Layer 3 Multi-Port 10G SFP+ + 40G QSFP+ + 100G QSFP28 Managed Switch Series

## Powerful 100Gbps Solution for All Long-Reach Networks

PLANET XGS-6350-Series is a High-performance Layer 3 Managed Switch that meets the next-generation Metro, Data Center, Campus and Enterprise network requirements.

The administrator can flexibly choose the suitable transceivers according to the transmission distance or the transmission speed required to extend the 1G/10G/40G/100G network efficiently. Besides, with high switching capacity, the XGS-6350-Series 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.

Models	Gigabit Port	10G SFP+	40G QSFP+	100G QSFP28	Power
XGS-6350-12X8TR	8 x 10/100/1000T	8	8	-	2 x AC
XGS-6350-24X2C	-	24	24	2	AC + AC/DC optional slot
XGS-6350-24X4C	-	24	24	4	AC + AC/DC optional slot
XGS-6350-48X2Q4C	-	48	48	4	AC + AC/DC optional slot

XGS-6350-12X8TR:

RJ45 Type Console

Reset Button

8 x 10/100/1000BASE-T　　　　**12 x 1G/10G SFP+**
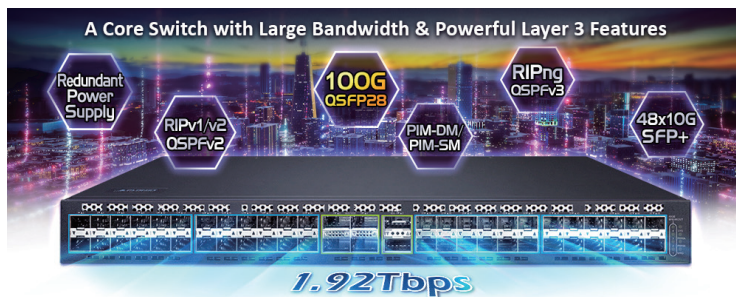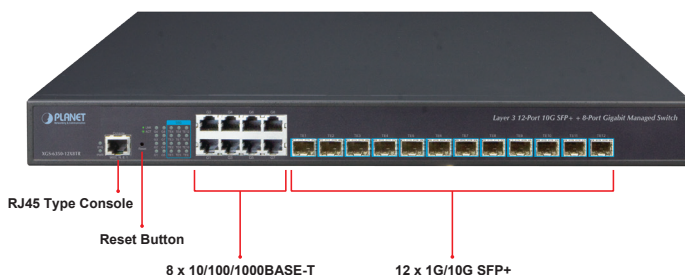
XGS-6350-12X8TR

- **8 10/100/1000BASE-T** RJ45 ports
- **12 10GBASE-SR/LR SFP+** slots, compatible with 1000BASE-SX/LX/BX SFP
- RJ45 to DB9 console interface for switch basic management and setup

XGS-6350-24X2C

- **24 10GBASE-SR/LR SFP+** slots, compatible with 1000BASE-SX/LX/BX SFP
- **2 QSFP28 slots** with each supporting native 100 Gigabit Ethernet, 40G and four 10 Gigabit Ethernet interfaces
- RJ45 to DB9 console interface for switch basic management and setup
- MNG port for HTTP server access
- USB port

XGS-6350-24X4C

- **24 10GBASE-SR/LR SFP+** slots, compatible with 1000BASE-SX/LX/BX SFP
- **4 QSFP28 slots** with each supporting native 100 Gigabit Ethernet, 40G and four 10 Gigabit Ethernet interfaces
- RJ45 to DB9 console interface for switch basic management and setup
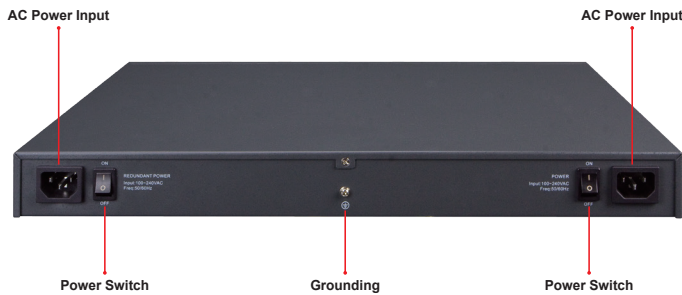- MNG port for HTTP server access
- USB port

