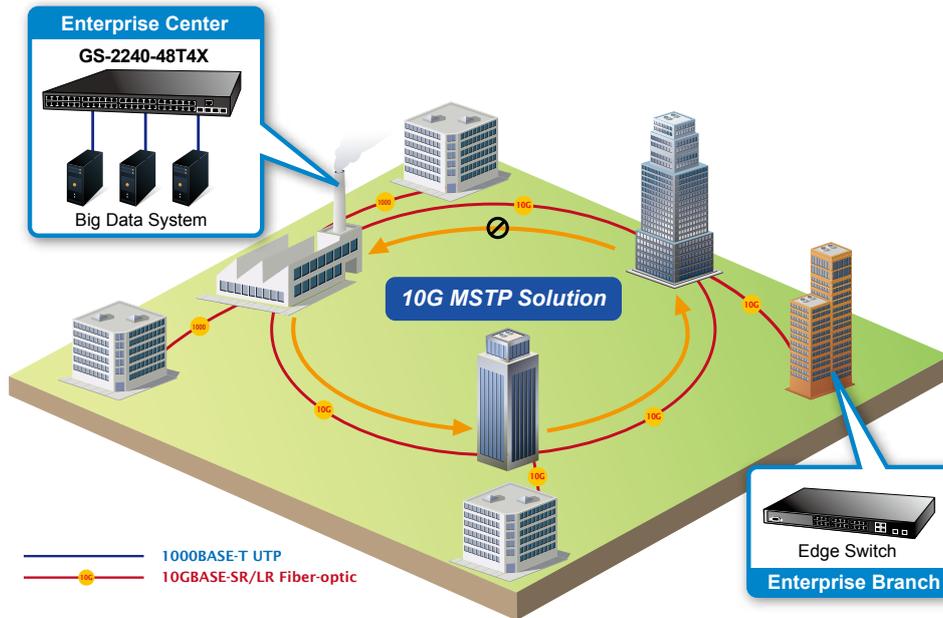
Extended 10G Network Infrastructure for SMBs/Workgroups with Cost-effective Web Smart Solution

The GS-2240-48T4X performs 176 Gigabits per second non-blocking switch fabric so it can easily provide a local 10Gbps high bandwidth Ethernet network for the backbone of your department. With the four built-in SFP+ ports, the GS-2240-48T4X provides the uplink to the backbone network through the 10G Ethernet LR/SR SFP+ modules. It further improves the network efficiency and protects the network clients by offering the security features.

High Performance Server Service
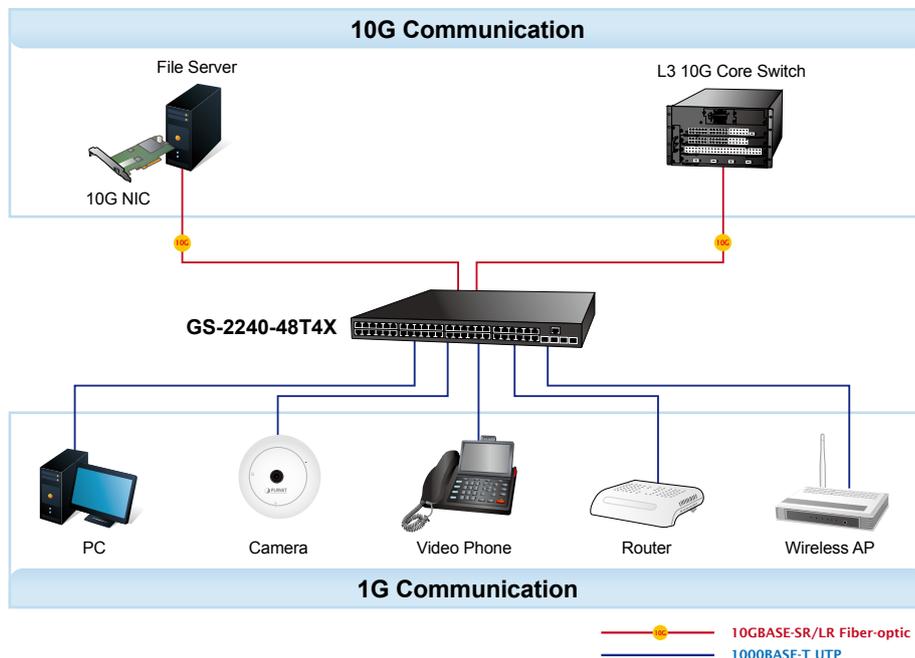
Specifications

