

# 24-Port 10/100BASE-TX 802.3at PoE + 1-Port Gigabit TP/SFP Combo Ethernet Switch

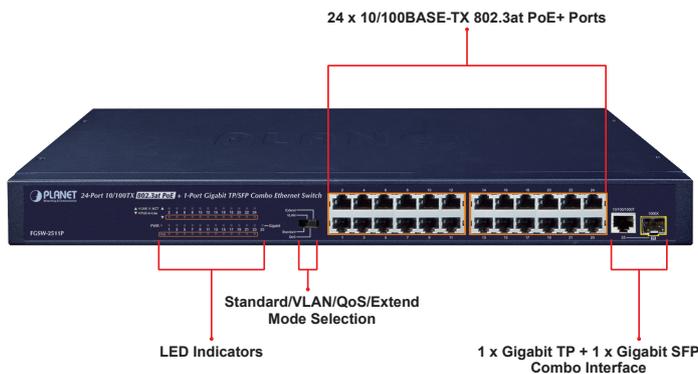


## Centralized Power Distribution for HD IP Surveillance System

The FGSW-2511P, a new PLANET 802.3at PoE Fast Ethernet Switch, provides **24 10/100BASE-TX 802.3at PoE+ ports** with a total of 190 watts of PoE budget, one 10/100/1000BASE-T uplink port, and one shared 1000BASE-X SFP slot. Its PoE power is more than enough for those network applications with Fast Ethernet speed transmission.



The 24 802.3at PoE+ ports feature PoE power injector function which is able to drive 24 IEEE 802.3at compliant powered devices. The FGSW-2511P also offers a simple, cost-effective and non-blocking wire-speed performance. It comes with a 19-inch metal housing, suitable for desktop deployment in SOHO office or department network application.



## Physical Interface

- 24 10/100BASE-TX RJ45 copper ports
- One 10/100/1000BASE-T Gigabit RJ45 copper port
- One shared 1000BASE-X SFP interface
- Hardware-based DIP switch for “Standard”, “VLAN”, “QoS” or “Extend” mode selection

## Power over Ethernet

- Complies with IEEE 802.3at Power over Ethernet Plus end-span PSE
- Up to 24 IEEE 802.3af/at devices powered
- Supports PoE power up to 30 watts for each PoE port
- 190-watt PoE budget
- Each PoE port supports 52V DC power to PoE powered device
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m in standard mode
- The “Extend” mode features 25-watt PoE transmit distance of 250m at speed of 10Mbps

## Switching

- Hardware-based 10/100Mbps and 10/100/1000Mbps auto-negotiation and auto MDI/MDI-X
- Flow control for full duplex operation and back pressure for half duplex operation
- Integrates address look-up engine, supporting 16K absolute MAC addresses
- Automatic address learning and address aging
- Solid DIP switch to isolate ports to prevent broadcast storm and defend DHCP spoofing

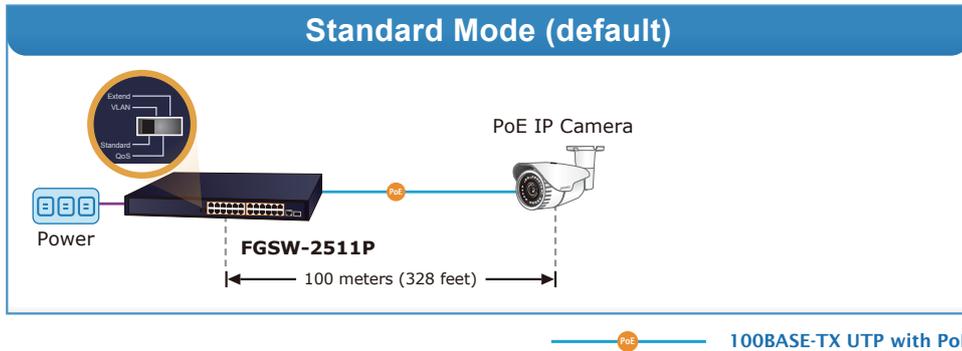
## Hardware

- 19-inch rack-mount size, 1U height
- LED indicators for PoE ready/activity and LINK/ACT
- Internal AC power supply
- Supports Energy-Efficient Ethernet (EEE) function (IEEE 802.3az)

