

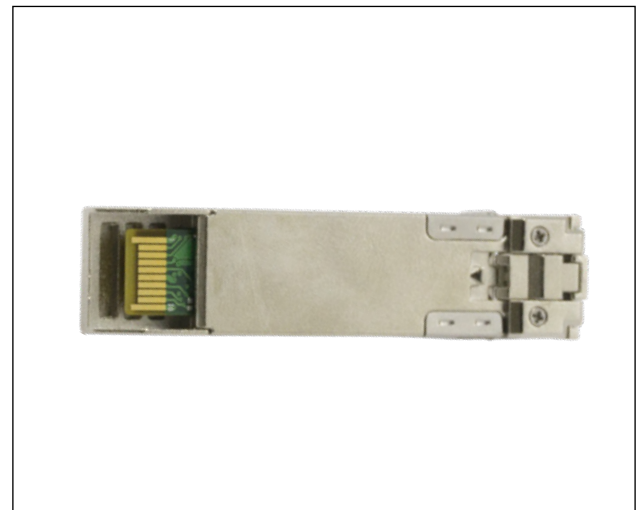
1GBASE-LX/LH SFP 1310NM 20KM DOM TRANSCEIVER --
 SINGLE MODE FIBER - 1EA

SCP PART#:
F-SFP1G-SM

PRODUCT SUMMARY

The F-SFP1G-SM single-mode transceivers are small form factor pluggable modules for bi-directional serial optical data communications such as Gigabit Ethernet 1000BASE-LX and Fiber Channel 1x SM-LC-LFC-PI. It is with the SFP 20-pin connector to allow hot plug capability. This module is designed for single mode fiber and operates at a nominal wavelength of 1310nm.

The transmitter section uses a multiple quantum well 1310nm laser and is a class 1 laser compliant according to International Safety Standard IEC-60825. The receiver section uses an integrated InGaAs detector preamplifier (IDP) mounted in an optical header and a limiting post-amplifier IC. The F-SFP1G-SM are designed to be compliant with SFF-8472 SFP Multi-Source Agreement (MSA).



FEATURES & BENEFITS

- Operating Data Rate up to 1.25Gbps
- 20km with 9/125 μm SMF
- Single 3.3V Power Supply and TTL Logic Interface
- Hot-Pluggable SFP Footprint Duplex LC Connector Interface
- Class 1 FDA and IEC60825-1 Laser Safety Compliant
- Built-in digital diagnostic functions, including optical power monitoring
- Commercial Temperature Range: 0~+70°C
- Compliant with MSA SFP Specification
- Compliant with SFF-8472

SPECIFICATIONS

Form Type	SFP
Max Data Rate	1000Mbps
Wavelength	1310nm
Max Cable Distance	20km
Interface	LC duplex
Optical Components	FP 1310nm
Cable Type	SMF
DOM Support	Yes
TX Power	-9.5 ~ -3dBm
Receiver Sensitivity	< -23dBm
Commercial Temperature Range	0 to 70°C (32 to 158°F)
Protocols	SFF-8472 MSA, IEEE 802.3ah-2004

General Product Characteristics					
Parameter	Symbol	Min	Typ.	Max	Unit
Bit Rate	BR			1.25	Gbps
Max. Supported Link Length	L _{MAX}			20	km
Absolute Maximum Ratings					
Parameter	Symbol	Min	Typ.	Max	Unit
Storage Temperature	T _S	-40		+85	°C
Supply Voltage	V _{CC}	-0.5		3.6	V
Operating Relative Humidity		-		95	%
Optical and Electrical Characteristics					
Parameter	Symbol	Min	Typ.	Max	Unit
9μm Diameter MMF	L		20		km
Power Supply Voltage	V _{CC}	3.15	3.3	3.45	V
Power Supply Current	I _{CC}			300	Ma
Data Rate GBE			1.25		Gbps
Data Rate FC			1.063		Gbps
Transmitter					
Parameter	Symbol	Min	Typ.	Max	Unit
Center Wavelength	λ _C	1260	1310	1360	nm
Spectral Width (RMS)	Δλ			4	nm
Average Output Power	P _{out}	-9		-3	dBm
Extinction Ratio	ER	9		Db	
Rise/Fall Time (20%~80%)	tr/tf			0.26	ps
Total Jitter	TJ			0.43	UI
Output Optical Eye	Compliant with IEEE 802.3ah-2004				
TX_Disable Assert Time	t _{off}			10	μs
Pout@TX Disable Asserted	P _{out}			-45	dBm
Receiver					
Parameter	Symbol	Min	Typ.	Max	Unit
Center Wavelength	λ	1260		1600	nm
Receiver Sensitivity	P _{MIN}			-21	dBm
Receiver Overload	P _{MAX}	-3			dBm
Return Loss		12			dBm
LOS De-Assert	LOSD			-22	dB
LOS Assert	LOSA	-35			dBm
LOS Hysteresis		0.5			dB
Other					
Warranty	Three years				

TECHNICAL DRAWING

