

1G SFP EX 40km

1G Eth, SFP, EX, 40km, LC, 1550nm, SM

CP-GB-EX-xDF02

OVERVIEW

The CP-GB-EX-xDF02 is a single mode SFP transceiver designed for Gigabit Ethernet and 1G Fiber Channel applications. It uses a 1550nm DFB laser transmitter and a PIN photodiode receiver and supports transmission distances up to 40km on standard single mode fiber.

The module supports data rates up to 1.25Gbps and complies with the SFP Multi-Source Agreement and the Digital Diagnostics Monitoring as per SFF-8472. The diagnostics interface provides real time monitoring of temperature, supply voltage, transmit optical power, receive optical power and bias current.

The transceiver uses a single 3.3V power supply and is available in Commercial 0°C to +70°C operating temperature option. It is suitable for long reach Gigabit Ethernet links, Fiber Channel networks and 40km point to point optical systems.

KEY SPECIFICATIONS

- 1G SFP transceiver with duplex LC connector
- 1550nm DFB transmitter and PIN photodiode receiver
- Supports 1.25Gbps Ethernet and 1.063Gbps Fiber Channel
- Up to 40km transmission distance over single mode fiber
- Typical power consumption around 1W
- Temp operating conditions: Commercial 0°C to +70°C

TECHNICAL DATA

Parameter	Value	Parameter	Value
Form Factor	SFP	Transmitter Data:	
Transmission Media	SM (LC)	Tx Power	-5 to 0dBm ¹⁾
Typical Reach	40km	Tx Wavelength	1530 -1570nm
Nominal Wavelength	1550nm	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	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⁾ @1250 Mbps, 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-EX-CDF02	1G SFP, EX, 40km, LC, 1550nm, SM, 0 to 70C

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