

L3 4-Port 10/100/1000T + 4-Port 2.5G + 2-Port 10G SFP+ Managed Switch Series



Perfect Managed Multigigabit Ethernet Switch with L3/L2 Switching and Security

PLANET MGS-6320-Series is a brand-new **Layer 3 managed multigigabit switch** providing **2.5Gbps** data over UTP cables, designed for the demand of high-bandwidth required network equipment, such as Wi-Fi 6 802.11ax wireless AP, NAS, workstation and those with 2.5GBASE-T interfaces. It features **4 10/100/1000BASE-T** copper ports, **4 100/1000/2500BASE-T** copper ports and **2 extra 1G/2.5G/10GBASE-X SFP+ fiber ports** that are flexibly designed to extend the connection distance. With such a favorable data link capability, hardware-based Layer 3 routing performance, Layer 2 and Layer 4 switching engine and user-friendly yet advanced IPv6/IPv4 management interfaces, it helps to accelerate the deployment of the next-generation IoT and wireless network for enterprises and smart cities.



2.5Gbps Capability for Diversified Bandwidth Applications

With the terminal access rates of 802.11ac/ax wireless APs reaching as high as 1.2Gbps to 2.6Gbps, Gigabit ports have been unable to satisfy the demand. Supporting both 1Gbps and 2.5Gbps capability and 802.3af/at and 802.3bt PoE output, the MGS-6320-8HP2X can deliver not only data to 802.11ac/ax wireless APs, but also power with the existing CAT5e Ethernet cables to other powered devices such as APs and IP cameras. It can definitely give you the speed you demand and its Plug and Play makes installation easy

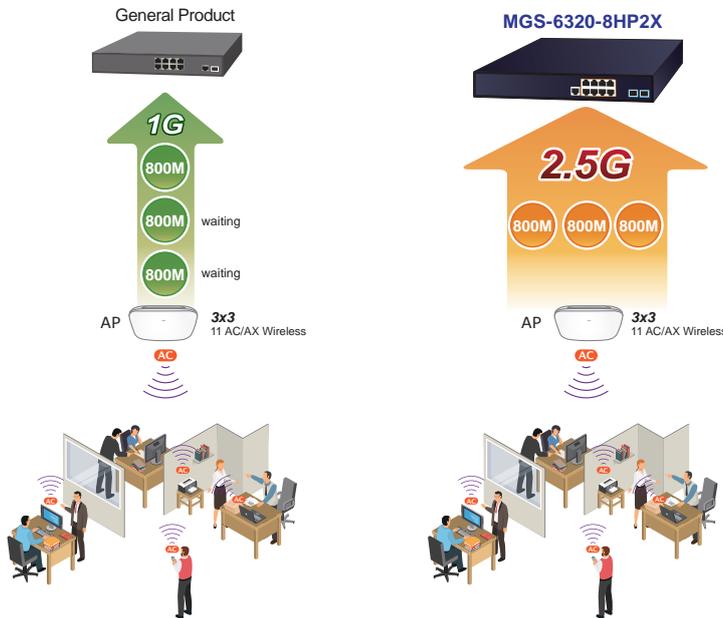
Physical Port

- **4-Port 10/100/1000BASE-T** Gigabit Ethernet RJ45 (Port 1 to port 4)
- **4-Port 10/100/1000/2500BASE-T** Gigabit Ethernet RJ45 (Port 5 to port 8)
- 4-Port 10/100/1000BASE-T with **36W 802.3at PoE+** injector function (MGS-6320-8HP2X Port-1 to Port-4)
- 4-Port 10/100/1000/2500BASE-T with **90W 802.3bt PoE++** injector function (MGS-6320-8HP2X Port-5 to Port-8)
- 2-port 10GBASE-X SFP+, backward compatible with 1000BASE-X and 2500BASE-X SFP transceivers
- RJ45 type RS232 console interface for switch basic management

Power over Ethernet(MGS-6320-8HP2X)

- 4 PoE ports with 802.3at PoE+ inject built-in (Port-1 to Port-4)
- 4 PoE ports with 802.3bt PoE++ inject built-in (Port-5 to Port-8)
- Provides up to 95W to 802.3bt/PoH powered devices
- Maximum 240-watt PoE budget
- Auto detects powered device(PD)
- Remote power feeding up to 100M
- PoE Isolation
- Circuit protection prevents power interference between ports
- PoE Management
 - PoE admin-mode control
 - PoE usage threshold
 - Temperature threshold
 - PoE Port Status monitoring
 - PD classification detection
 - Per port PoE function enable/disable
 - Per PoE port power limit
 - PoE Port Power feeding priority
- Intelligent PoE features
 - Temperature threshold control
 - PoE usage threshold control
 - PD alive check
 - PoE schedule

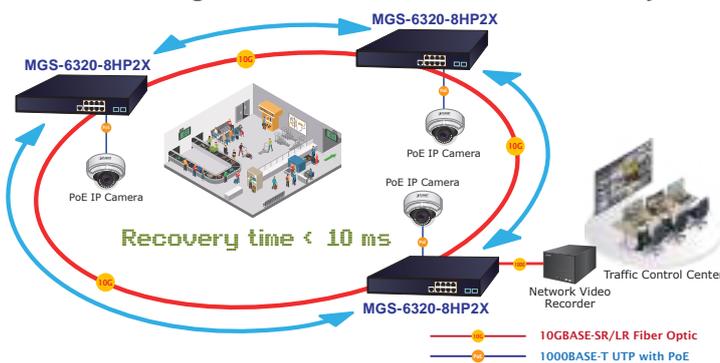
New Generation of Multigigabit Switch



Redundant Ring, Fast Recovery for Critical Network Applications

The MGS-6320-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 (802.1w RSTP) 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.

