

# PRE-QSFP28-LR4X(I)

QSFP28, LR4, LWDM, 100G, 20km, SMF/LC



## Product Features:

- LWDM Wavelengths
- SMF Transmission Medium
- LC/UPC Connector
- Digital Diagnostic Monitoring (DDM)
- C and I-Temp Available
- 100Gbps Maximum Data Rate
- <4.5W Power Consumption

## Product Applications:

- 100GBASE-LR4 Ethernet
- Backhaul Networks
- Enterprise Networks

## Standards:

- SFF-8665/8638
- IEEE 802.3ba/bm
- RoHS

## General Specifications:

Parameter	Min	Typical	Max	Unit
Case Operating Temperature (C-Temp)	0	-	70	°C
Case Operating Temperature (I-Temp)	-40	-	85	°C
Power Consumption (C-Temp)	-	-	4	W
Power Consumption (I-Temp)	-	-	4.5	W
Power Supply Voltage	3.14	3.3	3.47	V
Storage Humidity	5	-	95	%
Storage Temperature	-46	-	85	°C
Transmission Distance	-	-	20	km
Data Rate (Total)	-	103.125	-	Gbps
Data Rate (Per Lane)	-	25.78125	-	Gbps

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## Optical Characteristics: Transmitter

Parameter	Min	Typical	Max	Unit
Center Wavelength 1	1294.53	1295.56	1296.59	nm
Center Wavelength 2	1299.02	1300.05	1301.09	nm
Center Wavelength 3	1303.54	1304.58	1305.63	nm
Center Wavelength 4	1308.09	1309.14	1310.19	nm
Transmit Power per Lane (OMA)	-1.3	-	4.5	dBm
Side Mode Suppression Ratio	30	-	-	dB
Extinction Ratio	4	-	-	dB
Average Optical Launch Power per Lane	-4.3	-	4.5	nm
Dispersion Penalty	-	-	2.2	dB
Relative Intensity Noise	-	-	-130	dB/Hz
Transmitter OFF Power per Lane	-	-	-30	dBm

## Optical Characteristics: Receiver

Parameter	Min	Typ	Max	Unit
Receiver Wavelength 1	1294.53	1295.56	1296.59	nm
Receiver Wavelength 2	1299.02	1300.05	1301.09	nm
Receiver Wavelength 3	1303.54	1304.58	1305.63	nm
Receiver Wavelength 4	1308.09	1309.14	1310.19	nm
Receive Power per Lane (Avg)	-10.6	-	4.5	dBm
Receiver Sensitivity per Lane (OMA)	-	-	-8.6	dBm
Receive Power per Lane (OMA)	-	-	4.5	dBm
Stressed Receive Sensitivity per Lane (OMA)	-	-	-6.8	dBm
Damage Threshold per Lane	5.5	-	-	dBm
LOS Assert	-14	-	-	dBm
LOS De-Assert	-	-	-13	dBm
LOS Hysteresis	0.5	-	-	dB

## Product Ordering Information

Part Number	Description
PRE-QSFP28-LR4X	QSFP28, LR4, LWDM, 100G, 20km, SMF/LC, C-Temp
PRE-QSFP28-LR4XI	QSFP28, LR4, LWDM, 100G, 20km, SMF/LC, I-Temp