

24-Port 100/1000 SFP with 8 Shared TP Managed Stackable Switch



Multi Port / Flexible Dual-Speed Fiber Optical Connective for Distance Extension Solution

The FTTx network applications are part of our life particularly for the business and home use today. To carry out the long-distance networking deployment for FTTx and Metro system, PLANET introduces the latest Layer 2 Managed Core Fiber Switch- SGSW-24240 series providing SFP slots with multiple ports in the 1U high case. Each of the SFP slot supports Dual-Speed, 1000Base-SX / LX or 100Base-FX; that means, the administrator now can flexibly choose the suitable SFP transceiver according to not only the transmission distance but also the transmission speed required.

The PLANET SGSW-24240 series fiber Switch is designed to help ISPs, campuses and enterprises improve their backbone and workgroup network applications by high performance, long distance and stable transmission quality. In addition to being a secure, fast, and varied central exchange platform for fiber optic network, the SGSW-24240 series brings the network service providers unprecedented convenience experience by offering the high flexibility and advantages.

Resilient Deployment Switch for Growing Long-Reach Networking of Enterprise, Telecoms and Campus

The SGSW-24240 series Switch is the Layer 2 Managed Stackable Gigabit Switch series which provides 24 100/1000 dual-speed SFP slots, 8 shared Gigabit TP ports, and 2 dedicated High-Speed HDMI-like interfaces for stacking with the series of switches. By applying the SGSW-24240 series Switch, up to 16 units, 384 fiber-optical ports can be managed by a stacking group and you can add ports and functionality as needed. The 2 built-in stacking ports providing 5Gbps bandwidth and up to 20Gbps Bi-directional speed, it can handle extremely large amounts of data in a secure topology linking for backbone or high capacity network server with 68Gbps switching fabric per unit. The stacking technology also enables the chassis-based switches to be integrated into SGSW-24240 series Managed Switch but without the expensive up-front cost.

High Reliability Stacking Management

The SGSW-24240 series applies the advantage of stackable technology to manage the stack group with one single IP address, which helps network managers to easily manage a stack of switches instead of connecting and setting each unit one by one. Through its high bandwidth tunnel and stacking technology, the SGSW-24240 series gives the enterprises, service providers and Telecoms flexible control over port density, uplinks and switch stack performance. Stack redundancy of the SGSW-24240 series ensures data integrity be 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.



The SGSW-24240 series can be programmed for advanced switch management functions such as dynamic Port link aggregation, Q-in-Q VLAN, private VLAN, Rapid Spanning Tree protocol, Layer 2 to Layer 4 QoS, bandwidth control and IGMP Snooping. The SGSW-24240 series provides 802.1Q Tagged VLAN, and the VLAN groups allowed will be maximally up to 255. Via aggregation of supporting ports, the SGSW-24240 series allows the operation of a high-speed trunk combining multiple ports. It enables maximum up to 12 groups of 16 ports for port link aggregation, and supports fail-over as well.

Robust Layer 2 Features

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Easy and Friendly Traffic Control

PLANET SGSW-24240 series is loaded with powerful but easy traffic management and QoS features to enhance services offered by telecoms. The QoS features include wire-speed Layer 4 traffic classifiers and bandwidth limiting that are particular useful for multi-tenant unit, multi business unit, Telco, or Network Service Provider applications like VoIP, video streaming and multicast applications. The embedded handy QoS configuration wizard helps you set up a typical network application rules easily and quickly via Web interface. The SGSW-24240 series also empowers the enterprises or campus to take full advantages of the limited network resources and guarantees the best performance in Voice and Video conferencing transmission.

Efficient Management

For efficient management, the SGSW-24240 series Gigabit Switch is equipped with console, WEB and SNMP management interfaces. With the built-in Web-based management interface, the PLANET SGSW-24240 series offers an easy-to-use, platform-independent management and configuration facility. It supports standard Simple Network Management Protocol (SNMP) and can be managed via any standard-based management software. For text-based management, the SGSW-24240 series can be accessed via Telnet and the console port. Moreover, the SGSW-24240 series performs secure remote management by supporting SNMPv3 connection which encrypts the packet content at each session.

Powerful Security

PLANET SGSW-24240 series offers comprehensive Layer 2 to Layer 4 Access Control List (ACL) for enforcing security to the edge. It can be used to restrict network access by denying packets based on source and destination IP address, TCP/UDP ports or defined typical network applications. Its protection mechanism also comprises of 802.1x port-based and MAC-based user and device authentication. With the private VLAN function, communication between edge ports can be prevented to ensure user privacy. The network administrators can now construct highly secured corporate networks with considerably less time and effort than before.

