

**Compact Industrial 2-Port 10G/2.5G/1G/100BASE-X
SFP+ Media Converter**

IXT-815AT

User's Manual

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This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the Instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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This device is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

WEEE Warning



To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Revision

PLANET Compact Industrial 2-Port 10G/2.5G/1G/100BASE-X SFP+ Media Converter
User's Manual

MODEL: IXT-815AT

REVISION: 1.0 (JUNE, 2025)

Part No: EM-IXT-815AT_v1.0

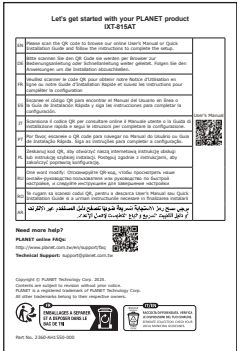
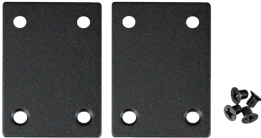
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1. Package Contents

Thank you for purchasing PLANET Industrial 10G Media Converter. In the following section, unless specified, the term **"Industrial Media Converter"** mentioned in this manual refers to the IXT-815AT.

Open the box of the Industrial Media Converter and carefully unpack it. The box should contain the following items:

Industrial Media Converter x 1		QR Code Sheet x 1	
			
DIN-rail Kit x 1	Wall-mount Kit x 1	SFP+ Dust Cap x 2	
			

If any of these are missing or damaged, please contact your dealer immediately; if possible, retain the carton including the original packing material, and use them again to repack the product in case there is a need to return it to us for repair.

1.1 Product Features

Physical Port

- 2-port **10GBASE-X SFP+**
 - Backward compatible with 2.5GBASE-X, 1000BASE-X and 100BASE-FX SFP transceivers
 - Supports SFP/SFP+ link speed auto-detection
 - Supports XGS-PON and GPON ONT SFP stick

Layer 2 Features

- Fully compliant with IEEE 802.3ae/bz/an Ethernet standards
- Non-blocking full wire-speed forwarding performance
- **12K jumbo frame** support for handling large data transmissions
- Transparent **IEEE 802.1Q VLAN tagging** and multicast pass-through
- IEEE 802.3x full-duplex flow control and back-pressure for packet loss prevention

Industrial Case and Installation

- IP30 compact metal case
- -40 to 75 degrees C operating temperature
- 9V~48V DC, redundant power with reverse polarity protection
- AC 24V power adapter acceptable
- Supports ESD 6000 VDC Ethernet protection
- DIN-rail or wall-mount design
- Plug and Play with no software required
- LED indicators to facilitate network diagnostics

