

100G CWDM4 QSFP28 Transceiver

SKU#: ECX-QSFP28-CWDM4-GN-03

Enconnex's OM3559CX100 are QSFP28 transceiver modules designed for 2km optical communication applications with single mode fiber. They are compliant to 100G CWDM4 MSA¹, QSFP28 MSA², IEEE 802.3bm Annex 83E³ and OIF CEI-28G-VSR⁴ standards. Digital diagnostic management interface (DDMI) is realized by I2C interface in compliance with SFF-8636. The modules are RoHS 2.0 compliant. The modules can convert 4-channel 25Gb/s electrical data to 4-channel optical signals, and multiplex them into a single channel for 100Gb/s optical transmission. Similarly, they optically de-multiplex a 100Gb/s input into 4-channel signals, and convert them to 4-channel output electrical data on the receiver side. It has been designed to meet the harshest external operating conditions including temperature, humidity and EMI interference.

PRODUCT FEATURES

- QSFP28 MSA compliant
- Compliant to 100G CWDM4 MSA
- 4 CWDM lanes MUX/DEMUX design
- 4x25G electrical interface (OIF CEI-28G-VSR)
- Maximum power consumption 3.5W
- LC duplex connector
- Supports 103.1Gb/s aggregate bit rate
- Up to 2km transmission on single mode fiber with FEC
- Operating case temperature: 0 to 70°C
- Single 3.3V power supply
- I2C digital management interface
- RoHS 2.0 compliant



Figure 1 - 100G CWDM4 QSFP28 Optical Transceiver

PRODUCT APPLICATIONS

- 100G Ethernet
- Data Center Interconnect
- Enterprise networking

TRANSCEIVER BLOCK DIAGRAM

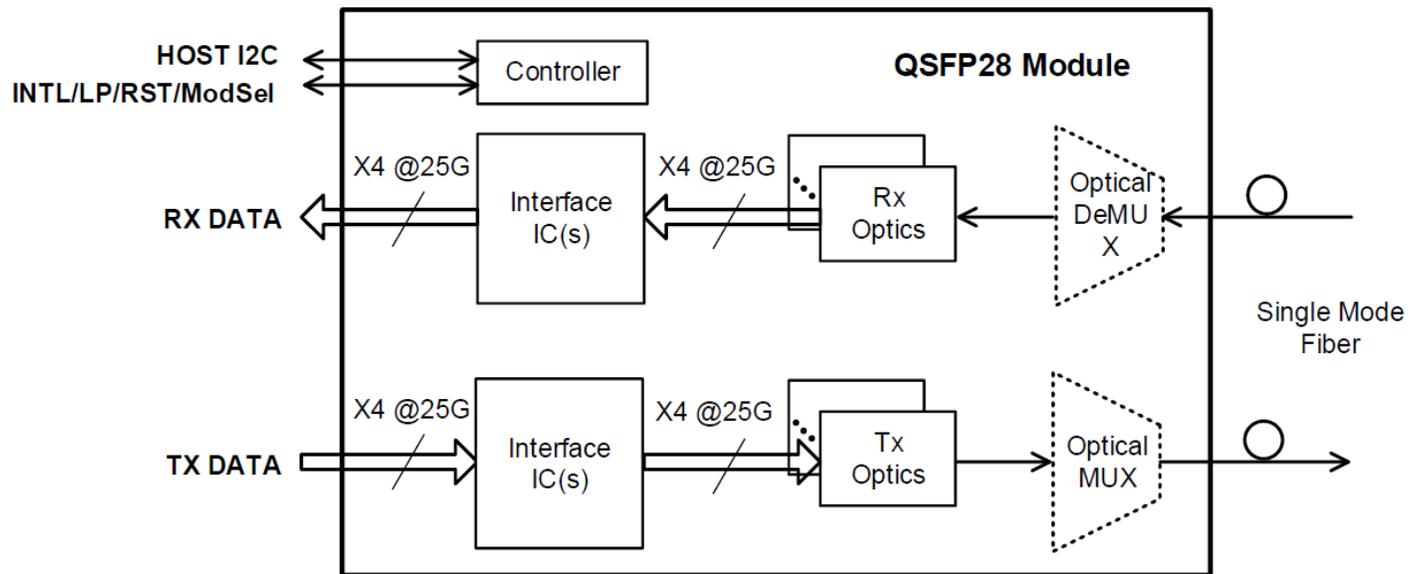


Figure 1. Transceiver Block Diagram

ABSOLUTE MAXIMUM RATINGS

It has to be noted that the operation in excess of any individual absolute maximum ratings might cause permanent damage to this module.

Parameter	Symbol	Min	Typ	Max	Unit	Notes
Maximum Supply Voltage	Vcc	-0.5	3.3	3.6	V	
Storage Temperature	Ts	-40		85	°C	
Relative Humidity	RH	0		85	%	1
Damage Threshold, each lane	THd	3.5			dBm	

Notes: 1. Non-condensing

OPERATING ENVIRONMENTS

Electrical and optical characteristics below are defined under this operating environment, un-less otherwise specified.

Parameter	Symbol	Min	Typ	Max	Unit
Supply Voltage	Vcc	3.135	3.3	3.465	V
Case Temperature	Top	0		70	°C
Data Rate, each lane			25.78125		Gbps
Data Rate Accuracy		-100		100	ppm
Link Distance with G.652		0.002		2	km