ERPS Ring for Video Transmission Redundancy



Cybersecurity Network Solution to Minimize Security Risks

The cybersecurity feature included to protect the switch management in a mission-critical network virtually needs no effort and cost to install. Both SSHv2 and TLSv1.2 protocols are utilized to provide strong protection against advanced threats. The network administrator can now construct highly-secure corporate networks with considerably less time and effort than before.

Layer 3 IP Routing Features

- IP dynamic routing protocol supports RIPv2, OSPFv2 and OSPFv3
- IPv4/IPv6 hardware static routing
- Routing interface provides per VLAN routing mode

Layer 2 Features

- High performance of Store-and-Forward architecture and runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- Storm Control support
 - Broadcast/Multicast/Unknown unicast
- Supports **VLAN**
 - IEEE 802.1Q tagged VLAN
 - Supports provider bridging (VLAN Q-in-Q, IEEE 802.1ad)
 - Private VLAN Edge (PVE)
 - Protocol-based VLAN
 - MAC-based VLAN
 - Voice VLAN
 - GVRP(GARP VLAN Registration Protocol)
- Supports **Spanning Tree Protocol**
 - IEEE 802.1D Spanning Tree Protocol
 - IEEE 802.1w Rapid Spanning Tree Protocol
 - IEEE 802.1s Multiple Spanning Tree Protocol, spanning tree by VLAN
 - BPDU Guard
- Supports **Link Aggregation**
 - 802.3ad Link Aggregation Control Protocol(LACP)
 - Cisco ether-channel (static trunk)
 - Maximum 4 trunk groups, up to 10 ports per trunk group
 - Up to 40Gbps bandwidth (full duplex mode)
- Provides port mirror (many-to-1)
- Port mirroring to monitor the incoming or outgoing traffic on a particular port
- Loop protection to avoid broadcast loops
- Link Layer Discovery Protocol (LLDP)
- Compatible with Cisco uni-directional link detection(UDLD) 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
- Supports G.8032 ERPS (Ethernet Ring Protection Switching)

Flexible and Extendable 10Gb Ethernet Solution

10G Ethernet is a big leap in the evolution of Ethernet. Each of the 10G SFP+ slots in the MGS-6320-Series supports **triple speed** and **10GBASE-SR/LR or 2500BASE-X** and **1000BASE-SX/LX**. With its 2-port, 10G Ethernet link capability, 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. The MGS-6320-Series provides broad bandwidth and powerful processing capacity.

Outstanding 802.3bt PoE++ Solution

Complying with the IEEE 802.3at PoE+ and 802.3bt PoE++ technology, the MGS-6320-8HP2X features four 10/100/1000BASE-T 802.3at PoE+ ports, and four 10/100/1000/2.5GASE-T 802.3bt PoE++ ports with each port powering up to **95 watts** and a total PoE budget of up to 240 watts. It supports rich PoE operation modes including **90-watt 802.3bt type-4 PoE++ ports**, **95-watt PoH** (Power over HD-BASE-T) mode and 4-pair **force mode** to solve the incompatibility of non-standard 4-pair PoE PDs in the field.

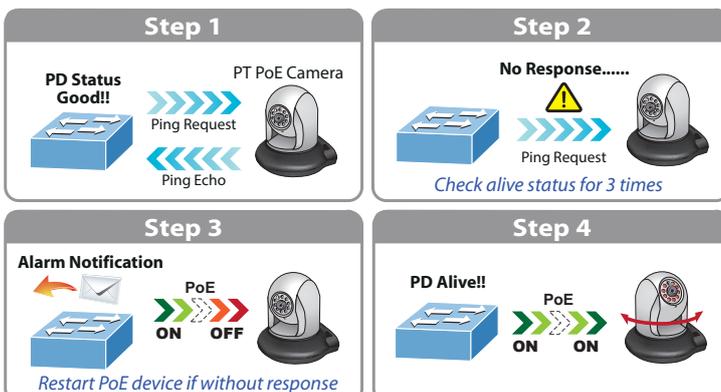
Built-in Unique PoE Functions for Surveillance Management

As a managed PoE Switch for various networks, the MGS-6320-8HP2X features the following intelligent PoE management functions:

- PD Alive Check
- Scheduled Power Recycling
- SMTP/SNMP Trap Event Alert
- PoE Schedule
- PoE Usage Monitoring
- PoE Extension

Intelligent Powered Device Alive Check

The MGS-6320-8HP2X can be configured to monitor a connected PD status in real time via ping action. Once the PD stops working and responding, the MGS-6320-8HP2X will resume the PoE port power and bring the PD back to work. It will greatly enhance the network reliability through the PoE port resetting the PD's power source, thus reducing administrator management burden.



Quality of Service

- Ingress Shaper and Egress Rate Limit per port bandwidth control
- 8 priority queues on all switch ports
- Traffic classification
 - IEEE 802.1p CoS
 - TOS/DSCP/IP Precedence of IPv4/IPv6 packets
 - IP TCP/UDP port number
 - Typical network application
- Strict priority and Weighted Round Robin (WRR) CoS policies
- Supports QoS and In/Out bandwidth control on each port
- Traffic-policing on the switch port
- DSCP remarking

Multicast

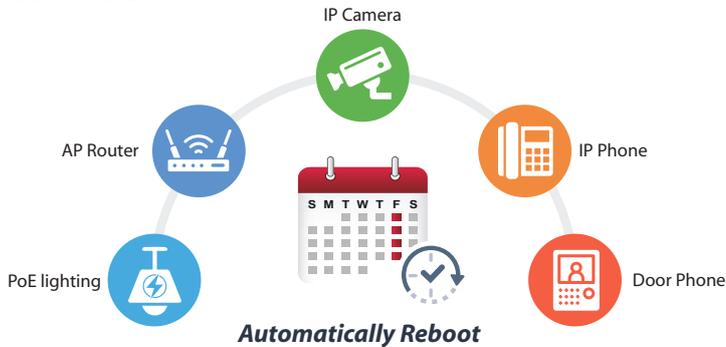
- Supports IPv4 IGMP Snooping v1, v2 and v3
- Supports IPv6 MLD Snooping v1 and v2
- Querier mode support
- IPv4 IGMP Snooping port filtering
- IPv6 MLD Snooping port filtering
- Multicast VLAN Registration (MVR) support