2. Product Specifications

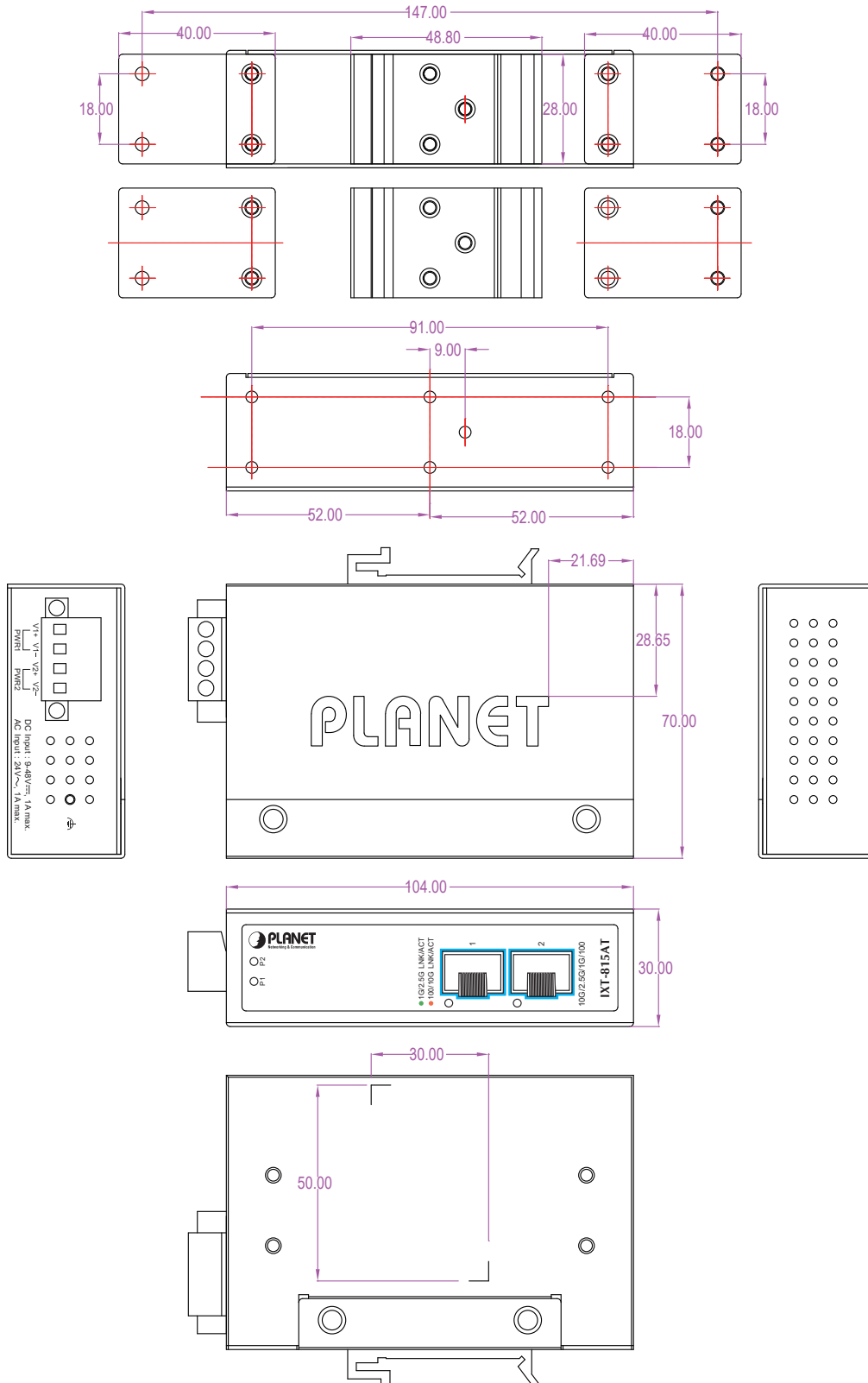
Model	IXT-815AT
Hardware Specifications	
SFP+ Port	Dual 10GBASE-X SFP+ interfaces Backward compatible with 100BASE-FX, 1000BASE-X and 2500BASE-X SFP transceivers
Fiber Mode	May vary on SFP+/SFP module
Fiber Port Type (connector)	SFP, LC type
Fiber Maximum Distance	May vary on SFP module
Network Cables	May vary on SFP+ and SFP modules
Connector	Removable 4-pin terminal block Pin 1/2 for Power 1, Pin 3/4 for Power 2
Enclosure	Metal case
LED	System: PWR1, PWR2 (Green) SFP+ Interfaces: 2.5Gbps/1Gbps LNK/ACT (Green) 10Gbps/100Mbps LNK/ACT (Amber)
ESD Protection	6KV DC
Enclosure	IP30 type metal case
Installation	DIN-rail kit and wall-mount ear
Dimensions (WxDxH)	30 x 70 x 104mm
Weight	254g
Power Requirements	DC 9~48V or 24V AC

