

1G SFP Z2X 160km

1G Eth, FC, SFP, Z2X, 160km, LC, 1550nm, SM

CP-GB-Z2X-xDF02

OVERVIEW

The CP-GB-Z2X-xDF02 is an extended reach 1.25G SFP transceiver designed for long haul optical links requiring up to 160km transmission distance over single mode fiber. The module integrates a 1550nm DFB laser transmitter and an APD receiver with a high sensitivity TIA which enables superior performance for very long distance applications.

This transceiver supports 1.25Gbps Gigabit Ethernet and 1.063Gbps Fiber Channel data rates. It complies with the SFP Multi-Source Agreement and the SFF-8472 Digital Diagnostics Monitoring specification which provides real time information on temperature, voltage, bias current, transmit optical power and receive optical power.

The device operates from a single 3.3V supply with a maximum current limit of 300mA. It is available in Commercial 0°C to +70°C temperature grade. Its high performance APD receiver and long reach optical power budget make it suitable for backbone links, long distance CPRI, and carrier grade networks requiring 160km reach.

KEY SPECIFICATIONS

- 1G SFP transceiver with duplex LC connector
- 1550nm DFB laser transmitter and APD receiver with TIA
- Supports 1.25Gbps Ethernet and 1.063Gbps Fiber Channel
- Up to 160km transmission distance over single mode fiber
- Power consumption approximately 1W.
- Temp operating conditions:
 - Commercial 0°C to +70°C
- Digital Diagnostics Monitoring compliant with SFF-8472
- Hot pluggable SFP MSA form factor

TECHNICAL DATA

Parameter	Value	Parameter	Value
Form Factor	SFP	Transmitter Data:	
Transmission Media	SM (LC)	Tx Power	+1 to +5dBm ¹⁾
Typical Reach	160km	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	-32dBm ^{1) 2)}
Power Consumption	<1.0W	Rx Overload, max	-8dBm ²⁾
Operating Temperature	0°C to 70°C	Rx Wavelength	1260 -1610nm
Storage Temperature	-40°C to 85°C	LOS Assert	-45dBm
DDM	Yes	LOS De-assert	-33dBm
		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	-8dBm

ORDERING INFORMATION

Ordering Code	Description
CP-GB-Z2X-CDF02	1G SFP, Z2X, 160km, LC, 1550nm, SM, 0 to 70C

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CONTACT INFORMATION

Email: sales@cloudphotonix.com

Phone: +91-1203116709, +91-1203116718

CloudPhotonix India Pvt. Ltd.

Block A-51, Sector 67

Noida – 201301, Uttar Pradesh, India