

Product Specification

4-Slot Layer 3 IPv6/IPv4 Routing Chassis Switch

XGS3-42000R

Version 1.1

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Change History:

Revision:	Date:	Author:	Change List
1.0	2010/04/22	Neo	Initial Release
1.1	2015/07/28	Neo	XGS3-S48GF EOL

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Reviewed By:	Tom Shih	Approved By:	Tom Shih



1. PRODUCT DESCRIPTION

Overview

The PLANET XGS3-42000R Series is a high performance Layer 3 chassis switch with 4 module slots. It can work in single or redundant management module mode. Slot configuration can be any combination of network interface modules and 1 or 2 management modules. Furthermore, management modules also include network interfaces so total port density and slot usage is increased.

With redundant power supply, fans and management modules, the PLANET XGS3-42000R Series ensures continuous operation and is a fully redundant system. Moreover, all parts are hot swappable. They can be added or exchanged without interrupting the whole system. The XGS3-42000R series is ideal for the core layer of campuses, enterprise networks and the aggregation layer of IP metropolitan networks.

Performance and Scalability

The XGS3-42000R series supports up to 13 10G ports, 168 Gigabit ports and 48 1000Base-SX/LX SFP slots, providing flexibility and high port density. 10G modules support 4 ports for downlink to L3 Gigabit distribution layer switches or L2 Gigabit switches, aggregating them to the core layer, and preventing port bottlenecks in Gigabit switches. Furthermore, the optional 10Gigabit Ethernet XFP transceivers can be chosen for different distance fiber uplinks. Backup Master ensures the availability of a master controller for network control at any time. Every module is hot swappable, ensuring continued operation of the system while adding or removing a module.

IPv6 Routing and 10G Ethernet Switch Solutions for the Next Generation Internet Protocol

IPv6 (Internet Protocol version 6) is well known as the next generation Internet Protocol to solve the lack of available IPv4 addresses. IPv6 can provide larger address space than IPv4 for the rapid growing networks. To provide smooth migration path from IPv4 to IPv6 for the future network upgrades, PLANET releases the multi-layer IPv6/IPv4 Gigabit Ethernet Routing Switch, XGS3-42000R, to satisfy the bandwidth requirements and protect network investment for enterprises. The XGS3-42000R is implemented with the following advanced technologies:

- IPv6 / IPv4 Routing and Management
- 10G Ethernet Switching
- Single IP Address Management
- Redundant Power System

Positioned as the distribution or aggregation layer switch of large networks, the XGS3-42000R supports IP Stacking technology that helps to manage and configure up to 36 units via one single IP address easily. It serves for campus networks and metropolitan IP networks by offering intelligent security features, high performance and flexibility. The XGS3-42000R can also be an excellent choice as a core layer switch for enterprises, data centers or small & medium-sized networks.



Supports 10Gb Ethernet

10Gb Ethernet which adopts full-duplex technology instead of low-speed, half-duplex CSMA/CD protocol, is a big leap in the evolution of Ethernet. 10Gb Ethernet can be deployed in star or ring topologies. With 10Gb Ethernet technology applied, the XGS3-42000R provides broad bandwidth and powerful processing capacity. It is suitable for metropolitan networks and wide area networks. Using the XGS3-42000R, users can simplify network structures and reduce cost of network construction.

2. PRODUCT FEATURES

Hardware and Performance

- 4 open module slots design:
 - 2 Management Modules with 2 Standard Modules
 - 1 Management Module with 3 Standard Modules
- Up to 168-Port Gigabit copper / 48-Port Gigabit SFP / 13-Port 10G XFP
- Hot-Swappable switching modules
- Non-Blocking wire-speed Layer 2 and Layer 3 switching
- 1 RJ-45 serial console interface on Management Module for Switch basic management and setup

Redundant Power System

- 100~240V AC Dual power redundant
 - 1 default AC power supply
 - 1 additional open slot for optional power supply
- Active-active redundant power failure protection
- Backup of catastrophic power failure on one supply

IP Stacking

- IP stacking technology, connect with stack member via any Gigabit or 10G interface
- Single IP address management, supports up to 36 units stacking together

IP Routing Features

- IP Routing protocol supports RIP v1/v2, OSPF v2, BGP4
- Routing interface provides VLAN routing mode
- Policy based Routing(PBR) for IPv4 and IPv6
- VRRP protocol for redundant routing deploy
- Supports route redistribution

Multicast Routing Features

- Supports Multicast Routing Protocols:
 - PIM-DM (Protocol Independent Multicast Dense Mode)