Layer 2 Features	
Switch Architecture	Store-and-Forward
Flow Control	Half duplex: Back pressure eliminates packet loss Full duplex: IEEE 802.3x pause frame support for efficient flow control
Fabric	40Gbps backbone to ensure high-speed data transmission
Forwarding Rate	Non-blocking, full wire-speed forwarding rate
MAC Address Table	4K MAC address table, auto-aging
Jumbo Frame	12K
VLAN Support	Transparent 802.1Q VLAN pass-through for seamless integration in tagged network environments
Priority Switching	8-level QoS priority switching for traffic optimization Supports 802.1p priority for efficient traffic management
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Standards Compliance	IEEE 802.3z Gigabit SX/LX IEEE 802.3ae 10 Gigabit Ethernet IEEE 802.3x Flow Control IEEE 802.3az Energy Efficient Ethernet IEEE 802.1p Class of Service IEEE 802.1Q VLAN pass-through
Standards Conformance	
Temperature	Operating: -40~75 degrees C Storage: -40~85 degrees C
Humidity	Operating: 5~95% (non-condensing) Storage: 5~95% (non-condensing)

3. Hardware Introduction

3.1 Physical Dimensions

■ **IXT-815AT** dimensions (W x D x H): 30 x 70 x 104mm



Dimensions (W x D x H): 30 x 70 x 104 mm

3.2 Converter Front Panel and LED Indicators

Figure 3-1 shows the front panel of the Industrial Media Converter.

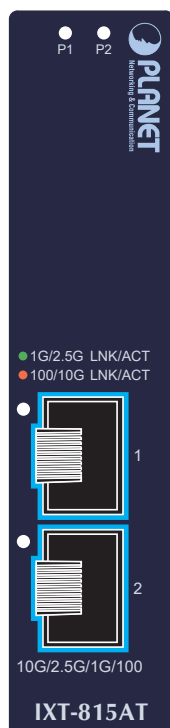


Figure 3-1: IXT-815AT Front Panel

■ LED Definition

System and Power

LED	Color	Function
P1	Green	Lights to indicate the Industrial Media Converter has power.
P2	Green	Lights to indicate the Industrial Media Converter has power.

Per 10GBASE-X SFP+ Interface

LED	Color	Function
1G/2.5G LNK/ACT	Green	Lit: Indicates that the fiber optic port is successfully connecting to the network at 1000Mbps or 2500Mbps .
		Blink: Indicates the fiber port is receiving or sending data.
10G/100 LNK/ACT	Amber	Lit: Indicates that the fiber optic port is successfully connecting to the network at 10Gbps or 100Mbps .
		Blink: Indicates the fiber port is receiving or sending data.

3.3 Converter Upper Panel

The upper panel of the IXT-815AT consists of one terminal block connector within two DC power inputs. Figure 3-2 shows the upper panel of the IXT-815AT.

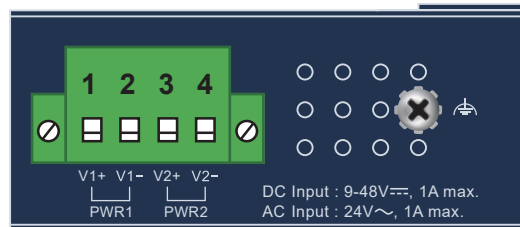


Figure 3-2: IXT-815AT Upper Panel

4. Hardware Installation

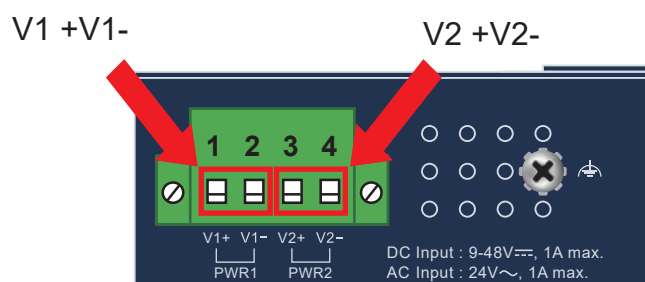
This section describes how to install the Industrial Media Converter and makes connections to it. Please read the following sections and perform the procedures in the order being presented.

