

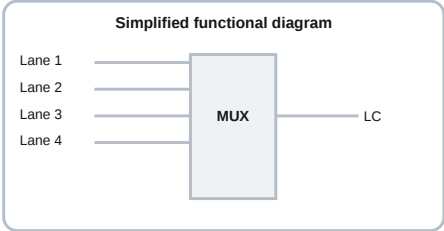
QSFP28-SWDM4-100G

QSFP28, 100GbE-SWDM4 4x25.8Gbps, 150m

850/880/910/940nm, 2.3dB, LC

1. Product overview

100G SWDM4 QSFP28 transceiver for duplex multimode fiber. Four 25.78125 Gb/s optical lanes in the 850-940 nm region are wavelength multiplexed onto a duplex LC interface.



2. Key features

- QSFP28 MSA and SWDM MSA compliant
- IEEE 802.3bm CAUI-4 electrical interface
- 4x25 Gb/s VCSEL-based SWDM transmitter
- 103.1 Gb/s aggregate bit rate
- 75 m OM3 / 100 m OM4 / 150 m OM5
- Power dissipation <3.5 W; 0°C to +70°C

3. Applications

- 100G Ethernet over duplex MMF

4. Technical data

Parameter	Value	Parameter	Value
Technology	100G QSFP28 SWDM4	Media	MMF, duplex LC
Reach	75 m OM3 / 100 m OM4 / 150 m OM5	Wavelengths	850/880/910/940 nm
Host interface	4x25.78125 Gb/s NRZ	Budget	2.3 dB headline
Power	3.5 W max	DDM	Yes

5. Recommended operating conditions

Parameter	Value
Case temperature	0 to +70 °C
Supply voltage	3.14 to 3.46 V
Power consumption	3.5 W max
Signaling rate / lane	25.78125 Gb/s

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6. Optical characteristics

Parameter	Specification	Parameter	Specification
Transmitter		Receiver	
Signaling rate, each lane	25.78125 ±100 ppm Gb/s	Signaling rate, each lane	25.78125 ±100 ppm Gb/s
Lane 0 wavelength	844 to 858 nm	Lane 0 wavelength	844 to 858 nm
Lane 1 wavelength	874 to 888 nm	Lane 1 wavelength	874 to 888 nm
Lane 2 wavelength	904 to 918 nm	Lane 2 wavelength	904 to 918 nm
Lane 3 wavelength	934 to 948 nm	Lane 3 wavelength	934 to 948 nm
Modulation format	NRZ	Modulation format	NRZ
Difference in launch power between any two lanes	4.5 dB max	Damage threshold	+4.4 dBm
RMS spectral width	0.59 nm	Average receive power - Lane 0	-9.5 to +3.4 dBm
Optical Modulation Amplitude (OMA), each lane	-5.5 to +3 dBm	Average receive power - Lane 1	-9.4 to +3.4 dBm
Average launch power per lane @ TX off state	-30 dBm max	Average receive power - Lane 2	-9.4 to +3.4 dBm
Launch power in OMA minus TDEC - Lane 0	-7.0 dBm	Average receive power - Lane 3	-9.4 to +3.4 dBm
Launch power in OMA minus TDEC - Lane 1	-7.0 dBm	Receiver power, each lane (OMA)	+3 dBm max
Launch power in OMA minus TDEC - Lane 2	-7.4 dBm	Receiver reflectance	-12 dB
Launch power in OMA minus TDEC - Lane 3	-7.7 dBm	Unstressed receiver sensitivity (OMA) - Lane 0	-8.2 dBm
Transmitter and Dispersion Eye Closure - Lane 0	4.0 dB	Unstressed receiver sensitivity (OMA) - Lane 1	-8.4 dBm
Transmitter and Dispersion Eye Closure - Lane 1	4.0 dB	Unstressed receiver sensitivity (OMA) - Lane 2	-8.6 dBm
Transmitter and Dispersion Eye Closure - Lane 2	4.4 dB	Unstressed receiver sensitivity (OMA) - Lane 3	-8.8 dBm
Transmitter and Dispersion Eye Closure - Lane 3	4.8 dB	RX_LOS assert	-30 dBm
Extinction ratio	2 dB	RX_LOS de-assert	-12 dBm
Optical return loss tolerance	12 dB	RX_LOS hysteresis	0.5 dB
Encircled flux	≥86% at 19 µm; ≤30% at 4.5 µm		

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-SWDM4	QSFP28, 100GbE-SWDM4 4x25.8Gbps, 150m; 850/880/910/940nm, 2.3dB, LC

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.