

PRE-QSFP56DD-LR8

QSFP-DD, LR8, LWDM, 400G, 10km, SMF/LC

Product Features:

- Eight PAM4 Waves
- 10km Reach
- SMF Transmission Medium
- LC/UPC Connector
- Digital Diagnostic Monitoring
- C-Temp Rated
- 400Gbps Maximum Data Rate
- <14W Power Consumption



Product Applications:

- Backhaul Networks
- 400GBASE-LR8 Ethernet

Standards:

- QSFP-DD CMIS 4.0
- IEEE 802.3bs
- RoHS

General Specifications

Parameter	Min	Typical	Max	Unit
Case Operating Temperature	0	-	70	°C
Power Consumption	-	-	14	W
Power Supply Voltage	3.14	3.3	3.46	V
Operating Humidity	5	-	95	%
Storage Temperature	-40	-	85	°C
Transmission Distance	-	-	10	km
Data Rate (Total)	-	425	-	Gbps
Signaling Data Rate per Lane	-	26.5625	-	GBd

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Transmitter Characteristics

Parameter	Min	Typical	Max	Unit
Wavelength 1	1272.55	1273.55	1274.54	nm
Wavelength 2	1276.89	1277.89	1278.89	nm
Wavelength 3	12781.25	1282.26	1283.27	nm
Wavelength 4	1285.65	1286.67	1287.68	nm
Wavelength 5	1294.53	1295.56	1296.59	nm
Wavelength 6	1299.02	1300.06	1301.09	nm
Wavelength 7	1303.54	1304.59	1305.63	nm
Wavelength 8	1308.09	1309.14	1310.19	nm
Transmit Power per Lane (Avg) ¹	-2.8	-	5.3	dBm
Outer Optical Modulation Amplitude (OMA _{outer}), per Lane	0.2	-	5.7	dBm
Extinction Ratio	3.5	-	-	dB
Tx Power in OMA _{outer} minus TDECQ				
ER \geq 4.5dB	-1.2	-	-	dBm
ER $<$ 4.5dB	-1.1	-	-	dBm
Side Mode Suppression Ratio	30	-	-	dB
Transmitter and Dispersion Eye Closure for PAM4, per Lane	-	-	3.1	dB
Relative Intensity Noise (OMA)	-	-	-132	dB/Hz
Optical Return Loss Tolerance	-	-	15.1	dB
Transmitter OFF Output Power per Lane	-	-	-30	dBm

Note 1: This value is informative and not the principal indicator of signal strength

Receiver Characteristics

Parameter	Min	Typical	Max	Unit
Damage Threshold per Lane	6.3	-	-	dBm
Receive Power per Lane (Avg)	-9.1	-	5.3	dBm
Receive Power (OMA _{outer}) per Lane	-	-	5.7	dBm
Difference in Receive Power between any two Lanes (OMA _{outer})	-	-	4.5	dB
Receiver Reflectance	-	-	-26	dB
Receiver Sensitivity (OMA _{outer}), per Lane ¹	-	-	-7.1	dBm
Stressed Receiver Sensitivity (OMA _{outer}), per Lane	-	-	-4.7	dBm

Note 1: This value is informative and defined for a transmitter with SECQ of 0.9 dB

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Product Ordering Information

Part Number	Description
PRE-QSFP56DD-LR8	QSFP-DD, LR8, LWDM, 400G, 10km, SMF/LC, C-Temp