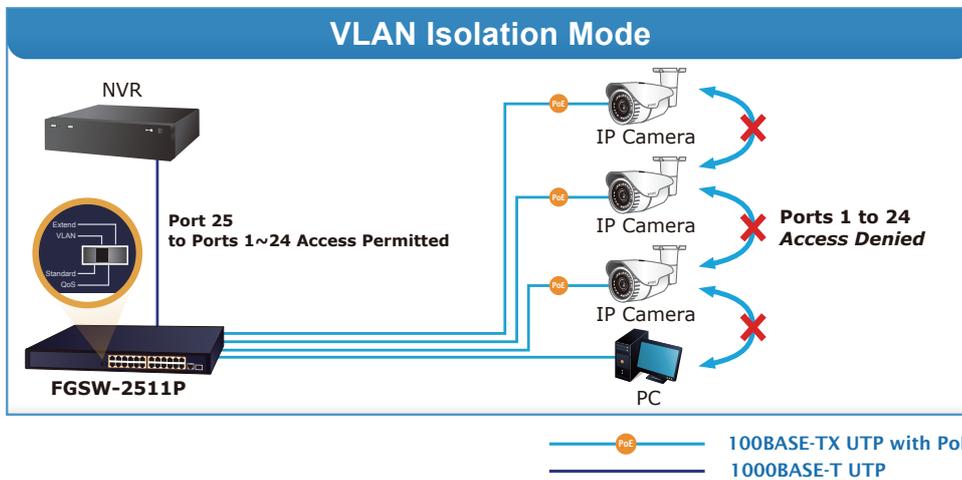
**Distance Extended for Transmission of Power and Data**

The built-in solid DIP switch provides "Standard", "VLAN", "QoS" and "Extend" operation modes.

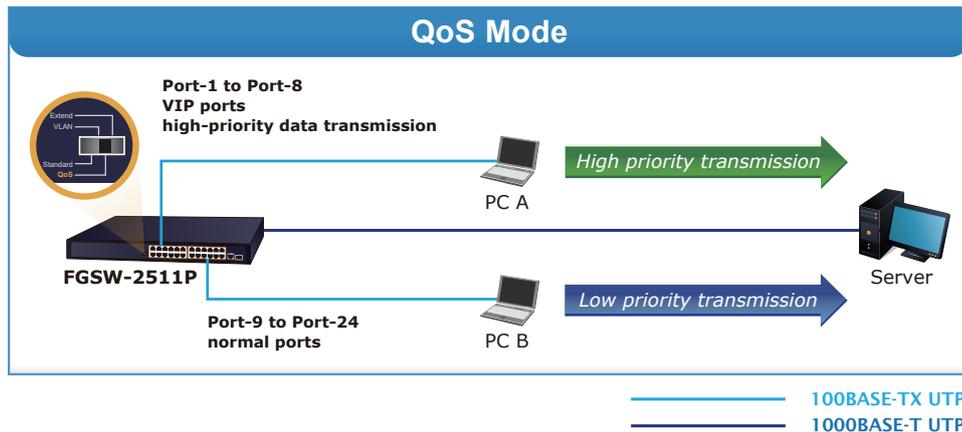
- In the "Standard" operation mode, the FGSW-2511P operates as a normal IEEE 802.3at PoE+ Switch.



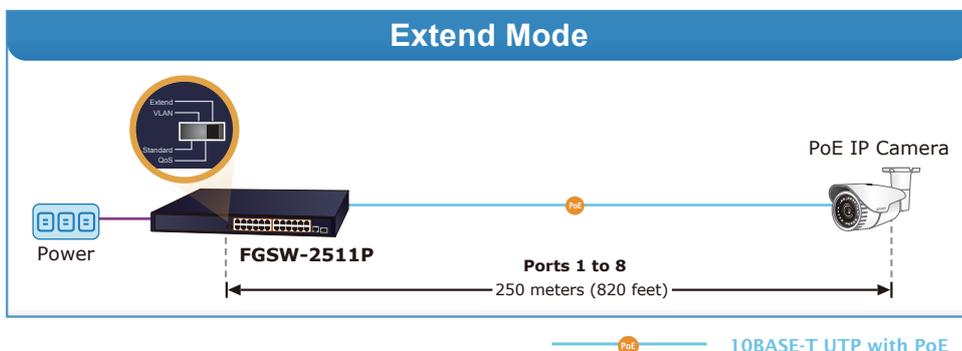
- The "VLAN" operation mode features port-based VLAN function that can help to prevent the IP camera's multicast or broadcast storm from influencing each other.