XGS-6350-48X2Q4C

- **48 10GBASE-SR/LR SFP+** slots, compatible with 1000BASE-SX/LX/BX SFP
- **2 QSFP+ slots** with each supporting 40G and four 10 Gigabit Ethernet interfaces
- **4 QSFP28** slots with each supporting native 100 Gigabit Ethernet, 40G and 4 x 10 Gigabit Ethernet modes
- RJ45 to DB9 console interface for switch basic management and setup
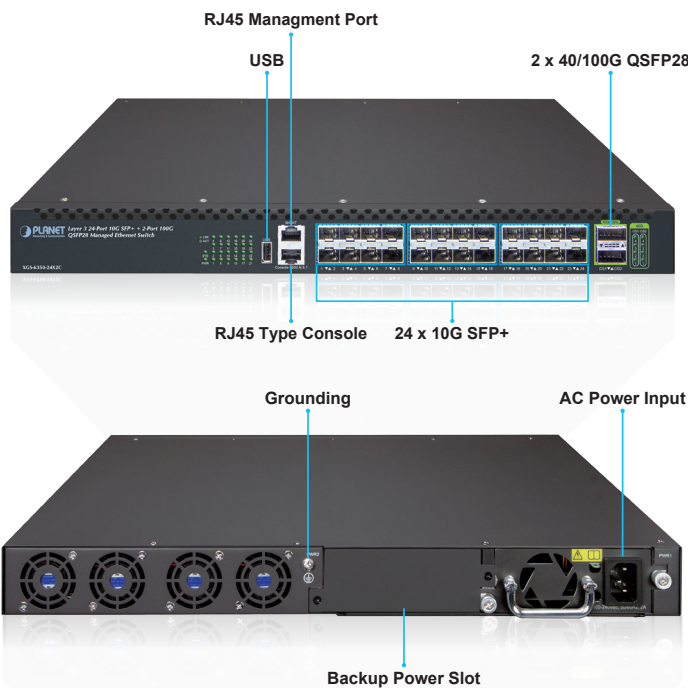- MNG port for HTTP server access
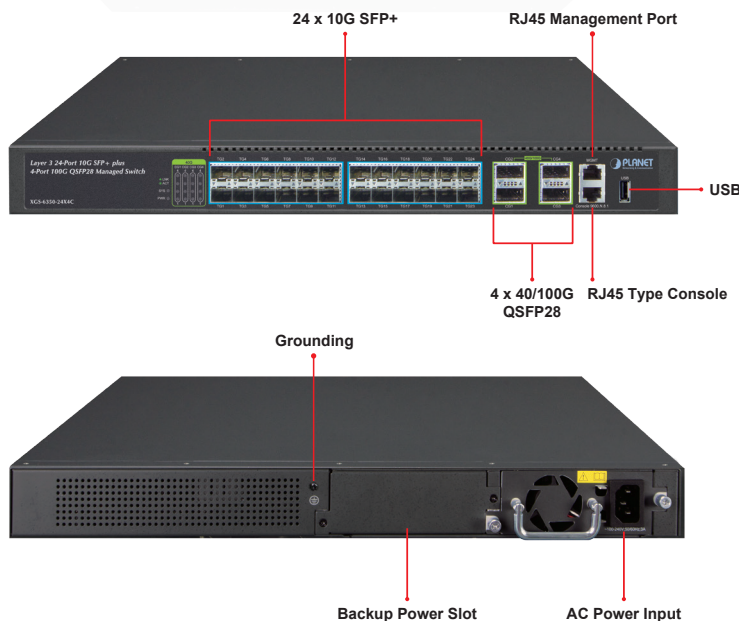- USB port

IPv4 Features

- Static Routing, RIP v1/v2, OSPF and BGP
- Policy Routing
- BFD for OSPF and BGP

AC Power Input   **AC Power Input**

Power Switch   **Grounding**   **Power Switch**

XGS-6350-24X2C:

RJ45 Managment Port

USB   **2 x 40/100G QSFP28**

RJ45 Type Console   **24 x 10G SFP+**

Grounding   **AC Power Input**

Backup Power Slot

XGS-6350-24X4C:

24 x 10G SFP+   **RJ45 Management Port**

USB

4 x 40/100G QSFP28   **RJ45 Type Console**

Grounding

Backup Power Slot   **AC Power Input**

IPv6 Features

- ICMPv6, DHCPv6, ACLv6,IPv6 Telnet
- IPv6 Neighbor Discovery
- Path MTU Discovery
- MLD and MLD Snooping
- IPv6 Static Routing, RIPng, OSPFv3 and BGP4+
- Manual Tunnel, ISATAP Tunnel and 6-to-4 Tunnel

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)
- Supports IGMP v1/v2/v3

Layer 2 Features

- Supports VLAN
  – IEEE 802.1Q tag-based VLAN
  – Provider Bridging (VLAN Q-in-Q, IEEE 802.1ad) supported
  – GVRP for dynamic VLAN management
  – Private VLAN
- Supports Link Aggregation
  – 802.3ad Link Aggregation Control Protocol (LACP)
  – 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)
- Port mirroring to monitor the incoming or outgoing traffic on a particular port (many to 1)
- Loop protection to avoid broadcast loops
- Link Layer Discovery Protocol (LLDP)
- Ethernet OAM 802.3ah/802.1ag/ITU-Y.1731
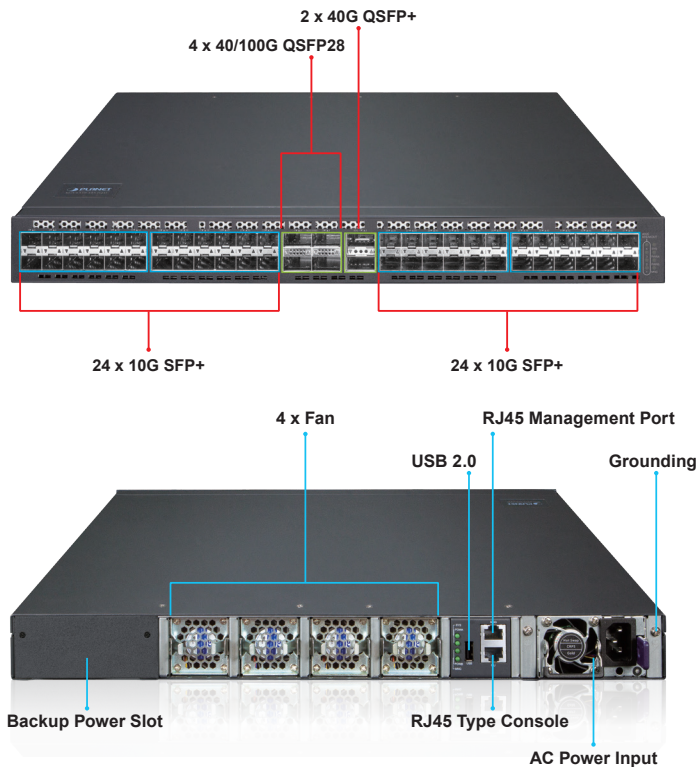- Supports G.8032 ERPS (Ethernet Ring Protection Switching)

