

Layer 2+ 24-Port 10G SFP+ + 2-Port 40G QSFP+ Stackable Managed Switch



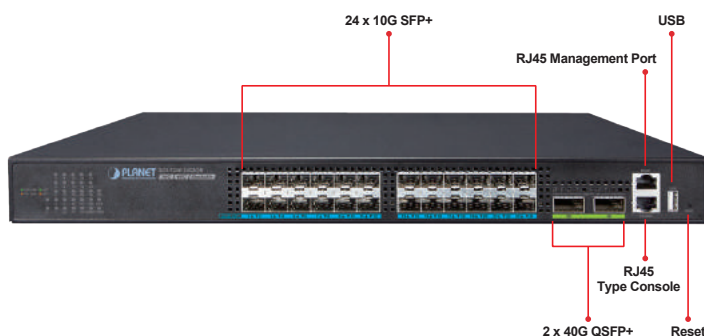
Powerfully-combined 40Gbps Solution for High-capacity Networks

PLANET XGS-5240-24X2QR is a high performance Layer 2+ Stackable Managed Switch that meets the next generation Metro, Data Center, Campus and Enterprise network requirements. It supports **IPv4/IPv6 Layer 3 static routing** capability and abundant L2/L4 switching engine, and provides high-density **24 10G SFP+** and **2 40G QSFP+** fiber interfaces delivered in a 1U rugged case. Up to 4 switches with a total of 96 10G SFP+ slots can be stacked up, making the management of a high-capacity network and all-purpose applications easier and more flexible.



Totalling 640Gbps Switching Capacity

The XGS-5240-24X2QR provides twenty-four 10Gbps SFP+ and two 40Gbps QSFP+ fiber interfaces. Each of the SFP+ slots supports **Dual Speed, 10GBASE-SR/LR or 1000BASE-SX/LX** and each of the QSFP+ slots supports native **40GBASE-SR/LR** and four **10GBASE-SR/LR** Ethernet modes.



Physical Port

- **24 10GBASE-SR/LR SFP+ ports**, compatible with 1000BASE-SX/LX/BX SFP
- 2 QSFP+ slots with each supporting native 40G and four 10 Gigabit Ethernet modes.
- 1 10/100/1000BASE-T RJ45 in-band management port
- 1 USB2.0 interface for configuration and firmware storage
- RJ45 console interface for switch basic management and setup

Stacking Features

- Hardware Stacking
 - Virtualized multiple XGS-5240-24X2QR switches into one logical device
 - Connects with stack member via assigned 10G SFP+ interfaces or 40G QSFP+ interfaces
 - Single IP address stack management, supporting up to 4 switches stacked together
 - Stacking architecture supports redundancy Ring mode
- IP Stacking
 - Connects with stack member via both SFP+ and QSFP+ interfaces
 - Single IP address management, supporting up to 24 units stacked together

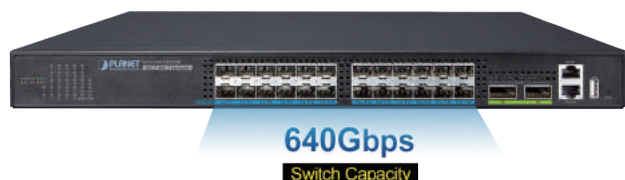
IP Routing Features

- IP routing protocol supports
- Routing interface provides per VLAN routing mode
- Supports route redistribution

Layer 2 Features

- Prevents packet loss flow control
 - IEEE 802.3x pause frame flow control in full-duplex mode
 - Back-pressure flow control in half-duplex mode
- High performance Store-and-Forward architecture, broadcast storm control and port loopback detection
- 32K MAC address table, automatic source address learning and aging
- Supports VLAN
 - IEEE 802.1Q tag-based VLAN
 - GVRP for dynamic VLAN management

The administrator can flexibly choose the suitable transceivers according to the transmission distance or the transmission speed required extending the **1G/10G/40G** networks efficiently. Besides, with **640Gbps** switching capacity, the XGS-5240-24X2QR can handle extremely large amounts of data in a secure topology linking to backbone or high capacity servers where audio, video streaming and multicast applications are utilized.

