DATASHEET

IO-SFP-CF-GS-ZR

IO, 1G Optical Long Extended Range SFP



Description

The IO-SFP-CF-GS-ZR is a single mode SFP transceiver designed for Gigabit Ethernet and 1.25G optical links that require extended reach. It uses a 1550nm DFB laser transmitter and a high sensitivity PIN photodiode receiver integrated with a TIA, enabling transmission distances up to 80 km over standard single mode fiber.

The module supports 1.25Gbps Ethernet and 1.063Gbps Fiber Channel data rates and follows the SFP Multi-Source Agreement. It includes Digital Diagnostics Monitoring compliant with SFF-8472 which provides real time information on temperature, voltage, transmit optical power, receive optical power and laser bias current.

The transceiver is powered from a single 3.3V supply and is available in Commercial 0°C to +70°C operating temperature version. This makes it suitable for long reach access networks, backbone connections and other 80km optical systems.

Key Specifications

- 1G SFP transceiver with duplex LC connector
- 1550nm DFB laser and PIN photodiode receiver
- Supports 1.25Gbps Ethernet and 1.063Gbps Fiber Channel
- Up to 80km transmission distance over single mode fiber
- Typical power consumption around 1W
- Temp operating conditions
- Commercial 0°C to +70°C
- Digital Diagnostics Monitoring compliant with SFF-8472

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Technical Data

Parameter	Value	Parameter	Value
Form Factor	SFP	**Transmitter Data**	
Transmission Media	SM (LC)	Tx Power	-0 to +5dBm[1)]
Typical Reach	80km	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	-26dBm[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	-27dBm
		LOS Hysteresis	0.5dB

1. Average Power
2. @1250 Mbps, BER ≤1×10^{-12}, PRBS 2^7-1

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Safety/Regulatory Compliance

- Class 1 laser safe
- RoHS Compliance

Absolute Maximum Rating

Parameter	Value
Supply Voltage	-0.5V to 3.75V
Storage Temperature	-40°C to 85°C
Relative Humidity	85%
Max Rx Optical Power	-1dBm

Ordering Information

Model No.	Description
IO-SFP-CF-GS-ZR	IO, 1G Optical Long Extended Range SFP Commercial Grade

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