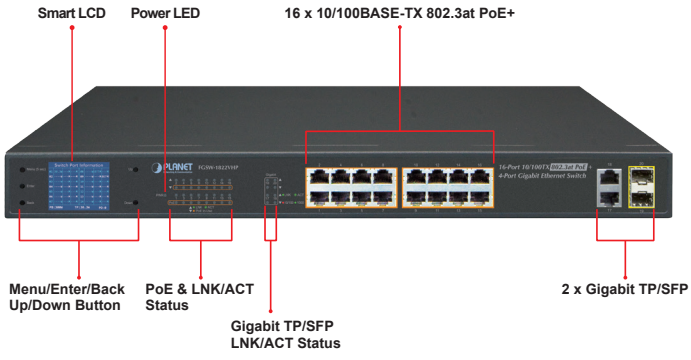
16-Port 10/100TX 802.3at PoE + 2-Port Gigabit TP + 2-Port SFP Ethernet Switch with LCD PoE Monitor

Simple “Plug and Watch” for a Quick Solution

PLANET FGSW-1822VHP is an ideal **Plug and Watch Power over Ethernet** solution which provides quick installation, real-time PoE work status monitoring and immediate troubleshooting through its unique LCD display to improve work efficiency and quality without any PC or software required.

The FGSW-1822VHP is equipped with **16 10/100BASE-TX** ports with each port taking up 30 watts of PoE+ power and **2 Gigabit TP and 2 Gigabit SFP** interfaces with inner power system. With a total PoE+ power budget of **300 watts** and non-blocking data switching performance, the FGSW-1822VHP can fulfill the demand of sufficient PoE power for HD IP surveillance. It offers a desktop-sized, reliable and visible power solution for small businesses and system integrators deploying Power over Ethernet networks.



Physical Port

- **16 10/100BASE-TX** Fast Ethernet RJ45 copper ports
- **2 10/100/1000BASE-T TP** and **2 1000BASE-X mini-GBIC SFP** interfaces

Power over Ethernet

- Complies with IEEE 802.3af/at Power over Ethernet end-span PSE
- Up to 16 ports of IEEE 802.3af/at devices powered
- Supports PoE Power up to 32 watts for each PoE port
- Each port supports 54V DC power to PoE powered device
- 300-watt PoE budget
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m in standard mode and 250m in extend mode

Smart LCD

- The LCD switch features **Standard**, **VLAN** and **Extend** modes; the Extend mode features 20-watt PoE transmission distance of 250m at speed of 10Mbps and VLAN isolation
- The LCD switch is able to isolate ports to prevent broadcast storm and defend DHCP spoofing
- Power low-voltage, power over-voltage and PSE over-temperature protection
- Screen saver, fan control, factory default and save configuration
- PoE management
  - Total PoE power budget control
  - Per port PoE function enable/disable
  - PoE port power feeding priority
  - Per PoE port power limitation
  - PD alive check

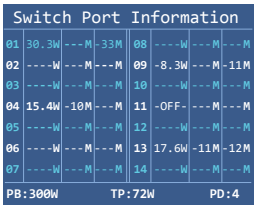
Switching

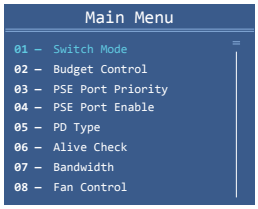
- Hardware-based 10/100/1000Mbps auto-negotiation and auto MDI/MDI-X
- Flow control for full duplex operation and back pressure for half duplex operation

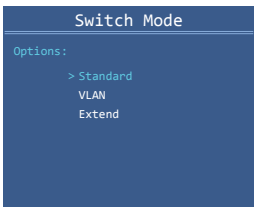
Smart and Intuitive LCD Control

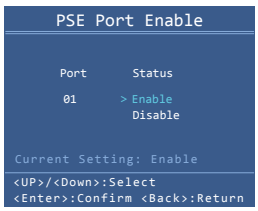
PLANET FGSW-1822VHP provides an intuitive color panel on its front panel that facilitates the Ethernet management and PoE PD management. They greatly promote management efficiency in large-scale networks for enterprises, hotels, shopping malls, government buildings and other public areas, and feature the following special management and status functions:

