

## 1000BASE-SX/LX SFP Transceiver



The PLANET MGB family consists of small form-factor pluggable (SFP) transceiver modules that are specifically designed for high-performance integrated duplex data link over single mode optical fiber. These transceiver modules are compliant with the SFP Multisource Agreement (MSA) and hot pluggable. These modules offer an easy way to be installed in SFP MSA compliant ports at any time without the interruption of the host equipment operation.

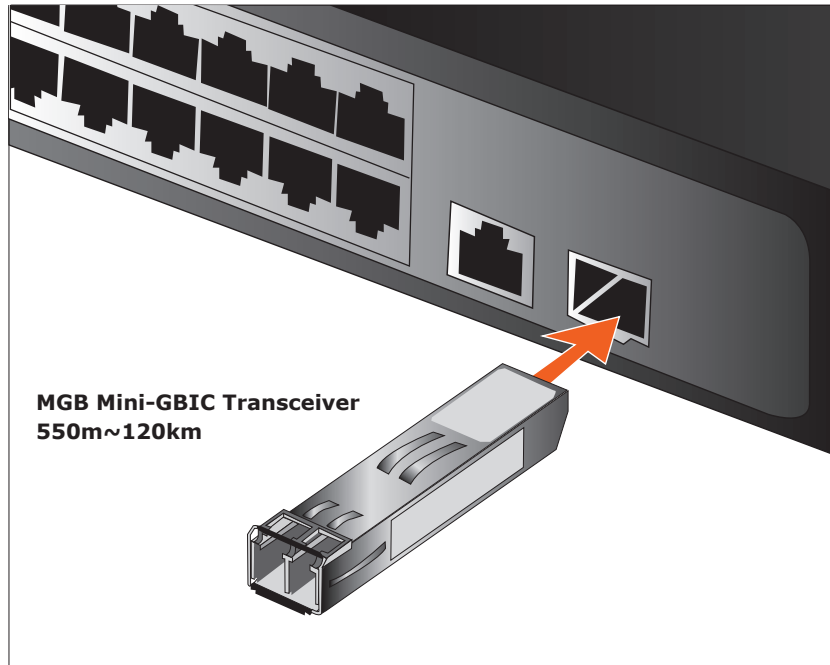
The MGB family of SFP Mini-GBIC Gigabit Ethernet modules can be installed in PLANET Switch products with SFP mini-GBIC interface. The deployment distance can be extended from 100 meters (TP) to 550 meters (Multi-mode, LC), and up to 120 kilometers (Single-mode, LC)

To meet the increasing demand of the Industrial Ethernet fiber solution, PLANET MGB-T series 1000BASE-SX/LX/BX transceivers can operate reliably in the electrically harsh, climatically demanding, and wide temperature range (-40°C to 85°C) environment. The MGB-T series 1000BASE-SX/LX/BX transceivers provide easy and fast 1000BASE-SX/LX/BX connection for PLANET wide-temperature industrial equipment.

- Complies with the IEEE 802.3ab/802.3z Gigabit Ethernet standard
- One 1000Mbps TP/LC fiber port
- Duplex/Single LC connector
- Differential PECL inputs and outputs
- Single power supply 3.3V
- TTL signal detection indicator
- Hot pluggable
- Class 1 laser product complies with EN 60825-1
- Plug and Play Installation

## Applications

The MGB family of the SFP Gigabit Ethernet module can be installed into PLANET Switch and Media Converter products with 1000BASE-SX/LX/BX SFP interface. The deployment distance can be extended from 550m (Multi-mode, LC) to up to 120 kilometers (Single-mode, LC). The SFP transceivers are hot-pluggable and hot-swappable. You can plug in and pull out the transceivers to/from any SFP port without having to power off the Switch/Media Converter.



The MGB-T series 1000BASE-SX/LX/BX transceiver is an ideal solution for -40°C to 85°C wide temperature industrial equipment with 1000BASE-SX/LX/BX SFP interfaces. The deployment distance can be extended from 550m (Multi-mode, LC) to 10/20/40/80 kilometers (Single-mode, LC).