Quality of Service

- Ingress shaper and egress rate limit per port bandwidth control
- 8 priority queues on all switch ports
  – IEEE 802.1p CoS/DSCP/Precedence
  – VLAN ID
  – Policy-based ingress and egress QoS

Multicast

- Supports IPv4 IGMP snooping v1, v2 and v3
- Supports IPv6 MLD snooping v1 and v2

XGS-6350-48X2Q4C:

2 x 40G QSFP+

4 x 40/100G QSFP28

24 x 10G SFP+   24 x 10G SFP+

4 x Fan   RJ45 Management Port

USB 2.0   Grounding

Backup Power Slot   RJ45 Type Console

AC Power Input

Rich Multi-layer Networking Protocols

The XGS-6350-Series comes with the complete Layer 3 managed function with comprehensive protocols and applications to facilitate the rapid service deployment and management for both the traditional L2 and L3 networks. With support for advanced features, including **RIP, RIPng, OSPFv2, OSPFv3, BGP, BGP4+**, etc., this switch is ideal for the traditional or fully-virtualized data center.

Strong Multicast

The XGS-6350-Series supports abundant multicast features. In Layer 2, it features IPv4 IGMPv1/v2/v3 snooping and IPv6 MLD v1/v2 snooping. With Multicast VLAN Registration (MVR), multicast receiver/sender control and illegal multicast source detection functions can be had. In Layer 3 multicast protocols, it features **PIM-DM**, **PIM-SM** and **PIM-SSM** which make the XGS-6350-Series great for any robust networking.

Full IPv6 Support

The XGS-6350-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.

High Reliability

The key components of the XGS-6350-Series are management module, power system and the fan system that support redundancy design. All system modules support hot-swap and seamless switching without manual intervention.

- Querier mode support
- MVR (Multicast VLAN Registration)

Security

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

Management

- IPv4 and IPv6 dual stack management
- Switch Management Interfaces
  - Console and Telnet Command Line Interface
  - HTTP web switch management
  - SNMP v1 and v2c switch management
  - SSHv2, SSLv3, TLSv1.0 and SNMP v3 secure access
- SNMP Management
  - Four RMON groups (history, statistics, alarms, and events)
  - SNMP trap for interface Link Up and Link Down notification
- Built-in Trivial File Transfer Protocol (TFTP) client
- BOOTP and DHCP for IP address assignment
- System Maintenance
  - Firmware upload/download via HTTP
  - Reset button for system reboot or reset to factory default
  - Dual images
- DHCP Functions:
  - DHCP Relay
  - DHCP Option 82
  - DHCP Server
- User Privilege levels control
- Network Time Protocol (NTP), SPAN, RSPAN
- Network Diagnostic
  - SFP-DDM (Digital Diagnostic Monitor)
  - ICMP remote IP ping
- Syslog remote alarm
- System Log
- PLANET Smart Discovery Utility for deployment management

It supports In-service Software Upgrade (**ISSU**) and Graceful Restart (**GR**) for OSPF/BGP routing protocol, guaranteeing non-stop user data transmission when the system is upgraded. It supports Bidirectional Forwarding Detection (**BFD**) that realizes fault detection and service recovery in seconds through linking with Layer 2 or Layer 3 protocol.

Excellent and Secure Traffic Control

The XGS-6350-Series is loaded with powerful traffic management and WRR features to enhance services offered by telecoms and 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.

Stacking Management

- Virtualized multiple XGS-6350 Series switches integrated into one logical device
- Single IP address stack management, supporting up to 4 hardware units stacked together
- Stacking architecture supports redundant Ring mode

Powerful Security from Layer 2 to Layer 4

The ACL policies supported can classify the traffic by source/destination IP addresses, source/destination MAC addresses, IP protocols, TCP/UDP, IP precedence, time ranges and ToS. Moreover, various policies can be conducted to forward the traffic. The XGS-6350-Series also provides IEEE 802.1x port-based access authentication, which can be deployed with RADIUS, to ensure the port level security and block illegal users. Thus, the XGS-6350-Series empowers enterprises and campuses to take full advantage of the limited network resources and guarantees the best performance in VoIP and video conferencing transmissions.

Robust Layer 2 Features

The XGS-6350-Series can be programmed for basic switch management functions such as port speed configuration, port aggregation, VLAN, Spanning Tree Protocol, WRR, bandwidth control and IGMP snooping. It also supports 802.1Q tagged VLAN, Q-in-Q, voice VLAN and GVRP Protocol. In addition, the number of VLAN interfaces is 1K and the number of VLAN IDs is 4K. By supporting port aggregation, the XGS-6350-Series allows the operation of a high-speed trunk combined with multiple ports, making it an LACP link aggregation.

Efficient and Secure Management

For efficient management, the XGS-6350-Series Managed 100Gigabit Switch is equipped with console, Web and SNMP management interfaces.

- With its built-in Web-based management interface, the XGS-6350-Series offers an easy-to-use, platform-independent management and configuration facility.
- The XGS-6350-Series supports standard Simple Network Management Protocol (SNMP) and can be managed via any standard-based management software.
- For reducing product learning time, the XGS-6350-Series offers Cisco-like command via Telnet or console port. Moreover, the XGS-6350-Series offers secure remote management by supporting SSH connection which encrypts the packet content at each session.