- PIM-SM (Protocol Independent Multicast Sparse Mode)
- PIM-SSM (Protocol Independent Multicast Source-Specific multicast Mode)
- DVMRP(Distance Vector Multicast Routing Protocol)
- Supports IGMP v1/v2/v3

Layer 2 Features

- Supports Auto-negotiation, Auto-MDI/MDI-x and Half-Duplex / Full-Duplex modes for all 1000Base-T ports.
- Prevents packet loss with back pressure (Half-Duplex) and IEEE 802.3x PAUSE frame flow control (Full-Duplex)
- Support VLAN
 - IEEE 802.1Q Tagged VLAN
 - Up to 4K VLANs groups, out of 4041 VLAN IDs
 - Provider Bridging (VLAN Q-in-Q) support (IEEE 802.1ad)
 - GVRP protocol for VLAN Management
 - Private VLAN Edge (PVE)
- Support Spanning Tree Protocol
 - STP, IEEE 802.1d (Spanning Tree Protocol)
 - RSTP, IEEE 802.1w (Rapid Spanning Tree Protocol)
 - MSTP, IEEE 802.1s (Multiple Spanning Tree Protocol, spanning tree by VLAN)
- Support Link Aggregation
 - 802.3ad Link Aggregation Control Protocol (LACP)
 - Cisco ether-channel (Static Trunk)
 - Maximum 6 trunk groups per module, up to 8 ports per trunk group
 - Up to 16Gbps 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

- 8 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 based on application

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

- IPv4 / IPv6 Switch Management Interfaces
 - Console / Telnet Command Line Interface
 - Web switch management
 - SNMP v1, v2c, and v3 switch management
 - SSH(Secure Shell) / SSL secure access
- Four RMON groups (history, statistics, alarms, and events)
- IPv6 IP Address / NTP / DNS management
- Built-in Trivial File Transfer Protocol (TFTP) client
- BOOTP and DHCP for IP address assignment
- DHCP / BootP relay and Relay Option 82
- DHCP Server
- DNS-Proxy
- Firmware upload/download via FTP / TFTP
- SNTP (Simple Network Time Protocol)
- LLDP (Link Layer Discovery Protocol)
- User Privilege levels control

3. PRODUCT SPECIFICATION

3.1 MAIN COMPONENT

Management Module	M24GX
Switch ASIC	Broadcom BCM565xx
Giga PHY	Broadcom BCM5464
10G PHY	NetLOGIC AEL 1002-1613C
CPU	Broadcom BCM5836P
Flash	INTEL IS28F256 32MB
SDRAM	Hynix HY57V561620FTP-H / 256Mbit



