

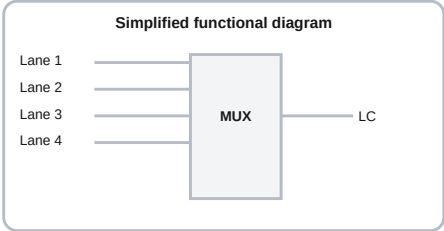
QSFP28-eLR4-100G

QSFP28 100GbE-eLR4 4x25.8G 20km

1310nm, 9dB, SM, LC

1. Product overview

100G extended-LR4 QSFP28 transceiver for single-mode fiber. Four cooled 25 Gb/s LAN-WDM transmit channels are combined on a duplex LC interface for up to 20 km, with digital diagnostics available through the I2C management interface.



2. Key features

- QSFP28 MSA compliant
- 4 cooled 25 Gb/s LAN-WDM DFB transmit channels
- 4-channel PIN photodetector receiver
- Up to 20 km on SMF
- Class 1 laser safety certified
- Power consumption below 3.5 W

3. Applications

- 100GBASE-eLR4 Ethernet links
- Data Center

4. Technical data

Parameter	Value	Parameter	Value
Technology	100G QSFP28 eLR4	Media	SMF, duplex LC
Reach	20 km	Wavelengths	1295.56/1300.05/1304.58/1309.14 nm
Host lanes	4x25.78125 Gb/s	Optical budget	9 dB
Power	<3.5 W	DDM	I2C / QSFP28 MSA

5. Recommended operating conditions

Parameter	Specification
Operating case temperature	-5°C to +70°C
Supply	3.3 V
Per-lane rate	25.78125 Gb/s
Reach	20 km

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6. Optical characteristics

Parameter	Specification
Transmitter	
Launch optical power per lane	0 to +5 dBm
Total launch optical power	+10.5 dBm max
Lane L1 wavelength	1294.53 / 1295.56 / 1296.59 nm
Lane L2 wavelength	1299.02 / 1300.05 / 1301.09 nm
Lane L3 wavelength	1303.54 / 1304.58 / 1305.63 nm
Lane L4 wavelength	1308.09 / 1309.14 / 1310.19 nm
Extinction ratio	4.0 dB min
Spectral width (-20 dB)	1 nm max
Side-mode suppression ratio	30 dB min
Optical return loss tolerance	20 dB max
TX disable output power	-30 dBm max
Eye mask	{0.25,0.4,0.45,0.25,0.28,0.4}
Receiver	
Lane L1 wavelength	1294.53 / 1295.56 / 1296.59 nm
Lane L2 wavelength	1299.02 / 1300.05 / 1301.09 nm
Lane L3 wavelength	1303.54 / 1304.58 / 1305.63 nm
Lane L4 wavelength	1308.09 / 1309.14 / 1310.19 nm
Sensitivity per channel	-9.0 dBm
Damage threshold per channel	+4.5 dBm
Optical return loss	26 dB min
LOS de-assert	-11.6 dBm
LOS assert	-24 dBm
LOS hysteresis	0.5 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-eLR4	QSFP28 100GbE-eLR4 4x25.8G 20km; 1310nm, 9dB, SM

10. General notes

Specifications in this two-page summary are condensed from the supplied GLOBALfiber source data sheet. Values and terminology are retained from the source; no external specifications have been substituted.