

1000BASE-SX/LX SFP Transceiver



The 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.

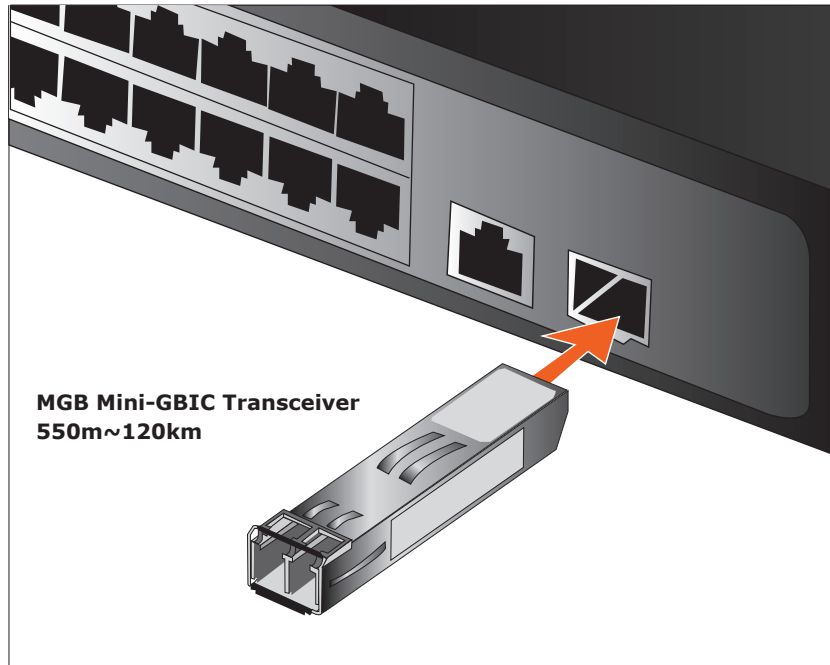
The MGB family of SFP Mini-GBIC Gigabit Ethernet modules can be installed in PLANET Switch products with SFP mini-GBIC interface. The deployment distance can be extended from 100 meters (TP) to 550 meters (Multi-mode, LC), and up to 120 kilometers (Single-mode, LC).

To meet the increasing demand of the Industrial Ethernet fiber solution, Planet releases the MGB-T series 1000BASE-SX/LX/BX transceivers that can operate reliably in electrically harsh, climatically demanding, and wide temperature range (-40°C to 75°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 detect 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 75°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 | MGB-GT |
| PHY Type | IEEE 802.3ab 1000BASE-T |
| Connector | RJ45 Copper |
| Maximum Distance | 100m |
| Operating Temperature | 0~60 degrees C |
| Product | MGB-SX |
| PHY Type | IEEE 802.3z 1000BASE-SX |
| Fiber Type | Multi-mode |
| Connector | LC |
| DDM | Yes |
| Wavelength | 850nm |
| Maximum Distance | 550m |
| Operating Temperature | 0~60 degrees C |
| Product | MGB-SX2 |
| 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 | MGB-LX |
| 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 | MGB-L40 |
| 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 | MGB-L80 |
| 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 | MGB-L120 |
| 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 | MGB-TGT |
| 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 | -40~75 degrees C |

| | |
|-----------------------|--|
| Product | MGB-TSX |
| PHY Type | IEEE 802.3z 1000BASE-SX |
| Fiber Type | Multi-mode |
| Connector | Dual LC/UPC |
| DDM | Yes |
| Wavelength | 850nm |
| Maximum Distance | 550m |
| Operating Temperature | -40~75 degrees C |
| Product | MGB-TSX2 |
| PHY Type | IEEE 802.3z 1000BASE-SX |
| Fiber Type | Multi-mode |
| Connector | Dual LC/UPC |
| DDM | Yes |
| Wavelength | 1310nm |
| Maximum Distance | 2km |
| Operating Temperature | -40~75 degrees C |
| Product | MGB-TLX |
| PHY Type | IEEE 802.3z 1000BASE-LX |
| Fiber Type | Single-mode |
| Connector | Dual LC/UPC |
| DDM | Yes |
| Wavelength | 1310nm |
| Maximum Distance | 20km |
| Operating Temperature | -40~75 degrees C |
| Product | MGB-TL40 |
| PHY Type | IEEE 802.3z 1000BASE-LX |
| Fiber Type | Single-mode |
| Connector | Dual LC/UPC |
| DDM | Yes |
| Wavelength | 1310nm |
| Maximum Distance | 40km |
| Operating Temperature | -40~75 degrees C |
| Product | MGB-TL80 |
| PHY Type | IEEE 802.3z 1000BASE-LX |
| Fiber Type | Single-mode |
| Connector | Dual LC/UPC |
| DDM | Yes |
| Wavelength | 1550nm |
| Maximum Distance | 80km |
| Operating Temperature | -40~75 degrees C |
| Product | MGB-LA10 and MGB-LB10 |
| 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 | MGB-LA20 and MGB-LB20 |
| 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 | MGB-LA40 and MGB-LB40 |
| 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 | MGB-LA80 and MGB-LB80 |
| 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 | MGB-TSA and MGB-TSB |
| 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 | -40~75 degrees C |
| Product | MGB-TLA10 and MGB-TLB10 |
| 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 | -40~75 degrees C |
| Product | MGB-TLA20 and MGB-TLB20 |
| 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 | -40~75 degrees C |
| Product | MGB-TLA40 and MGB-TLB40 |
| 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 | -40~75 degrees C |
| Product | MGB-TLA80 and MGB-TLB80 |
| 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 | -40~75 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 (-40~75°C) |
| MGB-TSX | SFP-Port 1000BASE-SX mini-GBIC module - 550m (-40~75°C) |
| MGB-TSX2 | SFP-Port 1000BASE-SX mini-GBIC module - 2km (-40~75°C) |
| MGB-TLX | SFP-Port 1000BASE-LX mini-GBIC module - 20km (-40~75°C) |
| MGB-TL40 | SFP-Port 1000BASE-LX mini-GBIC module - 40km (-40~75°C) |
| MGB-TL80 | SFP-Port 1000BASE-LX mini-GBIC module - 80km (-40~75°C) |
| MGB-TSA | SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 2km (-40~75°C) |
| MGB-TSB | SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 2km (-40~75°C) |
| MGB-TLA10 | SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 10km (-40~75°C) |
| MGB-TLB10 | SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 10km (-40~75°C) |
| MGB-TLA20 | SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 20km (-40~75°C) |
| MGB-TLB20 | SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 20km (-40~75°C) |
| MGB-TLA40 | SFP-Port 1000BASE-BX (WDM, TX:1310nm) mini-GBIC module - 40km (-40~75°C) |
| MGB-TLB40 | SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 40km (-40~75°C) |
| MGB-TLA80 | SFP-Port 1000BASE-BX (WDM, TX:1490nm) mini-GBIC module - 80km (-40~75°C) |
| MGB-TLB80 | SFP-Port 1000BASE-BX (WDM, TX:1550nm) mini-GBIC module - 80km (-40~75°C) |