3.2 FUNCTION SPECIFICATION

3.2.1 SPECIFICATION - XGS3-42000R Chassis

Product	XGS3-42000R
Chassis Slots	
Total Number of Slots	4
Max. Management Module*1	2 (Slot 1, Slot 2)
Max. Standard Module*2	3 (Slot 2, Slot 3, Slot 4)
Management Module Redundancy	Yes
Number of Power Supply Bays	2
Number of FAN Trays	1, hot-pluggable
Total Port Capacity	
Max. 10G XFP Slot	13
Max. 10/100/1000Base-T	168
Max. 1000Base-SX/LX SFP	48
Slot	40
Modules	
XGS3-M24GX	Management module / 24 10/100/1000Base-T with 12 Shared SFP + 1 10G XFP Slot
	_
XGS3-M24GX	Slot
XGS3-M24GX XGS3-S24G	Slot Standard module / 24 10/100/1000Base-T with 12 Shared SFP slots
XGS3-M24GX XGS3-S24G XGS3-S48G	Slot Standard module / 24 10/100/1000Base-T with 12 Shared SFP slots Standard module / 48 10/100/1000Base-T
XGS3-M24GX XGS3-S24G XGS3-S48G XGS3-S4XG	Slot Standard module / 24 10/100/1000Base-T with 12 Shared SFP slots Standard module / 48 10/100/1000Base-T
XGS3-M24GX XGS3-S24G XGS3-S48G XGS3-S4XG Performance	Standard module / 24 10/100/1000Base-T with 12 Shared SFP slots Standard module / 48 10/100/1000Base-T Standard module / 4 10GBase-SR/LR XFP slots
XGS3-M24GX XGS3-S24G XGS3-S48G XGS3-S4XG Performance Switch Processing Scheme	Standard module / 24 10/100/1000Base-T with 12 Shared SFP slots Standard module / 48 10/100/1000Base-T Standard module / 4 10GBase-SR/LR XFP slots Store-and-Forward
XGS3-M24GX XGS3-S24G XGS3-S48G XGS3-S4XG Performance Switch Processing Scheme Backplane Bandwidth	Standard module / 24 10/100/1000Base-T with 12 Shared SFP slots Standard module / 48 10/100/1000Base-T Standard module / 4 10GBase-SR/LR XFP slots Store-and-Forward 1.2Tbps
XGS3-M24GX XGS3-S24G XGS3-S48G XGS3-S4XG Performance Switch Processing Scheme Backplane Bandwidth Switching Capacity	Standard module / 24 10/100/1000Base-T with 12 Shared SFP slots Standard module / 48 10/100/1000Base-T Standard module / 4 10GBase-SR/LR XFP slots Store-and-Forward 1.2Tbps 376Gbps
XGS3-M24GX XGS3-S24G XGS3-S48G XGS3-S4XG Performance Switch Processing Scheme Backplane Bandwidth Switching Capacity Full-Mesh Switching Capacity	Standard module / 24 10/100/1000Base-T with 12 Shared SFP slots Standard module / 48 10/100/1000Base-T Standard module / 4 10GBase-SR/LR XFP slots Store-and-Forward 1.2Tbps 376Gbps 160Gbps
XGS3-M24GX XGS3-S24G XGS3-S48G XGS3-S4XG Performance Switch Processing Scheme Backplane Bandwidth Switching Capacity Full-Mesh Switching Capacity Forwarding Rate	Standard module / 24 10/100/1000Base-T with 12 Shared SFP slots Standard module / 48 10/100/1000Base-T Standard module / 4 10GBase-SR/LR XFP slots Store-and-Forward 1.2Tbps 376Gbps 160Gbps 282Mpps@64Bytes, Line speed
XGS3-M24GX XGS3-S24G XGS3-S48G XGS3-S4XG Performance Switch Processing Scheme Backplane Bandwidth Switching Capacity Full-Mesh Switching Capacity Forwarding Rate MAC Table	Standard module / 24 10/100/1000Base-T with 12 Shared SFP slots Standard module / 48 10/100/1000Base-T Standard module / 4 10GBase-SR/LR XFP slots Store-and-Forward 1.2Tbps 376Gbps 160Gbps 282Mpps@64Bytes, Line speed 64K



	IPv6 Protocol: 64K max.
Layer 3 Interface	500
Port Queues	8
Flow Control	IEEE 802.3x Pause Frame for Full-Duplex
Flow Control	Back pressure for Half-Duplex
Jumbo Frame	9Kbytes
Hardware Specification	
Dimension(W x D x H)	445mm x 421mm x 266mm
Relative Humidity	10%~90%, non-condensing
Operating Temperature	0°C~40°C
Power Input	AC: Input 100~240V, 50~60 Hz;
Power Consumption	≤400W

Remark:

- 1. Slot 1 with Management Module is required otherwise the system can not normally operates.
- 2. Slot 2 supports either Management Module or Standard Module. As Management Module installed it backup the Management Module of Slot 1 as a redundancy.

3.2.2 SPECIFICATION - Management Module

XGS3-42000R Management Module	
Model Name	
Product	XGS3-M24GX
Hardware Specification	
Copper Ports	24 x 10/100/1000Base-T RJ-45 ports
SFP/mini-GBIC Slots	12 x 1000Base-SX/LX SFP slots
XFP/mini-GBIC Slots	1 x 10GBase-SR/LR XFP slot
Switch Fabric	68Gbps
Throughput	50Mpps@64Bytes
	System:
	PWR, RUN, Master, FAN
LED	Ports:
	10/100/1000M LNK/ACT
	1000M LNK/ACT
	10G LNK/ACT
Dimension	339 x 357 x 43mm (W x D x H)



IPv4 Layer 3 functions			
IP Routing Protocol	Static Route, RIPv1/v2, OSPFv2, BGP4 Policy-Based Routing (PBR)		
ir Routing Protocol	LPM Routing (MD5 authentication)		
Multicast Routing Protocol	IGMP v1 / 2 / 3, DVMRP, PIM-DM/SM, PIM-SSM		
Layer 3 Protocol	VRRP, ARP, ARP Proxy		
Routing Interface	Per VLAN		
IPv6 Layer 3 functions			
IP Routing Protocol	RIPng, OSPFv3, BGP4+		
	PIM-SM/DM for IPv6		
	MLD for IPv6 (v1)		
Multicast Routing Protocol	MLDv1/v2		
manage Rounny Frotocol	MLD Snooping, 6 to 4 Tunnels		
	Multicast receive control		
	Illegal multicast source detect		
Layer 3 Protocol	Configured Tunnels , ISATAP, CIDR		
Layer 2 function			
	Port disable/enable.		
Don't configuration	Auto-negotiation 10/100/1000Mbps full and half duplex mode selection.		
Port configuration	Bandwidth control on each port		
	Port Loopback detect		
	802.1Q Tagged Based VLAN ,up to 4K VLAN groups		
	Q-in-Q		
VLAN	GVRP		
	Private VLAN		
	STP, IEEE 802.1d (Spanning Tree Protocol)		
	RSTP, IEEE 802.1w (Rapid Spanning Tree Protocol)		
Spanning Tree Protocol	MSTP, IEEE 802.1s (Multiple Spanning Tree Protocol, spanning tree by VLAN)		
	Root Guard		
	BPDU Guard		
	Static Trunk		
Link Aggregation	IEEE 802.3ad LACP		
	Support 8 groups of 8-Port trunk support		
	Traffic classification based, Strict priority and WRR		
	8-level priority for switching		
	- Port Number		
QoS	- 802.1p priority		
	- DSCP/TOS field in IP Packet		
	Policy-based DiffServ		
Multicast	IGMP v1 / v2 / v3 Snooping		



