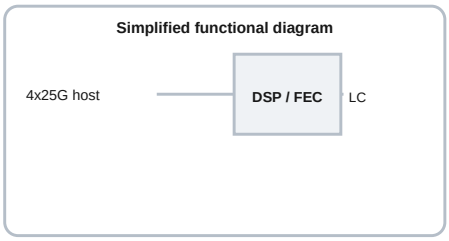
QSFP28-L80-CHxx

QSFP28, 100GbE, Single Lambda up to 80km

DWDM 100GHz C-band, req EDFA SM

1. Product overview

Single-lambda 100G PAM4 DWDM QSFP28 transceiver for amplified C-band networks. The module converts 4x25G NRZ host lanes to a single 100G PAM4 optical wavelength and is specified for up to 80 km over SMF with EDFA and DCM.



2. Key features

- 100 Gb/s single-lambda DWDM transmission
- All C-band wavelengths on 100 GHz ITU grid
- 80 km reach over SMF with EDFA and DCM
- 4x25G electrical interface to 100G PAM4 optical lane
- Duplex LC connector
- Power dissipation <5.5 W; integrated DDM

3. Applications

- 100G amplified DWDM networks
- Data Center Interconnects

4. Technical data

Parameter	Value	Parameter	Value
Technology	100G single-lambda DWDM PAM4	Media	SMF, duplex LC
Reach	80 km with EDFA + DCM	Wavelength range	1528.77 to 1565.50 nm
Grid	100 GHz C-band	Host	4x25G NRZ
Power	<5.5 W	DDM	I2C / SFF-8636

5. Recommended operating conditions

Parameter	Value
Operating case temperature	0 to +70 °C
Supply	3.3 V
Power dissipation	<5.5 W
Reach	80 km with amplification/dispersion compensation

QSFP28-L80-CHxx

6. Optical characteristics

Parameter	Specification
High Speed Transmitter (@TP2 Test Point)	
Signaling Speed	53,125 Gbaud
Center Wavelength Spacing	100 GHz
0,8 nm	
Spectral Width (	-20dB) Δλ 0,3 nm
Modulation Format PAM4	
Deviation From Central Frequency@EOL	-12,5 12,5 GHz
Side-Mode Suppression Ratio SMSR	30 dB
Extinction Ratio ER	3,5 dB
Transmit OMA TxOMA	-4,8 4,2 dBm
Transmit Average TxAVG	-7 4 dBm 1
Dispersion Tolerance TD	-40 20 ps/nm
Optical Return Loss Tolerance	17,1 dB 2
High Speed Receiver (@TP3 Test Point)	
Center Wavelength λc	1528 1566 nm

Parameter	Specification
Damage Threshold Rxdmg	5,5 dBm
Receive Power (OMA Outer) RxOMA	4,7 dBm
Receiver Sensitivity (OMA Outer) SenOMA Max (	-4.5,
SECQ	5.9)
dBm	3
Receiver Reflectance	-26 dB
LOS Assert LOSA	-15 dBm
LOS De-Assert LOSD	-12 dBm
LOS Hysteresis	0,5 - dB
Receiver Specification For Noise Condition	
Average Receive Power RxAVG	-3 4,5 dBm 4
OPTICAL CHARACTERISTICS	
operating conditions.	
Table	3-Optical Characteristics

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-L80-CHxx	QSFP28, 100GbE, Single Lambda up to 80km; DWDM 100GHz C-band, req EDFA 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.

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