Layer 3 Multiple Gigabit with 10G SFP+ Stackable Managed Ethernet Switch

Resilient 10Gbps and Layer 3 Routing Solution for Enterprise Networking

PLANET SGS-6310 series is a brand-new Layer 3 Stackable Managed Gigabit Switch with 10Gbps uplink capability for various kinds of network applications and flexible deployment. The **SGS-6310** series features 24 to 48 10/100/1000BASE-T RJ45 ports and 4 to 6 1G/10GBASE-X SFP+ ports with 216 Gbps switch fabric delivered in a 1U rugged case design.

The SGS-6310 series provides high-density performance, **Layer 3 IPv4/IPv6 static routing**, RIP and OSPF dynamic routing capability, **ERPS** ring, abundant **L2/L4 switching engine** and **virtual switch stacking** technology to fulfill the need of heavy transmission of all applications. It gives the enterprises, service providers and campuses flexible control over port density, uplinks and switch stack performance at an affordable price beyond value.

The hardware specifications of these models are shown below:

Models	10/100/1000T Copper	100/1000X SFP	1000/10G SFP+	PoE Ports	Power Input
SGS-6310-24T4X	24	--	4	--	AC + AC
SGS-6310-24P4X	24	--	4	24	AC
SGS-6310-16S8C4XR	8 (combo)	24	4	--	AC + AC
SGS-6310-48T6X	48	--	6	--	AC
SGS-6310-48P6XR	48	--	6	48	AC + DC

Stacking Features

- Hardware Stacking
  - Virtualized multiple SGS-6310 series stacked into one logical facility
  - Connects with stack members via assigned 10G SFP+ interfaces
  - Single IP address stack management, supporting up to 8 hardware units stacked together
  - Stacking architecture supports redundant Ring mode

IP Routing Features

- IPv4 routing protocol supports **RIPv1/v2** and **OSPFv2**
- IPv6 routing protocol supports **RIPng** and **OSPFv3**
- Routing interface provides per VLAN routing mode
- **VRRPv1/v3** protocol for redundant routing deployment
- Supports route redistribution
- Supports hardware-based wire-speed VLAN routing

Multicast Routing Features

- Supports IPv4 IGMP v1/v2/v3, IGMP Snooping.
- Supports IGMP Fast Leave, MVR, IGMP filter
- Supports IPv6 MLD V1, MLD snooping

Layer 2 Features

- 16K MAC address table, automatic source address learning and aging
- Supports VLAN
  - IEEE 802.1Q tag-based VLAN
  - Provider Bridging (VLAN Q-in-Q, IEEE 802.1ad) supported
  - GVRP protocol for dynamic VLAN management
  - Private VLAN Edge (PVE) supported
  - MAC-based VLAN
  - IP subnet-based VLAN
  - Voice VLAN
- Supports Link Aggregation
  - IEEE 802.3ad LACP (Link Aggregation Control Protocol)
  - Static mode and LACP mode
  - Maximum 64 trunk groups, up to 8 ports per trunk group
- Supports Spanning Tree Protocol
  - STP, IEEE 802.1D (Classic Spanning Tree Protocol)
  - RSTP, IEEE 802.1w (Rapid Spanning Tree Protocol)
  - MSTP, IEEE 802.1s (Multiple Spanning Tree Protocol, spanning tree by VLAN)

High Performance 10Gbps Ethernet Capacity

The four to six SFP+ ports built in the SGS-6310 series boast a high-performance switch architecture that is capable of providing non-blocking switch fabric and wire-speed throughput as high as up to 120Gbps, which greatly meets high bandwidth demands in the LAN. Each of the SFP+ ports supports **Dual-Speed**, **10GBASE-SR/LR** or **1000BASE-SX/LX**, meaning the administrator now can flexibly choose the suitable SFP/SFP+ transceiver according to the transmission distance or the transmission speed required to extend the network efficiently.

Centralized Hardware Stacking Management

Two of the 10G SFP+ ports can be configured to connect several SGS-6310 series for building a virtually logical facility. The stackable SGS-6310 series, suitable for the enterprises, service providers and telecoms, provides high port density, large uplink bandwidth and high stacking performance, thus giving great flexibility for different application requirements. The SGS-6310 series can connect as a ring for redundancy and ensures that data integrity is retained even if one switch in the stack fails. You can even hot-swap switches without disrupting the network operations.

Hardware Stacking

Up to 8 units with SGS-6310 Series

Redundant Ring, Fast Recovery for Critical Network Applications

The SGS-6310 series supports redundant ring technology and features strong, rapid self-recovery capability to prevent interruptions and external intrusions. It incorporates advanced ITU-T **G.8032 ERPS** (Ethernet Ring Protection Switching) technology and Spanning Tree Protocol (802.1s MSTP) into customer's network to enhance system reliability and uptime in harsh environments. In a certain simple ring network, the recovery time could be less than 10ms to quickly bring the network back to normal operation.