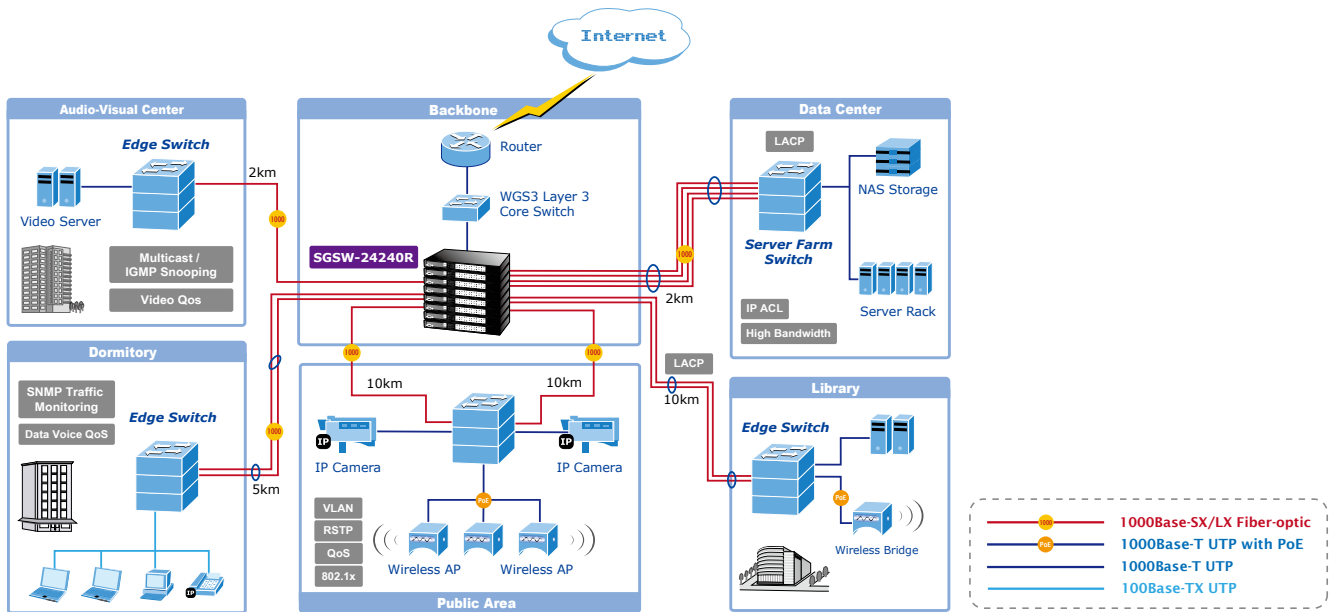
AC / DC Power Redundant to Ensure Continuous Operation

Particularly for the SGSW-24240R, it is equipped with one 100~240V AC power supply unit and one DC -48V power supply unit to provide an enhanced reliable and scalable redundant power supply installation. The continuous power system is specifically designed to fulfill the demands of high tech facilities requiring the highest power integrity. The -48V DC power supply implemented makes SGSW-24240R the telecom level device that can be located at the electronic room.

APPLICATIONS

Carrier Class Backbone Switch for the Campus and Community

For small area network communication such as in campus and community, the PLANET SGSW-24240 series Managed Stackable Switches enable an affordable and scalable network deployment. Multiple SGSW-24240 series Switches may be connected together to constitute a chain or ring stack topology using the 5Gbps stacking ports as interconnect links. Up to 16 units, 384 high-density Gigabit Ethernet ports can be managed by a stacking group with a single IP address. Furthermore, up to 384 mini-GBIC / SFP ports are available for remote uplink connectivity in a stacking group and provide the uplink to the edge network through 1000Base-SX/LX or 100Base-FX SFP modules. The SGSW-24240 series stackable switching system gives you the flexibility to expand small area network when needed.

