

PRE-QSFP56DD-ER4L

QSFP-DD, ER4L, LWDM, 400G, 30km, SMF/LC



Product Features:

- Single Wave PAM4 Modulation
- EML Transmitters
- APD Receiver
- LWDM Operating Wavelengths
- SMF Transmission Medium
- 30km Reach with Host based KP4 FEC
- LC/UPC Connector
- C-Temp Rated
- <12W Power Consumption



Product Applications:

- Transport Networks
- Backhaul Networks
- 400GBASE-ER4 Ethernet

Standards:

- QSFP-DD MSA Compliant
- IEEE802.3ba
- RoHS
- Class 1 Laser

General Specifications:

Parameter	Min	Typical	Max	Unit
Operating Case Temperature	0	-	70	°C
Power Consumption	-	-	12	W
Power Supply Voltage	3.135	3.3	3.465	V
Operating Humidity	0	-	85	%
Storage Temperature	-40	-	85	°C
Transmission Distance ¹	-	-	30	km
Electrical Data Rate, per Lane	-	53.125	-	Gbps
Data Rate (PAM4), per Lane	-	26.5625	-	Gbps

Note 1: Distance with FEC

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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 (Avg)	-	-	14.7	dBm
Transmit Power (Avg), per Lane	0.4	-	6.5	dBm
Transmit Power (OMA _{outer}), per Lane	3.4	-	9	dBm
Launch Power in OMA _{outer} minus TDECQ, per Lane	2	-	-	dB
Transmitter and Dispersion Eye Closure for PAM4, per Lane	-	-	3.9	dB
Transmitter Reflectance	-	-	-26	dB
Side Mode Suppression Ratio	30	-	-	dB
Extinction Ratio	6	-	-	dB
Relative Intensity Noise (OMA)	-132	-	-	dB/Hz
Optical Return Loss Tolerance	-	-	15.6	dB
Output Power (P _{off}), per Lane	-	-	-30	dBm

Optical Characteristics: Receiver

Parameter	Min	Typical	Max	Unit
Receive Power (Avg)	-13.4	-	3.4	dBm
Receive Sensitivity, per Lane	-	-	-12.1, SECQ -13.5	dBm
Damage Threshold	-2.4	-	-	dBm
Receiver Saturation, per Lane	-3.4	-	-	dBm

Product Ordering Information

Part Number	Description
PRE-QSFP56DD-ER4L	QSFP-DD, ER4L, LWDM, 400G, 30km, SMF/LC, C-Temp, DDM