## Specifications

Product	<b>MGB-GT</b>
PHY Type	IEEE 802.3ab 1000BASE-T
Connector	RJ45 Copper
Maximum Distance	100m
Operating Temperature	0~60 degrees C
Product	<b>MGB-SX</b>
PHY Type	IEEE 802.3z 1000BASE-SX
Fiber Type	Multi-mode
Connector	Dual LC/UPC
DDM	Yes
Wavelength	850nm
Maximum Distance	550m
Operating Temperature	0~60 degrees C
Product	<b>MGB-SX2</b>
PHY Type	IEEE 802.3z 1000BASE-SX
Fiber Type	Multi-mode
Connector	Dual LC/UPC
DDM	Yes
Wavelength	1310nm
Maximum Distance	2km
Operating Temperature	0~60 degrees C
Product	<b>MGB-LX</b>
PHY Type	IEEE 802.3z 1000BASE-LX
Fiber Type	Single-mode
Connector	Dual LC/UPC
DDM	Yes
Wavelength	1310nm
Maximum Distance	20km
Operating Temperature	0~60 degrees C
Product	<b>MGB-L40</b>
PHY Type	IEEE 802.3z 1000BASE-LX
Fiber Type	Single-mode
Connector	Dual LC/UPC
DDM	YES
Wavelength	1310nm
Maximum Distance	40km
Operating Temperature	0~60 degrees C
Product	<b>MGB-L80</b>
PHY Type	IEEE 802.3z 1000BASE-LX
Fiber Type	Single-mode
Connector	Dual LC/UPC
DDM	Yes
Wavelength	1550nm
Maximum Distance	80km
Operating Temperature	0~60 degrees C
Product	<b>MGB-L120</b>
PHY Type	IEEE 802.3z 1000BASE-LX
Fiber Type	Single-mode
Connector	Dual LC/UPC
DDM	Yes
Wavelength	1550
Maximum Distance	120km
Operating Temperature	0~60 degrees C
Product	<b>MGB-TGT</b>
PHY Type	IEEE 802.3ab 1000BASE-T
Fiber Type	N/A
Connector	RJ45 Copper
DDM	N/A
Wavelength	N/A
Maximum Distance	100m
Operating Temperature	-40~85 degrees C

Product	<b>MGB-TSX</b>
PHY Type	IEEE 802.3z 1000BASE-SX
Fiber Type	Multi-mode
Connector	Dual LC/UPC
DDM	Yes
Wavelength	850nm
Maximum Distance	550m
Operating Temperature	-40~85 degrees C
Product	<b>MGB-TSX2</b>
PHY Type	IEEE 802.3z 1000BASE-SX
Fiber Type	Multi-mode
Connector	Dual LC/UPC
DDM	Yes
Wavelength	1310nm
Maximum Distance	2km
Operating Temperature	-40~85 degrees C
Product	<b>MGB-TLX</b>
PHY Type	IEEE 802.3z 1000BASE-LX
Fiber Type	Single-mode
Connector	Dual LC/UPC
DDM	Yes
Wavelength	1310nm
Maximum Distance	20km
Operating Temperature	-40~85 degrees C
Product	<b>MGB-TL30</b>
PHY Type	IEEE 802.3z 1000BASE-LX
Fiber Type	Single-mode
Connector	Dual LC/UPC
DDM	Yes
Wavelength	1310nm
Maximum Distance	30km
Operating Temperature	-40~85 degrees C
Product	<b>MGB-TL40</b>
PHY Type	IEEE 802.3z 1000BASE-LX
Fiber Type	Single-mode
Connector	Dual LC/UPC
DDM	Yes
Wavelength	1310nm
Maximum Distance	40km
Operating Temperature	-40~85 degrees C
Product	<b>MGB-TL70</b>
PHY Type	IEEE 802.3z 1000BASE-LX
Fiber Type	Single-mode
Connector	Dual LC/UPC
DDM	Yes
Wavelength	1550nm
Maximum Distance	70km
Operating Temperature	-40~85 degrees C
Product	<b>MGB-TL80</b>
PHY Type	IEEE 802.3z 1000BASE-LX
Fiber Type	Single-mode
Connector	Dual LC/UPC
DDM	Yes
Wavelength	1550nm
Maximum Distance	80km
Operating Temperature	-40~85 degrees C
Product	<b>MGB-LA10 and MGB-LB10</b>
PHY Type	IEEE 802.3z 1000BASE-BX
Fiber Type	Single-mode
Connector	Simplex LC/UPC
DDM	Yes