This section describes the functionalities of the Industrial Media Converter's components and guides you to installing it on the DIN rail and wall. Basic knowledge of networking is assumed. Please read this chapter completely before continuing.

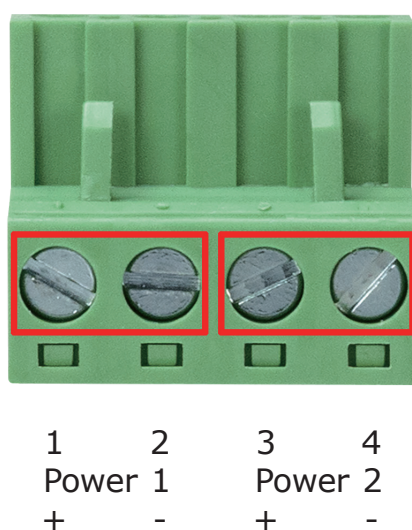
4.1 Wiring the Power Inputs

The 4-contact terminal block connector on the top panel of Industrial Media Converter is used for two DC redundant power inputs. Please follow the steps below to insert the power wire.

1. Insert positive/negative DC power wires into Contacts 1 and 2 for power 1 or 5 and 6 for power 2.



2. Tighten the wire-clamp screws for preventing the wires from loosening.





The wire gauge for the terminal block should be in the range between 12 and 24 AWG.



1. The DC power input range is 9V ~ 48V DC and supports 24V AC.
2. Please just use one power input when using 24V AC.

4.2 Grounding the Device

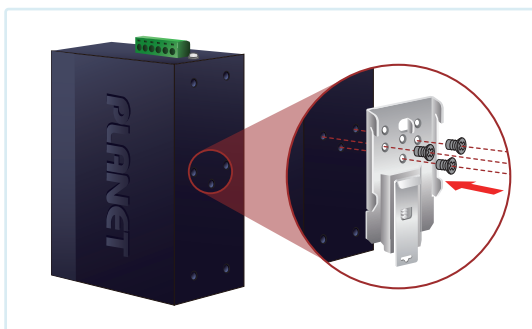
Users **MUST** complete grounding wired with the device; otherwise, a sudden lightning could cause fatal damage to the device. EMD (Lightning) DAMAGE IS NOT COVERED UNDER WARRANTY.

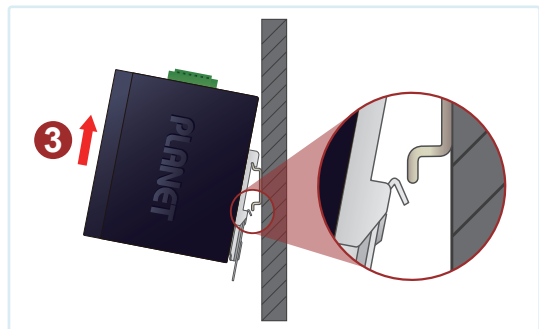
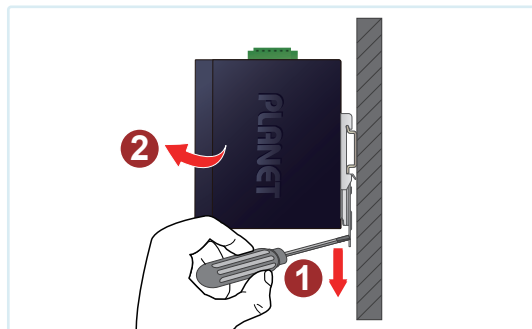
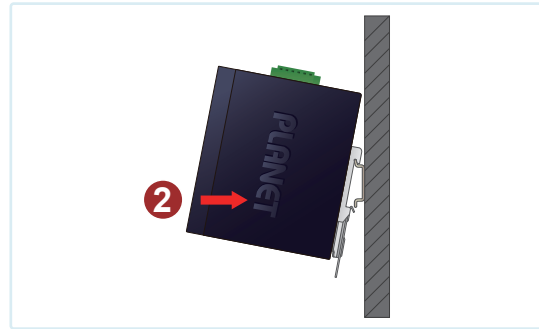
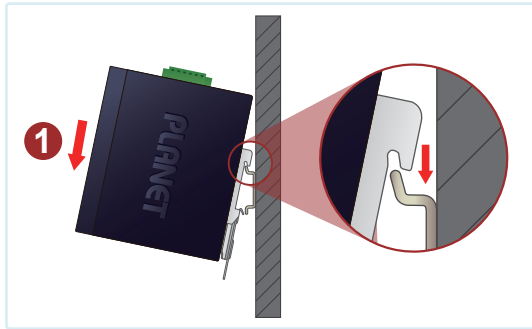
4.3 DIN-rail Mounting Installation

