

1G SFP LX 10km

1G Eth, SFP, LX, 10km, 1310nm, SM

CP-GB-LX-xDF02

OVERVIEW

The CP-GB-LX-xDF02 is a single mode SFP transceiver designed for Gigabit Ethernet and 1G Fiber Channel applications. It uses a 1310nm FP laser transmitter and a PIN photodiode receiver and supports transmission distances up to 10km on standard single mode fiber.

The module supports data rates up to 1.25Gbps and complies with the SFP Multi-Source Agreement and the SFF-8472 Digital Diagnostics Monitoring specification. The DDM interface provides real time reporting of temperature, voltage, transmit power, receive power and laser bias current.

The transceiver is available in Commercial 0°C to +70°C and Industrial -40°C to +85°C temperature variants, allowing deployment across various access and enterprise environments.

KEY SPECIFICATIONS

- 1G SFP transceiver with duplex LC connector
- 1310nm FP transmitter and PIN photodiode receiver
- Supports 1.25Gbps Ethernet and 1.063Gbps Fiber Channel
- Up to 10km transmission distance over single mode fiber
- Power consumption around 1W
- Temp operating conditions: C-temp 0°C to +70°C, I-temp -40°C to +85°C.

TECHNICAL DATA

Parameter	Value	Parameter	Value
Form Factor	SFP	Transmitter Data:	
Transmission Media	SM (LC)	Tx Power	-9 to 0dBm ¹⁾
Typical Reach	10km	Tx Wavelength	1260 -1360nm
Nominal Wavelength	1310nm	Extinction Ratio	≥ 9dB
Data Rate Support	10Mbps to 1.25Gbps	Receiver Data:	
Protocol Support	GbE, 1G FC	Rx Sensitivity	-23dBm ^{1) 2)}
Power Consumption	<1.0W	Rx Overload, max	-1dBm ²⁾
Operating Temperature	0°C to 70°C / -40°C to 85°C	Rx Wavelength	1260 -1610nm
Storage Temperature	-40°C to 85°C	LOS Assert	-38dBm
DDM	Yes	LOS De-assert	-24dBm
		LOS Hysteresis	0.5dB

¹⁾ Average Power

²⁾ @1250Mbps, BER ≤ 1x10⁻¹², PRBS 2⁷-1

Safety/Regulatory Compliance

- Class 1 laser safe
- RoHS Compliance

ABSOLUTE MAX RATING

Exceeding these limits can cause permanent damage to the transceiver

Parameter	Value	Parameter	Value
Supply Voltage	-0.5V to 3.75V	Relative Humidity	85%
Storage Temp	-40°C to 85°C	Max Rx Optical Power	-1dBm

ORDERING INFORMATION

Ordering Code	Description
CP-GB-LX-CDF02	1G SFP, LX, 10km, LC, 1310nm, SM, 0 to 70C
CP-GB-LX-IDF02	1G SFP, LX, 10km, LC, 1310nm, SM, -40 to 85C

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