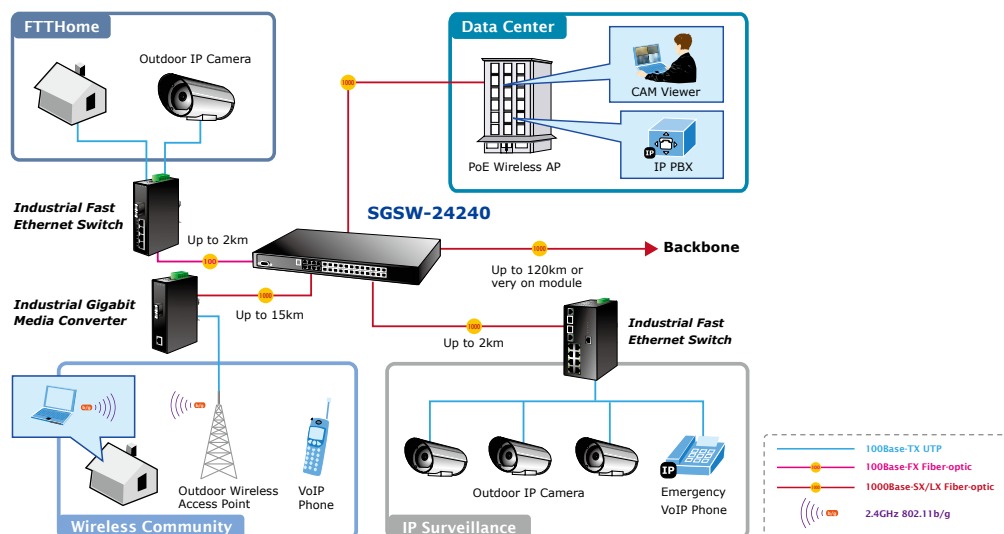


FTTX / MAN Application

The SGSW-24240 series offers multiple flexible fiber optical connective capability and helps to extend the coverage from backbone to edge network applications. The stackable fiber switch also provides high scalability for current and future network infrastructure as they can flexibly work with other PLANET SGSW series Gigabit Switches to meet the various networking requirements and simplify the network deployment and management of metro access networks.

The SGSW-24240 series applies the double tag VLAN (Q-in-Q) technology to provide low cost and easy operation for service providers carrying traffic for multiple customers across their networks. It allows the service providers to offer certain services such as Internet access on VLANs for specific customers and meanwhile still can provide other types of services for other customers on other VLANs.

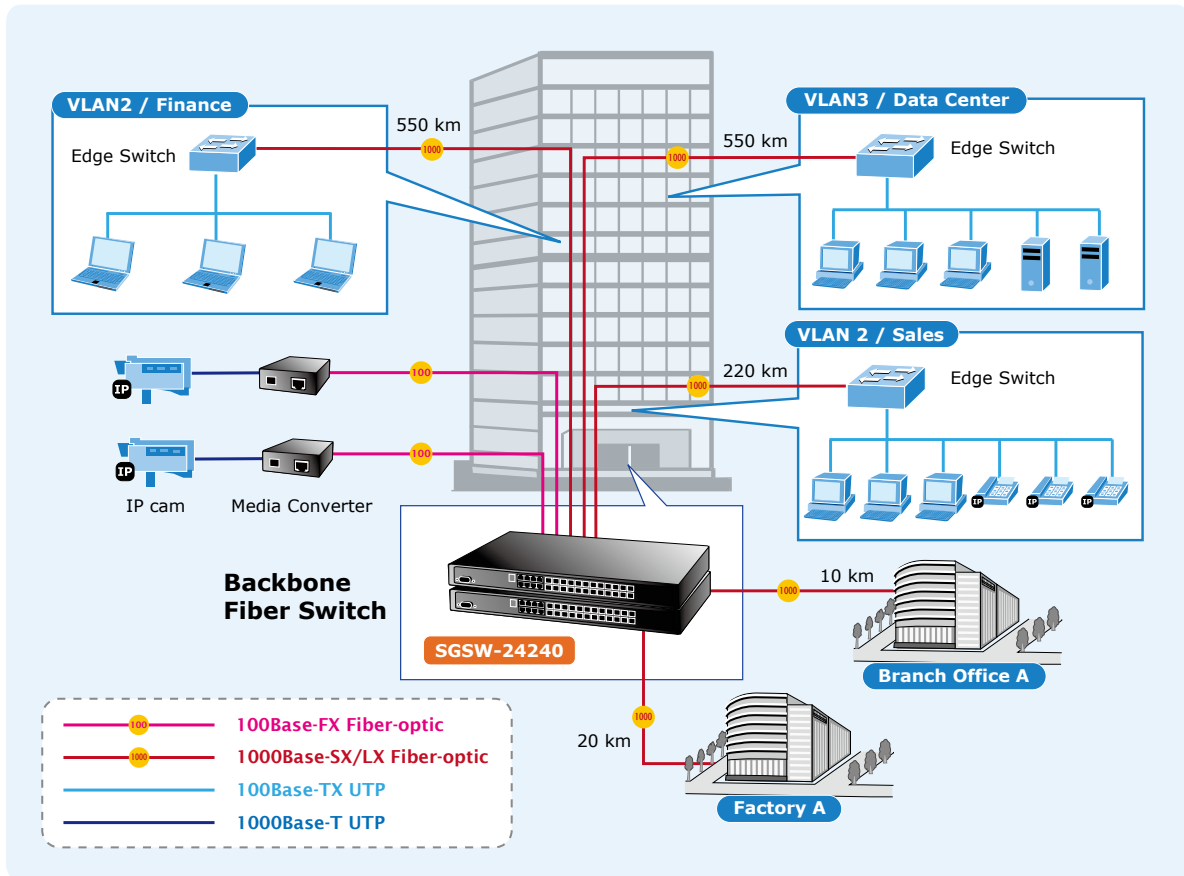
With SNMPv3 support, the SNMPv3 security structure in the SGSW-24240 consists of various security models, with each model having its own security levels for the ISP and Service Provider.