Security

- Authentication
 - IEEE 802.1x Port-based/MAC-based network access authentication
 - Built-in RADIUS client to co-operate with the RADIUS servers
 - TACACS+ login users access authentication
 - RADIUS/TACACS+ users access authentication
- Access Control List
 - IP-based Access Control List (ACL)
 - MAC-based Access Control List
- Source MAC/IP address binding
- DHCP Snooping to filter un-trusted DHCP messages
- Dynamic ARP Inspection discards ARP packets with invalid MAC address to IP address binding
- IP Source Guard prevents IP spoofing attacks
- IP address access management to prevent unauthorized intruder

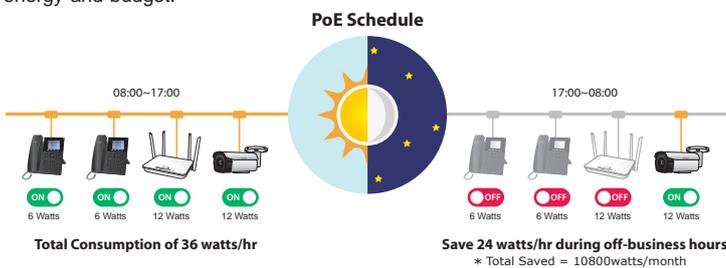
Scheduled Power Recycling

The MGS-6320-8HP2X allows each of the connected PDs to reboot at a specified time each week. Therefore, it will reduce the chance of PD crash resulting from buffer overflow.



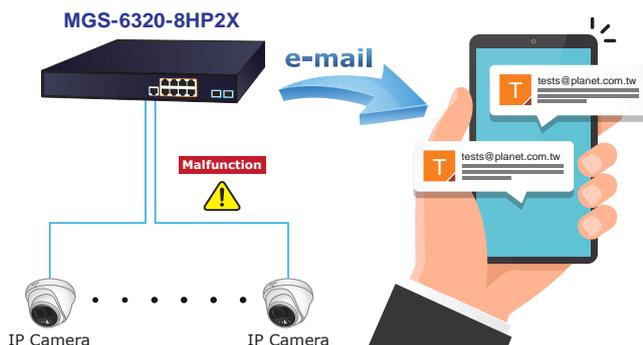
PoE Schedule for Energy Savings

Besides being used for IP surveillance, the MGS-6320-8HP2X is 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, the MGS-6320-8HP2X 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 and enterprises save energy and budget.



SMTP/SNMP Trap Event Alert

Though most NVR or camera management software offers SMTP email alert function, the MGS-6320-8HP2X further provides event alert function to help to diagnose the abnormal device owing to whether or not there is a break of the network connection, loss of PoE power or the rebooting response by the PD Alive Check process.



Management

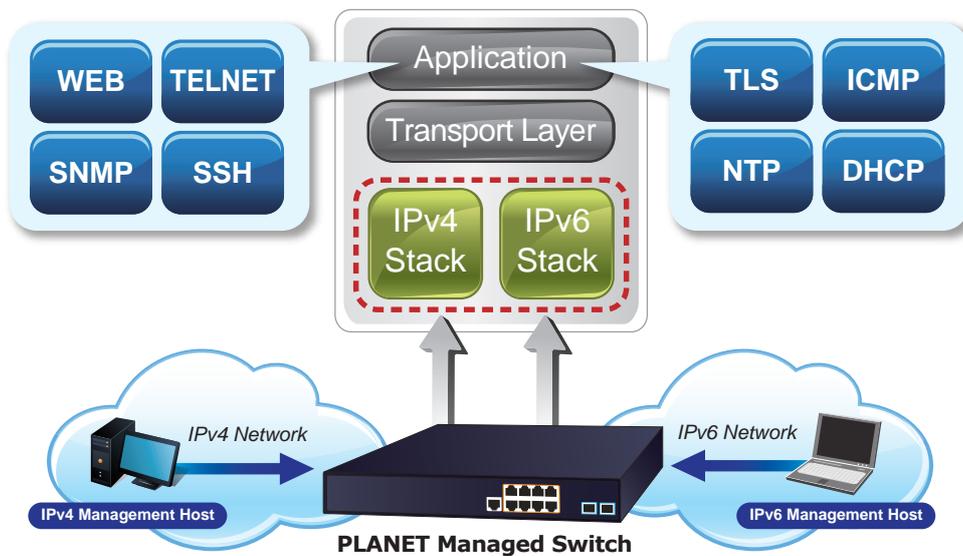
- IPv4 and IPv6 dual stack management
- Switch Management Interfaces
 - Web switch management
 - Console and Telnet Command Line Interface
 - SNMP v1 and v2c switch management
 - SSHv2, TLSv1.2 and SNMPv3 secure access
- SNMP Management
 - Four RMON groups (history, statistics, alarms and events)
 - SNMP trap for interface Linkup and Linkdown notification
- IPv6 IP Address/NTP/DNS management
- Built-in Trivial File Transfer Protocol (TFTP) client
- BOOTP and DHCP for IP address assignment
- System Maintenance
 - Firmware upload/download via HTTP/TFTP
 - Reset button for system reboot or reset to factory default
 - Dual Images
- DHCP Relay
- DHCP Option82
- User Privilege levels control
- NTP (Network Time Protocol)
- Network Diagnostic
 - ICMPv6/ICMPv4 Remote Ping
 - Cable Diagnostic technology provides the mechanism to detect and report potential cabling issues
 - SFP-DDM (Digital Diagnostic Monitor)
- SMTP, Syslog and SNMP trap remote alarm
- System Log
- PLANET Smart Discovery Utility for deployment management
- PLANET UNI-NMS (Universal Network Management) and Smart Discovery Utility for deployment management
- Provides ONVIF for co-operating with PLANET video IP surveillances(MGS-6320-8HP2X)

Convenient and Smart ONVIF Devices with Detection Feature

PLANET has newly developed an awesome feature -- ONVIF Support -- which is specifically designed for cooperating with video IP surveillances. From the MGS-6320-8HP2X GUI, you just need one click to search and show all of the ONVIF devices via network application. In addition, you can upload floor images to the switch and remotely monitor what is going on in the production line. Moreover, you can get real-time surveillance's information and online/offline status, and can have PoE reboot control from GUI.

