



◆ CISCO-COMPATIBLE DATA SHEET:

1G SFP PRODUCT FAMILY

DESCRIPTION

The 1000BASE SFP modules allow a wide variety of 1 Gigabit Ethernet connectivity options for enterprise, data center, and service provider transport applications. InterOptic 1G SFP modules are supported on a comprehensive suite of switches and routers.

FEATURES & BENEFITS

- ◆ Hot-swappable 1G SFP modules allow for quick additions/changes into an available 1G Ethernet SFP port
- ◆ “Pay as you Populate” model lowers initial costs
- ◆ Digital optical monitoring capability for strong diagnostic capabilities as supported by the OEM
- ◆ Optical interoperability allows for 1000BASE GBIC optical interfaces on the same link

1000BASE-T Copper SFP

The 1000BASE-T Copper SFP module supports a link length of up to 100m on standard Category 5 unshielded twisted-pair copper cabling. The 1000BASE-T Copper SFP modules allow 10/100/1000 auto negotiation where supported.

1000BASE-SX SFP

The 1000BASE-SX SFP module supports a link length of up to 550m on OM2 multimode fiber (MMF) and up to 220m on standard Fiber Distributed Data Interface (FDDI)-grade multimode fiber (MMF). The 1000BASE-SX SFP module supports a link length of up to 1km on OM3 multimode fiber (MMF).

1000BASE-LX/LH SFP

The 1000BASE-LX/LH SFP module supports a link length of up to 10km on standard single-mode fiber (SMF, G.652).

1000BASE-EX

The 1000BASE-EX SFP module supports a link length of up to 40km on standard single-mode fiber (SMF, G.652).

1000BASE-ZX

The 1000BASE-ZX SFP module supports a link length of up to 70km on standard single-mode fiber (SMF, G.652).

1000BASE-BX10-D and 1000BASE-BX10-U

The 1000BASE-BX10-D and 1000BASE-BX10-U Single-Fiber Bidirectional SFP modules support a link length of up to 10km on a single strand of standard single-mode fiber (SMF, G.652).



ORDERING INFORMATION

GLC-SX-MM	Cisco Compatible 1000BASE-SX SFP Transceiver for MMF
GLC-SX-MMD	Cisco Compatible 1000BASE-SX SFP Transceiver for MMF with DOM/DDM, Extended Temperature
GLC-SX-MM-RGD	Cisco Compatible 1000BASE-SX SFP Transceiver for MMF with DOM/DDM, Industrial Temperature
GLC-LH-SM	Cisco Compatible 1000BASE-LX/LH SFP Transceiver for SMF
GLC-LH-SMD	Cisco Compatible 1000BASE-LX/LH SFP Transceiver for SMF with DOM/DDM, Extended Temperature
GLC-LX-SM-RGD	Cisco Compatible 1000BASE-LX/LH SFP Transceiver for SMF with DOM/DDM, Industrial Temperature
GLC-EX-SMD	Cisco Compatible 1000BASE-EX SFP Transceiver for SMF with DOM/DDM, Extended Temperature
GLC-ZX-SM	Cisco Compatible 1000BASE-ZX SFP Transceiver for SMF with DOM/DDM
GLC-ZX-SMD	Cisco Compatible 1000BASE-ZX SFP Transceiver for SMF with DOM/DDM, Extended Temperature
GLC-ZX-SM-RGD	Cisco Compatible 1000BASE-ZX SFP Transceiver for SMF with DOM/DDM, Industrial Temperature
GLC-BX-U	Cisco Compatible 1000BASE-BX10-U SFP Transceiver for SMF with DOM/DDM
GLC-BX-D	Cisco Compatible 1000BASE-BX10-D SFP Transceiver for SMF with DOM/DDM
GLC-T	Cisco Compatible 1000BASE-T SFP Transceiver for UTP
SFP-GE-S	Cisco Compatible 1000BASE-SX SFP Transceiver for MMF with DOM/DDM, Extended Temperature
SFP-GE-L	Cisco Compatible 1000BASE-LX/LH SFP Transceiver for SMF with DOM/DDM, Extended Temperature
SFP-GE-T	Cisco Compatible 1000BASE-T SFP Transceiver for UTP, Extended Temperature