This section describes how to install the Industrial Media Converter on the DIN rail and wall. Basic knowledge of networking is assumed. Please read this chapter completely before continuing.

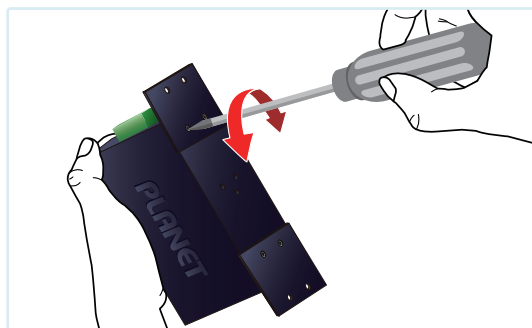


In the installation steps below, this Manual uses PLANET Industrial Gigabit Switch as an example. However, the steps for the installation of PLANET Industrial Switch and Industrial Media Converter are similar.

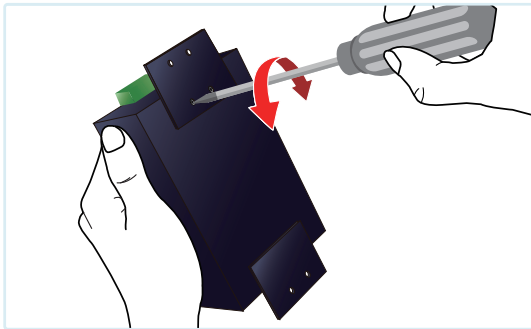




4.4 Wall-mount Plate Mounting



4.5 Side Wall-mount Plate Mounting



Caution

You must use the screws supplied with the wall-mounting brackets. Damage caused to the parts by using incorrect screws would invalidate your warranty.

5. Fiber and UTP Cable Connection

■ Installing the SFP+ Transceiver

The sections describe how to insert an SFP+ transceiver into an SFP+ slot.

The SFP+ transceivers are hot-pluggable and hot-swappable. You can plug in and out the transceiver to/from any SFP+ port without having to power down the Industrial Media Converter



Figure 5-1: Plug in the SFP+ Transceiver



Note

It is recommended to use PLANET SFP+ on the Industrial Media Converter. If you insert an SFP+ transceiver that is not supported, the Industrial Media Converter will not recognize it.

■ 10GBASE-X SR/LR:

Before connecting the other switches, workstation or media converter, please do the following:

1. Make sure both sides of the SFP+ transceiver are with the same media type; for example, 10GBASE-SR to 10GBASE-SR, and 10GBASE-LR to 10GBASE-LR.
2. Check whether the fiber-optic cable type matches the SFP+ transceiver model.
 - To connect to 10GBASE-SR SFP+ transceiver, use the **multi-mode** fiber cable with one side being the male duplex LC connector type.
 - To connect to 10GBASE-LR SFP+ transceiver, use the **single-mode** fiber cable with one side being the male duplex LC connector type.

