

# PRE-QSFP28-50G-B23(32)-LR

QSFP28, PAM4, BIDI, 50G, 10km, 1270nm/1330nm, SMF/LC



## Product Features:

- Single Wavelength PAM4
- 1270nm or 1330nm Tx Waves
- SMF Transmission Medium
- LC/UPC Connector
- Digital Diagnostic Monitoring (DDM)
- C-Temp Rated
- 50Gbps Maximum Data Rate
- <3.5W Power Consumption

## Product Applications:

- 50GBASE-LR Ethernet
- Metro Ethernet
- Switch/Router Interconnections

## Standards:

- SFF-8636/8665
- IEEE 802.3 50GAUI-2
- RoHS

## General Specifications:

Parameter	Min	Typical	Max	Unit
Case Operating Temperature	0	-	70	°C
Power Consumption	-	-	3.5	W
Power Supply Voltage	3.14	3.3	3.47	V
Storage Humidity	5	-	85	%
Storage Temperature	-40	-	85	°C
Transmission Distance <sup>1</sup>	-	-	10	Km
Data Rate (Per Lane)	-	26.5625	-	GBaud/s

Note 1: With KP4 FEC on Host

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## Optical Characteristics: Transmitter

Parameter	Min	Typical	Max	Unit
Center Wavelength (B23)	1264.5	1270	1277.5	nm
Center Wavelength (B32)	1324.5	1330	1337.5	nm
Average Launch Power	-4.5	-	4.2	dBm
Outer Optical Modulation Amplitude	-1.5	-	4.0	dBm
Side Mode Suppression Ratio	30	-	-	dB
Extinction Ratio	3.5	-	-	dB
Transmitter and Dispersion Penalty Eye Closure for PAM4 (TDECQ) <sup>1</sup>	-	-	3.2	dB
Launch Power in OMA <sub>outer</sub> minus TDECQ	-2.9	-	-	dBm
Spectral Width	-	-	1	nm
Optical Return Loss Tolerance	-	-	15.6	dB
Relative Intensity Noise (OMA)	-	-	-132	dB/Hz
Average Transmitter OFF Power	-	-	-30	dBm

Note 1: Measured with a PRBS2<sup>15</sup>-1 test pattern @53.125Gbps, 10km fiber

## Optical Characteristics: Receiver

Parameter	Min	Typical	Max	Unit
Receiver Wavelength (B23)	1324.5	1330	1337.5	nm
Receiver Wavelength (B32)	1264.5	1271	1277.5	nm
Average Receive Power	-10.8	-	4.2	dBm
Receive Power (OMA <sub>outer</sub> )	-	-	4	dBm
Receiver Sensitivity (OMA <sub>outer</sub> )	-	-	Max (-8.4; SECQ – 9.8)	dBm
Damage Threshold	5.2	-	-	dBm
Stressed Receiver Sensitivity (OMA <sub>outer</sub> , SECQ 3.2dB)	-	-	-6.6	dBm
LOS Assert	-30	-	-	dBm
LOS De-Assert	-	-	-11	dBm
LOS Hysteresis	0.5	-	-	dB

## Product Ordering Information

Part Number	Description
PRE-QSFP28-50G-B23-LR	QSFP28, PAM4, BIDI, 50G, 10km, 1270nm/1330nm, SMF/LC, C-Temp, DDM
PRE-QSFP28-50G-B32-LR	QSFP28, PAM4, BIDI, 50G, 10km, 1330nm/1270nm, SMF/LC, C-Temp, DDM