- PoE management and status
- Port management and status
- Switch mode: Standard, VLAN, Extend
- Budget and bandwidth control
- PD alive check
- Maintenance: Screen saver, fan control, factory default and save configuration









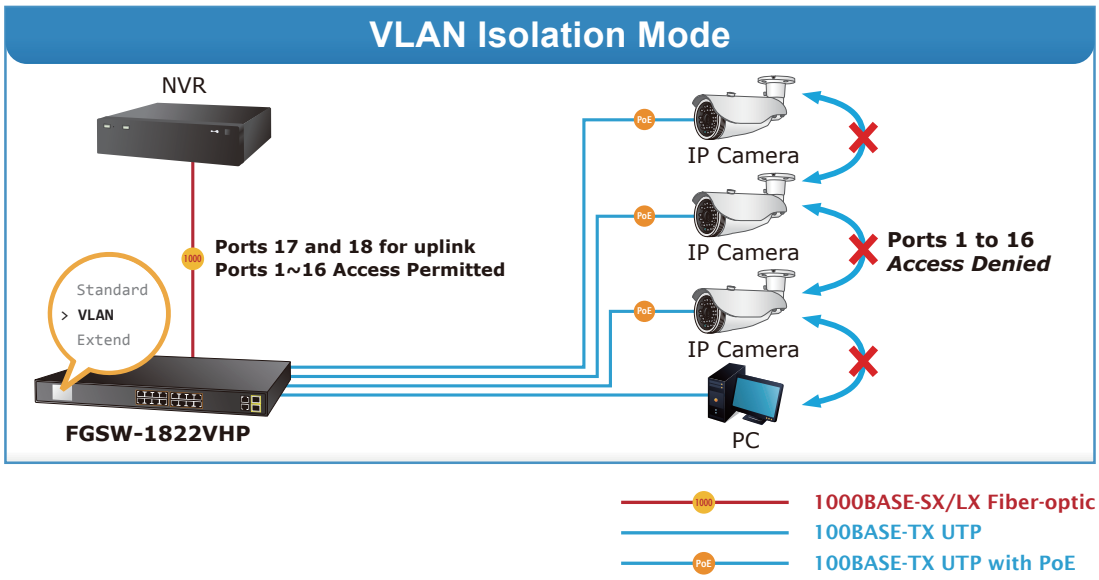
- 9216bytes packet size
- Integrates address look-up engine, supporting 8K absolute MAC addresses
- IEEE 802.1Q VLAN transparency
- Automatic address learning and address aging

Hardware

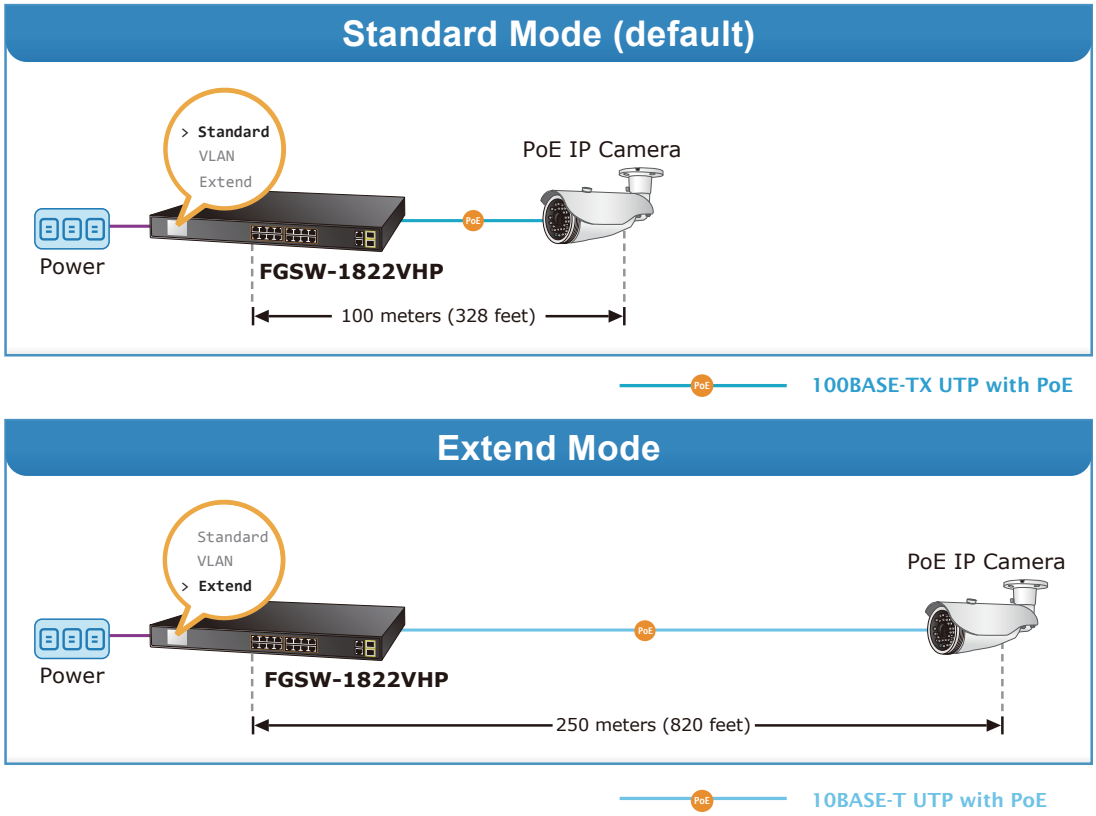
- 19-inch desktop size, 1U height, rack mountable
- 2-inch color LCD with smart management functions
- LED indicators for system power, per port PoE ready and PoE activity, speed, Link/Act
- 3 silent fans to provide stable and efficient power performance
- Supports Energy-Efficient Ethernet (EEE) function (IEEE 802.3az)
- Supports contact discharge of ±6KV DC and air discharge of ±8KV DC for Ethernet ESD protection
- Supports ±6KV surge immunity

