

24-Port Gigabit PoE Managed Stackable Switch



Centralized Power Management for Enterprise and SMB Power over Gigabit Ethernet Networking

To applied with the more and more popular Gigabit PoE network applications, PLANET introduces new members in the SGSW-24040 Stackable Gigabit Ethernet Switch series - SGSW-24040P and SGSW-24040P4, the 24-Port Gigabit PoE Managed Stackable Switch. Besides supporting reliable stacking technology and advanced networking features, the SGSW-24040P and SGSW-24040P4 feature high performance Gigabit Power-over-Ethernet (PoE), which optimizes the installation and power management of network devices such as wireless access points (AP), Voice

over IP (VoIP) phones, and security video cameras. The SGSW-24040P series PoE Switch also provides high scalability for current and future network infrastructure as they can flexibly work with PLANET SGSW series Gigabit Switch to meet the various networking requirements and simplify the network deployment and management.

The SGSW-24040P series Gigabit PoE Switch is ideally applicable for large scale of network deployment in the enterprises, Telecoms or campus. A high performance with cost-effective solution is achieved by the SGSW-24040P series PoE Switch providing Gigabit throughput and power supply to PoE compliant devices including 802.11n AP with Gigabit PoE LAN port, Mega-Pixel PoE IP Camera, PoE VoIP phones and etc. Power and high speed data switching are integrated into one unit and delivered over a single cable, eliminating costs and time for additional AC wiring. The Gigabit PoE Switch also eliminates the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. A maximum of 15.4W is available on the Gigabit ports for powering PDs (Powered Device), with a maximum per device PoE delivery of 380W available for all ports to satisfy the increasing needs for power consumption of powered devices.

High-Density, Resilient Deployment Switch solution for Growing Gigabit Networking

The new members in the SGSW-24040 series Switch, SGSW-24040P and SGSW-24040P4 provide 24 10/100/1000Mbps Gigabit Ethernet ports with IEEE 802.3af PoE injector, 4 shared Gigabit SFP slots, and 2 dedicated High-Speed HDMI-like interfaces for stacking with the series of switches. By applying the SGSW-24040 series Switch, up to 16 units, 384 Gigabit Ethernet ports can be managed by a stacking group and you can add ports and functionality as needed. The 2 built-in stacking ports providing 5Gbps bandwidth and up to 20Gbps Bi-directional speed, it can handle extremely large amounts of data in a secure topology linking for backbone or high capacity network server with 68Gbps switching fabric per unit. The stacking technology also enables the chassis-based switches to be integrated into SGSW-24040 series Managed Switch without the expensive up-front cost.

Robust Layer 2 Features

The SGSW-24040 series can be programmed for advanced switch management functions such as dynamic Port link aggregation, Q-in-Q VLAN, private VLAN, Rapid Spanning Tree protocol, Layer 2 to Layer 4 QoS, bandwidth control and IGMP Snooping. The SGSW-24040 series provides 802.1Q Tagged VLAN, and the VLAN groups allowed will be maximally up to 255. Via aggregation of supporting ports, the SGSW-24040 series allows the operation of a high-speed trunk combining multiple ports. It enables maximum up to 12 groups of 16 ports for port link aggregation, and supports fail-over as well.

Easy and Friendly Traffic Control

PLANET SGSW-24040 series is loaded with powerful but easy traffic management and QoS features to enhance services offered by telecoms. The QoS features includes wire-speed Layer 4 traffic classifiers and bandwidth limiting that are particular useful for multi-tenant unit, multi business unit, Telco, or Network Service Provider applications like VoIP, video streaming and multicast applications. The embedded handy QoS configuration wizard helps you set up a typical network application rules easily and quickly via Web interface. The SGSW-24040 series also empowers the enterprises or campus to take full advantages of the limited network resources and guarantees the best performance in Voice and Video conferencing transmission.

Efficient Management

For efficient management, the SGSW-24040 series Gigabit Switch is equipped with console, WEB and SNMP management interfaces. With the built-in Web-based management interface, the PLANET SGSW-24040 series offers an easy-to-use, platform-independent management and configuration facility. It supports standard Simple Network Management Protocol (SNMP) and can be managed via any standard-based management software. For text-based management, the SGSW-24040 series can be accessed via Telnet and the console port. Moreover, the SGSW-24040 series performs secure remote management by supporting SNMPv3 connection which encrypts the packet content at each session.

Powerful Security

PLANET SGSW-24040 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 of 802.1x port-based and MAC-based user and device authentication. With the private VLAN function, communication between edge ports can be prevented to ensure user privacy. The network administrators can now construct highly secured corporate networks with considerably less time and effort than before.

