

PRE-QSFP28-ER1

QSFP28, ER, 1310nm, 100G, 40km, SMF/LC, C-Temp



Product Features:

- Single Wavelength PAM4
- EML Transmitters
- APD Receivers
- Up to 40km on SMF
- LC/UPC Connector
- Digital Diagnostic Monitoring (DDM)
- Operating case temperature: 0°C~70°C
- <4.5W Power Consumption



Product Applications:

- 100GBASE-ER Ethernet
- Data Center Applications
- Switch & Router Connections

Standards:

- 100G-ER1-40 100G Single Lambda MSA
- SFF-8636
- RoHS

General Specifications:

Parameter	Symbol	Min	Typ	Max	Unit
Case Operating Temperature	T_{op}	0	-	70	C°
Power Consumption	P_w	-	-	4.5	W
Power Supply Voltage	V_{cc}	3.13	3.3	3.47	V
Relative Humidity	H_s	15	-	85	%
Storage Temperature	T_s	-40	-	85	C°
Transmission Distance	TD	-	-	40	km
Data Rate (PAM4)	DR	-	53.125		GBd

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Optical Characteristics: Transmitter

Parameter	Symbol	Min	Typ	Max	Unit
Center Wavelength	λ_c	1307	-	1313	nm
Average Launch Power	P_o	1.7	-	7.1	nm
Launch Optical Power (OMA) TDECQ < 1.4 dB	P_{OMA}	4.7	-	7.9	dBm
Launch Optical Power (OMA) 1.4 dB < TDECQ < TDECQ (max)	P_{OMA}	3.3+TDECQ	-	7.9	dBm
Transmitter and Dispersion Penalty Eye Closure for PAM4	TDECQ	-	-	3.9	dB
Extinction Ratio	ER	5	-	-	dB
Relative Intensity Noise OMA	RIN	-	-	-136	dB/Hz
Optical Return Loss Tolerance	ORLT	-	-	15	dB
Average Transmitter Off Power	P_{OFF}	-	-	-15	dBm

Optical Characteristics: Receiver

Parameter	Symbol	Min	Typ	Max	Unit
Center Wavelength	λ_c	1307	-	1313	nm
Receiver Sensitivity (OMA) TECQ < 1.4 dB	RxSENS	-	-	-13.8	dBm
Receiver Sensitivity (OMA) 1.4 < TECQ < 3.9 dB	RxSENS	-	-	-15.2+TECQ	dBm
Receiver Overload	P_{SAT}	-3	-	-	dBm
Receiver Reflectance	RR	-	-	-26	dB
LOS De-Assert	LOS_D	-	-	-16	dBm
LOS Assert	LOS_A	-24	-	-	dBm
LOS Hysteresis	LOS_H	0.5	-	-	dB

Product Ordering Information

Part Number	Description
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