- The "QoS" operation mode features port-based QoS function. Port 1 to Port 8 supports port priority; optimize port cache.



- In the "Extend" operation mode, PoE Port-1 to Port-8 of the FGSW-2511P can support 25-watt PoE power output over a distance of up to 250 meters overcoming the 100m limit on Ethernet UTP cable.



With this brand-new feature, the FGSW-2511P provides an additional solution for 802.3af/at PoE distance extension, thus saving the cost of Ethernet cable installation. Its VLAN isolation function isolates each port so as to prevent broadcast storm and defend DHCP spoofing in the “VLAN” operation mode.

### Gigabit Uplink Port

The FGSW-2511P comes with one combo uplink interface with a transfer rate of 1000Mbps to ensure high-speed data and video transmission, and reliable assurance for connection between the surveillance system and outside network where the eight PoE+ ports can be used to their full potential.

### Fiber-Optic Link Capability Enables Extension of Network Deployment

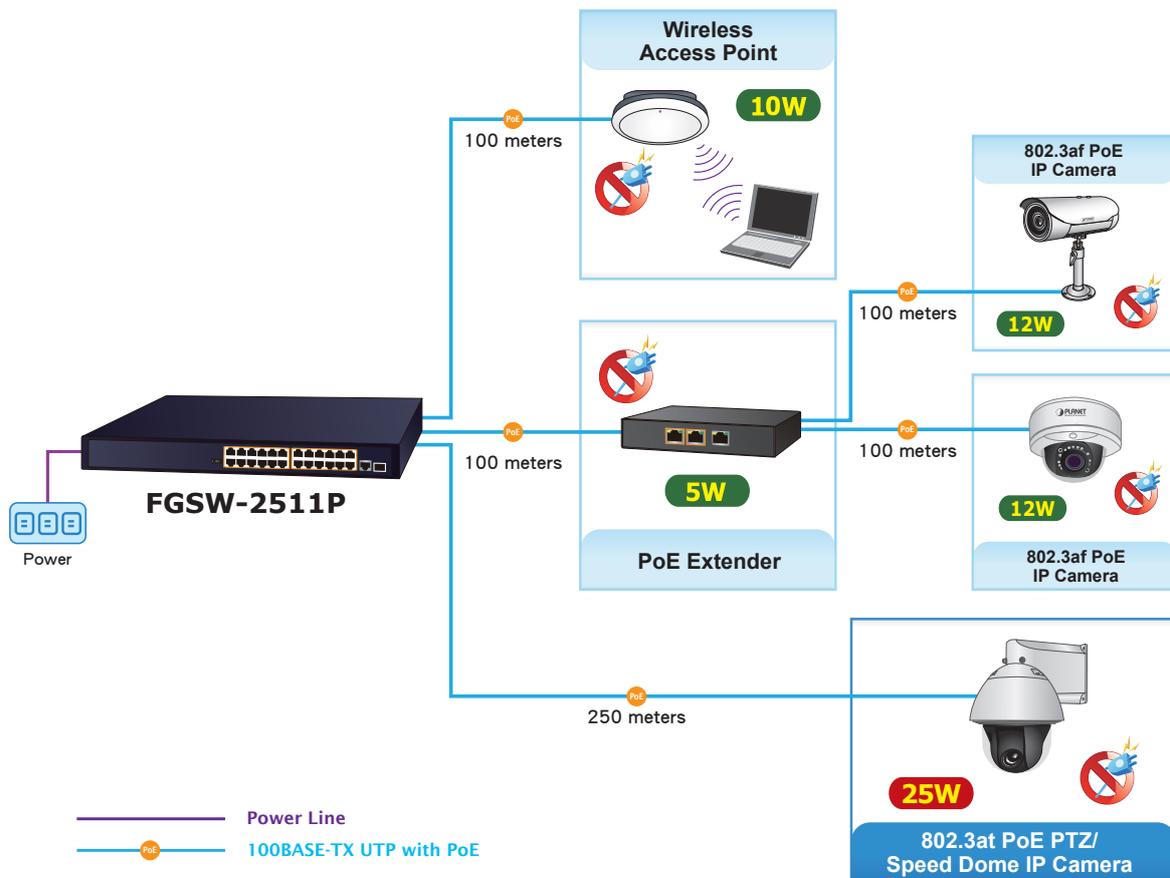
The mini-GBIC slot built in the FGSW-2511P supports 1000BASE-SX/LX SFP (small form-factor pluggable) fiber-optic modules, meaning the administrator now can flexibly choose the suitable SFP transceiver based on the transmission distance or the transmission speed required to extend the network efficiently. The distance can be extended from 550 meters to 2 kilometers (multi-mode fiber) and 10/20/40/60/80/120 kilometers (single-mode fiber or WDM fiber). They are well suited for applications to uplink to backbone switch and monitoring center in long distance.