Centralized Hardware Stacking Management

The XGS-6350-Series can be used to build a virtually logical facility. The XGS-6350-Series gives the enterprises, service providers and telecoms flexible control over port density, uplinks and switch stack performance. The XGS-6350-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, which greatly simplifies the tasks of upgrading the LAN for catering to increasing bandwidth demands.

Hardware Stacking
Up to **4** units of XGS-6350 Series

Master

Standby Master

Slave

Slave
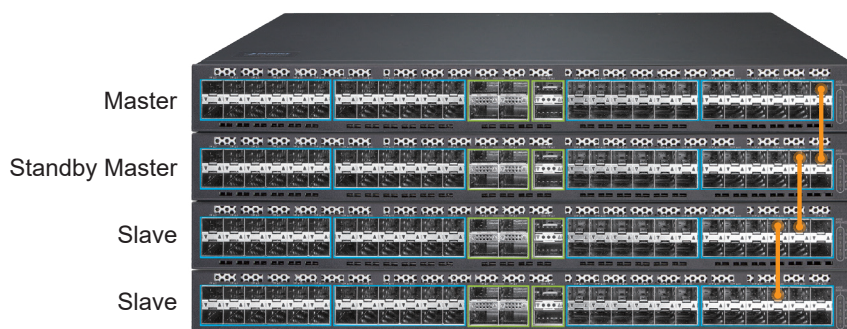
Flexibility and Extension Solution
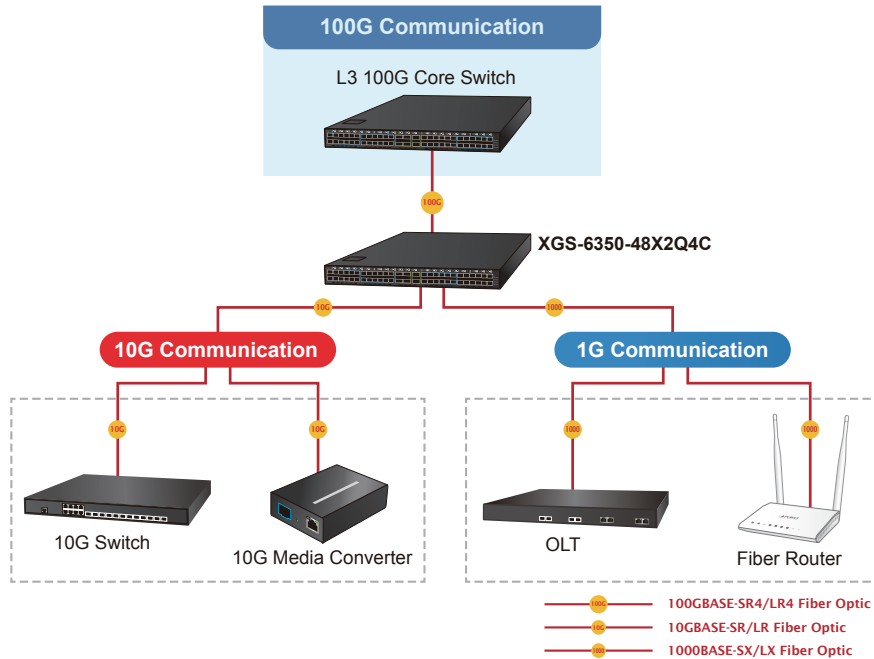
The XGS-6350-Series provides 24/48 10Gbps SFP+, 40Gbps QSFP+ and 100Gbps QSFP28 fiber interfaces. Each of the SFP+ slots supports **Dual Speed**, **10GBASE-SR/LR** or **1000BASE-SX/LX** and each of the QSFP28 slots supports native **100 Gigabit Ethernet**, **40G and Four 10 Gigabit Ethernet interfaces**. Therefore, the administrator can flexibly choose the suitable SFP transceiver according to not only the transmission distance, but also the transmission speed required. The distance can be extended from 550 meters to 2km (multi-mode fiber) or up to 10/20/30/40/50/70/120 km (single-mode fiber or WDM fiber). They are well suited for applications within the enterprise data centers and distributions.

High Performance 100Gbps Server Service

100G Communication

L3 100G Core Switch

100G

XGS-6350-48X2Q4C

10G   1000

10G Communication   **1G Communication**

10G   10G   1000   1000

10G Switch   10G Media Converter   OLT   Fiber Router

100G ── 100GBASE-SR4/LR4 Fiber Optic
10G ── 10GBASE-SR/LR Fiber Optic
1000 ── 1000BASE-SX/LX Fiber Optic

Redundant Ring, Fast Recovery for Critical Network Applications

The XGS-6350-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 50ms to quickly bring the network back to normal operation.

