

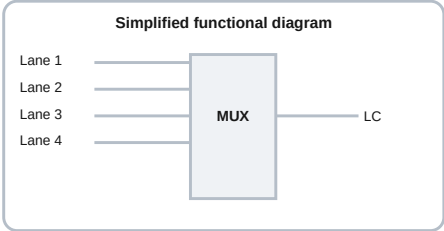
QSFP28-ZR4-100G

QSFP28, 100GbE-ZR4, 4x25.8 Gbps, 80km

1310nm, 34dB, SM, LC

1. Product overview

100G ZR4-class QSFP28 transceiver using four LAN-WDM lanes on a duplex LC single-mode interface. The source headline states 80 km, while its feature text also states up to 100 km; both statements are retained here without reconciliation.



2. Key features

- 100GBASE 100GE support
- 4x25.78 Gb/s CAUI-4 electrical interface
- LAN-WDM laser and PIN receiver with SOA
- QSFP28 MSA with duplex LC
- Typical power consumption 6.5 W
- Integrated I2C digital diagnostic monitoring

3. Applications

- 100GBASE-ZR4 plus

4. Technical data

Parameter	Value	Parameter	Value
Technology	100G QSFP28 ZR4	Transmission media	SMF, duplex LC
Headline reach	80 km	Feature-text reach	up to 100 km
Wavelengths	1295.56/1300.05/1304.58/1309.14 nm	Optical budget	34 dB
Aggregate bit rate	103.125 Gb/s	Power	6.5 W typical

5. Recommended operating conditions

Parameter	Value
Operating case temperature	0 to +70 °C
Supply voltage	3.135 / 3.3 / 3.465 V
Aggregate bit rate	103.125 Gb/s
Supply current	up to 1.96 A

QSFP28-ZR4-100G

6. Optical characteristics

Parameter	Specification
Transmitter	
Center Wavelength Lane	0 λ0 1294.53 1295.56 1296.59 nm
Center Wavelength Lane	1 λ1 1299.02 1300.05 1301.09 nm
Center Wavelength Lane	2 λ2 1303.54 1304.58 1305.63 nm
Center Wavelength Lane	3 λ3 1308.09 1309.14 1310.19 nm
Total Launch Power,	100GE PALL - - 12.5 dBm 1
Average Launch Power per Lane,	100GE PTX_LANE 3.5 - 8 dBm 1
Optical Modulation Amplitude (OMA), per Lane PTX_OMA_LANE	5.12 9.62 dBm 1
Operating Case Temperature TC	0 - +70 °C
Power Supply Voltage VCC	3 135 3.3 3 465 V
Power Supply Current ICC	1.96 A
Typical Power Dissipation PD	6.5 W
Aggregate Bit Rate BRAVE	103 125 - Gb/s
OPTICAL CHARACTERISTICS	
Difference in launch power between lanes PTX_Delta_LANE	3.6 dB
Average Output Power (Laser Turn off) POUT-OFF	-30 dBm
Side Mode Suppression Ratio SMSR	30 - - dB
Extinction Ratio,	100GE ER 8 - - dB
Receiver	
Damage threshold Pdamage	5.5 - - dBm
Average Rx Power per Lane,	100GE PRx_LANE -31.5 - 4.5 dBm 2
Difference in launch power between lanes PRX_Delta_LANE	4.5 dB
Rx average sensitivity Rx_avesens	-30.5
Los Assert LosA	-40 - - dBm
Los De-assert LosDA	-31 dBm
Los Hysteresis LosH	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-ZR4	QSFP28, 100GbE-ZR4, 4x25.8 Gbps, 80km; 1310nm, 34dB, 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.