### Robust Protection

The FGSW-2511P protects against the ESD 4kV surge to improve product stability and also protects users’ networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.

### Easy Installation and Cable Connection

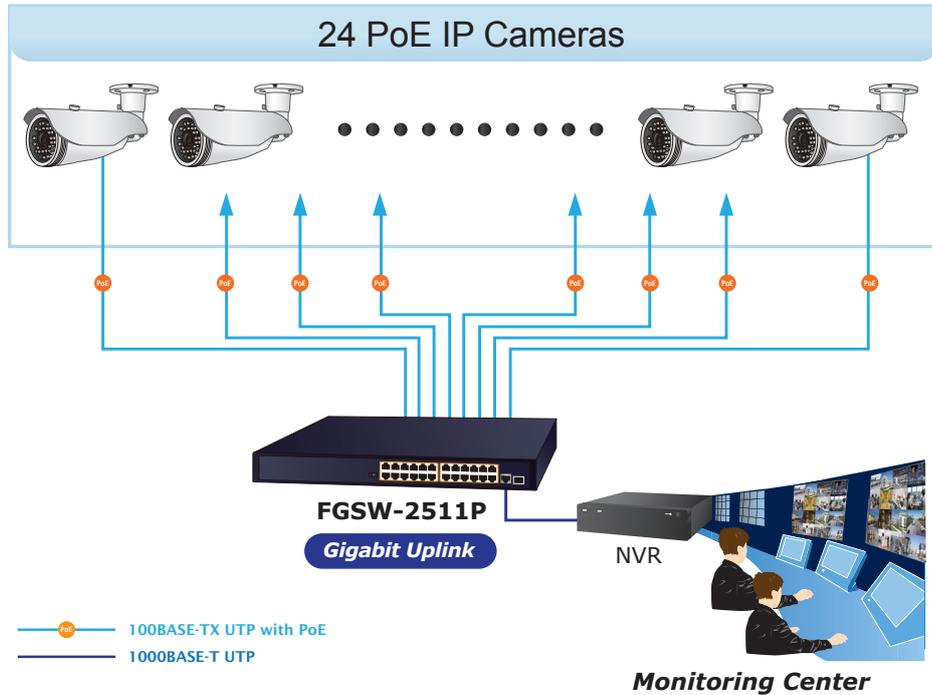
As data transfer and high PoE are transmitted over a cable, the FGSW-2511P is able to reduce the need of extended cables and electrical outlets on the wall, ceiling or any unreachable place. It helps to lower the installation costs and simplify the installation effort. All RJ45 copper interfaces of the FGSW-2511P support 10/100Mbps or 10/100/1000Mbps auto-negotiation for optimal speed detection through RJ45 Category 6, 5 or 5e cable. It also supports standard auto-MDI/MDI-X that can detect the type of connection to any Ethernet device without requiring special straight-through or crossover cables.