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 XGS-6350 Series offers up to **1.92Tbps** data exchange speed via Optical Fiber interface and the transmission distance can b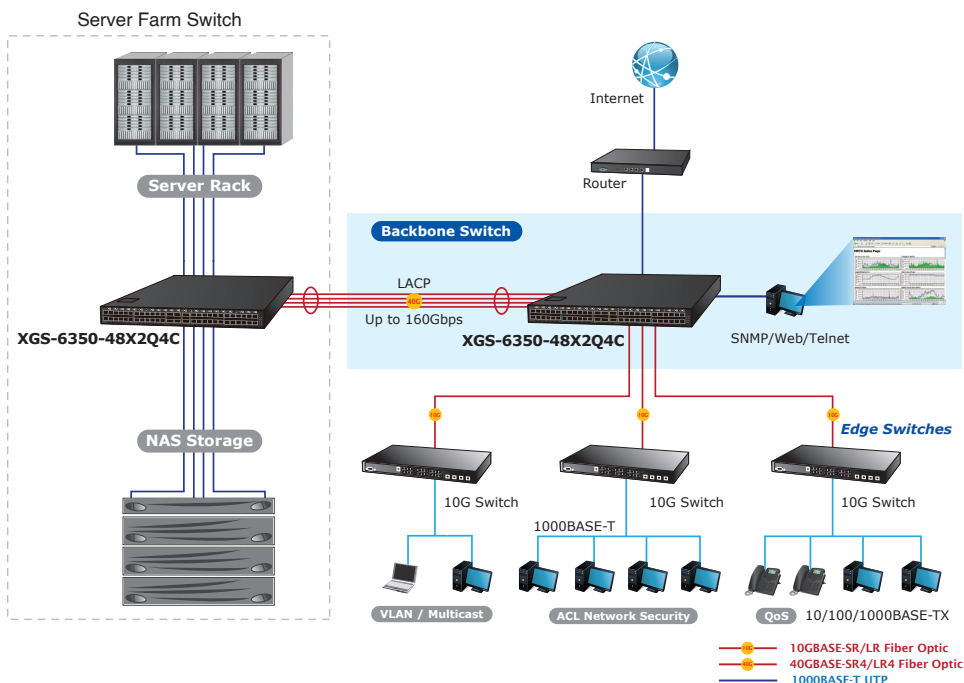e extended to 120km (single-mode fiber). The XGS-6350 Series features strong rapid self-recovery capability to prevent interruptions and external intrusions. It incorporates **Multiple Spanning Tree Protocol (802.1s MSTP)** into customer's automation network to enhance system reliability and uptime. The XGS-6350 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.
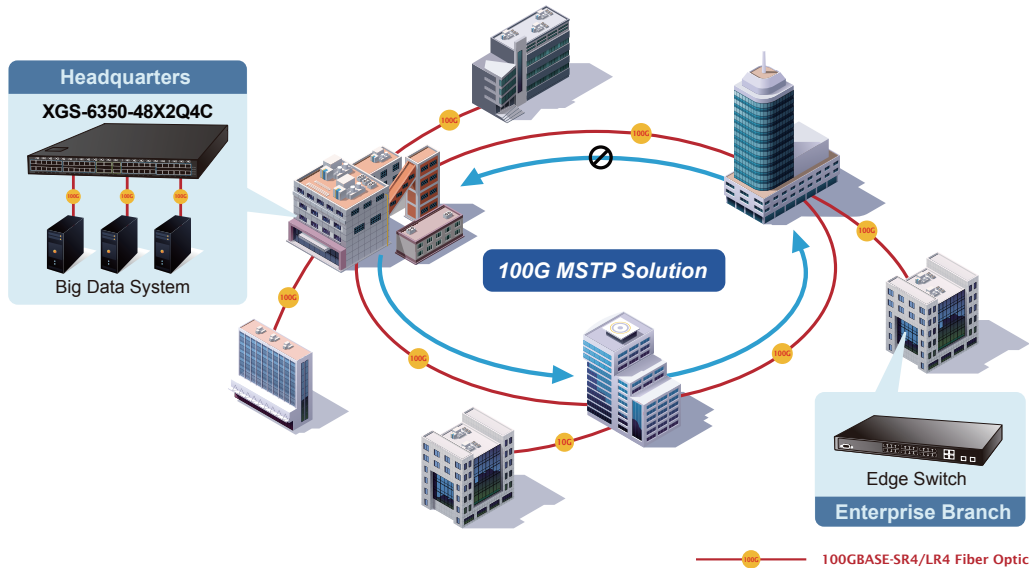
Reliable, High-performance and High-density Enterprise Backbone Switch

40/100 Gigabit Ethernet supported equipment has become the fundamental unit of enterprises and network servers. PLANET XGS-6350 Series is the cost-effective, high-density and high-bandwidth chassis switch, which meets today's market requirements. Its dedicated chassis architecture feature makes all modules in the platform operate together as one much larger switch providing multiple high-performance 40/100-Gigabit Ethernet network for backbone of enterprises, campuses or telecoms.

The redundant management modules and three power supplies provide the XGS-6350 Series with nonstop network service ability. Moreover, all modules are hot-swappable. They can be added or exchanged without interrupting the operation of the whole system. The XGS-6350 Series is ideal for being a server farm switch connecting to servers and perfectly suitable for those networking environments requiring constant access to critical business applications.