IGMP Proxy IGMP Querier mode support MLDv1 / v2, MLD v1/v2 Snooping Support Standard and Expanded ACL IP-Based ACL / MAC-Based ACL Time-Based ACL ACL Pool can be used for QoS classification Up to 1K entries Support MAC+ port binding IPv4 / IPv6 + MAC+ port binding IPv4 / IPv6 + port binding Support MAC filter ARP Spoofing Prevention ARP Scanning Prevention IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS RFC-1213 MIB-II
MLDv1 / v2, MLD v1/v2 Snooping Support Standard and Expanded ACL IP-Based ACL / MAC-Based ACL Time-Based ACL ACL Pool can be used for QoS classification Up to 1K entries Support MAC+ port binding IPv4 / IPv6 + MAC+ port binding IPv4 / IPv6 + port binding Support MAC filter ARP Spoofing Prevention ARP Scanning Prevention IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS
Support Standard and Expanded ACL IP-Based ACL / MAC-Based ACL Time-Based ACL ACL Pool can be used for QoS classification Up to 1K entries Support MAC+ port binding IPv4 / IPv6 + MAC+ port binding IPv4 / IPv6 + port binding Support MAC filter ARP Spoofing Prevention ARP Scanning Prevention IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS
IP-Based ACL / MAC-Based ACL Time-Based ACL ACL Pool can be used for QoS classification Up to 1K entries Support MAC+ port binding IPv4 / IPv6 + MAC+ port binding IPv4 / IPv6 + port binding Support MAC filter ARP Spoofing Prevention ARP Scanning Prevention IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS
Time-Based ACL ACL Pool can be used for QoS classification Up to 1K entries Support MAC+ port binding IPv4 / IPv6 + MAC+ port binding IPv4 / IPv6 + port binding Support MAC filter ARP Spoofing Prevention ARP Scanning Prevention IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS
ACL Pool can be used for QoS classification Up to 1K entries Support MAC+ port binding IPv4 / IPv6 + MAC+ port binding IPv4 / IPv6 + port binding Support MAC filter ARP Spoofing Prevention ARP Scanning Prevention IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS
Up to 1K entries Support MAC+ port binding IPv4 / IPv6 + MAC+ port binding IPv4 / IPv6 + port binding Support MAC filter ARP Spoofing Prevention ARP Scanning Prevention IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS
Support MAC+ port binding IPv4 / IPv6 + MAC+ port binding IPv4 / IPv6 + port binding Support MAC filter ARP Spoofing Prevention ARP Scanning Prevention IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS
IPv4 / IPv6 + MAC+ port binding IPv4 / IPv6 + port binding Support MAC filter ARP Spoofing Prevention ARP Scanning Prevention IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS
IPv4 / IPv6 + port binding Support MAC filter ARP Spoofing Prevention ARP Scanning Prevention IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS
Support MAC filter ARP Spoofing Prevention ARP Scanning Prevention IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS
ARP Spoofing Prevention ARP Scanning Prevention IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS
ARP Scanning Prevention IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS
ARP Scanning Prevention IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS
IP Source Guard IEEE 802.1x Port-Based network access control AAA Authentication: IPv4 / IPv6 over RADIUS
AAA Authentication: IPv4 / IPv6 over RADIUS
IF-MIB RFC-1493 Bridge MIB RFC-1643 Ethernet MIB RFC-2863 Interface MIB RFC-2665 Ether-Like MIB RFC-2674 Extended Bridge MIB RFC-2819 RMON MIB (Group 1, 2, 3 and 9) RFC-2737 Entity MIB RFC-2618 RADIUS Client MIB RFC-2933 IGMP-STD-MIB RFC3411 SNMP-Frameworks-MIB IEEE802.1X PAE LLDP MAU-MIB
Console, Telnet, SSH, Web Browser, SSL, SNMPv1, v2c and v3
Support the unite for IPv4 / IPv6 HTTP and SSL Support the user IP security inspection for IPv4 / IPv6 SNMP Support MIB and TRAP Support IPv4 / IPv6 FTP/TFTP Support IPv4 / IPv6 NTP Support RMOM 1, 2, 3, 9 four group Support the RADIUS authentication for IPv4 / IPv6 telnet user name and password Support IPv4 / IPv6 SSH