Solution for IPv6 Networking

With the support for IPv6/IPv4 protocol, and easy and friendly management interfaces, the MGS-6320-Series is the best choice for IP surveillance, VoIP and wireless service providers to connect with the IPv6 network. It also helps SMBs to step in the IPv6 era with the lowest investment and without having to replace the network facilities even though ISPs establish the IPv6 edge network.



Layer 3 Routing Support

The MGS-6320-Series enables the administrator to conveniently boost network efficiency by configuring Layer 3 IPv4/IPv6 VLAN 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.

Robust Layer 2 Features

The MGS-6320-Series can be programmed for advanced switch management function, such as dynamic port link aggregation, **Q-in-Q VLAN**, **Multiple Spanning Tree Protocol (MSTP)**, **Layer 2/4 QoS**, bandwidth control and **IGMP/MLD snooping**. The MGS-6320-Series allows the operation of a high-speed trunk combining multiple ports. Supporting 4 trunk groups, it enables a maximum of up to 10 ports per trunk and supports connection fail-over as well.

Powerful Network Security

The MGS-6320-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 port number or defined typical network applications. Its protection mechanism also comprises **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.

Advanced IP Network Protection

The MGS-6320-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 administrator can now build highly-secure corporate networks with considerably less time and effort than before.

Efficient Management

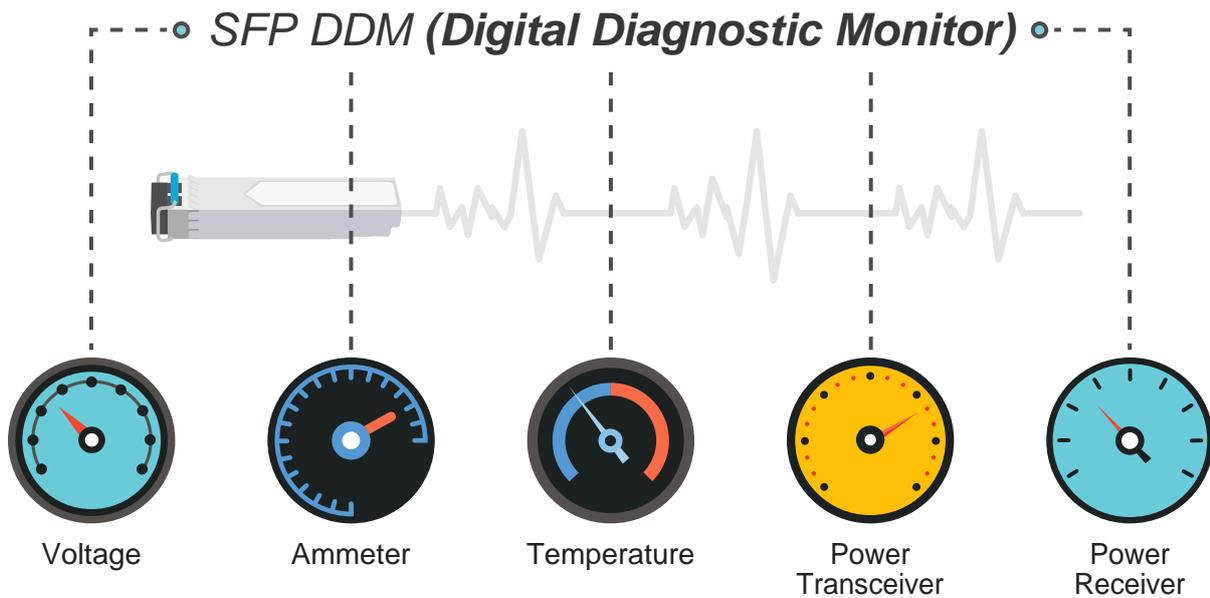
For efficient management, the MGS-6320-Series is equipped with console, Web and SNMP management interfaces.

- With the built-in **Web-based** management interface, it 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 standard-based monitor and management software, it offers SNMPv3 connection which encrypts the packet content at each session for secure remote management.



Intelligent SFP Diagnosis Mechanism

The MGS-6320-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.