Standard, VLAN and Extend Operation Modes

PLANET FGSW-1822VHP provides Standard, VLAN and Extend operation modes. The FGSW-1822VHP operates as a normal IEEE 802.3af/at PoE Switch in the Standard operation mode. The VLAN operation mode features the port-based VLAN function that can help to prevent the IP camera's multicast or broadcast storm from influencing each other.



In the Extend operation mode, the FGSW-1822VHP operates on a per-port basis at 10Mbps duplex operation but can support 20-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-1822VHP provides an additional solution for 802.3af/at PoE distance extension, thus saving the cost of Ethernet cable installation. Its VLAN isolation function isolates ports so as to prevent broadcast storm and defend DHCP spoofing in the Extend operation mode.



Flexible Extension Solution

The two mini-GBIC slots built in the FGSW-1822VHP is compatible with the **1000BASE-SX/LX SFP** (Small Form-factor Pluggable) fiber transceiver, uplinked to the backbone switch and monitoring center in long distance. The distance can be extended from 550 meters to 10/20/30/40/50/60/70/120 kilometers (single-mode fiber or WDM fiber). They are well suited for applications within the enterprise data centers and distributions.

Robust Protection

The FGSW-1822VHP provides contact discharge of ±6KV DC and air discharge of ±8KV DC for Ethernet ESD protection. It also supports ±6KV surge immunity to improve product stability and protects users' networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.