Wavelength	MGB-LA10: TX1310nm, RX1550nm MGB-LB10: TX1550nm, RX1310nm
Maximum Distance	10km
Operating Temperature	0~60 degrees C
Product	<b>MGB-LA20 and MGB-LB20</b>
PHY Type	IEEE 802.3z 1000BASE-BX
Fiber Type	Single-mode
Connector	Simplex LC/UPC
DDM	Yes
Wavelength	MGB-LA20: TX1310nm, RX1550nm MGB-LB20: TX1550nm, RX1310nm
Maximum Distance	20km
Operating Temperature	0~60 degrees C
Product	<b>MGB-LA40 and MGB-LB40</b>
PHY Type	IEEE 802.3z 1000BASE-BX
Fiber Type	Single-mode
Connector	Simplex LC/UPC
DDM	Yes
Wavelength	MGB-LA40: TX1310nm, RX1550nm MGB-LB40: TX1550nm, RX1310nm
Maximum Distance	40km
Operating Temperature	0~60 degrees C
Product	<b>MGB-LA80 and MGB-LB80</b>
PHY Type	IEEE 802.3z 1000BASE-BX
Fiber Type	Single-mode
Connector	Simplex LC/UPC
DDM	Yes
Wavelength	MGB-LA80: TX1490nm, RX1550nm MGB-LB80: TX1550nm, RX1490nm
Maximum Distance	80km
Operating Temperature	0~60 degrees C
Product	<b>MGB-TSA and MGB-TSB</b>
PHY Type	IEEE 802.3z 1000BASE-BX
Fiber Type	Multi-mode
Connector	Simplex LC/UPC
DDM	Yes
Wavelength	MGB-TSA: TX1310nm, RX1550nm MGB-TSB: TX1550nm, RX1310nm
Maximum Distance	2km
Operating Temperature	-40~85 degrees C
Product	<b>MGB-TLA10 and MGB-TLB10</b>
PHY Type	IEEE 802.3z 1000BASE-BX
Fiber Type	Single-mode
Connector	Simplex LC/UPC
DDM	Yes
Wavelength	MGB-TLA10: TX1310nm, RX1550nm MGB-TLB10: TX1550nm, RX1310nm
Maximum Distance	10km
Operating Temperature	-40~85 degrees C
Product	<b>MGB-TLA20 and MGB-TLB20</b>
PHY Type	IEEE 802.3z 1000BASE-BX
Fiber Type	Single-mode
Connector	Simplex LC/UPC
DDM	Yes
Wavelength	MGB-TLA20: TX1310nm, RX1550nm MGB-TLB20: TX1550nm, RX1310nm
Maximum Distance	20km
Operating Temperature	-40~85 degrees C
Product	<b>MGB-TLA40 and MGB-TLB40</b>
PHY Type	IEEE 802.3z 1000BASE-BX
Fiber Type	Single-mode
Connector	Simplex LC/UPC

DDM	Yes
Wavelength	MGB-TLA40: TX1310nm, RX1550nm MGB-TLB40: TX1550nm, RX1310nm
Maximum Distance	40km
Operating Temperature	-40~85 degrees C
Product	<b>MGB-TLA60 and MGB-TLB60</b>
PHY Type	IEEE 802.3z 1000BASE-BX
Fiber Type	Single-mode
Connector	Simplex LC/UPC
DDM	Yes
Wavelength	MGB-TLA60: TX1310nm, RX1550nm MGB-TLB60: TX1550nm, RX1310nm
Maximum Distance	60km
Operating Temperature	-40~85 degrees C
Product	<b>MGB-TLA80 and MGB-TLB80</b>
PHY Type	IEEE 802.3z 1000BASE-BX
Fiber Type	Single-mode
Connector	Simplex LC/UPC
DDM	Yes
Wavelength	MGB-TLA80: TX1490nm, RX1550nm MGB-TLB80: TX1550nm, RX1490nm
Maximum Distance	80km
Operating Temperature	-40~85 degrees C
Product	<b>MGB-TLA120 and MGB-TLB120</b>
PHY Type	IEEE 802.3z 1000BASE-EZX
Fiber Type	Single-mode
Connector	Simplex LC/UPC
DDM	Yes
Wavelength	MGB-TLA120: TX1490nm, RX1550nm MGB-TLB120: TX1550nm, RX1490nm
Maximum Distance	120km
Operating Temperature	-40~85 degrees C

## Ordering Information

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-TGT	SFP-Port 1000BASE-T Module - 100m (-40~85°C)
MGB-TSX	SFP-Port 1000BASE-SX mini-GBIC module - 550m (-40~85°C)
MGB-TSX2	SFP-Port 1000BASE-SX mini-GBIC module - 2km (-40~85°C)
MGB-TLX	SFP-Port 1000BASE-LX mini-GBIC module - 20km (-40~85°C)
MGB-TL30	SFP-Port 1000BASE-LX mini-GBIC module - 30km (-40~85°C)
MGB-TL40	SFP-Port 1000BASE-LX mini-GBIC module - 40km (-40~85°C)
MGB-TL70	SFP-Port 1000BASE-LX mini-GBIC module - 70km (-40~85°C)
MGB-TL80	SFP-Port 1000BASE-LX mini-GBIC module - 80km (-40~85°C)
MGB-TSA	SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 2km (-40~85°C)
MGB-TSB	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 2km (-40~85°C)
MGB-TLA10	SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 10km (-40~85°C)
MGB-TLB10	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 10km (-40~85°C)
MGB-TLA20	SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 20km (-40~85°C)
MGB-TLB20	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 20km (-40~85°C)
MGB-TLA40	SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 40km (-40~85°C)
MGB-TLB40	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 40km (-40~85°C)
MGB-TLA60	SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 60km (-40~85°C)
MGB-TLB60	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 60km (-40~85°C)
MGB-TLA80	SFP-Port 1000BASE-BX (WDM, TX:1490nm) mini-GBIC module - 80km (-40~85°C)
MGB-TLB80	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 80km (-40~85°C)
MGB-TLA120	SFP-Port 1000BASE-BX (WDM, TX:1490nm) mini-GBIC module - 120km (-40~85°C)
MGB-TLB120	SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 120km (-40~85°C)