	Support the function for timing-reset bases needs
	Support CLI, support Console (RS-232), support Telnet
	Support SNMPv1 / v2c / v3
	Support Security IP safety net management function: avoid to unlawful landing at
	nonrestrictive area.
	Support TACACS+
Standards Conformance	
Regulation Compliance	FCC Part 15 Class A, CE
	IEEE 802.3 10Base-T
	IEEE 802.3u 100Base-TX
	IEEE 802.3z 1000Base-SX/LX
	IEEE 802.3ab Gigabit 1000T
	IEEE 802.3ae 10 Gigabit Ethernet
	IEEE 802.3x Flow Control and Back pressure
Otan danda Oannilanaa	IEEE 802.3ad Port trunk with LACP
Standards Compliance	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

3.2.3 SPECIFICATION - Standard Module

XGS3-42000R Standard Ethernet Module			
Model Name			
Product	XGS3-S24G	XGS3-S48G	XGS3-S4XG
Hardware Specification			
Copper Ports	24 x 10/100/1000Base-T RJ-45 ports	48 x 10/100/1000Bas-T RJ-45 ports	
SFP/mini-GBIC Slots	12 x 1000Base-SX/LX SFP slots, shared with Port 13 to Port-24		
XFP/mini-GBIC Slots			4 x 10GBase-SR/LRXFP slots
Switch Fabric	68Gbps	96Gbps	40Gbps
Throughput	50Mpps@64Bytes	71Mpps@64Bytes	59Mpps@64Bytes
LED	System: PWR, RUN Ports:	Ports: 10/100/1000M LNK/ACT	System: PWR, RUN Ports:



	10/100/1000M LNK/ACT 1000M LNK/ACT		10G LNK/ACT
Dimension		339 x 357 x 43mm (W x D x H)	
	IEEE 802.3		
	10Base-T	IEEE 802.3	
	IEEE 802.3u	10Base-T	
Standards	100Base-TX	IEEE 802.3u	IEEE 802.3ae
Compliance	IEEE 802.3z	100Base-TX	10G Ethernet
	Gigabit SX/LX	IEEE 802.3ab	
	IEEE 802.3ab	Gigabit 1000T	
	Gigabit 1000T		

3.3 PHYSICAL SPECIFICATIONS:

3.3.1 XGS3-42000R Chassis

■ Dimensions:

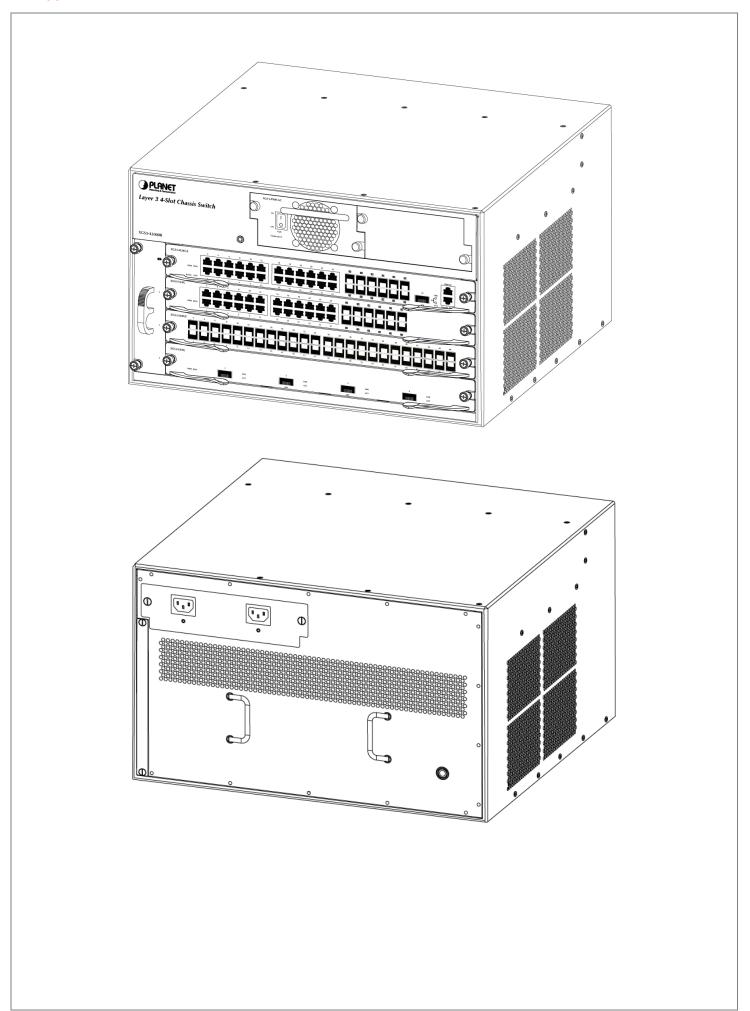
445mm x 421mm x 266mm (W x D x H), 6U height