Easy Installation and Cable Connection

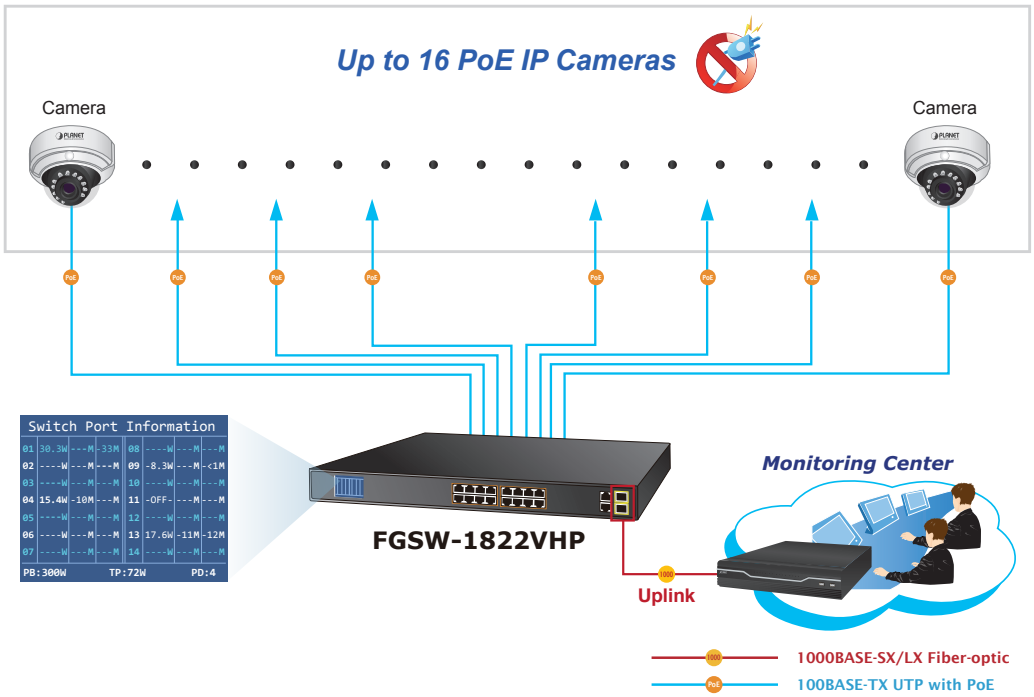
As data and power are transmitted over one cable, the FGSW-1822VHP does not need a second cable and electrical outlets on the wall, ceiling or any unreachable place. Thus, it helps to lower the installation costs and simplify the installation effort. All the RJ45 copper interfaces of the FGSW-1822VHP support 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 PoE IP Camera and NVR System

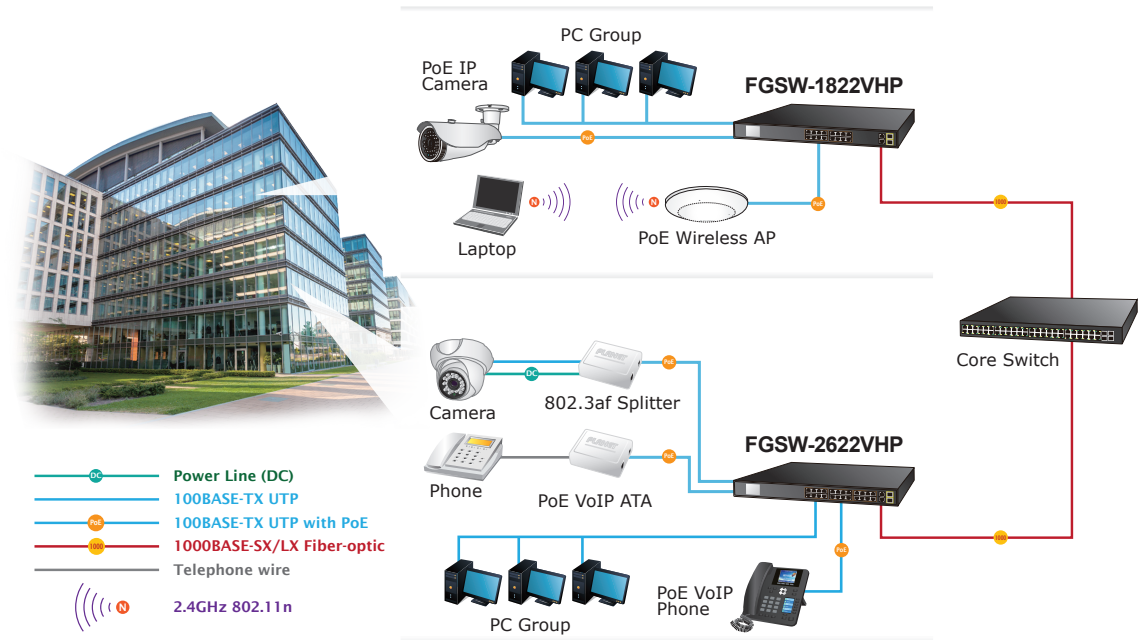
To fulfill the needs of the high power consumption of PoE network applications, the FGSW-1822VHP provides 16 IEEE 802.3at Power over Ethernet Plus (PoE+) ports that combine up to 30 watts of power output and data per port over one Cat5E/6 Ethernet cable. With its 11.2Gbps high-performance switch architecture and 300-watt PoE power budget, the FGSW-1822VHP is an ideal device for catering to a medium-scale IP surveillance or public PoE network at a lower total cost.