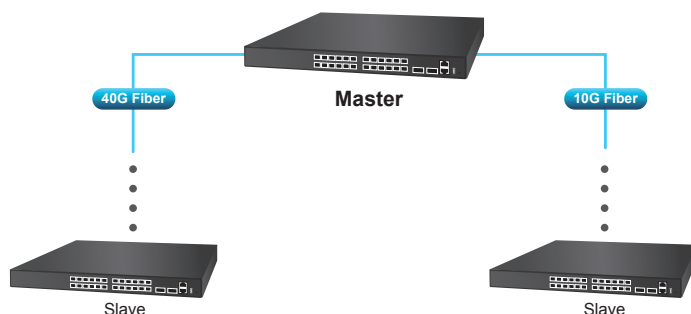


Centralized IP Stacking Management

Positioned as the distribution or aggregation layer switch for large networks, the XGS-5240-24X2QR supports IP stacking function that helps network managers to easily configure up to 24 switches in the same series via one single IP address instead of connecting and setting each unit one by one. The IP stacking technology groups the XGS-5240-24X2QR switches together to enable centralized management through a single unit, regardless of physical location or switch type, as long as they are connected to the same local network.

IP Stacking

Up to 24 units with XGS-5240 Series

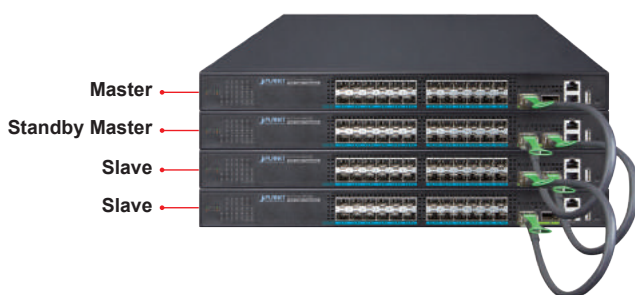


High Reliability Hardware Stacking

Using two user specified QSFP+ ports or SFP+ ports to connect up to **4** switches in the same series and build a virtually logical facility, the XGS-5240-24X2QR gives the enterprises, service providers and telecoms flexible control over port density, uplinks and switch stack performance. The stack redundancy of the XGS-5240-24X2QR ensures that data integrity is retained even if one switch in the stack fails. You can even hot-swap switches without disrupting the network, which greatly simplifies the tasks of upgrading the LAN for catering to increasing bandwidth demands.

Hardware Stacking

Up to 4 units with XGS-5240 Series



- Up to 256 VLANs groups, out of 4041 VLAN IDs
- Provider Bridging (VLAN Q-in-Q, IEEE 802.1ad) supported
- Private VLAN Edge (PVE) supported
- GVRP protocol for Management VLAN
- Protocol-based VLAN
- MAC-based VLAN
- IP subnet VLAN
- Supports Link Aggregation
 - Maximum 12 trunk groups, up to 8 ports per trunk group
 - IEEE 802.3ad LACP (Link Aggregation Control Protocol)
 - Cisco ether-channel (static trunk)
- 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)
 - Supports BPDU and root guard
- Port mirroring to monitor the incoming or outgoing traffic on a particular port (many to many)
- Provides port mirror (many-to-1)