## Applications

### Perfectly Integrated Solution for IP PoE Camera and NVR System

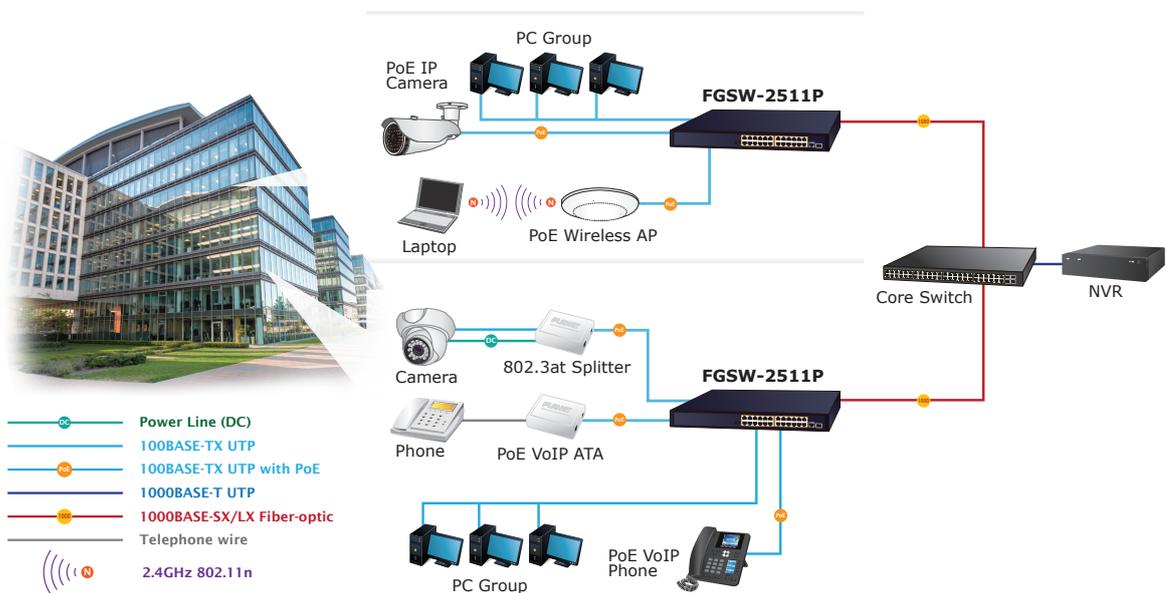
Particularly designed for the growing popular IP Surveillance applications, the FGSW-2511P 802.3at PoE Switch is positioned as a Surveillance Switch for quick and easy PoE IP camera deployment with power feeding. The FGSW-2511P provides both 802.3at and 802.3af PoE functions along with 24 10/100BASE-TX ports featuring 30-watt 802.3at or 15.4-watt 802.3af PoE in RJ45 copper interfaces, and 1 extra Gigabit TP or Gigabit SFP uplink interface supporting high-speed transmission of surveillance images and videos.



### IP Office Department/Workgroup PoE Switch

With the business office expansion, the additional telephones required can be installed with lower cost via the implementation of PoE IP telephony system than that of the traditional circuit wiring telephony system. The FGSW-2511P 802.3af/at PoE Switch helps enterprises to create an integrated data, voice, and powered network. The IEEE 802.3af compliant IP phones can be installed without an additional power cable because the power can be provided via the standard Ethernet cable from the connected FGSW-2511P.

The wireless AP group, PoE IP phones and analog telephony adapter work perfectly with the FGSW-2511P, which injects power through the Ethernet cables. With the FGSW-2511P, IP telephony deployment becomes more reliable and cost-effective, thus helping enterprises save tremendous costs when upgrading from the traditional telephony system to IP telephony communications infrastructure.