For instance, one FGSW-1822VHP can be combined with one 16-channel NVR and 16 PoE IP cameras as a kit for the administrators to centrally and efficiently manage the surveillance system in the local LAN and the remote site via Internet. The recorded video files from the 16 PoE IP cameras powered by the FGSW-1822VHP can be saved in the 16-channel NVR systems or surveillance software to perform comprehensive security monitoring



Department/Workgroup PoE Switch

Providing sixteen 802.3at PoE+ in-line power interfaces, the FGSW-1822VHP can easily build a power that centrally controls IP phone system, IP camera system and wireless AP group for enterprises. Cameras can be installed around the corner in the company or campus for surveillance demands. Without the power-socket limitation, the FGSW-1822VHP makes the installation of cameras easier and more efficient.



Specifications

Model	FGSW-1822VHP
Hardware Specifications	
802.3af/802.3at PoE Injector Port	16
10/100BASE-TX MDI/MDIX Ports	16
10/100/1000BASE-T MDI/MDIX Ports	2
1000BASE-X SFP/mini-GBIC Slots	2
Switch Architecture	Store-and-Forward
Switch Fabric	11.2Gbps/non-blocking
Switch Throughput@64 bytes	8.3Mpps@64bytes
MAC Address Table	8K entries
Maximum Frame Size	9216 bytes
Flow Control	IEEE 802.3x pause frame for full duplex; back pressure for half duplex
LED	**System:** Power (Green) **10/100BASE-TX RJ45 Interfaces:** 10/100Mbps LNK/ACT (Green) PoE-in-Use (Amber) **1000BASE-X SFP Interfaces:** LNK/ACT (Green) **1000BASE-T TP Interfaces:** LNK/ACT (Green) 10/100Mbps (Unlit/Red) 1000Mbps (Green)
LCD Monitor (W x D)	40.6 x 30.5 mm, 2-inch
Button	Menu, Enter, Back, Up and Down
Dimensions (W x D x H)	440 x 233 x 44 mm (1U height)
Enclosure	Metal
Weight	3.4kg
Power Requirements	AC 100~240V, 50/60Hz, 5A max.
Power Consumption/Dissipation	Max. 330 watts/1132 BTU
Thermal Fan	3
ESD Protection	Contact Discharge of ±6KV DC Air Discharge of ±8KV DC
Surge Immunity	±6KV
Power over Ethernet	
PoE Standard	IEEE 802.3af Power over Ethernet/PSE IEEE 802.3at Power over Ethernet Plus/PSE
PoE Power Supply Type	End-span
PoE Power Output	Per port 54V DC, 300mA. max. 15.4 watts (IEEE 802.3af) Per port 54V DC, 600mA. max. 30 watts (IEEE 802.3at)
Power Pin Assignment	1/2 (+), 3/6 (-)
PoE Power Budget	300 watts
Max. Number of Class 2 PDs	16
Max. Number of Class 3 PDs	16
Max. Number of Class 4 PDs	11
Standards 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 SX/LX IEEE 802.3x flow control and back pressure IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3az Energy Efficient Ethernet (EEE)
Environment	
Operating	Temperature: -10 ~ 60 degrees C Relative Humidity: 10 ~ 90% (non-condensing) * Temperature<40 degrees C; Humidity<90% Temperature>40 degrees C; Humidity<50%
Storage	Temperature: -10 ~ 70 degrees C Relative Humidity: 5 ~ 90% (non-condensing)

Ordering Information

FGSW-1822VHP	16-Port 10/100TX 802.3at PoE + 2-Port Gigabit TP + 2-Port SFP Ethernet Switch with LCD PoE Monitor