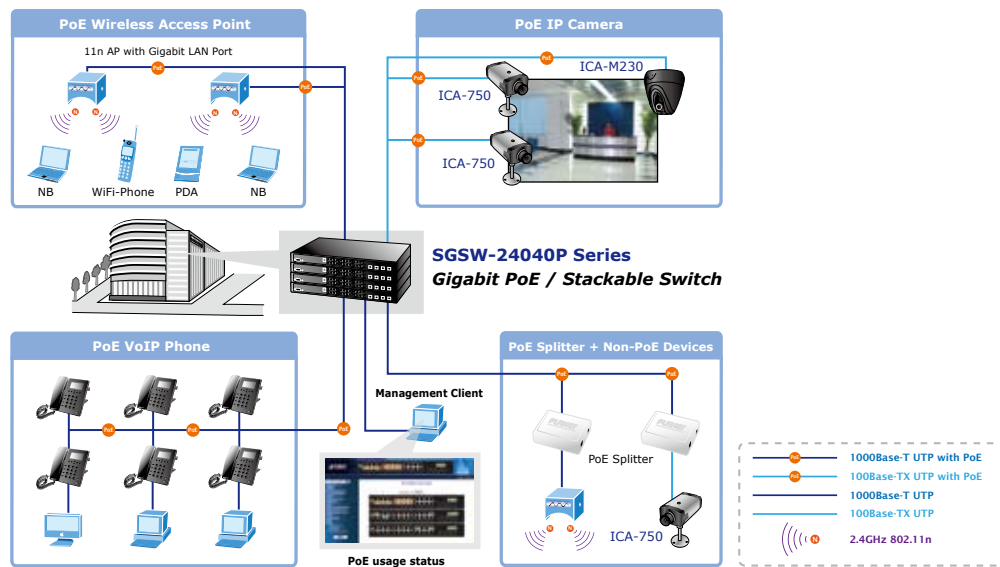
Flexibility and Extension Solution

The four mini-GBIC slots built in the SGSW-24040 series are compatible with 1000Base-SX/LX and WDM SFP (Small Factor Pluggable) fiber-optic modules. The distance can be extended from 550 meters (Multi-Mode fiber) up to above 10/50/70/120 kilometers (Single-Mode fiber or WDM fiber). They are well suited for applications within the enterprise data centers and distributions.

APPLICATIONS

Department / Workgroup PoE Switch

Providing up to 24-Port Gigabit PoE, in-line power interface, the SGSW-24040P PoE Switch can easily build a central-controlled power network with 11n Gigabit wireless AP, IP phone system, or Mega-Pixel IP Camera system group for the enterprises. For instance, 24 cameras and wireless APs can be easily installed around the corner in the company for surveillance demands or a wireless roaming environment in the office. Without the power-socket limitation, the stackable PoE Switch makes the deployment of cameras or WLAN AP more easily and efficiently.



While video surveillance system becomes more and more important for visible security in the factory or 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 camera can be installed anywhere 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 PoE devices status and alert immediately. The PoE IP cameras could also be controlled remotely, which increases the administrator management efficiency and improve the productivity.

KEY FEATURES

PHYSICAL PORT

- 24-Port 10/100/1000Base-T Gigabit Ethernet RJ-45 with IEEE 802.3af PoE Injector
- 4 mini-GBIC/SFP slots, shared with Port-21 to Port-24 and compatible with 100Base-FX SFP transceiver
- 2 HDMI-like 5GbE Stacking interfaces
- RS-232 DB9 console interface for Switch basic management and setup

POWER OVER ETHERNET

- Complies with IEEE 802.3af Power over Ethernet End-Span PSE
- Up to 24 IEEE 802.3af devices powered
- Supports PoE Power up to 15.4 Watts for each PoE ports
- 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
 - Per port PoE function enable/disable
 - PoE Port Power feeding priority
 - Per PoE port power limit
 - PD classification detection

STACKING

- Hardware stack up to 16 units and 384 Gigabit ports
- Single IP address stack management
- Stacking architecture supports Chain and Ring mode
- Plug and Play connectivity
- Mirror across stack
- Link Aggregation groups spanning multiple switches in a stack
- Hardware learning with MAC table synchronization across stack

LAYER 2 FEATURES

- Complies with the IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z Gigabit Ethernet standard
- Supports Auto-negotiation and half duplex/full 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 with back pressure (Half-Duplex) and IEEE 802.3x PAUSE frame flow control (Full-Duplex)
- High performance of Store-and-Forward architecture, broadcast storm control and runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- 8K MAC address table, automatic source address learning and ageing
- 1392KB embedded memory for packet buffers