PART NUMBER	CONNECTION TYPE	WAVELENGTH (nm)	CABLE TYPE	CORE SIZE (um)	MODAL BANDWIDTH (MHz*km)	MAXIMUM OPERATING DISTANCE
GLC-SX-MM GLC-SX-MMD GLC-SX-MM-RGD SFP-GE-S	LC - Duplex	850	MMF	62.5	160 (FDDI)	220m
				62.5	200 (OM1)	275m
				50	400 (400/400)	500m
				50	500 (OM2)	550m
				50	2000 (OM3)	1000m
GLC-LH-SM GLC-LH-SMD GLC-LX-SM-RGD SFP-GE-L	LC - Duplex	1310	SMF	G.652	N/A	10km
GLC-EX-SMD	LC - Duplex	1310	SMF	G.652	N/A	40km
GLC-ZX-SM GLC-ZX-SMD GLC-ZX-SM-RGD	LC - Duplex	1550	SMF	G.652	N/A	70km
GLC-BX-U	LC - Simplex	1310 (Transmit) 1490 (Receive)	SMF	G.652	N/A	10km
GLC-BX-D	LC - Simplex	1490 (Transmit) 1310 (Receive)	SMF	G.652	N/A	10km
GLC-T SFP-GE-T	RJ-45	N/A	Cat5 UTP	N/A	N/A	100m

PART NUMBER	PHY TYPE	TX POWER (dBm) Max-Min	RX POWER (dBm) Max - Min	TEMPERATURE RANGE	OPERATING TEMPERATURE
GLC-SX-MM	1000BASE-SX	-3.0 to -9.5	0.0 to -17.0	COM	0 to 70 °C
GLC-SX-MMD SFP-GE-S	1000BASE-SX	-3.0 to -9.5	0.0 to -17.0	EXT	-5 to 85 °C
GLC-SX-MM-RGD	1000BASE-SX	-3.0 to -9.5	0.0 to -17.0	IND	-40 to 85 °C
GLC-LH-SM	1000BASE-LX/LH	-3.0 to -9.5	-3.0 to -20.0	COM	0 to 70 °C
GLC-LH-SMD SFP-GE-L	1000BASE-LX/LH	-3.0 to -9.5	-3.0 to -20.0	EXT	-5 to 85 °C
GLC-LX-SM-RGD	1000BASE-LX/LH	-3.0 to -9.5	-3.0 to -20.0	IND	-40 to 85 °C
GLC-EX-SMD	1000BASE-EX	3.0 to -1.0	1.0 to -22.0	EXT	-5 to 85 °C
GLC-ZX-SM	1000BASE-ZX	5.0 to 0.0	-3.0 to -23.0	COM	0 to 70 °C
GLC-ZX-SMD	1000BASE-ZX	5.0 to 0.0	-3.0 to -23.0	EXT	-5 to 85 °C
GLC-ZX-SM-RGD	1000BASE-ZX	5.0 to 0.0	-3.0 to -23.0	IND	-40 to 85 °C
GLC-BX-D	1000BASE-BX10-D	-3.0 to -9.0	-3.0 to -19.5	COM	0 to 70 °C
GLC-BX-U	1000BASE-BX10-U	-3.0 to -9.0	-3.0 to -19.5	COM	0 to 70 °C
GLC-T	1000BASE-T	N/A	N/A	COM	0 to 70 °C
SFP-GE-T	1000BASE-T	N/A	N/A	EXT	-5 to 85 °C

PHYSICAL DIMENSIONS (HxWxD)
SFP Module: 8.5 x 13.4 x 56.5mm
Copper T Module: 13.2 x 13.6 x 72.2mm

POWER REQUIREMENTS (TYPICAL)
SFP Module: 1W

WARRANTY
Standard: 3 Year
Extended: Optional, up to 5 Years

SAFETY
Laser Class 1: 21CFR-1040 LN#50
Laser Class 1: IEC60825-1

STANDARDS COMPLIANCE
IEEE 802.3z: Gigabit Ethernet
IEEE 802.3ah: Gigabit Ethernet
GR-20-CORE: Generic Requirements for Optical Fiber and Optical Fiber Cable
GR-326-CORE: Generic Requirements for Single-mode Optical Connectors and Jumper Assemblies
GR-1435-CORE: Generic Requirements for Multi-Fiber Optical Connectors
SFP Module: SFP MSA, MSA SFF-8472 (for DDM/DOM capable transceivers)