  - Supports BPDU & root guard
- Port mirroring to monitor the incoming or outgoing traffic on a particular port (one-to-one and many-to-one)
- Provides port mirror (many-to-1)
- Supports G.8032 ERPS (Ethernet Ring Protection Switching)
- Loop protection to avoid broadcast loops
- Link Layer Discovery Protocol (LLDP)
- Compatible with Cisco UDLD (uni-directional link detection) that monitors a link between two switches and blocks the ports on both ends of the link if the link fails at any point between the two devices

Quality of Service

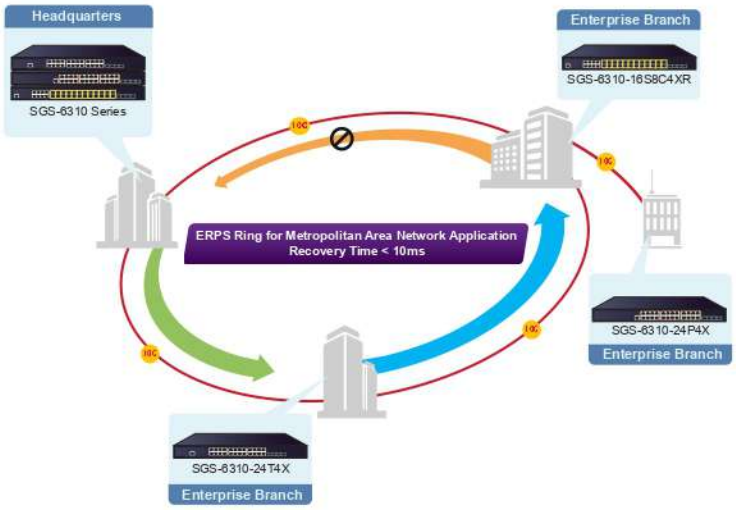
- 8 priority queues on all switch ports
- Support for strict priority and WRR (Weighted Round Robin) CoS policies
- Traffic classification
  - IEEE 802.1p CoS/ToS
  - IPv4/IPv6 DSCP
  - Port-based WRR
- Strict priority and WRR CoS policies

Multicast

- Supports IPv4 IGMP snooping v1, v2 and v3
- Supports IPv6 MLD v1 snooping
- Querier mode support
- Supports Multicast VLAN Register (MVR)

Security

- Authentication
  - IEEE 802.1x port-based network access authentication
  - MAC-based network access authentication
  - Built-in RADIUS client to cooperate with the RADIUS servers for IPv4 and IPv6
  - RADIUS/TACACS+ login users access authentication
- Access Control List
  - IP-based Access Control List (ACL)
  - MAC-based Access Control List
  - Time-based ACL
- DHCP snooping to filter distrusted DHCP messages
- IP Source Guard prevents IP spoofing attacks
- Dynamic ARP Inspection discards ARP packets with invalid MAC address to IP address binding



Layer 3 Routing Support

The SGS-6310 series enables the administrator to conveniently boost network efficiency by configuring Layer 3 static routing manually, the RIP (Routing Information Protocol) or OSPF (Open Shortest Path First) settings automatically.

- The RIP can employ the hop count as a routing metric and prevent routing loops by implementing a limit on the number of hops allowed in a path from the source to a destination.
- The OSPF is an interior dynamic routing protocol for autonomous system based on link state. The protocol creates a database for link state by exchanging link states among Layer 3 switches, and then uses the Shortest Path First algorithm to generate a route table based on that database.

Strong Multicast

The SGS-6310 series supports abundant multicast features. In Layer 2, it features IPv4 IGMPv1/v2/v3 snooping and IPv6 MLD v1 snooping. With Multicast VLAN Register (MVR), multicast receiver/sender control and illegal multicast source detect functions which make the SGS-6310 series great for any robust networking.

Full IPv6 Support

The SGS-6310-Series supports IPv4-to-IPv6 technologies including **IPv4 manual/ automatic tunnel**, **IPv6-to-IPv4 tunnel**, and Intra-Site Automatic Tunnel Addressing Protocol (**ISATAP**) tunnel. It comprehensively supports IPv6 Neighbor Discovery, DHCPv6, Path MTU Discovery, IPv6-based Telnet, SSH and ACL, meeting the need of IPv6 network device management and service control.

Robust Layer 2 Features

The SGS-6310 series can be programmed for basic switch management functions such as port speed configuration, port aggregation, VLAN, Multiple Spanning Tree Protocol, bandwidth control and IGMP snooping. This switch provides 802.1Q tagged VLAN, Q-in-Q, voice VLAN and GVRP Protocol functions. By supporting port link aggregation, the SGS-6310 series allows the operation of a high-speed trunk combined with multiple ports. It enables up to 64 groups for trunking with a maximum of 8 ports for each group.