Connecting the fiber cable

1. Attach the duplex LC connector on the network cable to the SFP+ transceiver.
2. Connect the other end of the cable to a device, switches with SFP+ installed, and fiber NIC on a workstation or media converter.

■ Removing the Transceiver Module

1. Make sure there is no network activity by consulting or checking with the network administrator. Or through the management interface of the switch/converter (if available), disable the port in advance.
2. Remove the fiber optic cable gently.
3. Turn the lever of the MTB module to a horizontal position.
4. Pull out the module gently through the lever.



Figure 5-2: Pulling Out from the SFP+ Transceiver



Note

Never pull out the module without pulling the lever or the push bolts on the module. Directly pulling out the module with effort could damage the module and SFP+ module slot of the Industrial Media Converter.

The 100/1G/2.5G/10GBASE-X port comes with auto-negotiation capability. It automatically supports 100BASE-FX, 1000BASE-X, 2500BASE-X and 10GBASE-X networks. Users only need to plug a working network device into the 100/1G/2.5G/10GBASE-X port, and then turn on the Media Converter. The port will automatically run at 1000Mbps, 2500Mbps and 10000Mbps after the negotiation with the connected device.

6. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource on PLANET web site first to check if it could solve your issue. If you need more support information, please contact PLANET switch support team.

PLANET online FAQs:

<http://www.planet.com.tw/en/support/faq.php>

Switch support team mail address:

[support @planet.com.tw](mailto:support@planet.com.tw)

APPENDIX: Approved PLANET SFP+ Transceivers

PLANET Media Converter supports 10GBASE-X with both multi-mode and single mode SFP+ transceivers. The following list of approved PLANET SFP+ transceivers are correct at the time of publication:

Available 10Gbps SFP+ Transceivers

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-TSR	1-Port 10GBASE-SR SFP+ Fiber Optic Module - 300m (-40~85 degrees C)
MTB-TLR	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 10km (-40~85 degrees C)
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-TLR40	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 40km (-40~85 degrees C)
MTB-SR2	1-Port 10GBASE-LR 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-TSR2	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 2km (-40~85 degrees C)
MTB-TLR20	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 20km (-40~85 degrees C)
MTB-TLR60	1-Port 10GBASE-LR SFP+ Fiber Optic Module - 60km (-40~85 degrees C)
MTB-TLA20	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 20km (TX:1270nm RX:1330nm) (-40~85 degrees C)
MTB-TLB20	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 20km (TX:1330nm RX:1270nm) (-40~85 degrees C)
MTB-TLA40	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 40km (TX:1270nm RX:1330nm) (-40~85 degrees C)
MTB-TLB40	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 40km (TX:1330nm RX:1270nm) (-40~85 degrees C)
MTB-TLA60	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 60km (TX:1270nm RX:1330nm) (-40~85 degrees C)
MTB-TLB60	1-Port 10GBASE-BX SFP+ Fiber Optic Module - 60km (TX:1330nm RX:1270nm) (-40~85 degrees C)
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 2.5Gbps SFP Modules

MGB-2GTSR	2.5G SFP Transceiver (Multi-mode, 850nm, DDM, -40~85 degrees C) - 300m
MGB-2GTLA20	2.5G SFP Transceiver (Single mode WDM, TX:1310nm RX:1550nm, DDM, -40~85 degrees C) - 20km
MGB-2GTLB20	2.5G SFP Transceiver (Single mode WDM, TX:1550nm RX:1310nm, DDM, -40~85 degrees C) - 20km
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
MGB-2GTLR20	2.5G SFP Transceiver (Single mode, 1310nm, DDM, -40~85 degrees C) - 20km
MGB-2GTLR2	2.5G SFP Transceiver (Single mode, 1310nm, DDM, -40~85 degrees C) - 2km

