100G QSFP28 BIDI 100m

100G Eth, QSFP28, BiDi, 100m, LC, 850/910nm, MM

CB-CE-SRBD-CDF02

OVERVIEW

The CB-CE-SRBD-CDF02 optical transceiver is a two-channel, pluggable, LC duplex, fiber-optic transceiver designed for 100 Gigabit Ethernet applications. This transceiver is a high-performance module for short-range duplex data communication and interconnect applications. It integrates four electrical data lanes in each direction into transmission over a duplex LC fiber optic cable. Each electrical lane operates at 25.78125 Gbps and conforms to the CAUI-4 interface.

The transceiver internally converts a CAUI-4 4x25Gbps (NRZ) electrical interface into two 50Gbps (PAM4) optical channels, transmitting and receiving each optically over one simplex LC fiber using bi-directional optics. This results in an aggregate bandwidth of 100Gbps over a duplex LC cable. This allows reuse of the installed LC duplex cabling infrastructure for 100GbE applications. Link distances up to 70 m using OM3 and 100 m using OM4 optical fiber are supported. These modules are designed to operate over multimode fiber systems using nominal wavelengths of 850 nm and 910 nm on opposite ends. The electrical interface uses a 38-contact QSFP28 edge connector. The optical interface uses a conventional LC duplex connector.

KEY SPECIFICATIONS

- 100G QSFP28 transceiver with duplex LC connector
- 850nm VCSEL-based laser transmitter
- Supports 103.1Gbps data rates
- Up to 100m transmission distance over duplex MMF
- Power consumption around <4W
- Temp operating conditions: Commercial (0°C to +70°C)

TECHNICAL DATA

Parameter	Value	Parameter	Value
Form Factor	QSFP28	**Transmitter Data:**	
Transmission Media	MM (LC)	Tx Power	-6.2 to +4dBm[4)]
Typical Reach	100m	Tx Power, OMA	-4.2 to +3dBm
Nominal Wavelength	850nm, 910nm	Tx Wavelength	844 - 863nm 900 - 918nm
Data Rate Support	103.1Gbps[1)] 53.125[2)]/25.78125Gbps[3)]	Extinction Ratio	≥ 3dB
Protocol Support	100GbE	**Receiver Data:**	
Power Consumption	<4W	Rx Power, min	-8.2dBm[4)]
Operating Temperature	0°C to 70°C	Rx Sensitivity, OMA	-6.6dBm[5)]
Storage Temperature	-40°C to 85°C	Rx Overload, max	+4dBm[4)]
DDM	Yes	Rx Wavelength	844 - 863nm 900 - 918nm
		LOS Assert	-11dBm
		LOS De-assert	-9dBm
		LOS Hysteresis	0.5dB

[1)] Aggregated line rate 100GbE
[2)] Line data rate per Optical channel (2 x 50G)
[3)] Line data rate per Electrical channel (4 x 25G)
[4)] Average Power, per lane
[5)] Specified @ pre-FEC BER 2.4E-4

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 3.6V	Relative Humidity	85%
Storage Temp	-40°C to 85°C	Max Rx Optical Power	4dBm

ORDERING INFORMATION

Ordering Code	Description
CB-CE-SRBD-CDF02	100G QSFP28, BiDi, 100m, LC, 850/910nm, MM, 0 to 70C

All information contained in this document is subject to change without prior notice at the sole discretion of CloudPhotonix. The company warrants the performance of its products solely in accordance with the current published specifications and applicable warranty terms. CloudPhotonix makes no other warranties, express or implied, including but not limited to any implied warranties of merchantability, fitness for a particular purpose, or non-infringement of third-party rights. For the most current certification and compliance information, please contact CloudPhotonix directly.

CONTACT INFORMATION

Email: sales@cloudphotonix.com
Phone: +91-1203116709, +91-1203116718
CloudPhotonix India Pvt. Ltd.
Block A-51, Sector 67
Noida – 201301, Uttar Pradesh, India