

10G SFP+ SR 300m

10G Eth, FC, SFP+, SR, 300m, LC, 850nm, MM

CPP-10E-SR-xDF02

OVERVIEW

The CPP-10E-SR-xDF02 is a multimode SFP+ transceiver designed for 10 Gigabit Ethernet applications over short-range optical links. It operates with an 850nm VCSEL transmitter and a PIN photodiode receiver and supports distances up to 300 meters on OM3 fiber and up to 400 meters on OM4 fiber.

The module supports data rates from 1.0Gbps to 10.7Gbps and complies with the SFP+ Multi-Source Agreement and the SFF-8472 Digital Diagnostics Monitoring specification. Real time diagnostics provide monitoring of temperature, supply voltage, transmit optical power, receive optical power, and bias current.

The transceiver is available in Commercial (0°C to +70°C) and Industrial (-40°C to +85°C) operating temperature ranges, which makes it suitable for data centers and high-speed short-reach network applications.

KEY SPECIFICATIONS

- 10G SFP+ transceiver with duplex LC connector
- 850nm VCSEL transmitter and PIN photodiode receiver
- Supports data rates from 1.0Gbps to 10.7Gbps
- Up to 300m reach on OM3 MMF and 400m on OM4 MMF
- Power consumption around typically around 0.8W
- Temp operating conditions: Commercial (0°C to +70°C) and Industrial (-40°C to +85°C)

TECHNICAL DATA

Parameter	Value	Parameter	Value
Form Factor	SFP+	Transmitter Data:	
Transmission Media	MM (LC)	Tx Power	-6 to -0.5dBm ¹⁾
Typical Reach	300m	Tx Wavelength	840 - 860nm
Nominal Wavelength	850nm	Extinction Ratio	≥ 3.0dB
Data Rate Support	1Gbps to 10.7Gbps	Receiver Data:	
Interface Standard	10GBASE-SR 10GBASE-SW	Rx Sensitivity	-10.5dBm ¹⁾²⁾
Protocol Support	GbE, GbE-LAN, GbE-WAN	Rx Overload, max	0.5dBm ²⁾
Power Consumption	<1W	Rx Wavelength	840 - 860nm
Operating Temperature	0°C to 70°C / -40°C to 85°C	LOS Assert	-22dBm
Storage Temperature	-40°C to 85°C	LOS De-assert	-12dBm
DDM	Yes	LOS Hysteresis	0.5dB

¹⁾ Average power

²⁾ @ 10.31Gbps, BER ≤ 1x10⁻¹², 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	-0.5V to 3.75V	Relative Humidity	85%
Storage Temp	-40°C to 85°C	Max Rx Optical Power	0.5dBm

ORDERING INFORMATION

Ordering Code	Description
CPP-10E-SR-CDF02	10G SFP+, SR, 300m, LC, 850nm, MM, 0 to 70C
CPP-10E-SR-IDF02	10G SFP+, SR, 300m, LC, 850nm, MM, -40 to 85C

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