Available 1Gbps SFP 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
MGB-TSX	SFP-Port 1000BASE-SX mini-GBIC module - 550m (-40~85 degrees C)
MGB-TSX2	SFP-Port 1000BASE-SX mini-GBIC module - 2km (-40~85 degrees C)
MGB-TLX	SFP-Port 1000BASE-LX mini-GBIC module - 20km (-40~85 degrees C)
MGB-TL40	SFP-Port 1000BASE-LX mini-GBIC module - 40km (-40~85 degrees C)
MGB-TL80	SFP-Port 1000BASE-LX mini-GBIC module - 80km (-40~85 degrees C)
MGB-TLA10	SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 10km (-40~85 degrees C)
MGB-TLB10	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 10km (-40~85 degrees C)
MGB-TLA20	SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 20km (-40~85 degrees C)
MGB-TLB20	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 20km (-40~85 degrees C)
MGB-TLA40	SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 40km (-40~85 degrees C)
MGB-TLB40	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 40km (-40~85 degrees C)
MGB-TLA80	SFP-Port 1000BASE-BX (WDM, TX:1490nm) mini-GBIC module - 80km (-40~85 degrees C)
MGB-TLB80	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 80km (-40~85 degrees C)
MGB-TSA	SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 2km (-40~85 degrees C)
MGB-TSB	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 2km (-40~85 degrees C)
MGB-TGT	SFP-Port 1000BASE-T Module - 100m (-40~85 degrees C)
MGB-TLA120	SFP-Port 1000BASE-BX (WDM, TX:1490nm) mini-GBIC module - 120km (-40~85 degrees C)

MGB-TLB120	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 120km (-40~85 degrees C)
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Available 100Mbps SFP Modules

MFB-FX	SFP-Port 100BASE-FX Transceiver (1310nm) - 2km
MFB-F20	SFP-Port 100BASE-FX Transceiver (1310nm) - 20km
MFB-FA20	SFP-Port 100BASE-BX Transceiver (WDM, TX:1310nm) - 20km
MFB-FB20	SFP-Port 100BASE-BX Transceiver (WDM, TX:1550nm) - 20km
MFB-F40	SFP-Port 100BASE-FX Transceiver (1310nm) - 40KM
MFB-F60	SFP-Port 100BASE-FX Transceiver (1310nm) - 60KM
MFB-TFX	SFP-Port 100BASE-FX Transceiver (1310nm) - 2km (-40~85 degrees C)
MFB-TF20	SFP-Port 100BASE-FX Transceiver (1310nm) - 20km (-40~85 degrees C)
MFB-TFA20	SFP-Port 100BASE-BX (WDM, TX:1310nm) mini-GBIC module - 20km (-40~85 degrees C)
MFB-TFB20	SFP-Port 100BASE-BX (WDM, TX:1550nm) mini-GBIC module - 20km (-40~85 degrees C)
MFB-TFA40	SFP-Port 100BASE-BX (WDM, TX:1310nm) mini-GBIC module - 40km (-40~85 degrees C)
MFB-TFB40	SFP-Port 100BASE-BX (WDM, TX:1550nm) mini-GBIC module - 40km (-40~85 degrees C)
MFB-TSB	SFP-Port 100BASE-BX Transceiver (Multi-mode/WDM, TX:1550nm RX:1310nm/DDM) - 2km (-40~85 degrees C)
MFB-TF120	SFP-Port 100BASE -FX Transceiver (1550nm) - 120km (-40~85 degrees C)
MFB-TSA	SFP-Port 100BASE-BX (Multi-mode/WDM, TX:1310nm) mini-GBIC module - 2km (-40~85 degrees C)
MFB-TFB60	MFB-TFB60 SFP-Port 100BASE-BX (WDM, TX:1550nm) mini-GBIC module - 60km (-40~85 degrees C)
MFB-F120	SFP-Port 100BASE -FX Transceiver (1550nm) - 120km
MFB-TFA60	SFP-Port 100BASE-BX (WDM, TX:1310nm) mini-GBIC module - 60km (-40~85 degrees C)