Applications

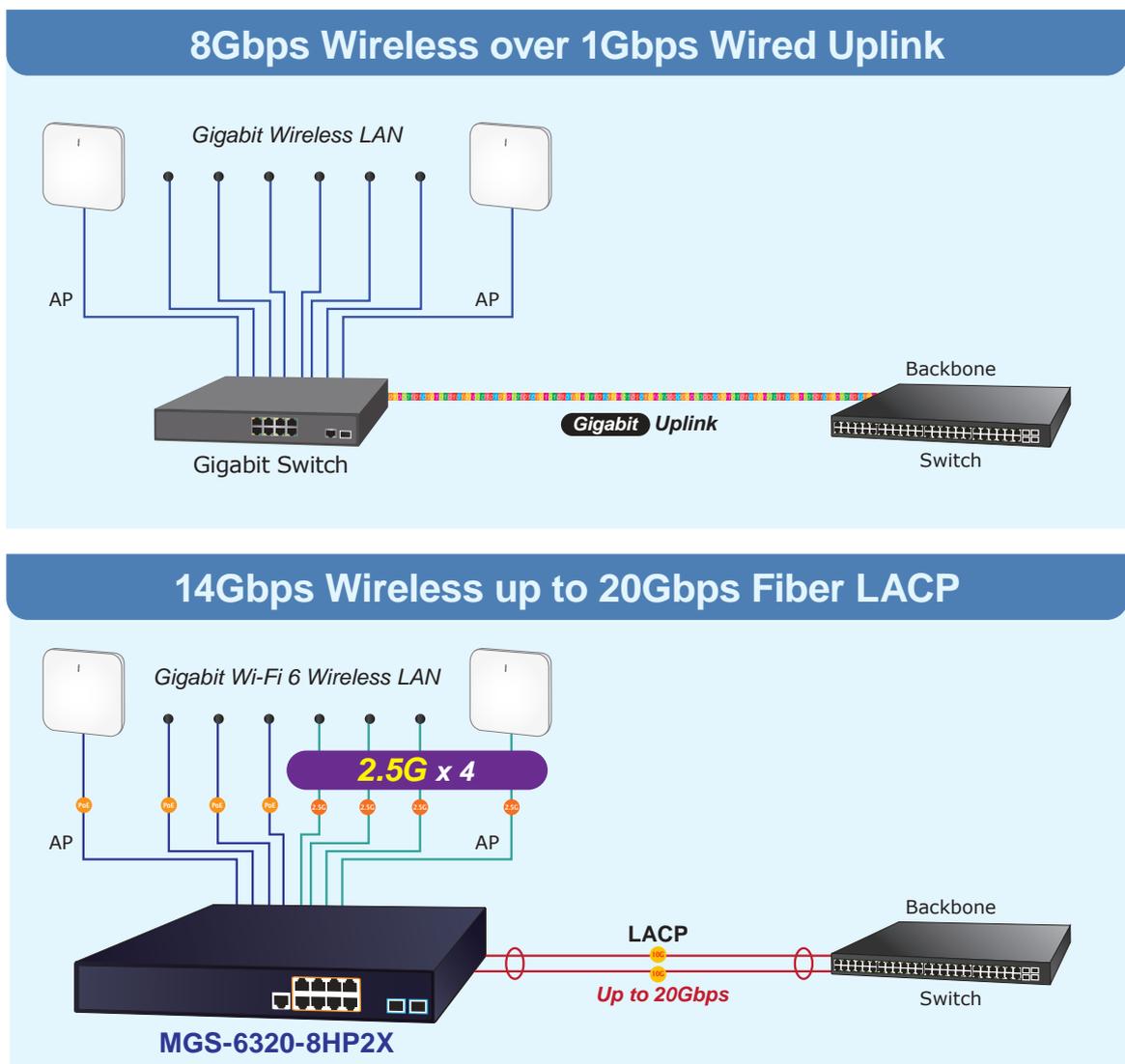
Layer 3 VLAN Static Routing and PoE Application

With the built-in robust IPv4/IPv6 Layer 3 traffic routing protocols, the MGS-6320-8HP2X ensures reliable routing between VLANs and network segments. The routing protocols can be applied by VLAN interface with up to 1K routing entries. The MGS-6320-8HP2X is certainly a cost-effective and ideal solution for enterprises.

Providing up to 4 Gigabit PoE+ ports and 4 Gigabit PoE++ ports and in-line power interface, the MGS-6320-8HP2X PoE Managed Switch can easily build a centrally-controlled power network shared by wireless Gigabit AP, IP phone system, or mega-pixel IP camera system group for the enterprises.

PoE Wi-Fi Hotspot Solution with Extended Network Infrastructure for Public Spaces

The MGS-6320-8HP2X comes with non-blocking design, desktop size and SFP fiber-optic modules, bringing network infrastructure higher flexibility but lower in cost. Providing four 1000BASE-T PoE+ ports in-line power interfaces and four 1000/2500BASE-T PoE++ ports in-line power interfaces and two 10 Gigabit SFP interfaces, the MGS-6320-8HP2X can easily build a Networking Authentication on Wireless LAN Controllers system for the enterprises. For instance, it can work with the Wireless Controller and RADIUS Server to perform comprehensive security for wireless user authentication with powered APs.



Specifications

Product	MGS-6320-8HP2X	MGS-6320-8T2X
Hardware Specifications		
Copper Ports	4x 10/100/1000BASE-T RJ45 auto-MDI/MDI-X interface with Port-1 to Port-4 4x 10/100/1000/2500BASE-T RJ45 auto-MDI/MDI-X interface with Port-5 to Port-8	
SFP/mini-GBIC Slots	2 x 1G/2.5G/10GBASE-X SFP interfaces with Port-9to Port-10	
PoE Injector Port	4 ports with 802.3at/af PoE injector function with Port-1 to Port-4 4 ports with 802.3bt/at/af PoE injector function with Port-5 to Port-8	--
Console	1 x RJ45 serial port (115200, 8, N, 1)	
Reset Button	< 5 sec: System reboot > 5 sec: Factory default	
RAM	512Mbytes	
Flash Memory	64Mbytes	
Dimensions (W x D x H)	330 x 200 x 44.5mm, 1U height	330 x 150 x 44.5mm, 1U height
Weight	2127g	1436g
Power Requirements	100~240V AC, 50/60Hz, 3A max.	100~240V AC, 50/60Hz, 1.5A max.
Power Consumption	Max. 15.48 watts/52.78BTU (Power on without any connection) Max. 281.6watts/960.25BTU (Full loading with PoE+ function)	Max. 9.9 watts/33.76BTU (Power on without any connection) Max. 18.48 watts/63.02BTU (Full loading)
ESD Protection	6KV DC	
Surge Protection	4KV DC	
LED	System: PWR (Green), SYS (Green), R.O (Green), Ring (Green) Per 10/100/1000BASE-T RJ45 Interfaces (Port 1 to Port 4): 1000Mbps LNK/ACT (Green) 10/100Mbps LNK/ACT (Amber) 802.3at/af PoE-in-Use (Amber) Per 10/100/1000/2500BASE-T RJ45 Interfaces (Port 5 to Port 8): 1000/2500Mbps LNK/ACT (Green) 10/100Mbps LNK/ACT (Amber) 802.3bt PoE-in-Use (Green) 802.3at/af PoE-in-Use (Amber) Per 1G/2.5G/10G Mbps SFP Interfaces (Port 9 to Port 10): 1G/2.5G LNK/ACT (Green) 10G LNK/ACT (Amber)	
Switching Specifications		
Switch Architecture	Store-and-Forward	
Switch Fabric	68Gbps/non-blocking	
Throughput	50.59Mpps@ 64Bytes packet	
Address Table	8K entries, automatic source address learning and aging	
Shared Data Buffer	4.1Mbits	
Flow Control	IEEE 802.3x pause frame for full-duplex Back pressure for half-duplex	
Jumbo Frame	10Kbytes	
Power over Ethernet		
PoE Standard	IEEE 802.3at PoE+ PSE (Port 1 to Port 4) Backward compatible with IEEE 802.3af PoE PSE 802.3bt PoE++ PSE (Port 5 to Port 8) Backward compatible with IEEE 802.3at PoE PSE	--
PoE Power Supply Type	<ul style="list-style-type: none"> ■ 802.3bt ■ UPOE/POH ■ End-span ■ Mid-span ■ Force 	--