Management

- IPv4 and IPv6 dual stack management
- Switch Management Interface
  - Console/Telnet Command Line Interface
  - HTTP Web switch management
  - SNMP v1 and v2c switch management
  - SSHv1/v2, TLSv1.2 and SNMPv3 secure access
- SNMP Management
  - Four RMON groups 1, 2, 3, 9 (history, statistics, alarms and events)
  - SNMP trap for interface Link Up and Link Down notification
- BOOTP and DHCP for IP address assignment
- System Maintenance
  - Firmware upload/download via TFTP or HTTP Protocol for IPv4 and IPv6
- SNTP (Simple Network Time Protocol) for IPv4 and IPv6
- User privilege levels control
- Syslog server for IPv4 and IPv6
- Supports sFlow
- DHCP Functions
  - DHCP Option82
  - DHCP server/relay/client
- Network Diagnostic
  - Supports ping, traceroute function for IPv4 and IPv6
  - Supports DDM (Digital Diagnostic Monitor)
- Supports ISSU (In-service Software Upgrade) to guaranteeing non-stop user data transmission when the system is upgraded.
- PLANET Smart Discovery Utility for deployment management

Power over Ethernet (SGS-6310-24P4X / SGS-6310-48P6XR)

- Complies with IEEE 802.3af/at Power over Ethernet Plus, end-span PSE
- Up to **24** ports of IEEE 802.3af/at devices powered **(SGS-6310-24P4X)**
- Up to **48** ports of IEEE 802.3af/at devices powered **(SGS-6310-48P6XR)**
- Support up to 6KV thunder-proof of the PoE port and power supply
- Supports PoE power up to 30 watts for each PoE port
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports

Excellent Layer 2 to Layer 4 Traffic Control

The SGS-6310 series is loaded with powerful traffic management and WRR features to enhance services offered by enterprises. The WRR functionalities include wire-speed Layer 4 traffic classifiers and bandwidth limitation which are particularly useful for multi-tenant unit, multi-business unit, Telco, or network service applications. It also empowers the enterprises to take full advantage of the limited network resources and guarantees the best in VoIP and video conferencing transmission.

Powerful Network Security

The SGS-6310 series offers comprehensive 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 and MAC-based user and device authentications, which can be deployed with RADIUS, to ensure the port level security and block illegal users.

- Remote power feeding up to 100 meters
- PoE management
  - Total PoE power budget control
  - Per port PoE function enable/disable
  - PoE port power feeding priority
  - Per PoE port power limitation
  - PD classification detection
  - PoE schedule

Redundant Power System (SGS-6310-16S8C4XR / SGS-6310-24T4X / SGS-6310-48P6XR)

- 100~240V AC Dual power redundant (SGS-6310-16S8C4XR, SGS-6310-24T4X)
- 100~240V AC and 55V DC Dual power redundant (SGS-6310-48P6XR)
- Active-active redundant power failure protection
- Backup of catastrophic power failure on one supply

Advanced IP Network Protection

The SGS-6310 series 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-secure corporate networks with considerably less time and effort than before.

Efficient and Secure Management

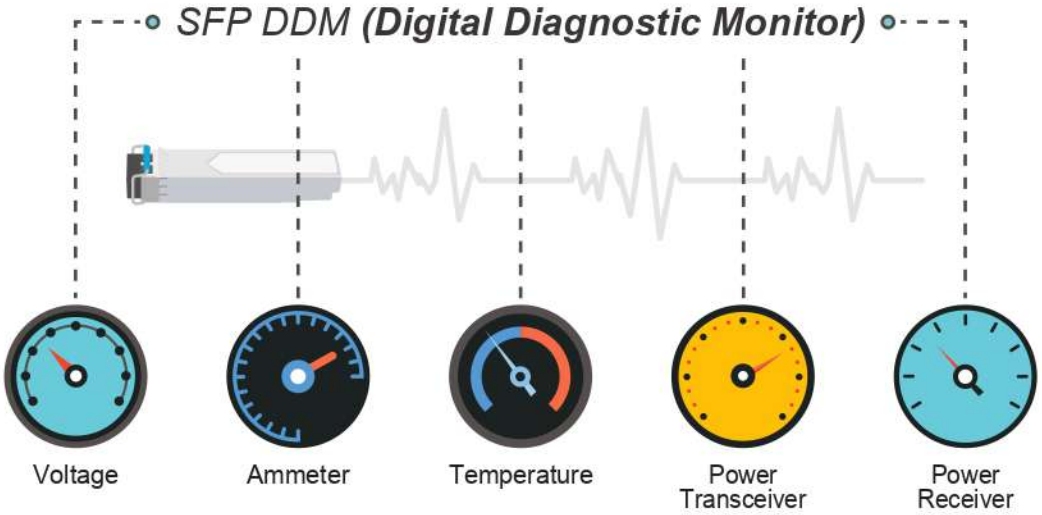
For efficient management, the SGS-6310 series is equipped with console, Web and SNMP management interfaces.

- With the built-in Web-based management interface, the SGS-6310 series offers an easy-to-use, platform-independent management and configuration facility.
- For text-based management, it can be accessed via Telnet and the console port. For reducing product learning time, the SGS-6310 series offers Cisco-like command and customer doesn't need to learn new command from these switches.
- For standard-based monitor and management software, it offers SNMPv3 connection which encrypts the packet content at each session for secure remote management.