## Specifications

Model	FGSW-2511P	
<b>Hardware Specifications</b>		
10/100Mbps Ports	24 10/100BASE-TX MDI/MDI-X RJ45 ports	
Gigabit Ports	1 10/100/1000BASE-T MDI/MDI-X RJ45 port	
SFP Slot	1 1000BASE-X SFP interface, shared with Gigabit RJ45 copper	
PoE Inject Port	24-port with 802.3at PoE injector function (Port-1 to Port-24)	
LED Display	System: <ul style="list-style-type: none"> <li>■ Power (Green)</li> </ul> 10/100BASE-TX RJ45 Interface: <ul style="list-style-type: none"> <li>■ LNK/ACT (Green, Port-1 to Port-24)</li> <li>■ PoE (Amber, Port-1 to Port-24)</li> </ul> 10/100/1000BASE-T RJ45 and 1000BASE-X combo Interface: <ul style="list-style-type: none"> <li>■ LNK/ACT (Green, Port 25)</li> </ul>	
DIP Switch	4 operation modes: Standard/QoS/VLAN/Extend	
Power Requirements	AC 100~240V, 3A max.	
Power Consumption	215 watts, 733 BTU	
Dimensions (W x D x H)	440 x 200 x 45 mm	
Weight	2612g	
ESD Protection	Contact discharge of ±6KV DC Air discharge of ±8KV DC	
Surge Immunity	±4KV	
<b>Switching Specifications</b>		
Switch Architecture	Store and Forward	
MAC Address Table	16K MAC address table with auto learning function	
Switch Fabric	6.8Gbps	
Switch Throughput	5.06Mpps @64bytes	
Maximum Packet Size	16K bytes	
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex	
<b>Power over Ethernet</b>		
PoE Standard	IEEE 802.3at Power over Ethernet Plus/PSE	
PoE Power Supply Type	End-span	
Power Pin Assignment	1/2 (+), 3/6 (-)	
PoE Power Output	Per Port 52V DC, 600mA. max. 30 watts (IEEE 802.3at) Per Port 52V DC, 300mA. max. 15.4 watts (IEEE 802.3af)	
PoE Power Budget	190 watts	
Number of PDs, 7 watts	24	
Number of PDs, 15 watts	12	
Number of PDs, 30 watts	6	
<b>Standard Conformance</b>		
EMI Safety	CE, FCC	
Standard Compliance	IEEE 802.3 IEEE 802.3u IEEE 802.3ab IEEE 802.3z IEEE 802.3x IEEE 802.3af IEEE 802.3at IEEE 802.3z	Ethernet Fast Ethernet Gigabit 1000BASE-T Gigabit SX/LX Flow Control Power over Ethernet Power over Ethernet Plus Energy Efficient Ethernet
<b>Environment</b>		
Operating Environment	0 ~ 50 degrees C	
Storage Environment	-10 ~ 70 degrees C	
Operating Humidity	5 ~ 95%, relative humidity, non-condensing	
Storage Humidity	5 ~ 95%, relative humidity, non-condensing	

## Ordering Information

FGSW-2511P	24-Port 10/100BASE-TX 802.3at PoE + 1-Port Gigabit TP/SFP Combo Ethernet Switch
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## Related Products

FGSW-2624HPS	24-Port 10/100TX 802.3at PoE + 2-Port Gigabit TP/SFP Combo Managed Ethernet Switch
FGSW-2624HPS4	24-Port 10/100TX 802.3at PoE + 2-Port Gigabit TP/SFP Combo Web Smart Ethernet Switch
FGSW-2622VHP	24-Port 10/100TX 802.3at PoE + 2-Port Gigabit TP + 2-Port SFP Ethernet Switch with LCD PoE Monitor
FGSW-1822VHP	16-Port 10/100TX 802.3at PoE + 2-Port Gigabit TP + 2-Port SFP Ethernet Switch with LCD PoE Monitor
GSW-2620VHP	24-Port 10/100/1000T 802.3at PoE + 2-Port Gigabit SFP Ethernet Switch

## Available Modules for FGSW-2511P

### 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

### 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)	YES	1000	WDM(LC)	Single Mode	10km	1310nm	1550nm	0 ~ 60 degrees C
MGB-LB10(V2)						1550nm	1310nm	
MGB-LA20(V2)	YES	1000	WDM(LC)	Single Mode	20km	1310nm	1550nm	0 ~ 60 degrees C
MGB-LB20(V2)						1550nm	1310nm	
MGB-LA40(V2)	YES	1000	WDM(LC)	Single Mode	40km	1310nm	1550nm	0 ~ 60 degrees C
MGB-LB40(V2)						1550nm	1310nm	
MGB-LA80	YES	1000	WDM(LC)	Single Mode	80km	1490nm	1550nm	0 ~ 60 degrees C
MGB-LB80						1550nm	1490nm	