

100G QSFP28 SWDM4

100G Eth, QSFP28, SWDM4, SR4, 100~150m, LC, 850nm, MM

CPQ-CE-SWD-CDF02

OVERVIEW

The CPQ-CE-SWD-CDF02 is multi-mode QSFP28 transceiver module designed for use in 100G Ethernet links over duplex multimode fiber. Four channels/lanes in the 850-940nm band @ 25.78Gbps are combined to transport the data. Digital diagnostics functions are available via an I2C interface, as specified by the QSFP28 MSA.

The module supports data rate 103.1Gbps and is compliant with the QSFP28 Multi-Source Agreement and SWDM MSA. Real time diagnostics provide monitoring of temperature, supply voltage, transmit power, receive power, and bias current.

The transceiver is available in Commercial (0°C to +70°C) operating temperature which makes it suitable for access networks, data centers, and metro applications.

KEY SPECIFICATIONS

- 100G QSFP28 transceiver with duplex LC connector
- 850nm VCSEL-based laser transmitter
- Supports 103.1Gbps data rates
- Up to 100~150m transmission distance over duplex MMF
- Power consumption < 3.5W
- Temp operating conditions: Commercial (0°C to +70°C)

TECHNICAL DATA

Parameter	Value	Parameter	Value
Form Factor	QSFP28	Transmitter Data:	
Transmission Media	MMF (LC)	Tx Power, OMA	-5.5 to +3dBm ³⁾
Typical Reach	100-150m	Tx Wavelength	L0: 844-858nm L1: 874-888nm L2: 904-918nm L3: 934-948nm
Nominal Wavelength	850nm	Extinction Ratio	≥ 2dB
Data Rate Support	103.1Gbps ¹⁾ 25.78125Gbps ²⁾	Receiver Data:	
Protocol Support	100GbE	Rx Power	L0: -9.5dBm ³⁾ L1: -9.4dBm ³⁾ L2: -9.4dBm ³⁾ L3: -9.4dBm ³⁾
Power Consumption	<3.5W	Rx Sensitivity, OMA	L0: -8.2dBm ⁴⁾ L1: -8.4dBm ⁴⁾ L2: -8.6dBm ⁴⁾ L3: -8.8dBm ⁴⁾
Operating Temperature	0°C to 70°C	Rx Overload, max	+3.4dBm ³⁾
Storage Temperature	-40°C to 85°C	Rx Wavelength	L0: 844-858nm L1: 874-888nm L2: 904-918nm L3: 934-948nm
DDM	Yes	LOS Assert	-30dBm
		LOS De-assert	-12dBm
		LOS Hysteresis	0.5dB

¹⁾ Aggregated data rate 100GbE

²⁾ Line data rate per 25.78Gbps lane

³⁾ Average Power, per lane

⁴⁾ Per 25.78Gbps. Specified @ BER 5E-5

Safety/Regulatory Compliance

- Class 1 laser safety
- RoHS compliance

ABSOLUTE MAX RATING

Exceeding these limits can cause permanent damage to the transceiver

Parameter	Value	Parameter	Value
Supply Voltage	-0.5V to 3.6V	Relative Humidity	85%
Storage Temp	-40°C to 85°C	Max Rx Optical Power	4.4dBm

ORDERING INFORMATION

Ordering Code	Description
CPQ-CE-SWD-CDF02	100G QSFP28, SWDM4, SR4, 100~150m, LC, 850nm, MM, 0 to 70C

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