Moreover, the SGS-6310 series offers secure remote management by supporting SSHv1/v2 and TLSv1.2 connection which encrypts the packet content at each session.

Intelligent SFP Diagnosis Mechanism

The SGS-6310 series supports **SFP-DDM (Digital Diagnostic Monitor)** function that greatly helps network administrator to easily monitor real-time parameters of the SFP and SFP+ transceivers, such as optical output power, optical input power, temperature, laser bias current, and transceiver supply voltage.



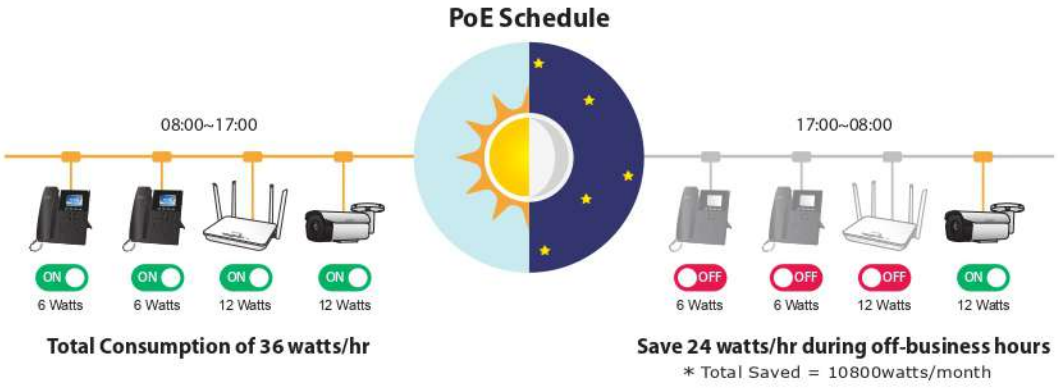
Centralized Power Management for Gigabit Ethernet PoE Networking

To fulfill the needs of higher power required PoE network applications with Gigabit speed transmission, the SGS-6310-24P4X and SGS-6310-48P6XR feature high-performance Gigabit IEEE 802.3at PoE+ (up to 30 watts) on all ports. It perfectly meets the power requirements of PoE VoIP phone and all kinds of PoE IP cameras such as IR, PTZ, speed dome cameras or even box type IP cameras with built-in fan and heater.

The SGS-6310-24P4X's and SGS-6310-48P6XR's PoE capabilities also help to reduce deployment costs for network devices as a result of freeing from the restrictions of power outlet locations. Power and data switching are integrated into one unit, delivered over a single cable and managed centrally. It thus eliminates the cost for additional AC wiring and reduces installation time.

PoE Schedule for Energy Savings

Besides being used for IP surveillance, the SGS-6310-24P4X and SGS-6310-48P6XR are certainly applicable to build any PoE network including VoIP and wireless LAN. Under the trend of energy savings worldwide and contributing to the environmental protection on the Earth, it can effectively control the power supply besides its capability of giving high watts power. The "PoE schedule" function helps you to enable or disable PoE power feeding for each PoE port during specified time intervals and it is a powerful function to help SMBs or enterprises save energy and budget.



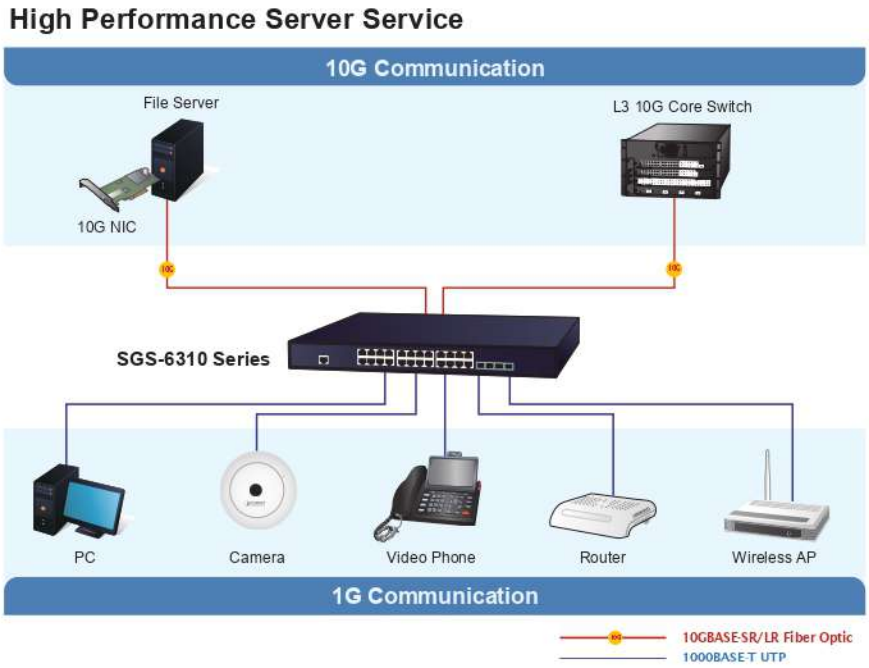
Redundant Power to Ensure Continuous Operation

The SGS-6310-16S8C4XR, SGS-6310-24T4X and SGS-6310-48P6XR are equipped with 100~240V AC and 55V DC power supply unit for redundant power supply. A redundant power system is also provided to enhance the reliability with power supply unit. The redundant power system is specifically designed to handle the demands of high-tech facilities requiring the highest power integrity.