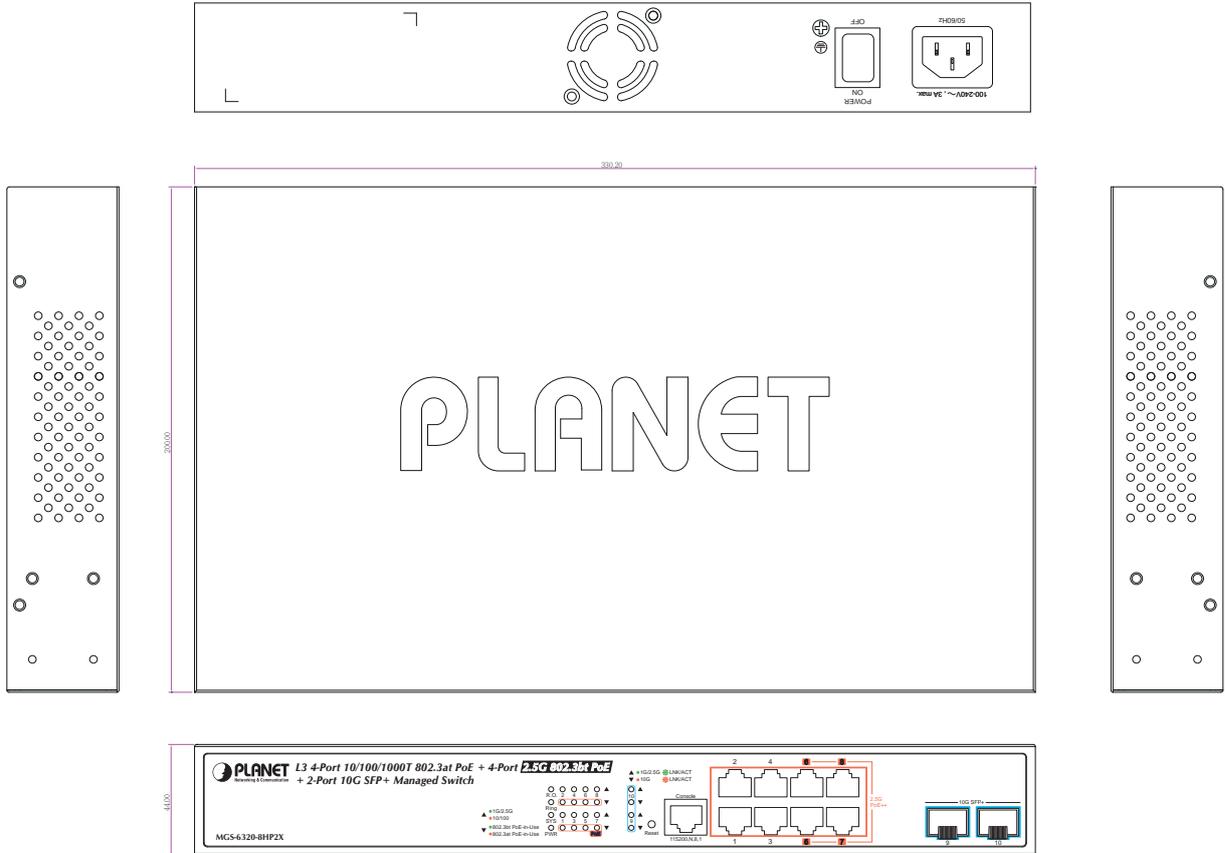
PoE Power Output	802.3bt Type-4 mode, Port-5 to Port-8: maximum 90 watts UPoE mode, Port-5 to Port-8: maximum 95 watts End-span mode: maximum 36 watts Mid-span mode: maximum 36 watts Force mode: maximum 60 watts	--
Power Pin Assignment	802.3bt : 1/2(-), 3/6(+), 4/5(+), 7/8(-) UPoE : 1/2(-), 3/6(+), 4/5(+), 7/8(-) End-span : 1/2(-), 3/6(+) Mid-span : 4/5(+), 7/8(-)	--
PoE Power Budget	240 watts (max.) @ 25 degrees C 200 watts (max.) @ 50 degrees C	--
Number of 802.3bt Type-4 PDs	2 units	--
Number of 802.3bt Type-3 PDs	4 units	--
Number of 802.3at Type-2 PDs	8 units	--
PoE Management Functions		
PoE System Management	PoE Port Status monitoring Total PoE power budget control Over Temperature Protection PoE usage threshold and temperature threshold	--
PoE Device Live Detection	Per port remote PD IP address 4 actions - None - PD reboot - PR reboot and alarm - Alarm	--
PoE Power Recycling	Yes, daily or predefined schedule	--
PoE Schedule	4 schedule profiles	--
PoE Extend Mode	Yes, max. 200 meters	--
Layer 3 Functions		
IP Interfaces	Max. 32 VLAN interfaces	
Routing Table	Max. 32 static route entries Max. 1K routing table entries	
Routing Protocols	IPv4 RIPv2 IPv4 OSPFv2 IPv6 OSPFv3 IPv4 hardware static routing IPv6 hardware static routing	
Layer 2 Functions		
Port Configuration	Port disable/enable Auto-negotiation 10/100/1000Mbps full and half duplex mode selection Flow Control disable/enable Port link capability control	
Port Status	Display each port's speed duplex mode, link status, flow control status, auto negotiation status, trunk status	
Port Mirroring	TX/RX/Both Many-to-1 monitor Supports up to 5 sessions	
VLAN	IEEE 802.1Q tag-based VLAN, IEEE 802.1ad Q-in-Q tunneling Private VLAN Edge (PVE) MAC-based VLAN Protocol-based VLAN Voice VLAN MVR (Multicast VLAN Registration) GVRP Up to 4K VLAN groups, out of 4094 VLAN IDs	
Link Aggregation	IEEE 802.3ad LACP (static trunk) Supports 4 trunk groups with 10 ports per trunk	
IGMP Snooping	IPv4 IGMP (v1/v2/v3) snooping IPv4 IGMP querier mode support Supports 255 IGMP groups	

