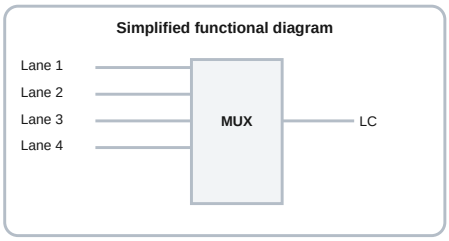
QSFP28-CWDM4-100G

QSFP28, 100GbE-CWDM4, 2 km

CWDM 1270-1330nm, 5dB, SM, LC

1. Product overview

100G CWDM4 QSFP28 optical transceiver for links from 2 m to 2 km over standard single-mode fiber. Four uncooled CWDM DFB lasers at 1271, 1291, 1311 and 1331 nm are multiplexed onto a duplex LC interface.



2. Key features

- High-density QSFP28 interconnectivity
- 100 Gb/s links up to 2 km over SMF
- 100G CWDM4 MSA technical specification support
- CAUI-4 / SFF-8665 electrical interface
- SFF-8636 management with TX/RX monitoring
- Power dissipation <3.5 W; 3.3 V supply

3. Applications

- Data Center interconnections
- 100GBASE Ethernet links

4. Technical data

Parameter	Value	Parameter	Value
Technology	100G QSFP28 CWDM4	Media	SMF, duplex LC
Reach	2 m to 2 km	Wavelengths	1271/1291/1311/1331 nm
Host lanes	4x25.78125 Gb/s	Budget	5 dB
Power	3.5 W	DDM	Bias, TX power, RSSI, voltage, temperature

5. Recommended operating conditions

Parameter	Specification
Case temperature	0°C to +70°C
Supply voltage	3.14 to 3.46 V
Power consumption	3.5 W
Low-power mode	1.5 W

QSFP28-CWDM4-100G

6. Optical characteristics

Parameter	Specification
Transmitter	
Signaling rate per lane	25.78125 ±100 ppm Gb/s
Lane 0 wavelength	1246.5 / 1271 / 1277.5 nm
Lane 1 wavelength	1284.5 / 1291 / 1297.5 nm
Lane 2 wavelength	1304.5 / 1311 / 1317.5 nm
Lane 3 wavelength	1324.5 / 1331 / 1337.5 nm
Average optical power per lane	-6.5 to +2.5 dBm
Total average launch power	8.5 dBm max
Launch power in OMA minus TDP	-5 dBm
TDP per lane	3 dB max
Average launch power TX off	-30 dBm
Extinction ratio	3.5 dB
Relative intensity noise OMA	-130 dB/Hz
SMSR	30 dB
Optical return loss tolerance	20 dB

Parameter	Specification
Transmitter reflectance	-12 dB
TX power monitoring accuracy	-3 to +3 dB
Transmitter eye mask	{0.31,0.4,0.45,0.34,0.38,0.4}
Receiver	
Signaling rate per lane	25.78125 ±100 ppm Gb/s
Lane 0 wavelength	1246.5 / 1271 / 1277.5 nm
Lane 1 wavelength	1284.5 / 1291 / 1297.5 nm
Lane 2 wavelength	1304.5 / 1311 / 1317.5 nm
Lane 3 wavelength	1324.5 / 1331 / 1337.5 nm
Damage threshold	+3.5 dBm
Average receiver power per lane	-11.5 to +2.5 dBm
Receiver power OMA per lane	+2.5 dBm max
Receiver reflectance	-26 dB
Receiver sensitivity OMA per lane	-10.0 dB as stated in source
RSSI accuracy	-3 to +3 dB

7. Digital diagnostics and management

Parameter	Specification
Management interface	2-wire serial / I2C through QSFP28 management interface
Digital diagnostics	Temperature, supply voltage, TX bias/power and RX power where implemented
Module controls	ModSelL, ResetL, LPMode, ModPrsL and IntL as applicable
Form factor	Hot-pluggable QSFP28, 38-pin host interface

8. Safety and regulatory

RoHS compliance and normal ESD handling precautions apply. Where stated in the source specification, the optical module is a Class 1 laser product and must be handled in accordance with applicable laser-safety requirements.

9. Ordering information

Ordering number	Product description
Q100G-CWDM4	QSFP28, 100GbE-CWDM4, 2 km; CWDM 1270-1330nm, 5dB, SM

GLOBALfiber makes no warranties or representations, expressed or implied, relative to the information contained in this document.
The information is subject to change without notice.