Product	GS-2240-24T4X	GS-2240-48T4X
Hardware Specifications		
Copper Ports	24 x 10/100/1000BASE-T RJ45 auto-MDI/MDI-X port	48 x 10/100/1000BASE-T RJ45 auto-MDI/MDI-X port
SFP/mini-GBIC Slots	4 10GBASE-SR/LR SFP+ interface (XE1 to XE4) Compatible with 1000BASE-SX/LX/BX SFP transceiver	
Switch Architecture	Store-and-Forward	
Switch Fabric	128Gbps/non-blocking	176Gbps/non-blocking
Switch Throughput@64Bytes	95.24Mpps	130.95Mpps
Address Table	16K entries	16K entries
Shared Data Buffer	1.5Mbytes	1.5Mbytes
Flow Control	IEEE 802.3x pause frame for full-duplex Back pressure for half-duplex	
Jumbo Frame	13K bytes	
Reset Button	< 5 sec: System reboot > 5 sec: Factory default	
LED	PWR, SYS, 10/100, 1000, 10G	
Power Requirements	100~240V AC, 50/60Hz, auto-sensing	
Dimensions (W x D x H)	440 x 230 x 44 mm, 1U height	440 x 270 x 44 mm, 1U height
ESD Protection	Contact Discharge 4KV DC Air Discharge 8KV DC	
Enclosure	Metal	
Weight	2865g	3969g
Power Consumption/ Dissipation	31 watts (max.)/106 BTU	45 watts (max.)/154 BTU
Layer 2 Functions		
Port Mirroring	TX/RX/both Many-to-1 monitor	
VLAN	802.1Q tagged-based VLAN Up to 4000 VLAN groups, out of 4094 VLAN IDs IP subnet-based VLAN MAC-based VLAN Protocol-based VLAN Private VLAN	
Link Aggregation	IEEE 802.3ad LACP and static trunk Supports 32 groups with 8 ports per trunk group	
Spanning Tree Protocol	IEEE 802.1D Spanning Tree Protocol (STP) IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)	
IGMP Snooping	IGMP snooping v1, v2, v3, up to 255 multicast groups IGMP querier mode support	
Security	DHCP snooping Static MAC address MAC binding MAC auto binding Per port MAC address entries limitation Broadcast, multicast, unknown unicast storm control	
Management Functions		
Basic Management Interfaces	Web browser, Telnet, console SNMP v1, v2c Firmware upgrade by HTTP protocol through Ethernet network System log	
SNMP MIBs	RFC 1213 MIB-II RFC 1215 Generic Traps	

Standards Conformance

Regulatory Compliance	FCC Part 15 Class A, CE, LVD
Standards Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX/100BASE-FX IEEE 802.3z Gigabit SX/LX IEEE 802.3ab Gigabit 1000T IEEE 802.3ae 10 Gigabit Ethernet IEEE 802.3x flow control and back pressure IEEE 802.3ad port trunk with LACP IEEE 802.1ab LLDP IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1s Multiple Spanning Tree Protocol IEEE 802.1Q VLAN tagging RFC 768 UDP RFC 791 IP RFC 792 ICMP RFC 2068 HTTP RFC 1112 IGMP v1 RFC 2236 IGMP v2 RFC 3376 IGMP v3

Environments

Operating	Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing)
Storage	Temperature: -20 ~ 70 degrees C Relative Humidity: 5 ~ 95% (non-condensing)

Ordering Information

GS-2240-24T4X	24-port 10/100/1000T + 4-port 10G SFP+ Web Smart Switch
GS-2240-48T4X	48-port 10/100/1000T + 4-port 10G SFP+ Web Smart Switch

Available Modules

MTB-LR	SFP+ Port 10GBASE-LR mini-GBIC Module (Single mode/310nm/max. 10km)
MTB-SR	SFP+ Port 10GBASE-SR mini-GBIC Module (Multi-mode/850nm/max. 300m)
MGB-GT	SFP-Port 1000BASE-T 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 (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
CB-DASFP-0.5M	10G SFP+ Directly-attached Copper Cable (0.5m in length)
CB-DASFP-2M	10G SFP+ Directly-attached Copper Cable (2m in length)