MLD Snooping	IPv6 MLD (v1/v2) snooping, IPv6 MLD querier mode support Supports 255 MLD groups
Bandwidth Control	Per port bandwidth control Ingress: 10Kbps~13000Mbps Egress: 10Kbps~13000Mbps
Ring	Supports ERPS, and complies with ITU-T G.8032 Recovery time < 10ms @ 3 nodes Recovery time <50ms @ 16 nodes Supports major ring and sub-ring
QoS	Traffic classification based, strict priority and WRR 8-level priority for switching - Port number - 802.1p priority - 802.1Q VLAN tag - DSCP/TOS field in IP packet
Security Functions	
Access Control List	IP-based ACL/MAC-based ACL ACL based on: - MAC Address - IP Address - Ethertype - Protocol Type - VLAN ID - DSCP - 802.1p Priority Up to 512 entries
Security	Port security IP source guard, up to 512 entries Dynamic ARP inspection, up to 1K entries Command line authority control based on user level Static MAC address, up to 64 entries
AAA	RADIUS client TACACS+ client
Network Access Control	IEEE 802.1x port-based network access control MAC-based authentication Local/RADIUS authentication
Management Functions	
Basic Management Interfaces	Console;Telnet; Web browser; SNMP v1, v2c
Secure Management Interfaces	SSHv2, TLSv1.2, SNMPv3
System Management	Firmware upgrade by HTTP protocol through Ethernet network Configuration upload/download through HTTP Remote Syslog System log LLDP protocol NTP PLANET Smart Discovery Utility PLANET CloudViewer app
Event Management	Remote Syslog System log SMTP
ONVIF	ONVIF device discovery ONVIF device monitoring Floor Map
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SNMP MIBs	<p>RFC1213 MIB-II RFC 2863 IF-MIB RFC1643 Ethernet MIB RFC2863 Interface MIB RFC2665 Ether-Like MIB RFC2737 Entity MIB RFC2819 RMON MIB (Groups 1, 2, 3 and 9) RFC2618 RADIUS Client MIB RFC3411SNMP-Frameworks-MIB RFC 3621 Power Ethernet MIB IEEE802.1X PAE LLDP MAU-MIB</p>
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Standards Compliance	<p>IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3z 1000BASE-SX/LX IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5GBASE-X IEEE 802.3ae 10Gb/s Ethernet IEEE802.3x flow control and back pressure IEEE802.3ad port trunk with LACP IEEE802.1D Spanning Tree Protocol IEEE802.1w Rapid Spanning Tree Protocol IEEE 802.1s Multiple Spanning Tree Protocol IEEE802.1p Class of Service IEEE802.1Q 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 IEEE 802.3bt 4-pair Power over Ethernet Plus Plus RFC 768 UDP RFC 793 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 3810 MLD v2 RFC 2328 OSPF v2 RFC 2453 RIP v2</p>
Environment	
Operating	<p>Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing)</p>
Storage	<p>Temperature: -10 ~ 70degrees C Relative Humidity:5 ~ 95% (non-condensing)</p>