■ Weight:

18kg (XGS3-42000R, 1 AC Power Module, No Managed Module or Standard Module)

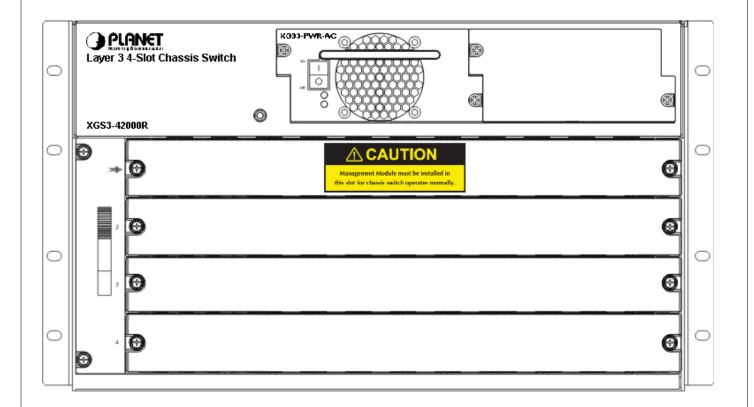
■ Diagram – XGS3-42000R Chassis + Modules:



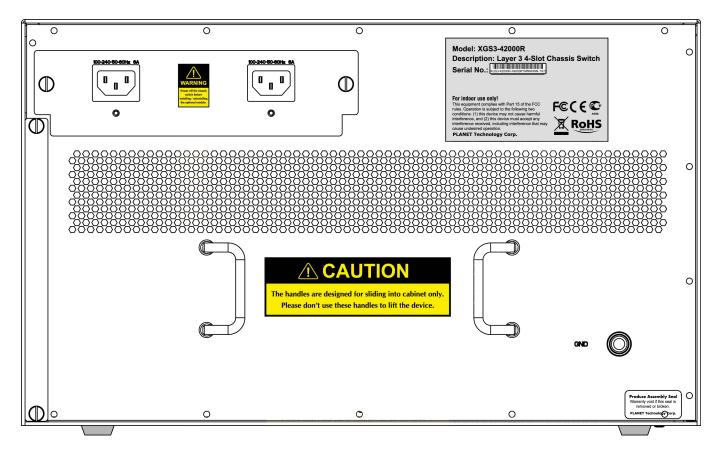




■ Front Panel – XGS3-42000R Chassis:



■ Rear Panel – XGS3-42000R Chassis:





3.3.2 XGS3-M24GX Management Module Specification

■ Dimensions:

339 x 357 x 43mm (W x D x H)

■ Front Panel – XGS3-M24GX Management Module:

The unit front panel provides a simple interface monitoring the Management Module.



Gigabit TP interface

10/100/1000Base-T Copper, RJ-45 Twist-Pair: Up to 100 meters.

Gigabit SFP slots

1000Base-SX/LX mini-GBIC slot, SFP (Small Form Factor Pluggable) transceiver module: From 550 meters (Multi-mode fiber), up to 10/30/50/70/120 kilometers (Single-mode fiber).

> 10 Gigabit XFP slots

10GBase-SR/LR mini-GBIC slot, XFP (10 Gigabit Small Form Factor Pluggable) transceiver module: From 300 meters (Multi-mode fiber), up to 10 kilometers (Single-mode fiber).

Console Port

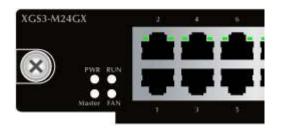
The console port is a RJ-45 type, RS-232 male seria port connector. It is an interface for connecting a terminal directly. Through the console port, it provides rich diagnostic information includes IP Address setting, factory reset, port management, link status and system setting. Users can use the attached RS-232 cable in the package and connect to the console port on the device.