- Support VLAN
 - IEEE 802.1Q Tagged VLAN
 - Up to 255 VLANs groups, out of 4041 VLAN IDs
 - Provider Bridging (VLAN Q-in-Q) support (IEEE 802.1ad)
 - Private VLAN Edge (PVE)
- Support Spanning Tree Protocol
 - STP, IEEE 802.1d (Spanning Tree Protocol)
 - RSTP, IEEE 802.1w (Rapid Spanning Tree Protocol)
- Support Link Aggregation
 - 802.3ad Link Aggregation Control Protocol (LACP)
 - Cisco ether-channel (Static Trunk)
 - Maximum 12 trunk groups, up to 16 ports per trunk group
 - Up to 32Gbps bandwidth (Duplex Mode)
- Provide Port Mirror (many-to-1)
- Port Mirroring to monitor the incoming or outgoing traffic on a particular port

QUALITY OF SERVICE

- 4 priority queues on all switch ports
- Supports for strict priority and Weighted Round Robin (WRR) CoS policies
- Ingress Shaper and Egress Rate Limit per port bandwidth control
- Traffic-policing policies on the switch port

MULTICAST

- Supports IGMP Snooping v1, v2 and v3
- Querier mode support

SECURITY

- IEEE 802.1x Port-Based network access authentication
- MAC-Based network access authentication
- IP-Based Access Control List (ACL)
- MAC-Based Access Control List
- Static MAC

MANAGEMENT

- WEB-based, Telnet, Console Command Line management
- Accesses through SNMPv1, v2c and v3 security set and get requests
- Built-in Trivial File Transfer Protocol (TFTP) client
- BOOTP and DHCP for IP address assignment
- Firmware upload / download via HTTP / TFTP
- SNTP (Simple Network Time Protocol)
- LLDP Protocol
- PLANET Smart Discovery Utility for deploy management

SPECIFICATION

Product	24-Port Gigabit PoE Managed Stackable Switch	
Model	SGSW-24040P	SGSW-24040P4
Hardware Specification		
Copper Ports	24 10/ 100/1000Base-T RJ-45 Auto-MDI/MDI-X ports with IEEE 802.3af PoE injector	
SFP/mini-GBIC Slots	4 SFP interfaces, shared with Port-21 to Port-24 100Base-FX SFP transceiver compatible	
Switch Processing Scheme	Store-and-Forward	
Switch Fabric	68Gbps	
Address Table	8K entries	
Share data Buffer	1392 kilobytes	
Flow Control	IEEE 802.3x Pause Frame for Full-Duplex Back pressure for Half-Duplex	
Jumbo Frame	10Kbytes	
LED	System: Power, Master, FAN Alert, PoE Power Alert Ports 10/100/1000 Link/Act, PoE In-Use, SFP Link, Stack Port Link	
Dimension (W x D x H)	440 x 300 x 44.5 mm, 1U height	
Weight	4.5 KG	
Power Consumption	Max. 290 Watts / 989 BTU	Max. 430 Watts / 1467 BTU
Power Requirement	AC 100~240V, 50/60Hz	
Power over Ethernet		
PoE Standard	IEEE 802.3af Power over Ethernet / PSE	
PoE Power Supply	End-Span	
PoE Power Output	Per Port 48V DC, 350mA . Max. 15.4 Watts	
Power Pin Assignment	1/2(+), 3/6(-)	
PoE Power Budget	220 Watts	380 Watts
PoE Ability	Number of PD@7 Watts	24
	Number of PD@15.4 Watts	14
		24
Stacking		
Stacking Ports	Two 5Gbps HDMI-Like interface	
Stacking Numbers	16	
Stacking Bandwidth	10Gbps (Full-Duplex)	
Stack ID Display	7-Segment LED Display (1~9, A~F,0)	
Stack Topology	Ring / Chain / Back-to-Back stack	
Layer 2 function		
System Configuration	Console, Telnet, Web Browser, SNMPv1, v2c and v3 Port disable/enable.	
Port configuration	Auto-negotiation 10/100/1000Mbps full and half duplex mode selection Flow Control disable / enable Bandwidth control on each port	
Port Status	Display each port's speed duplex mode, link status, Flow control status, Auto negotiation status, trunk status	
VLAN	802.1Q Tagged Based VLAN, up to 255 VLAN groups Q-in-Q Private VLAN	
Port trunking	IEEE 802.3ad LACP / Static Trunk Support 12 groups of 16-Port trunk support Traffic classification based, Strict priority and WRR	
QoS	4-level priority for switching - Port Number - 802.1p priority - DS/TOS field in IP Packet	
IGMP Snooping	IGMP (v1/v2) Snooping, up to 8K multicast Groups IGMP Querier mode support	
Access Control List	IP-Based ACL / MAC-Based ACL Up to 256 entries	