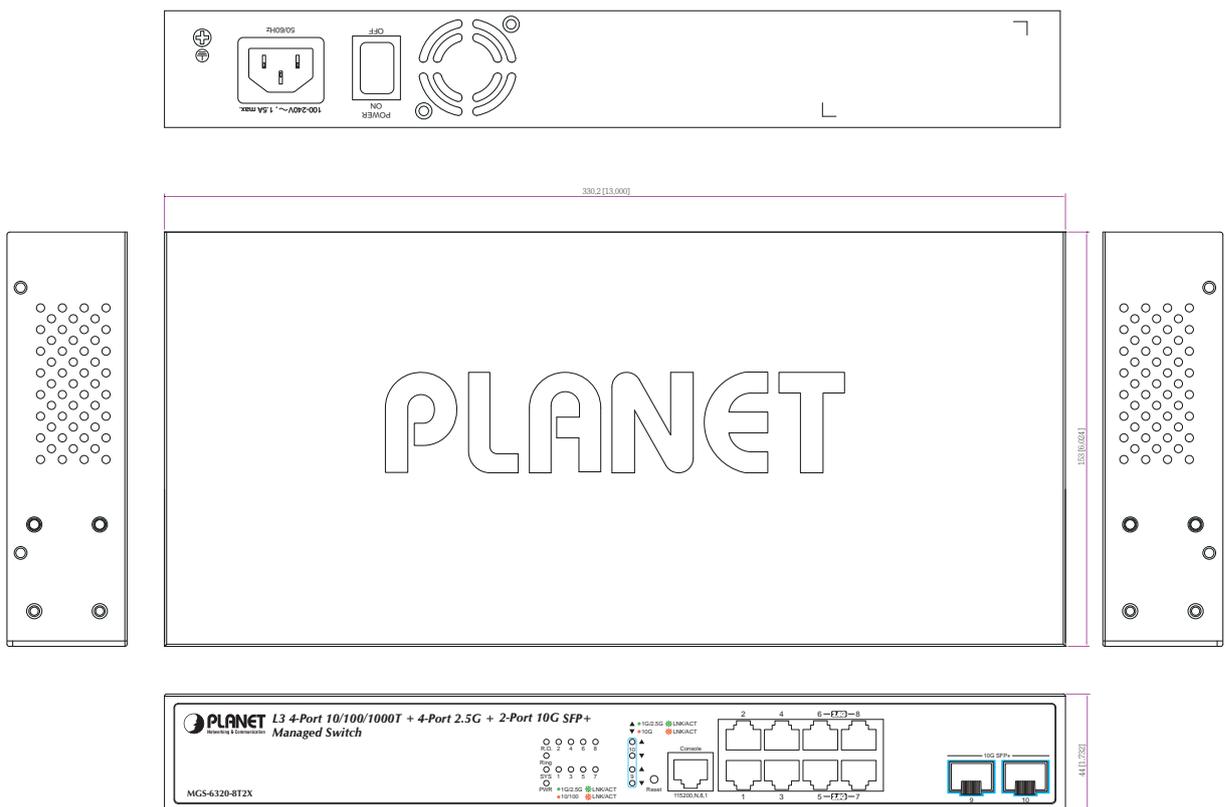
Dimensions

MGS-6320-8HP2X



Unit: mm

MGS-6320-8T2X



Unit: mm

Ordering Information

MGS-6320-8HP2X	L3 4-Port 10/100/1000T 802.3at PoE + 4-Port 2.5G 802.3bt PoE + 2-Port 10G SFP+ Managed Switch (240W)
MGS-6320-8T2X	L3 4-Port 10/100/1000T+ 4-Port 2.5G + 2-Port 10G SFP+ Managed Switch

Available 10Gbps Modules

MTB-LB40	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 40km (TX:1330nm RX:1270nm)
MTB-LA40	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 40km (TX:1270nm RX:1330nm)
MTB-LB20	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 20km (TX:1330nm RX:1270nm)
MTB-LA20	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 20km (TX:1270nm RX:1330nm)
MTB-SR	1-Port 10GBASE-SR SFP+ Fiber Optic Module - 300m
MTB-LR	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 10km
MTB-LA60	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 60km (TX:1270nm RX:1330nm)
MTB-LB60	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 60km (TX:1330nm RX:1270nm)
MTB-RJ	1-Port 10GBASE-T SFP+ Copper Fiber Optic Module - 30m
MTB-LR40	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 40km
MTB-SR2	1-Port 10GBASE-SR SFP+ Fiber Optic Module - 2km
MTB-LR20	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 20km
MTB-LR60	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 60km
MTB-LR80	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 80km
MTB-LA10	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 10km (TX:1270nm RX:1330nm)
MTB-LB10	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 10km (TX:1330nm RX:1270nm)

Available 2500Mbps Modules

MGB-2GSR	2.5G SFP Transceiver (Multi-mode, 850nm, DDM, 0~70 degrees C) - 300m
MGB-2GLA20	2.5G SFP Transceiver (Single mode WDM, TX:1310nm RX:1550nm, DDM, 0~70 degrees C) - 20km
MGB-2GLB20	2.5G SFP Transceiver (Single mode WDM, TX:1550nm RX:1310nm, DDM, 0~70 degrees C) - 20km
MGB-2GLR20	2.5G SFP Transceiver (Single mode, 1310nm, DDM) - 20km
MGB-2GLR2	2.5G SFP Transceiver (Single mode, 1310nm, DDM) - 2km

Available 1000Mbps Modules

MGB-GT	SFP-Port 1000BASE-T Module
MGB-LX	SFP-Port 1000BASE-LX Mini-GBIC Module - 20km
MGB-SX	SFP-Port 1000BASE-SX Mini-GBIC Module - 550m
MGB-SX2	SFP-Port 1000BASE-SX Mini-GBIC Module - 2km
MGB-L40	SFP-Port 1000BASE-LX Mini-GBIC Module - 40km
MGB-L80	SFP-Port 1000BASE-LX Mini-GBIC Module - 80km
MGB-L120	SFP-Port 1000BASE-LX Mini-GBIC Module - 120km
MGB-LA10	SFP-Port 1000BASE-BX (WDM, TX:1310nm) Mini-GBIC Module - 10km
MGB-LB10	SFP-Port 1000BASE-BX (WDM, TX:1550nm) Mini-GBIC Module - 10km
MGB-LA20	SFP-Port 1000BASE-BX (WDM, TX:1310nm) Mini-GBIC Module - 20km
MGB-LB20	SFP-Port 1000BASE-BX (WDM, TX:1550nm) Mini-GBIC Module - 20km
MGB-LA40	SFP-Port 1000BASE-BX (WDM, TX:1310nm) Mini-GBIC Module - 40km
MGB-LB40	SFP-Port 1000BASE-BX (WDM, TX:1550nm) Mini-GBIC Module - 40km
MGB-LA80	SFP-Port 1000BASE-BX (WDM, TX:1490nm) Mini-GBIC Module - 80km
MGB-LB80	SFP-Port 1000BASE-BX (WDM, TX:1550nm) Mini-GBIC Module - 80km