Cisco MGE SFP Modules Cisco Small Business Network Accessories

Easily connect switches with fiber-optic networking modules

Highlights

- Adds fiber-optic connectivity to Cisco 100 to 500 Series switches
- High-performance link for connecting networks within a building or small business area
- Easy removal with an integrated spring latch
- Hot swappable to maintain network availability
- Flexibility of media and interface choice on a port-by-port basis, so you can “pay as you populate”

Product overview

Cisco® MGE Small Form-Factor Pluggable (SFP) or mini Gigabit Interface Converter (mini-GBIC) transceivers are easy-to-install modules that provide a simple way to add fiber connectivity or an extra Gigabit Ethernet port to your Cisco 100, 200, 300, and 500 Series switches. The transceivers are available for single-mode or multimode fiber-optic cabling and can support distances from 100 meters up to 40 kilometers.

The Cisco MGE transceivers provide fast, reliable connectivity between switches located on different floors, in separate buildings, or on a small campus network needing connectivity between sites. These transceivers can support Gigabit Ethernet applications. Figures 1 and 2 show the fiber-optic and copper transceivers. Table 1 lists the transceiver modules.

Figure 1. Cisco optical Gigabit Ethernet SFP module



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Figure 2. Cisco 1000BASE-T copper SFP



Table 1. MGE SFP transceiver modules

Model	Description
MGBLH1	1000BASE-LH SFP transceiver for single-mode fiber, 1310 nm wavelength, supports up to 40 km
MGBLX1	1000BASE-LX SFP transceiver for single-mode fiber, 1310 nm wavelength, supports up to 10 km
MGBSX1	1000BASE-SX SFP transceiver for multimode fiber, 850 nm wavelength, supports up to 500 m
MGBT1	1000BASE-T SFP transceiver for Category 5 copper wire, supports up to 100 m

Features

- Built-in spring latch for easy module removal
- Hot swappable
- Low-insertion-loss duplex LC receptacle
- Low electromagnetic interference (FCC Part 15, Class B) for clear communications
- Meets FDA and International Electrotechnical Commission (IEC) eye safety standards

Cisco limited warranty

The Cisco Small Business transceivers come with a 5-year limited hardware warranty with return-to-factory replacement. In addition, Cisco offers software updates for bug fixes at no charge for the life of the warranty and 1 year of telephone technical assistance from the Small Business Support Center. For more information, visit https://www.cisco.com/en/US/docs/general/warranty/5year_SmallBusiness.html.

The Cisco MGE SFP transceivers are supported across a variety of Cisco Small Business switches.

- 110 Series Unmanaged Switches
- 220 Series Smart Switches
- 250 Series Smart Switches
- 350 Series Managed Switches
- 350X Series Stackable Managed Switches
- 550X Series Stackable Managed Switches

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Specifications

Table 2 contains the specifications, package contents, and minimum requirements for the Cisco MGE SFP transceivers.

Table 2. Specifications

Specifications	
Media	MGBLH1: Single-mode fiber (SMF) MGBLX1: Single-mode fiber (SMF) MGBSX1: Multimode fiber (MMF) MGBT1: Category 5e Unshielded Twisted Pair (UTP)
Application	MGBLH1: 1000BASE-LH MGBLX1: 1000BASE-LX MGBSX1: 1000BASE-SX MGBT1: 1000BASE-T
Connector type	MGBLH1: Duplex LC MGBLX1: Duplex LC MGBSX1: Duplex LC MGBT1: RJ-45
Wavelength typical (Tx)	MGBLH1: 1310 nm MGBLX1: 1310 nm MGBSX1: 850 nm MGBT1: N/A
Wavelength range (Rx)	MGBLH1: 1310 nm MGBLX1: 1310 nm MGBSX1: 850 nm MGBT1: N/A
Performance	
Maximum distance	MGBLH1: Up to 40 km MGBLX1: Up to 10 km MGBSX1: Up to 500 m MGBT1: Up to 100 m
Average output power	MGBLH1: -4 dBm to 0 dBm MGBLX1: -9.5 dBm to -3 dBm MGBSX1: -9.5 dBm to -4 dBm MGBT1: N/A
Receiver sensitivity	MGBLH1: -25 dBm (typ) MGBLX1: -20 dBm (typ) MGBSX1: -20 dBm (typ) MGBT1: N/A
Receiver overload	MGBLH1: -3 dBm MGBLX1: -3 dBm MGBSX1: -0 dBm MGBT1: N/A
Environmental	
Dimensions **W x H x D**	MGBLH1: 13.4 x 8.5 x 56.5 mm (0.53 x 0.33 x 2.22 in.) MGBLX1: 13.4 x 8.5 x 55.7 mm (0.53 x 0.33 x 2.19 in.) MGBSX1: 13.4 x 8.5 x 56.5 mm (0.53 x 0.33 x 2.22 in.) MGBT1: 13.4 x 8.5 x 66 mm (0.53 x 0.33 x 2.60 in.)
Unit weight	0.018 kg (0.63 oz)
Power	1W (max)

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Specifications	
Operating temperature	32º to 158ºF (0º to 70ºC)
Storage temperature	-40º to 185ºF (-40º to 85ºC)
Operating humidity	10% to 85% noncondensing
Storage humidity	5% to 90% noncondensing
Standards	
Compliance	FCC Part 15 Class B EN55022 Class B (CISPR 22B) VCCI Class B
Safety	FDA 21 CFR 1040.10 and 1040.11 EN60950, EN (IEC) 60825-1, 2
Package contents	
• Cisco SFP transceiver • Quick start guide	
Minimum requirements	
• Switch with SFP port. Consult the module's Quick Start Guide for interoperability guidelines.	

Ordering information

Table 3 provides ordering information for the Cisco MGE transceivers.

Table 3. Ordering information

MGE Transceivers	
Product number	**Description**
MGBLH1	1000BASE-LH SFP transceiver
MGBLX1	1000BASE-LX SFP transceiver
MGBSX1	1000BASE-SX SFP transceiver
MGBT1	1000BASE-T SFP transceiver

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For more information

For more information about Cisco 100 to 500 Series products and solutions, visit the Cisco Small Business Technology webpage or the product page.

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