

25G SFP28 ZR 80km

25G Eth, SFP28, 80km, LC, 1310nm, SM

CP-25E-ZR-xDF02

OVERVIEW

The CP-25E-ZR-CDF02 is a single mode SFP28 transceiver designed for 25 Gigabit Ethernet and high-speed optical communication applications. It uses a 1310nm EML laser transmitter and an integrated SOA & PIN TIA ROSA receiver and supports transmission distances up to 80km on G.652 single mode fiber.

The module supports data rates up to 25.78125Gbps and is compliant with IEEE 802.3cc, SFF-8472, SFF-8419, SFF-8431, and SFP+ MSA standards. Digital diagnostics monitoring provides real-time monitoring of temperature, supply voltage, transmit power, receive power, and bias current.

The transceiver operates over a commercial temperature range of 0°C to +70°C and -40°C to +85°C and is suitable for 25G Ethernet, CPRI option 10, and high-speed optical interconnect applications

KEY SPECIFICATIONS

- 25G SFP28 transceiver with single LC connector
- 1310nm EML laser with Integrated SOA & PIN TIA ROSA
- Supports data rates up to 25.78125Gbps
- Up to 80km transmission distance over G.652 single mode fiber
- Real Time Digital Diagnostic Monitoring (DDM)
- Single +3.3V power supply
- Power consumption less than 3.5W
- Operating temperature range: Commercial(0°C to +70°C) and Industrial(-40°C to +85°C)

TECHNICAL DATA

Parameter	Value	Parameter	Value
Form Factor	SFP28	Transmitter Data:	
Transmission Media	SM (LC)	Tx Power	2 to 7dBm ¹⁾
Typical Reach	80km	Tx Wavelength	1308.09 -1310.19nm
Nominal Wavelength	1310nm	Extinction Ratio	≥ 8.0dB
Data Rate Support	25.78Gbps	Receiver Data:	
Protocol Support	25GbE, CPRI	Rx Sensitivity	-28dBm ^{1) 2)}
Power Consumption	<3.5W	Rx Overload, max	-4dBm ^{1) 2)}
Operating Temperature	0°C to 70°C/ -40°C to +85°C	Rx Wavelength	1308.09 -1310.19nm
Storage Temperature	-40°C to 85°C	LOS Assert	-40dBm
DDM	Yes	LOS De-assert	-28dBm
		LOS Hysteresis	0.5dB

¹⁾ Average power

²⁾ @ 25.78Gbps, BER ≤5E-5, PRBS 2³¹-1

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	0V to 3.6V	Relative Humidity	85%
Storage Temp	-40°C to 85°C	Max Rx Optical Power	-3dBm

ORDERING INFORMATION

Ordering Code	Description
CP-25E-ZR-CDF02	25G SFP28, ZR, 80km, LC, 1310nm, SM, 0 to 70C
CP-25E-ZR-IDF02	25G SFP28, ZR, 80km, LC, 1310nm, SM, -40 to 85C

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