

PRE-QSFP28M-ZR(I)

QSFP28, ZR, -8dBm, Tunable, C-Band, 100GE/OTU4, 80km, SMF/LC, CMIS



Product Features:

- 50/100GHz DWDM C-band Tunable
- 80km Unamplified Reach
- 300km Reach CD/OSNR limited
- CMIS management interface
- 100GbE/OTU4 Host Interface Support
- Line Side DP-DQPSK
- Duplex LC-UPC Connector
- Digital Diagnostics Monitoring (DDM)
- C-Temp and I-Temp Available
- <6.2W Power Consumption

Product Applications:

- Data Center Interconnect
- Metro Long Distance Networks
- 100G DWDM Backhaul

Standards:

- IEEE 802.3-2022 100GBASE-ZR
- OTN ITU-T G.709.2
- CMIS and C-CMIS compliant
- RoHS

General Specifications:

Parameter	Min	Typical	Max	Unit
Case Operating Temp (Commercial)	0	-	70	°C
Case Operating Temp (Industrial)	-40	-	85	°C
Power Consumption (Commercial)	-	-	5.7	W
Power Consumption (Industrial)	-	-	6.2	W
Power Supply Voltage	3.14	3.3	3.46	V
Storage Temperature	-40	-	85	°C
Operating Humidity	5	-	85	%
Transmission Distance (P-P)	-	-	80 ¹	km
Transmission Distance (OLS)	-	-	300 ²	km
Nominal Symbol Rate (Line)	-	27.9525	-	GBd
Nominal Symbol Rate (Host)	-	25.78	27.95	GBd

1 - Unamplified, Single Wave Point to Point.

2 - Line System, DWDM CD/OSNR limited links, G.652 fiber.

Max reach will depend on amplifiers, fiber quality and network design.

PRE-QSFP28M-ZR(I)

QSFP28, ZR, -8dBm, Tunable, C-Band, 100GE/OTU4, 80km, SMF/LC, CMIS



Applications:

Host				Media			
Host IF	FEC	Modulation	Baud Rate (GBd)	Mode	FEC	Modulation	Baud Rate (GBd)
CAUI-4	No FEC	NRZ	25.78125	100G ZR	SC-FEC	DP-DQPSK	27.9525
CAUI-4	RS (528,514)	NRZ	25.78125	100G ZR	SC-FEC	DP-DQPSK	27.9525
OTL4.4	RS (255,239)	NRZ	27.9525	100G ZR	SC-FEC	DP-DQPSK	27.9525

Optical Characteristics: Transmitter

Parameter	Min	Typical	Max	Unit
Transmitter Frequency (Tunable)	191.35	-	196.1	THz
Channel Spacing (Flex)	50	-	100	GHz
Laser Frequency Accuracy	-1.8	-	1.8	GHz
SMSR (No Modulation)	40	-	-	dB
Laser RIN ($0.2\text{GHz} \leq f \leq 10\text{GHz}$ Peak)	-	-	-140	dB/Hz
Transmitter Output Power	-8	-	-4	dBm
Tx In-Band OSNR	44	-	-	dB/0.1nm
Tx Out-of-Band OSNR	40	-	-	dB/0.1nm
Tx Power w/ Output Disable	-	-	-35	dBm
Transmitter Reflectance	-	-	-20	dB

Optical Characteristics: Receiver

Parameter	Min	Typical	Max	Unit
Total Input Power (Unamplified)	-28	-	3	dBm
Input Power (Amplified, Max OSNR)	-18	-	1	dBm
OSNR Tolerance ³	16.5	-	-	dB/0.1nm
CD Tolerance	-	-	6,000	ps/nm
PMD Tolerance	-	-	10	ps
DGD Tolerance	-	-	20	ps
Rx Reflectance	-	-	-20	dB
Damage Threshold (Total)	5	-	-	dBm

3 - Back-to-Back, @-18 dBm RX input

Product Ordering Information

Part Number	Description
PRE-QSFP28M-ZR	QSFP28, ZR, -8dBm, Tunable, C-Band, 100GE/OTU4, 80km, SMF/LC, CMIS, C-Temp
PRE-QSFP28M-ZRI	QSFP28, ZR, -8dBm, Tunable, C-Band, 100GE/OTU4, 80km, SMF/LC, CMIS, I-Temp

r1_10202025