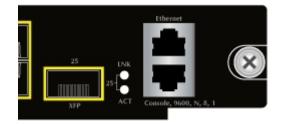
Property	Specification
Connector	RJ-45 (receptacle), connects to character terminals
Connector type	RS-232, connects to PC serial port and running terminal emulator on PC
Baud rate	9600bps (default)

■ LED definition - XGS3-M24GX Management Module:

The front panel LEDs indicates instant status of port links, data activity, system operation, system power, master and system FAN, helps monitor and troubleshoot when needed.







> System

LED	Color	Function
PWR	Green	Lights to indicate that Management Module has power.
FWK	Off	To indicate the Management Module power off.
		Blink slowly to indicate that Management Module running in normal status.
RUN	Green	Blink fast to indicate that system loading (Management Module booting after hot
KUN		plug in).
	Off	Running Status is failure.
Master	Green	Management Module operates at master mode.
Wiaster	Off	Management Module operates at slave mode.
	Green	FAN works normally.
FAN	Red	FAN works abnormally.
	Off	FAN does not present.

> 10/100/1000Base-T interfaces

LED	Color	Function
LNK/ACT	Green	To indicate the link through that port is successfully established with speed 10/100/1000Mbps.
	Yellow	To indicate that the Management Module is actively sending or receiving data over that port.
	Off	No data go through the port.

> SFP interfaces

LED	Color	Function
LNK	Green	To indicate the link through that port is successfully established with speed 1000Mbps.
LINK	Off	No data go through the port.
ACT	Green	Blink to indicate that the Management Module is actively sending or receiving data
		over that port.



XFP interfaces

LED	Color	Function
	Green	To indicate the link through that port is successfully established with speed
LNK		10Gbps.
	Off	No data go through the port.
ACT	Green	Blink to indicate that the Management Module is actively sending or receiving data
		over that port.

3.3.3 XGS3-S24G Standard Module Specification

■ Dimensions:

339 x 357 x 43mm (W x D x H)

■ Front Panel – XGS3-S24G Standard Module:



> Gigabit TP interface

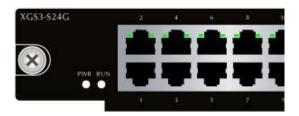
10/100/1000Base-T Copper, RJ-45 Twist-Pair: Up to 100 meters.

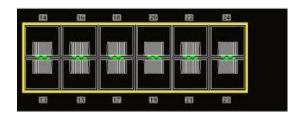
> Gigabit SFP slots

1000Base-SX/LX mini-GBIC slot, SFP (Small Form Factor Pluggable) transceiver module: From 550 meters (Multi-mode fiber), up to 10/30/50/70/120 kilometers (Single-mode fiber).

■ LED definition XGS3-S24G Standard Module:

The front panel LEDs indicates instant status of port links, data activity, system operation and system power, helps monitor and troubleshoot when needed







System

LED	Color	Function
PWR	Green	Lights to indicate that Standard Ethernet Module has power.
FWK	Off	To indicate the Standard Ethernet Module power off.
RUN	Green	Blink slowly to indicate that Standard Ethernet Module running in normal status. Blink fast to indicate that system loading (Standard Module booting after hot plug in).
	Yellow	Lights to indicate that Standard Ethernet Module shut down.
	Red	Lights to indicate that Standard Ethernet Module is failure.
	Off	Standard Ethernet Module is off and can be pulled out.

> 10/100/1000Base-T interfaces

LED	Color	Function
LNK/ACT	Green	To indicate the link through that port is successfully established with speed 10/100/1000Mbps.
	Yellow	To indicate that the Standard Ethernet Module is actively sending or receiving data over that port.
	Off	No data go through the port.

> SFP interfaces

LED	Color	Function
LNK	Green	To indicate the link through that port is successfully established with speed 1000Mbps.
	Off	No data go through the port.
ACT	Green	Blink to indicate that the Standard Ethernet Module is actively sending or receiving
		data over that port.

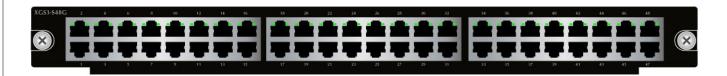
3.3.4 XGS3-S48G Standard Module Specification

■ Dimensions:

339 x 357 x 43mm (W x D x H)



■ Front Panel – XGS3-S48G Standard Module:

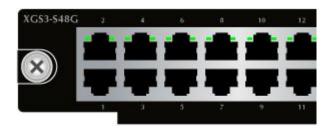


> Gigabit TP interface

10/100/1000Base-T Copper, RJ-45 Twist-Pair: Up to 100 meters.