Related Products

GSW-2620VHP	24-Port 10/100/1000T 802.3at PoE + 2-Port 1000X SFP Gigabit Ethernet Switch with LCD PoE Monitor (300W)
FGSD-1022VHP	8-Port 10/100TX 802.3at PoE + 2-Port Gigabit TP/SFP Combo Desktop Switch with LCD PoE Monitor (120W)
FGSW-2622VHP	24-Port 10/100TX 802.3at PoE + 2-Port Gigabit TP/SFP Combo Ethernet Switch with LCD PoE Monitor (300W)
HDP-1100PT	720p SIP Door Phone with PoE
HDP-5240PT	720p SIP Multi-unit Video Door Phone with RFID and PoE
HDP-5260PT	720p SIP Multi-unit Apartment Vandalproof Door Phone with RFID and PoE
ICA-3250	1080p IR Bullet PoE IP Camera
ICA-4250	1080p IR Dome PoE IP Camera
ICA-E3550V	5 Mega-pixel Bullet IR PoE IP Camera with Extended Support
ICA-E5550V	5 Mega-pixel Vandalproof IR PoE IP Camera with Extended Support
ICA-E6260	2 Mega-pixel PoE Plus Speed Dome IP Camera with Extended Support
ICA-E8550	5 Mega-pixel Outdoor IR PoE Fisheye IP Camera with Extended Support
ICA-M4320P	H.265 3 Mega-pixel IR IP Camera with Remote Focus and Zoom
WNAP-W2200UE	300Mbps 802.11n In-Wall Wireless Access Point w/ USB Charger
WDAP-C7200E	1200Mbps 802.11ac Dual Band Ceiling-mount Wireless Access Point
WNAP-C3220E	300Mbps 802.11n Ceiling-mount Wireless Access Point
ICF-1800	HD Touch Screen Android Multimedia Conferencing Phone
POE-162S	IEEE 802.3at Gigabit High Power over Ethernet Splitter
POE-E201	IEEE 802.3at Power over Ethernet Extender
VIP-1120PT	High Definition Color PoE IP Phone
VIP-2140PT	High Definition Color PoE IP Phone with Dual Display

SFP Gigabit Modules are available for the FGSW-1822VHP

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 °C
MGB-SX(V2)	YES	1000	LC	Multi Mode	550m	850nm	0 ~ 60 °C
MGB-SX2(V2)	YES	1000	LC	Multi Mode	2km	1310nm	0 ~ 60 °C
MGB-LX(V2)	YES	1000	LC	Single Mode	20km	1310nm	0 ~ 60 °C
MGB-L40	YES	1000	LC	Single Mode	40km	1310nm	0 ~ 60 °C
MGB-L80	YES	1000	LC	Single Mode	80km	1550nm	0 ~ 60 °C
MGB-L120(V2)	YES	1000	LC	Single Mode	120km	1550nm	0 ~ 60 °C
MGB-TSX	YES	1000	LC	Multi Mode	550m	850nm	0 ~ 60 °C
MGB-TSX2	YES	1000	LC	Multi Mode	2km	1310nm	-40 ~ 75 °C
MGB-TLX(V2)	YES	1000	LC	Single Mode	20km	1310nm	-40 ~ 75 °C
MGB-TL40	YES	1000	LC	Single Mode	40km	1310nm	-40 ~ 75 °C
MGB-TL80	YES	1000	LC	Single Mode	80km	1550nm	-40 ~ 75 °C

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

Model	DDM	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
MGB-GT	-	1000	Copper	--	100m	--	0 ~ 60 °C
MGB-SX(V2)	YES	1000	LC	Multi Mode	550m	850nm	0 ~ 60 °C
MGB-SX2(V2)	YES	1000	LC	Multi Mode	2km	1310nm	0 ~ 60 °C
MGB-LX(V2)	YES	1000	LC	Single Mode	20km	1310nm	0 ~ 60 °C
MGB-L40	YES	1000	LC	Single Mode	40km	1310nm	0 ~ 60 °C
MGB-L80	YES	1000	LC	Single Mode	80km	1550nm	0 ~ 60 °C
MGB-L120(V2)	YES	1000	LC	Single Mode	120km	1550nm	0 ~ 60 °C
MGB-TSX	YES	1000	LC	Multi Mode	550m	850nm	0 ~ 60 °C
MGB-TSX2	YES	1000	LC	Multi Mode	2km	1310nm	-40 ~ 75 °C
MGB-TLX(V2)	YES	1000	LC	Single Mode	20km	1310nm	-40 ~ 75 °C
MGB-TL40	YES	1000	LC	Single Mode	40km	1310nm	-40 ~ 75 °C
MGB-TL80	YES	1000	LC	Single Mode	80km	1550nm	-40 ~ 75 °C

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