Applications

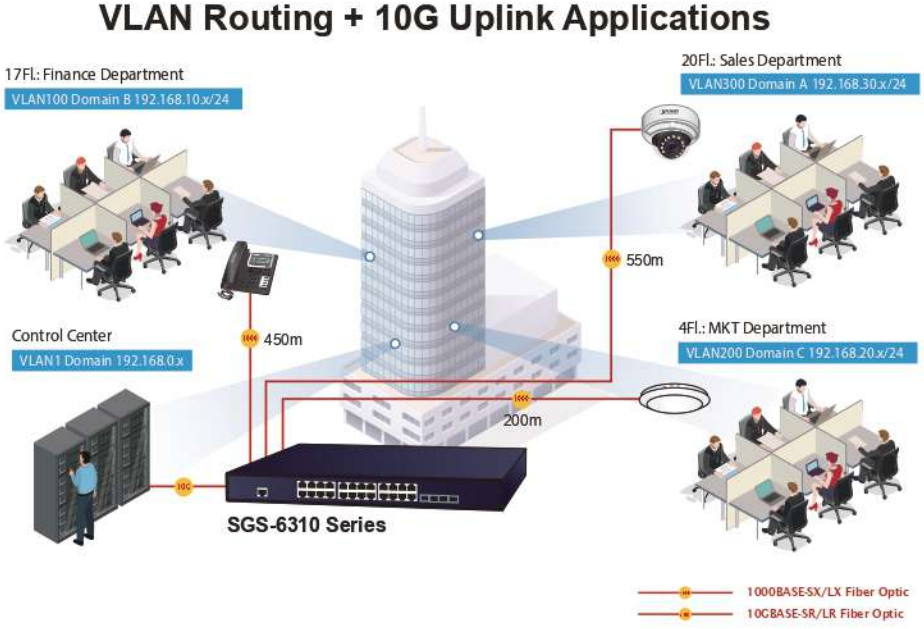
Excellent Solution to Enterprise Security and QoS Switch

The SGS-6310 series performs 128/216 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 SGS-6310 series 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 and QoS features.



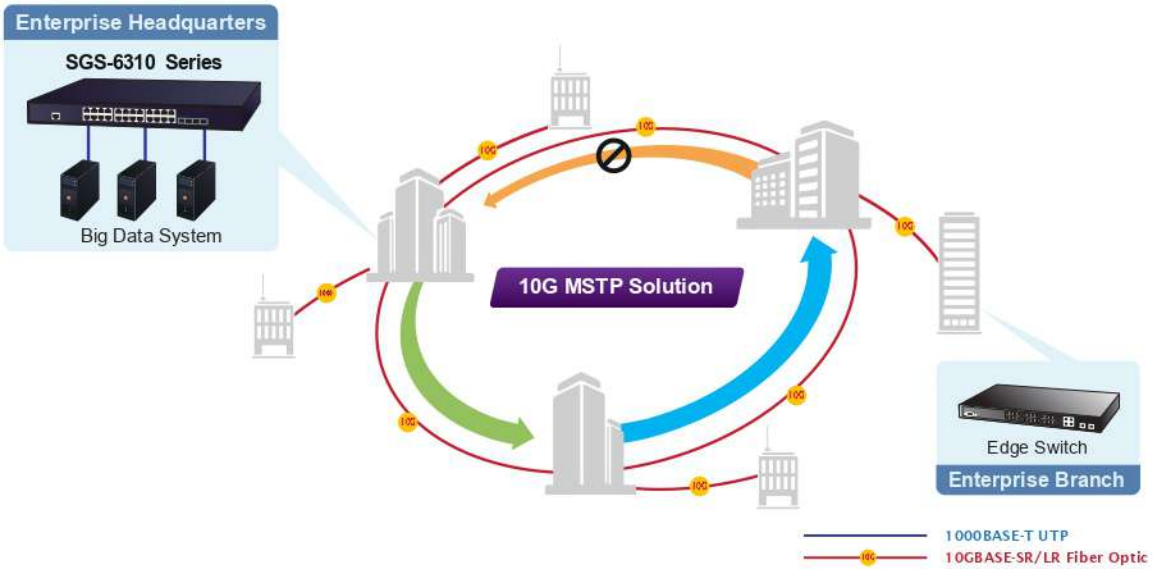
Layer 3 VLAN Routing

With the built-in robust Layer 3 traffic routing protocols, the SGS-6310 series ensures reliable routing between VLANs and network segments. The routing protocols can be applied via VLAN interface. The SGS-6310 series is certainly a cost-effective and ideal solution for enterprises.