■ LED definition XGS3-S48G Standard Module:

The front panel LEDs indicates instant status of port links and data activity, helps monitor and troubleshoot when needed.



> 10/100/1000Base-T interfaces

LED	Color	Function
LNK/ACT	Green	To indicate the link through that port is successfully established with speed 10/100/1000Mbps.
	Yellow	To indicate that the Standard Ethernet Module is actively sending or receiving data over that port.
	Off	No data go through the port.

3.3.5 XGS3-S4XG Standard Module Specification

■ Dimensions:

339 x 357 x 43mm (W x D x H)

■ Front Panel – XGS3-S4XG Standard Module:





> 10 Gigabit XFP slots

10GBase-SR/LR mini-GBIC slot, XFP (10 Gigabit Small Form Factor Pluggable) transceiver module: From 300 meters (Multi-mode fiber), up to 10 kilometers (Single-mode fiber).



■ LED definition XGS3-S4XG Standard Module:

The front panel LEDs indicates instant status of port links and data activity, helps monitor and troubleshoot when needed.

> System

LED	Color	Function
PWR	Green	Lights to indicate that Standard Ethernet Module has power.
FWIX	Off	To indicate the Standard Ethernet Module power off.
		Blink slowly to indicate that Standard Ethernet Module running in normal status.
RUN	Green	Blink fast to indicate that system loading (Standard Module Booting after hot plug
		in).
	Yellow	Lights to indicate that Standard Ethernet Module shut down.
	Red	Lights to indicate that Standard Ethernet Module is failure.
	Off	Standard Ethernet Module is off and can be pulled out.

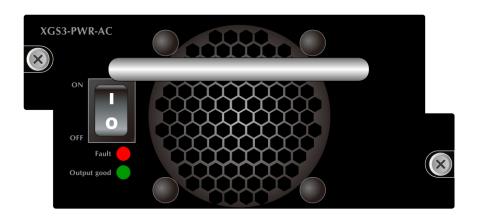
XFP interfaces

LED	Color	Function
LNK	Green	To indicate the link through that port is successfully established with speed 10Gbps .
	Off	No data go through the port.
ACT	Green	Blink to indicate that the Standard Ethernet Module is actively sending or receiving
		data over that port.

3.3.6 XGS3-PWR-AC AC Power Module Specification

■ Front Panel – XGS3-PWR-AC Power Module:





■ LED definition - XGS3-PWR-AC :

LED	Color	Function
Output Good	Green	Lights to indicate that the Power Module output status is okay.
	Off	To indicate the Power Module has no output.
Fault	Yellow	Faulty Power Module or Not turning-on the output switch,
	Off	The Power Module is working fine.

3.4 ENVIRONMENTAL SPECIFICATION

Operating:

Temperature: $0 \sim 50$ Degree C

Relative Humidity: 10% ~ 90% (non-condensing)

Storage:

Temperature: -10 ~ 70 Degree C

Relative Humidity: 5% ~ 90% (non-condensing)

3.5 ELECTRICAL SPECIFICATION

AC Dual Power Supplies : Supports Power Redundant

AC Power Input Voltage: 100 ~ 240V AC, 50 / 60Hz, Auto-sensing.

Power Consumption(System on 110V: Watts with XGS3-M24GX): 220V: Watts

Power Consumption(Full Load): 110V: TBD Watts

220V: TBD Watts



3.6 REGULATORY COMPLIANCE

EMI:

EN 55022 CLASS A:1998+A1: 2000+A2: 2003

EN61000-3-2:2000

EN61000-3-3: 1995+1A:2001

EMS:

EN 55024:1998+A1:2001+A2:2003

IEC 61000-4-2:2001

IEC 61000-4-3:2002

IEC 61000-4-4:2004

IEC 61000-4-5:2001

IEC 61000-4-6:2004

IEC 61000-4-8:2001

IEC 61000-4-11:2004

FCC:

FCC CFR Title 47 Part 15 Subpart B: 2005

CISPR 22:2003

ICES-003

3.7 REALIABILITY

MTBF > 50,000 hrs @ 25 Degree C

3.8 BASIC PACKAGING

	The XGS3 Chassis Switch	X1
	This Quick Installation Guide	X1
	User's Manual CD	X1
	RJ-45-to-DB9 Console Cable	X1
	USB-to-DB9 Console Cable	X1
	UTP Straight Network Cable	X1
•	Power Cord	X1
•	Ground Cable	X1
	Two Rack-mounting Brackets with	X1

Attachment Screws



3.9 PACKING DIMENSION

Dimension: 530mm (W) x 420mm (D) x 135mm (H)

Weight: < TBD> kg (Gross Weight)

1 pcs in one carton