SNMP MIBs	<p>RFC-1213 MIB-II IF-MIB RFC-1493 Bridge MIB RFC-1643 Ethernet MIB RFC-2863 Interface MIB RFC-2665 Ether-Like MIB RFC-2737 Entity MIB RFC-2618 RADIUS Client MIB RFC-2933 IGMP-STD-MIB RFC3411 SNMP-Frameworks-MIB IEEE 802.1X PAE LLDP MAU-MIB</p>
Standards Conformance	
Regulation Compliance	FCC Part 15 Class A, CE
Standards Compliance	<p>IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX/100Base-FX 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 IEEE 802.1ab LLDP IEEE 802.3af Power over Ethernet</p>

ORDERING INFORMATION

SGSW-24040P	24-Port Gigabit PoE Managed Stackable Switch / 220W
SGSW-24040P4	24-Port Gigabit PoE Managed Stackable Switch / 380W

RELATIVE PRODUCT

SGSW-24040	24-Port 10/100/1000Mbps with 4 Shared SFP Managed Stackable Switch
SGSW-24040R	24-Port 10/100/1000Mbps with 4 Shared SFP Managed Stackable Switch / -48V DC Redundant Power

ACCESSORIES

CB-STX50	0.5 Meter 5Gbps Stacking Cable with Crossed-HDMI connector
CB-STX200	2 Meter 5Gbps Stacking Cable with Crossed-HDMI connector

RELATIVE PoE PRODUCT

<i>POE-152S-5V</i>	IEEE 802.3af Power over Ethernet Splitter with 5V DC output (10/100/1000Mbps)
<i>POE-152S-12V</i>	IEEE 802.3af Power over Ethernet Splitter with 12V DC output (10/100/1000Mbps)
<i>WNAP-3000PE</i>	802.11n Enterprise PoE Access Point, 10/100/1000Base-T PoE Port
<i>WNAP-1120PE</i>	802.11n Wireless Access Point with PoE
<i>ICA-310</i>	30-meter Infrared Internet Camera
<i>ICA-510</i>	Dual Mode CCD Dome Internet Camera
<i>ICA-700</i>	CCD Box Internet Camera
<i>ICA-750</i>	Dual Mode CCD Box Internet Camera
<i>ICA-M230</i>	Mega-Pixel CMOS Pan/Tilt IR Internet Camera
<i>WAP-4033PE</i>	54Mbps Wireless PoE Access Point
<i>WAP-4060PE</i>	54/108Mbps Super G Wireless LAN Managed Access Point with PoE
<i>VIP-254PT</i>	SIP PoE IP Phone
<i>VIP-255PT</i>	Multi-Language PoE IP Phone
<i>VIP-156PE</i>	802.3af PoE SIP Analog Telephone Adapter
<i>VIP-351PT</i>	Business PoE IP Phone

AVAILABLE MODULES FOR SGSW-24040P / SGSW-24040P4

<i>MFB-FX</i>	SFP-Port 100Base-FX Transceiver (1310nm) -2km
<i>MFB-F20</i>	SFP-Port 100Base-FX Transceiver (1310nm) – 20km
<i>MFB-F40</i>	SFP-Port 100Base-FX Transceiver (1310nm) – 40km
<i>MFB-F60</i>	SFP-Port 100Base-FX Transceiver (1310nm) - 60KM
<i>MFB-FA20</i>	SFP-Port 100Base-BX Transceiver (WDM,TX:1310nm) -20km
<i>MFB-FB20</i>	SFP-Port 100Base-BX Transceiver (WDM,TX:1550nm) -20km
<i>MGB-GT</i>	SFP-Port 1000Base-T Module
<i>MGB-SX</i>	SFP-Port 1000Base-SX mini-GBIC module
<i>MGB-LX</i>	SFP-Port 1000Base-LX mini-GBIC module
<i>MGB-L30</i>	SFP-Port 1000Base-LX mini-GBIC module-30km
<i>MGB-L50</i>	SFP-Port 1000Base-LX mini-GBIC module-50km
<i>MGB-L70</i>	SFP-Port 1000Base-LX mini-GBIC module-70km
<i>MGB-L120</i>	SFP-Port 1000Base-LX mini-GBIC module-120km
<i>MGB-LA10</i>	SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module-10km
<i>MGB-LB10</i>	SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module-10km
<i>MGB-LA20</i>	SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module-20km
<i>MGB-LB20</i>	SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module-20km
<i>MGB-LA40</i>	SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module-40km
<i>MGB-LB40</i>	SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module-40km