High Availability Mesh Networking Solution for Big Data System

With highly-flexible, highly-extendable and easy-to-install features, the SGS-6310 series offers up to 128/216Gbps data exchange speed via optical fiber interface and the transmission distance can be extended to 120km. The SGS-6310 series features strong, rapid, self-recovery capability to prevent interruptions and external intrusions. It incorporates **IEEE 802.1s MSTP (Multiple Spanning Tree Protocol, spanning tree by VLAN)** into customer's automation network to enhance system reliability and uptime. The SGS-6310 series is the ideal solution for data centers, service providers and telecoms to build redundant connection and establish high bandwidth for **Big Data** server farm.



Specifications

Product	SGS-6310-24T4X	SGS-6310-24P4X	SGS-6310-16S8C4XR	SGS-6310-48T6X	SGS-6310-48P6XR
Hardware Specifications					
10/100/1000 RJ45 Ports	24	24	8 (combo)	48	48
100/1000BASE-X SFP Ports	--	--	24	--	--
10G SFP+ Ports	4 10GBASE-SR/LR SFP+ interface Backward compatible with 1000BASE-X SFP transceiver			6 10GBASE-SR/LR SFP+ interface Backward compatible with 1000BASE-X SFP transceiver	
Console Port	1 x RJ45-to-RS232 serial port (9600, 8, N, 1)				
DRAM	256Mbytes			512Mbytes	
Flash Memory	16Mbytes			16Mbytes (32Mbytes optional ordering)	
Dimensions (W x D x H)	440 x 180 x 44 mm	440 x 210 x 44mm	440 x 280 x 44 mm	440 x 280 x 44 mm	440 x 300 x 44mm
Weight	2600g	3000g	4000g	4300g	5200g
Power Consumption	35 watts/ 153.58 BTU	25 watts/ 85.25BTU (System) 408 watts/ 1392.49 BTU (System + PoE)	38 watts/129.58BTU	48 watts/ 163.68 BTU	48 watts/ 163.68 BTU (System) 830 watts/ 2830.3 BTU (System+PoE)
Power Requirements- AC	Dual AC 100~240V, 50/60Hz	AC 100~240V, 50/60Hz	Dual AC: 100~240V, 50/60Hz	AC: 100~240V, 50/60Hz	AC: 100~240V, 50/60Hz
Power Requirements- DC	--	--	--	--	DC 55V
Fan	--	2	2	2	2
LED	SYS, PWR (Green) 10/100/1000T RJ45 Port: LNK/ ACT(Green) 1/10G SFP+ Port: LNK/ACT (Green)	SYS, PWR, PoE (Green) System: SYS, PWR (Green) Per 10/100/1000BASE-T RJ45 Interfaces (Port 1 to Port 24): 1000Mbps LNK/ACT (Green) 10/100Mbps LNK/ ACT (Amber) 802.3at/af PoE-in- Use (Amber) Per 1G/10G Mbps SFP Interfaces (Port 25 to Port 28): 1G LNK/ACT (Amber) 10G LNK/ACT (Green)	SYS, PWR (Green) 10/100/1000T RJ45 Port: LNK/ACT (Green) 1/10G SFP+ Port: LNK/ACT (Green)	SYS, PWR (Green) 10/100/1000T RJ45 Port: LNK/ACT (Green) 1/10G SFP+ Port: LNK/ACT (Green)	SYS, PWR, PoE (Green) 10/100/1000T RJ45 Port: LNK/ACT and PoE-in-Use (Green) 1/10G SFP+ Port: LNK/ ACT (Green)

Switching Specifications					
Switch Architecture	Store-and-forward				
Switch Fabric	128Gbps/non-blocking			216Gbps/non-blocking	
Switch Throughput	95.23Mpps			160.7Mpps	
Address Table	16K MAC address table with auto learning function			16K MAC address table with auto learning function	
ARP Table	2K			2K	
Routing Table	2040			2040	
VLAN Interface	64			64	
IP Interface	64			64	
ACL Table	1024			1024	
Shared Data Buffer	1.5MB			1.5MB	
Jumbo Frame	9KBytes			9KBytes	
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex				
Power over Ethernet Specifications					
PoE Standard	--	IEEE 802.3af/at PoE+ PSE	--	--	IEEE 802.3af/at PoE+ PSE
PoE Power Supply Type	--	End-span	--	--	End-span
PoE Power Output	--	Per port 54V DC, 30 watts (max.)	--	--	Per port 54V DC, 30 watts (max.)
Power Pin Assignment	--	1/2(+), 3/6(-)	--	--	1/2(+), 3/6(-)
PoE Power Budget	--	370 watts (max.)	--	--	370 watts (max.) AC 740 watts (max.) DC
IPv4 Layer 3 Functions					
IP Routing Protocol	Static route RIPv1/v2 OSPFv2 Hardware-based Layer 3 routing				
Routing Features	VRRP v1/v3 ARP ARP Proxy IGMP Proxy				
IPv6 Layer 3 Functions					
IP Routing Protocol	RIPng OSPFv3 IPv6 LPM Routing IPv6 Policy-based Routing (PBR) IPv6 VRRPv3 IPv6 RA (Router Advertisement) Hardware-based Layer 3 routing				
Routing Features	Configured Tunnels GRE Tunnel ISATAP Tunnel,6 to 4 tunnel Manual tunnel				
Other	ICMPv6, IPv6 ND				
Layer 2 Functions					
Port Configuration	Port disable/enable Auto-negotiation 10/100/1000Mbps full and half duplex mode selection Flow control disable/enable Bandwidth control on each port Port loopback detect				
Port Status	Display each port's speed duplex mode, link status, flow control status and auto negotiation status				
VLAN	802.1Q tagged VLAN, up to 4K VLAN groups 802.1ad Q-in-Q (VLAN stacking) GVRP for VLAN management Private VLAN Edge (PVE) supported Protocol-based VLAN MAC-based VLAN				
Spanning Tree Protocol	STP, IEEE 802.1D (Classic Spanning Tree Protocol) RSTP, IEEE 802.1w (Rapid Spanning Tree Protocol) MSTP, IEEE 802.1s (Multiple Spanning Tree Protocol, spanning tree by VLAN) Supports BPDU and root guard				