High Performance, High-Density, High Reliable Enterprise Backbone Switch

Gigabit Ethernet supported equipment has become the fundamental unit of Enterprises and Network servers. The SGSW-24240 series stackable Gigabit switch can easily provide the cost-effective, high-density and high-bandwidth required from now on. Dedicated stacking features built into SGSW-24240 series switch makes all devices in the stack operate together as a one much larger switch providing multiple high performance Gigabit Ethernet network for backbone of enterprise or Telecoms. The SGSW-24240 series switch is ideal to be used as a server farm switch connecting servers. With the dynamic link aggregation function, a 16 GB fat pipe is provided for connecting to the backbone if required.

The dual power supplies provide the SGSW-24240R the non-Stop network service ability. Besides the AC power input, the DC power supply can be chosen as -48V DC power input source or redundant power for SGSW-24240R. The SGSW-24240R can take electrical power either from the AC outlet, the DC outlet or both for redundant.



KEY FEATURES

PHYSICAL PORT

- 24 100/1000Base-X mini-GBIC / SFP slots
- 8-Port 10/100/1000Base-T RJ-45 copper, shared with port 1 to 8
- 2 HDMI-like 5GbE Stacking interfaces
- RS-232 DB9 console interface for Switch basic management and setup

STACKING

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

LAYER 2 FEATURES

- Auto-MDI / MDI-X detection for each RJ-45 port
- Prevents packet loss with back pressure (Half-Duplex) and IEEE 802.3x PAUSE frame flow control (Full-Duplex)
- High performance of Store-and-Forward architecture, broadcast storm control and runt / CRC filtering eliminates erroneous packets to optimize the network bandwidth
- 8K MAC address table, automatic source address learning and ageing
- 1392Kbytes embedded memory for packet buffers
- Supports VLAN
 - IEEE 802.1Q Tagged VLAN
 - Up to 255 VLANs groups, out of 4041 VLAN IDs
 - Provider Bridging (VLAN Q-in-Q) support (IEEE 802.1ad)
 - Private VLAN Edge (PVE)
- Supports Spanning Tree Protocol
 - STP, IEEE 802.1d (Spanning Tree Protocol)
 - RSTP, IEEE 802.1w (Rapid Spanning Tree Protocol)
- Supports Link Aggregation
 - 802.3ad Link Aggregation Control Protocol (LACP)
 - Cisco ether-channel (Static Trunk)
 - Maximum 12 trunk groups, up to 16 ports per trunk group
 - Up to 32Gbps bandwidth (Duplex Mode)
- Provides Port Mirror (many-to-1)
- Port Mirroring to monitor the incoming or outgoing traffic on a particular port

QUALITY OF SERVICE

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

MULTICAST

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

SECURITY

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

MANAGEMENT

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

REDUNDANT POWER SYSTEM (SGSW-24240R)

- 100~240V AC / -48V DC Dual power redundant
- Active-Active redundant power failure protection
- Backup of catastrophic power failure on one supply