Specifications

Product	XGS-6350-12X8TR	XGS-6350-24X2C	XGS-6350-24X4C	XGS-6350-48X2Q4C
Hardware Specifications				
QSFP28 Slots	-	2 with each supporting native 100/40 Gigabit Ethernet and four 10 Gigabit Ethernet interfaces	4 with each supporting native 100/40 Gigabit Ethernet and four 10 Gigabit Ethernet interfaces	
QSFP+ Slots	-	-	-	2, each supports 40 Gigabit Ethernet and four 10 Gigabit Ethernet interfaces
SFP+ Slots	12 10GBASE-SR/LR SFP+ interface Compatible with 1000BASE-SX/LX/BX SFP transceiver	24 10GBASE-SR/LR SFP+ interfaces Compatible with 1000BASE-SX/LX/BX SFP transceiver	24 10GBASE-SR/LR SFP+ interfaces Compatible with 1000BASE-SX/LX/BX SFP transceiver	48 10GBASE-SR/LR SFP+ interfaces Compatible with 1000BASE-SX/LX/BX SFP transceiver
Ethernet Ports	8 1000BASE-T RJ45 auto-MDI/MDI-X ports	-	-	-
Console	1 x RJ45-to-DB9 serial port (9600, 8, N, 1)			
Management Port	-	1 x 10/100/1000BASE-T RJ45 port		
USB	-	1 x USB 2.0		
Dimensions (W x D x H)	440 x 279.8 x 44 mm 1U height	442.5 x 300.1 x 44.6 mm 1U height	442.5 x 364 x 44 mm 1U height	442.5 x 403.5 x 44 mm 1U height
Weight	4178g	5716g	5990g	8400g
Power Consumption	55 watts/ 187.66 BTU (maximum)	50.5 watts/172 BTU (maximum)	75 watts/210 BTU (maximum)	147 watts/504.3 BTU (maximum)
Power Requirements	AC 100~240V, 50/60Hz Redundant Power	AC 100~240V, 50/60Hz	AC 100~240V, 50/60Hz	AC 100~240V, 50/60Hz DC 36~72V (Optional power module)
Number of Power Supply Bays	-	2	2	2
Number of Fan/Fan Trays	2 fixed	4 fixed	4 fixed	4 slots
LED	System: PWR, SYS **Green** Ports: 10/100/1000T RJ45 Port: LNK/ACT **Green** 1/10G SFP+ Slot: LNK/ ACT **Green**	System: PWR, SYS **Green** Ports: 10G SFP+ interfaces: LNK/ACT, **Green** 40G/100G QSFP Port: LNK/ACT **Green**	System: PWR, SYS **Green** Ports: 40G/100G QSFP Port: LNK/ACT **Green**	System: PWRA, PWRB, **Green** SYS, **Green** MNG, **Green** Ports: 10G SFP+ interfaces: LNK/ACT, **Green** 40G/100G QSFP28 interfaces: LNK/ACT, **Green** 40G QSFP+ interfaces: LNK/ACT, **Green**
Flash	16MB	4096MB	32MB	64MB
DRAM	512MB	2048MB	1024MB	512MB
ESD Protection	Contact ±6KV , Air ±8KV			
Surge Protection	Differential mode ±2KV , Common mode ±4KV			
Switching Specifications				
Switch Architecture	Store-and-forward			
Switch Capacity	256Gbps/non-blocking	880Gbps/non-blocking	1280Gbps/non-blocking	1.92Tbps/non-blocking
Switch Throughput	190Mpps	654Mpps@64bytes	952Mpps@64bytes	1440Mpps@64bytes
Address Table	32K	132K	32K	64K
Shared Data Buffer	3MB	4.5MB	4MB	9MB
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex			
Jumbo Frame	9KB			
Layer 3 Routing Specifications				
Routing Table	IPv4: 32K IPv6: 8K	IPv4: 16K IPv6: 8K	IPv4 Default 8K, Max16K IPv6 Default 4K, Max 12K	IPv4: 16K IPv6: 8K
ARP Table	IPv4: 8K IPv6: 4K	IPv4: 16K IPv6: 8K	IPv4: 10K IPv6: 10K	IPv4: 32K IPv6: 16K

IPv4 Layer 3 Functions	
IP Routing Protocol	RIP v1/v2 OSPF BGP (Border Gateway Protocol) Static routing
Multicast Routing Protocol	PIM-DM and PIM-SM PIM-SSM MSDP
Routing Features	VRRP Policy-based routing Load balance through equal-cost routing BFD (Bidirectional Forwarding Detection) for OSPF and BGP GRE tunnel
IPv6 Layer 3 Functions	
IP Routing Protocol	RIPng OSPFv3 BGP4+
Routing Features	Manual tunnel ISATAP tunnel 6-to-4 tunnel
IPv6 Functions	ICMPv6, DHCPv6, ACLv6, IPv6 Telnet IPv6 Neighbor Discovery Path MTU Discovery
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
VLAN	IEEE 802.1Q tag-based VLAN, IEEE 802.1ad Q-in-Q VLAN stacking/tunneling GVRP for VLAN management Private VLAN Protocol-based VLAN MAC-based VLAN IP subnet–based VLAN Voice VLAN Multicast VLAN Register (MVR) Up to 4K VLAN groups
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) BPDU protection, root protection
Ring	ITU-G G.8032 ERPS EAPS
IPv4 IGMP Snooping	IPv4 IGMP v1/v2/v3 snooping IGMP Fast Leave IPv4 Querier IGMP Filtering and IGMP Throttling IGMP Proxy reporting
IPv6 MLD Snooping	IPv6 MLD v1/v2 snooping
Bandwidth Control	Ingress and Egress At least 64Kbps stream
Link Aggregation	IEEE 802.3ad LACP/static trunk

QoS	8 priority queues on all switch ports
	Traffic Supervision and Traffic Shaping
	Scheduling for priority queues
	  - Weighted Round Robin (WRR)
	  - Strict priority (SP)
	  - SP+WRR
	Traffic classification:
	  - IEEE 802.1p CoS
	  - DSCP
	  - DiffServ
	  - Precedence
	  - TOS
	  - VLAN ID
	  - IP ACL
	  - MAC ACL
	  - Port ACL
	Policy-based ingress and egress QoS
	802.1p and DSCP priority remark