Multicast	IPv4 IGMP v1/v2/v3 snooping Querier mode support IPv6 MLD v1 snooping Multicast VLAN Register (MVR) Up to 1024 multicast groups (IPv4 + IPv6)
Link Aggregation	IEEE 802.3ad LACP/static trunk Supports 64 groups with 8 ports per trunk group
Bandwidth Control	TX/RX/Both At least 64Kbps step
QoS	8 priority queues on all switch ports Supports strict priority and Weighted Round Robin (WRR) CoS policies Traffic classification: - CAR, HQoS, MAC/IP/TCP/UDP/ - IEEE 802.1p CoS/ToS - IPv4/IPv6 DSCP - Port-based WRR - Tail-Drop, WRED, flow monitoring and traffic shaping
Ring	Supports ITU-G G.8032 ERPS Recovery time < 10ms @ 3units Recovery time < 50ms @ 16units
Security Functions	
Access Control List	Supports Standard and Expanded ACL IP-based ACL/MAC-based ACL Time-based ACL Up to 1024 entries
Security	Port isolation, Port security, "IP+ MAC+ port" binding MAC sticky DAI & IP source guard, PPPoE+ L2/L3/L4 ACL flow identification Filtration Anti-attack from DDo S, TCP's SYN Flood, UDP Flood Broadcast / multicast / unknown unicast storm-control Supports MD5, SHA-256, RSA-1024, AES256
AAA Authentication	TACACS+ and IPv4/IPv6 over RADIUS
Network Access Control	IEEE 802.1x port-based network access control MAC-based authentication RADIUS/TACACS authentication
Switch Management Functions	
System Configuration	Console and Telnet Web browser SNMP v1, v2c
Secure Management Interfaces	SSHv1/v2, TLSv1.2 and SNMPv3
System Management	Supports both IPv4 and Ipv6 addressing Supports the user IP security inspection for Ipv4/Ipv6 SNMP Supports MIB and TRAP Supports RMON 1, 2, 3, 9 four groups Supports IPv4/IPv6 FTP/TFTP Supports IPv4/IPv6 NTP Supports the RADIUS authentication for IPv4/IPv6 Telnet user name and password The right configuration for users to adopt RADIUS server's shell management Supports Security IP safety net management function: avoid unlawful landing at nonrestrictive area Supports IPv4 and IPv6 DHCP server PLANET Smart Discovery Utility
Event Management	Supports Syslog server for IPv4 and IPv6
Hardware Stacking	8 members max. 2 10G SFP+ slots are functioned as Stacking Up and Down interfaces
Hardware Stacking Compatibility List	SGS-6310-24T4X SGS-6310-24P4X SGS-6310-16S8C4XR SGS-6310-48T6X SGS-6310-48P6XR

SNMP MIBs	RFC 1213 MIB-II RFC 1215 Internet Engineering Task Force RFC 1271 RMON RFC 1354 IP-Forwarding MIB RFC 1493 Bridge MIB RFC 1643 Ether-like MIB RFC 1907 SNMP v2 RFC 2011 IP/ICMP MIB RFC 2012 TCP MIB RFC 2013 UDP MIB RFC 2096 IP forward MIB RFC 2233 if MIB RFC 2452 TCP6 MIB RFC 2454 UDP6 MIB RFC 2465 IPv6 MIB RFC 2466 ICMP6 MIB RFC 2573 SNMP v3 notify RFC 2574 SNMP v3 vacm RFC 2674 Bridge MIB Extensions (IEEE 802.1Q MIB) RFC 2674 Bridge MIB Extensions (IEEE 802.1P MIB)
Standard Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Standards Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3z Gigabit 1000BASE-SX/LX IEEE 802.3ab Gigabit 1000BASE-T IEEE 802.3ae 10Gb/s Ethernet 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 802.1s Multiple Spanning Tree Protocol IEEE 802.1p Class of Service IEEE 802.1Q VLAN tagging IEEE 802.1X port authentication network control IEEE 802.1ab LLDP IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet PLUS RFC 768 UDP RFC 783 TFTP RFC 791 IP RFC 792 ICMP RFC 2068 HTTP RFC 1112 IGMP v1 RFC 2236 IGMP v2 RFC 3376 IGMP v3 RFC 2710 MLD v1 RFC 2328 OSPF v2 RFC 1058 RIP v1 RFC 2453 RIP v2 ITU-T G.8032 ERPS Ring
Environment	
Operating	Temperature: 0 ~ 50 degrees C Relative Humidity: 10 ~ 90% (non-condensing)
Storage	Temperature: -20 ~ 70 degrees C Relative Humidity: 5 ~ 95% (non-condensing)