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

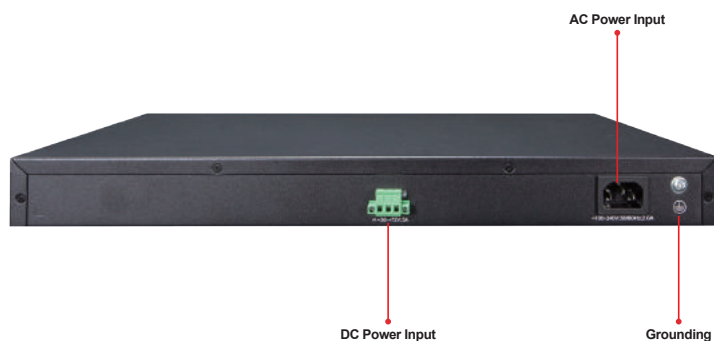
- Supports IPv4 IGMP snooping v1, v2 and v3
- Supports IPv6 MLD v1 and v2 snooping
- Querier mode support
- Supports Multicast VLAN Register (MVR)

Security

- 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
- TACACS+ login users access authentication

AC and DC Redundant Power to Ensure Continuous Operation

The XGS-5240-24X2QR is equipped with one **100~240V AC** power supply unit and one additional **36-72V DC** power supply unit for redundant power supply. A redundant power system is also provided to enhance the reliability with either AC or DC power supply unit. The redundant power system is specifically designed to handle the demands of high-tech facilities requiring the highest power integrity.



IPv4 and IPv6 VLAN Routing for Secure and Flexible Management

To help customer stay on top of business, the XGS-5240-24X2QR not only offers ultra-high transmission performance, but also IPv4/IPv6 VLAN routing feature which allows to cross over different VLAN groups and IP addresses for the purpose of having a highly-secure, flexible management.

Robust Layer 2 Features

The XGS-5240-24X2QR can be programmed for basic switch management functions such as dynamic port aggregation, Multiple Spanning Tree Protocol (MSTP), L2/L4 QoS bandwidth control, IPv4 IGMP snooping and IPv6 MLD snooping. It also supports 802.1Q tagged VLAN, Q-in-Q, voice VLAN and GVRP Protocol. By supporting port aggregation, the XGS-5240-24X2QR allows the operation of a high-speed trunk combined with multiple ports.

Efficient and Secure Management

For efficient management, the XGS-5240-24X2QR is equipped with **console**, **Web** and **SNMP** management interfaces. With its built-in Web-based management interface, the XGS-5240-24X2QR offers an easy-to-use, platform-independent management and configuration facility. For reducing product learning time, the XGS-5240-24X2QR offers Cisco-like command via Telnet or console port so that users do not need to learn new command.

The XGS-5240-24X2QR supports standard Simple Network Management Protocol (SNMP) and can be managed via any standard-based management software. Moreover, the XGS-5240-24X2QR offers secure remote management by supporting **SNMPv3**, **SSH** and **SSL** connection which encrypts the packet content at each session.

Enhanced Security

The XGS-5240-24X2QR 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,

- IP-based Access Control List (ACL)
- MAC-based Access Control List
- Supports DHCP snooping
- Supports ARP inspection
- IP Source Guard prevents IP spoofing attacks
- Dynamic ARP Inspection discards ARP packets with invalid MAC address to IP address binding

Management

- Management IP for IPv4 and IPv6
- Switch Management Interface
 - Console/Telnet Command Line Interface
 - Web switch management
 - SNMP v1, v2c, and v3 switch management
 - SSH/SSL secure access
- BOOTP and DHCP for IP address assignment
- 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 DDM
- OAM EFM; OAM CFM
- Four RMON groups 1, 2, 3, 9 (history, statistics, alarms and events)
- Supports sFlow
- Supports ULDP
- Supports ULPP (Uplink Protection Protocol)
- Supports ULSM (Uplink State Monitor Protocol)
- Supports LLDP/LLDP MED
- Supports DHCP Option82
- IPv4/IPv6 DHCP Client,
- IPv4/IPv6 DHCP Relay
- IPv4/IPv6 DHCP Snooping
- IPv4/IPv6 DHCP Server
- Supports ping, trace route function for IPv4 and IPv6

Redundant Power System

- Redundant 100~240V AC/36-72V DC dual power
- Active-active redundant power failure protection
- Backup of catastrophic power failure on one supply
- Fault tolerance and resilience