Authentication	IEEE 802.1x port-based network access control AAA authentication: TACACS+ and IPv4/IPv6 over RADIUS
Security Function	
Access Control List	Supports Standard and Expanded ACL IP-based ACL/MAC-based ACL/Port-based ACL Time-based ACL Up to 1K entries
Security	Port isolation Port security, supports IP + MAC + port binding Identification and filtering of L2/L3/L4 based ACL Defend against DOS or TCP attacks Suppression of broadcast, multicast and unknown unicast packet DHCP Snooping, DHCP Option 82 Command line authority control based on user levels
AAA	TACACS+ and IPv4/IPv6 over RADIUS
Network Access Control	IEEE 802.1x port-based network access control
Management Function	
System Configuration	Console and Telnet Web browser SNMP v1, v2c
Secure Management Interfaces	SSHv2, SSLv3 and SNMPv3 Maximum 8 sessions for SSH and Telnet connection
System Management	Supports both IPv4 and IPv6 Protocols Supports the user IP security inspection for IPv4/IPv6 SNMP Supports MIB and TRAP Supports TFTP, FTP Supports IPv4/IPv6 NTP Supports RMON 1, 2, 3, 9 groups 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 CLI, console, Telnet Supports Security IP safety net management function: avoid unlawful landing at non-restrictive area Supports TACACS+ Supports SPAN, RSPAN

Stacking Management	4 members max. 2 software-defined ports function as Stacking Up and Down interfaces	10 members max. 2 software-defined ports function as Stacking Up and Down interfaces	4 members max. 2 software-defined ports function as Stacking Up and Down interfaces
Event Management	Supports syslog server for IPv4 and IPv6		

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 SNMPv2
	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 SNMPv3 notification
	RFC 2574 SNMPv3 VACM
	RFC 2674 Bridge MIB Extensions

Standard Conformance

Regulatory Compliance	FCC Part 15 Class A, CE
Standards Compliance	IEEE 802.3 10BASE-T
	IEEE 802.3u 100BASE-TX
	IEEE 802.3ab Gigabit 1000BASE-T
	IEEE 802.3z Gigabit 1000BASE-SX/LX
	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
	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
	FRC 3810 MLD v2
	RFC 2328 OSPF v2
	RFC 1058 RIP v1
	RFC 2453 RIP v2

Environment

Operating	Temperature: 0 ~ 50 degrees C
	Relative Humidity: 10 ~ 85% (non-condensing)
Storage	Temperature: -40 ~ 80 degrees C
	Relative Humidity: 5 ~ 95% (non-condensing)

Ordering Information

XGS-6350-12X8TR	Layer 3 12-Port 10G SFP+ + 8-Port 10/100/1000T Managed Switch
XGS-6350-24X2C	Layer 3 24-Port 10G SFP+ + 2-Port 100G QSFP28 Managed Ethernet Switch
XGS-6350-24X4C	Layer 3 24-Port 10G SFP+ + 4-Port 100G QSFP28 Managed Switch
XGS-6350-48X2Q4C	Layer 3 48-Port 10G SFP+ + 2-Port 40G QSFP+ + 4-Port 100G QSFP28 Managed Switch

Related Products

XT-705A	10G/5G/2.5G/1G/100M Copper to 10GBASE-X SFP+ Media Converter
CB-DASFP-0.5M/2M	10G SFP+ Directly-attached Copper Cable (0.5/2M in length)

Available Modules for XGS-6350 Series

100Gbps QSFP28 (100G Ethernet/100GBASE-SR4/LR4)

Model	DDM	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
QSFP-100G-SR4	YES	100G	MPO	Multi Mode	70m (OM3) 100m (OM4)	850nm	0 ~ 70 degrees C
QSFP-100G-LR4	YES	100G	LC	Single Mode	10km	1310nm	0 ~ 70 degrees C

40Gbps QSFP+ (40G Ethernet/40GBASE-SR4/LR4)

Model	DDM	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
QSFP-40G-SR4	YES	40G	MPO/MTP	Multi Mode	100m (OM3) 150m (OM4)	850nm	0 ~ 60 degrees C
QSFP-40G-LR4	YES	40G	LC	Single Mode	10km	1310nm	0 ~ 60 degrees C

40Gbps QSFP+ (40G Ethernet/40GBASE-SR4/LR4)

Model	DDM	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
MTB-RJ	-	10G	Copper	-	30m	-	0 ~ 70 degrees C
MTB-SR	YES	10G	LC	Multi Mode	Up to 300m	850nm	0 ~ 60 degrees C
MTB-LR	YES	10G	LC	Single Mode	10km	1310nm	0 ~ 60 degrees C
MTB-TSR	YES	10G	LC	Multi Mode	Up to 300m	850nm	-40 ~ 85 degrees C
MTB-TLR	YES	10G	LC	Single Mode	10km	1310nm	-40 ~ 85 degrees C

10Gigabit SFP+ (10GBASE-BX, Single Fiber Bi-directional SFP)

Model	DDM	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (TX)	Wavelength (RX)	Operating Temp.
MTB-LA20	YES	10G	WDM (LC)	Single Mode	20km	1270nm	1330nm	0 ~ 60 degrees C
MTB-LB20		10G	WDM (LC)	Single Mode	20km	1330nm	1270nm	0 ~ 60 degrees C
MTB-LA40	YES	10G	WDM (LC)	Single Mode	40km	1270nm	1330nm	0 ~ 60 degrees C
MTB-LB40		10G	WDM (LC)	Single Mode	40km	1330nm	1270nm	0 ~ 60 degrees C
MTB-LA60	YES	10G	WDM (LC)	Single Mode	60km	1270nm	1330nm	0 ~ 60 degrees C
MTB-LB60		10G	WDM (LC)	Single Mode	60km	1330nm	1270nm	0 ~ 60 degrees C