SPECIFICATION

Product	24-Port 100/1000 SFP with 8 Shared TP Managed Stackable Switch	
Model	SGSW-24240	SGSW-24240R
Hardware Specification		
Copper Ports	8 10/100/1000Base-T RJ-45 ports, shared with port 1 to 8 Supports Auto-negotiation and Auto-MDI / MDI-X 24 SFP interfaces	
SFP / mini-GBIC Slots	1000Base-SX/LX SFP transceiver compatible 100Base-FX SFP transceiver compatible SFP transceiver type and speed auto detection	
Switch Processing Scheme	Store-and-Forward	
Switch Fabric	68Gbps	
Address Table	8K entries	
Share Data Buffer	1392 kilobytes	
Flow Control	IEEE 802.3x Pause Frame for Full-Duplex Back pressure for Half-Duplex	
Jumbo Frame	10Kbytes	
LED	System: Power, Master Ports: 10/100/1000 Link/Act, SFP Link, Stack Port Link	
Dimension (W x D x H)	440 x 200 x 44.5 mm, 1U height	
Weight	3.0 KG	
Power Consumption	Max. 50 Watts / 170.5 BTU	
Power Requirement	100~240V AC, 50/60Hz	100~240V AC, 50/60Hz -48V DC @ 0.6A, Range: -30 ~ -60V
Stacking		
Stacking Ports	Two 5Gbps HDMI-Like interface	
Stacking Numbers	16	
Stacking Bandwidth	10Gbps (Full-Duplex)	
Stack ID Display	7-Segment LED Display (1~9, A~F,0)	
Stack Topology	Ring / Chain / Back-to-Back stack	
Layer 2 function		
System Configuration	Console, Telnet, Web Browser, SNMPv1, v2c and v3 Port disable/enable	
Port configuration	Auto-negotiation 10/100/1000Mbps full and half duplex mode selection Flow Control disable / enable Bandwidth control on each port	
Port Status	Display each port's speed duplex mode, link status, flow control status, auto negotiation status, trunk status	
VLAN	802.1Q Tagged Based VLAN, up to 255 VLAN groups Q-in-Q Private VLAN	
Port Trunking	IEEE 802.3ad LACP / Static Trunk 12 groups of 16-Port trunk support Traffic classification based, Strict priority and WRR 4-level priority for switching	
QoS	- Port Number - 802.1p priority - DSCP/TOS field in IP Packet	
IGMP Snooping	IGMP (v1/v2) Snooping, up to 255 multicast Groups IGMP Querier mode support	
Access Control List	IP-Based ACL / MAC-Based ACL Up to 256 entries	
SNMP MIBs	RFC-1213 MIB-II IF-MIB RFC-1493 Bridge MIB RFC-1643 Ethernet MIB RFC-2863 Interface MIB RFC-2665 Ether-Like MIB RFC-2737 Entity MIB RFC-2618 RADIUS Client MIB RFC-2933 IGMP-STD-MIB RFC3411 SNMP-Frameworks-MIB IEEE802.1X PAE LLDP MAU-MIB	

Standards Conformance

Regulation Compliance	FCC Part 15 Class A, CE
Standards Compliance	IEEE 802.3 10Base-T
	IEEE 802.3u 100Base-TX/100Base-FX
	IEEE 802.3z 1000Base-SX/LX
	IEEE 802.3ab 1000Base-T
	IEEE 802.3x Flow Control and Back pressure
	IEEE 802.3ad Port trunk with LACP
	IEEE 802.1D Spanning tree protocol
	IEEE 802.1w Rapid spanning tree protocol
	IEEE 802.1p Class of service
	IEEE 802.1Q VLAN Tagging
IEEE 802.1x Port Authentication Network Control	
IEEE 802.1ab LLDP	

Environment

Operating	Temperature:	0 ~ 50 Degree C
	Relative Humidity:	20 ~ 95% (non-condensing)
Storage	Temperature:	-40 ~ 70 Degree C
	Relative Humidity:	20 ~ 95% (non-condensing)

ORDERING INFORMATION

SGSW-24240	24-Port 100/1000 SFP Slots with 8 Shared TP Managed Stackable Switch
SGSW-24240R	24-Port 100/1000 SFP Slots with 8 Shared TP Managed Stackable Switch / -48V DC Redundant Power

RELATIVE PRODUCTS

SGSW-24040	24-Port 10/100/1000Mbps with 4 Shared SFP Managed Stackable Switch
SGSW-24040R	24-Port 10/100/1000Mbps with 4 Shared SFP Managed Stackable Switch / -48V DC Redundant Power
SGSW-24040P	24-Port Gigabit PoE Managed Stackable Switch / 220W
SGSW-24040P4	24-Port Gigabit PoE Managed Stackable Switch / 380W

ACCESSORIES

CB-STX50	0.5 Meter 5Gbps Stacking Cable with Crossed-HDMI connector (Standard package)
CB-STX200	2 Meter 5Gbps Stacking Cable with Crossed-HDMI connector

AVAILABLE MODULES FOR SGSW-24240 / SGSW-24240R

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