DATASHEET

IO-SFP-CF-XS-ER

IO, 10G Optical Extended Range SFP+



Description

The IO-SFP-CF-XS-ER is a single mode SFP+ transceiver designed for 10 Gigabit Ethernet and 10G Fiber Channel applications. It uses a 1310nm DFB laser transmitter and a PIN photodiode receiver with TIA which supports optical transmission distances up to 40km on standard single mode 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. The diagnostics interface provides real time monitoring of temperature, supply voltage, transmit optical power, receive optical power and laser bias current.

The transceiver operates from a single 3.3V supply and is available in Commercial (0°C to +70°C) operating temperature version. It is suitable for long reach 10GBASE-ER/EW links, LTE systems, backhaul networks and 40km optical communication systems.

Key Specifications

- 10G SFP+ transceiver with duplex LC connector
- 1310nm DFB laser transmitter and PIN photodiode receiver
- Supports 1.0Gbps to 10.7Gbps data rates
- Up to 40km transmission distance over single mode fiber
- Typical power consumption around 1.1W
- Temp operating conditions: Commercial (0°C to +70°C)
- Digital Diagnostics Monitoring supported
- Compliant with SFP+ MSA and SFF-8472

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Technical Data

Parameter	Value	Parameter	Value
Form Factor	SFP+	**Transmitter Data**	
Transmission Media	SM (LC)	Tx Power	-1 to +4dBm[1)]
Typical Reach	40km	Tx Wavelength	1270-1350nm
Nominal Wavelength	1310nm	Extinction Ratio	≥ 5dB
Data Rate Support	1.0Gbps to 10.7Gbps	**Receiver Data**	
Protocol Support	GbE, CPRI, 10GbE-LAN, 10GbE-WAN	Rx Sensitivity	-16dBm[1) 2)]
Power Consumption	<1.2W	Rx Overload, Max	-0.5dBm[2)]
Operating Temperature	0°C to 70°C	Rx Wavelength	1260-1600nm
Storage Temperature	-40°C to 85°C	LOS Assert	-30dBm
DDM	Yes	LOS De-assert	-17dBm
		LOS Hysteresis	0.5dB

1. Average Power
2. @ 10.31Gbps, BER ≤1×10-12, PRBS 2^{31}-1

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Safety/Regulatory Compliance

- Class 1 laser safe
- RoHS Compliance

Absolute Maximum Rating

Parameter	Value
Supply Voltage	-0.5V to 4.5V
Storage Temperature	-40°C to 85°C
Relative Humidity	85%
Max Rx Optical Power	+0.5dBm

Ordering Information

Model No.	Description
IO-SFP-CF-XS-ER	IO, 10G Optical Extended Range SFP+ Commercial Grade

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