Gigabit Ethernet Transceiver (1000BASE-X SFP)

Model	DDM	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
MGB-GT	-	1000	Copper	--	100m	--	0 ~ 60 degrees C
MGB-SX(V2)	YES	1000	LC	Multi Mode	550m	850nm	0 ~ 60 degrees C
MGB-SX2(V2)	YES	1000	LC	Multi Mode	2km	1310nm	0 ~ 60 degrees C
MGB-LX(V2)	YES	1000	LC	Single Mode	20km	1310nm	0 ~ 60 degrees C
MGB-L40	YES	1000	LC	Single Mode	40km	1310nm	0 ~ 60 degrees C
MGB-L80	YES	1000	LC	Single Mode	80km	1550nm	0 ~ 60 degrees C
MGB-L120(V2)	YES	1000	LC	Single Mode	120km	1550nm	0 ~ 60 degrees C
MGB-TSX	YES	1000	LC	Multi Mode	550m	850nm	-40 ~ 85 degrees C
MGB-TSX2	YES	1000	LC	Multi Mode	2km	1310nm	-40 ~ 85 degrees C
MGB-TLX(V2)	YES	1000	LC	Single Mode	20km	1310nm	-40~ 85 degrees C
MGB-TL40	YES	1000	LC	Single Mode	40km	1310nm	-40 ~ 85 degrees C
MGB-TL80	YES	1000	LC	Single Mode	80km	1550nm	-40 ~ 85 degrees C

Gigabit Ethernet Transceiver (1000BASE-BX, Single Fiber Bi-directional SFP)

Model	DDM	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (TX)	Wavelength (RX)	Operating Temp.
MGB-LA10(V2) MGB-LB10(V2)	YES	1000	WDM (LC)	Single Mode	10km	1310nm 1550nm	1550nm 1310nm	0 ~ 60 degrees C
MGB-LA20(V2) MGB-LB20(V2)	YES	1000	WDM (LC)	Single Mode	20km	1310nm 1550nm	1550nm 1310nm	0 ~ 60 degrees C
MGB-LA40(V2) MGB-LB40(V2)	YES	1000	WDM (LC)	Single Mode	40km	1310nm 1550nm	1550nm 1310nm	0 ~ 60 degrees C
MGB-LA80 MGB-LB80	YES	1000	WDM (LC)	Single Mode	80km	1490nm 1550nm	1550nm 1490nm	0 ~ 60 degrees C
MGB-TLA10(V2) MGB-TLB10(V2)	YES	1000	WDM (LC)	Single Mode	10km	1310nm 1550nm	1550nm 1310nm	-40 ~ 85 degrees C
MGB-TLA20 MGB-TLB20	YES	1000	WDM (LC)	Single Mode	20km	1310nm 1550nm	1550nm 1310nm	-40 ~ 85 degrees C
MGB-TLA40 MGB-TLB40	YES	1000	WDM (LC)	Single Mode	40km	1310nm 1550nm	1550nm 1310nm	-40 ~ 85 degrees C
MGB-TLA80 MGB-TLB80	YES	1000	WDM (LC)	Single Mode	80km	1490nm 1550nm	1550nm 1490nm	-40 ~ 85 degrees C

Fast Ethernet Transceiver (100BASE-X SFP)

Model	DDM	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
MFB-FX	-	100	LC	Multi Mode	2km	1310nm	0 ~ 60 degrees C
MFB-F20	-	100	LC	Single Mode	20km	1310nm	0 ~ 60 degrees C
MFB-F40	-	100	LC	Single Mode	40km	1310nm	0 ~ 60 degrees C
MFB-F60	-	100	LC	Single Mode	60km	1310nm	0 ~ 60 degrees C
MFB-F120	-	100	LC	Single Mode	120km	1550nm	0 ~ 60 degrees C
MFB-TFX	-	100	LC	Multi Mode	2km	1310nm	-40 ~ 85 degrees C
MFB-TF20	-	100	LC	Single Mode	20km	1310nm	-40 ~ 85 degrees C

Fast Ethernet Transceiver (100BASE-BX, Single Fiber Bi-directional SFP)

Model	DDM	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (TX)	Wavelength (RX)	Operating Temp.
MFB-FA20	-	100	WDM (LC)	Single Mode	20km	1310nm	1550nm	0 ~ 60 degrees C
MFB-FB20	-	100	WDM (LC)	Single Mode	20km	1550nm	1310nm	0 ~ 60 degrees C
MFB-TSA	YES	100	WDM (LC)	Multi Mode	2km	1310nm	1550nm	-40 ~ 85 degrees C
MFB-TSB	YES	100	WDM (LC)	Multi Mode	2km	1550nm	1310nm	-40 ~ 85 degrees C
MFB-TFA20	-	100	WDM (LC)	Single Mode	20km	1310nm	1550nm	-40 ~ 85 degrees C
MFB-TFB20	-	100	WDM (LC)	Single Mode	20km	1550nm	1310nm	-40 ~ 85 degrees C
MFB-TFA40	-	100	WDM (LC)	Single Mode	40km	1310nm	1550nm	-40 ~ 85 degrees C
MFB-TFB40	-	100	WDM (LC)	Single Mode	40km	1550nm	1310nm	-40 ~ 85 degrees C

XGS-6350 Series