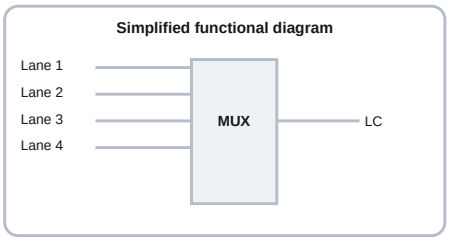
QSFP28-ZR4-IND

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

1310nm, 30dB, SM,LC, I-Temp

1. Product overview

Industrial-temperature 100G ZR4-class QSFP28 transceiver using four LAN-WDM optical lanes multiplexed onto a duplex LC single-mode interface. The source sheet identifies 80 km reach and support for both 100GE and OTU4 line rates.



2. Key features

- 4-lane LAN-WDM MUX/DEMUX design
- 100GE 103.125 Gb/s and OTU4 111.81 Gb/s support
- EML transmitters with PIN receiver and SOA
- Duplex LC connector over SMF
- Industrial temperature headline: -40°C to +70°C
- Built-in digital diagnostics and FEC support

3. Applications

- 100GBASE-ZR4

4. Technical data

Parameter	Value	Parameter	Value
Technology	100G QSFP28 ZR4	Transmission media	SMF, duplex LC
Reach	80 km	Wavelengths	1295.56/1300.05/1304.58/1309.14 nm
Host lanes	4x25.78125 / 27.9525 Gb/s	Optical budget	30 dB
Power	≤6W	DDM	Yes

5. Recommended operating conditions

Parameter	Value
Supply voltage	3.13 / 3.3 / 3.47 V
Supply current	1.2 to 1.8 A
Power dissipation	up to 6.5 W
Data rate per lane	25.78125 / 27.9525 Gb/s

QSFP28-ZR4-IND

6. Optical characteristics

Parameter	Specification
Transmitter	
Wavelength Assignment	
L0	1294.53 1295.56 1296.59 nm
L1	1299.02 1300.05 1301.09 nm
L2	1303.54 1304.58 1305.63 nm
L3	1308.09 1309.14 1310.19 nm
Side-mode Suppression Ratio SMSR	30 - - dB
Total Average Launch Power PT	8 - 12.5 dBm
Average Launch Power, each Lane	+2 - 6.5 dBm
Difference in Launch Power between any two	
Lanes (OMA)	3 dB
Extinction Ratio ER	6 - - dB
Transmitter Eye Mask Definition {X1, X2, X3,	
Y1, Y2, Y3} {	0.25, 0.4, 0.45, 0.25, 0.28, 0.4} 1
Optical Return Loss Tolerance	20 dB
Average Launch Power OFF Transmitter, each Lane Poff	-30 dBm
Relative Intensity Noise Rin	-130 dB/HZ
Optical return loss tolerance	20 dB
Transmitter reflectance	12 dB
Receiver	
Total Damage Threshold THd	5.5 dBm 1
Receiver Sensitivity per Lane R	-28 dBm
Average Power at Receiver Input, each Lane R	-28 0 dBm 1
LOS De-Assert LOSD	-29 dBm
LOS Assert LOSA	-40 dBm
LOS Hysteresis LOSH	0.5 dB
OPTICAL PARAMETERS	
(TOP =	0 to 70 °C, VCC = 3.0 to 3.6 Volts)

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-IND	QSFP28, 100GbE-ZR4, 4x25.8 Gbps, 80km; 1310nm, 30dB, SM, I-Temp

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.

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