Ordering Information

SGS-6310-24T4X	L3 24-Port 10/100/1000T + 4-Port 10G SFP+ Stackable Managed Switch
SGS-6310-24P4X	L3 24-Port 10/100/1000T 802.3at PoE + 4-Port 10G SFP+ Stackable Managed Switch
SGS-6310-16S8C4XR	L3 16-Port 100/1000X SFP + 8-Port Gigabit TP/SFP + 4-Port 10G SFP+ Stackable Managed Switch (Dual 100~240V AC)
SGS-6310-48T6X	L3 48-Port 10/100/1000T + 6-Port 10G SFP+ Stackable Managed Switch
SGS-6310-48P6XR	L3 48-Port 10/100/1000T 802.3at PoE + 6-Port 10G SFP+ Stackable Managed Switch with 55V DC Redundant Power

Related Products

SGS-6341-24T4X	Layer 3 24-Port 10/100/1000T + 4-Port 10G SFP+ Stackable Managed Switch
SGS-6341-24P4X	Layer 3 24-Port 10/100/1000T 802.3at PoE + 4-Port 10G SFP+ Stackable Managed Switch (370W)
SGS-6341-48T4X	Layer 3 48-Port 10/100/1000T + 4-Port 10G SFP+ Stackable Managed Switch
XGS3-24242	Layer 3 24-Port 100/1000X SFP with 16-Port shared TP + 4-Port 10G SFP+ Stackable Managed Switch

Related Products

10Gigabit Ethernet Transceiver

MTB-LB40	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 40km (TX:1330nm RX:1270nm) (-40~85°C)
MTB-LA40	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 40km (TX:1270nm RX:1330nm) (-40~85°C)
MTB-LB20	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 20km (TX:1330nm RX:1270nm) (-40~85°C)
MTB-LA20	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 20km (TX:1270nm RX:1330nm) (-40~85°C)
MTB-SR	1-Port 10GBASE-SR SFP+ Fiber Optic Module - 300m (-40~85°C)
MTB-LR	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 10km (-40~85°C)
MTB-LA60	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 60km (TX:1270nm RX:1330nm) (-40~85°C)
MTB-LB60	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 60km (TX:1330nm RX:1270nm) (-40~85°C)
MTB-LR40	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 40km (-40~85°C)
MTB-SR2	1-Port 10GBASE-SR SFP+ Fiber Optic Module – 2km (-40~85°C)
MTB-LR20	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 20km (-40~85°C)
MTB-LR60	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 60km (-40~85°C)
MTB-LR80	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 80km (-40~85°C)

Gigabit Ethernet Transceiver (1000BASE-X SFP)

MGB-GT	SFP-Port 1000BASE-T Module (-40~85°C)
MGB-LX	SFP-Port 1000BASE-LX mini-GBIC module - 20km (-40~85°C)
MGB-SX	SFP-Port 1000BASE-SX mini-GBIC module - 550m (-40~85°C)
MGB-SX2	SFP-Port 1000BASE-SX mini-GBIC module - 2km (-40~85°C)
MGB-L40	SFP-Port 1000BASE-LX mini-GBIC module - 40km (-40~85°C)
MGB-L80	SFP-Port 1000BASE-LX mini-GBIC module - 80km (-40~85°C)
MGB-LA10	SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 10km (-40~85°C)
MGB-LB10	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 10km (-40~85°C)
MGB-LA20	SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 20km (-40~85°C)
MGB-LB20	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 20km (-40~85°C)
MGB-LA40	SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 40km (-40~85°C)
MGB-LB40	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 40km (-40~85°C)
MGB-LA80	SFP-Port 1000BASE-BX (WDM, TX:1490nm) mini-GBIC module - 80km (-40~85°C)
MGB-LB80	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 80km (-40~85°C)
MGB-LA120	SFP-Port 1000BASE-BX (WDM, TX:1490nm) mini-GBIC module - 120km (-40~85°C)
MGB-LB120	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 20km (-40~85°C)

PLANET Technology Corporation

11F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)

Tel: 886-2-2219-9518 Fax: 886-2-2219-9528

Email: sales@planet.com.tw www.planet.com.tw

PLANET reserves the right to change specifications without prior notice. All brand names and trademarks are property of their respective owners. Copyright © 2023 PLANET Technology Corp. All rights reserved.