

PRE-QSFP-LR4L, PRE-QSFP-LR4
QSFP, 1310nm, SMF, 2km/10km, 40Gbps



Product Features:

- DFB transmitters
- PIN receivers
- SMF Transmission Medium
- LC-UPC Connector Type
- Digital Diagnostics Monitoring (DDM)



Product Applications:

- 40G Ethernet

General Specifications

Parameter	Symbol	Min	Typ	Max	Unit
Case Operating Temperature (Commercial)	T_{op}	0	-	70	°C
Power Consumption	P_w	-	-	2.8	W
Power Supply Current	I_{cc}	-	-	900	mA
Power Supply Voltage	V_{cc}	3.135	3.3	3.465	V
Storage Humidity	H_s	5	-	95	%
Storage Temperature	T_s	-40	-	85	°C
Transmission Distance (LR4L)	TD	-	-	2	km
Transmission Distance (LR4)	TD	-	-	10	km
Data Rate (Total)	DR_T	-	41.25	-	Gbps
Data Rate (Per Lane)	DR_{lane}	-	10.3125	-	GBd

Optical Characteristics: Transmitter

Parameter	Symbol	Min	Typ	Max	Unit
Center Wavelength 1	λ_1	1264.5	1271	1277.5	nm
Center Wavelength 2	λ_2	1284.5	1291	1297.5	nm
Center Wavelength 3	λ_3	1304.5	1311	1317.5	nm
Center Wavelength 4	λ_4	1324.5	1331	1337.5	nm
Transmit Power per lane	P_{OUT}	-7	-	2.3	dBm
Spectral Width	σ	-	-	1	nm
Side Mode Suppression Ratio	SMSR	30	-	-	dB
Dispersion Penalty per lane	DP	-	-	2.6	dB
Extinction Ratio	ER	3.5	-	-	dB
Relative Intensity Noise	RIN	-	-	-128	dB/Hz
Transmitter OFF Output Power per lane	P_{OFF}	-	-	-30	dBm

Optical Characteristics: Receiver

Parameter	Symbol	Min	Typ	Max	Unit
Receiver Wavelength 1	λ_1	1264.5	1271	1277.5	nm
Receiver Wavelength 2	λ_2	1284.5	1291	1297.5	nm
Receiver Wavelength 3	λ_3	1304.5	1311	1317.5	nm
Receiver Wavelength 4	λ_4	1324.5	1331	1337.5	nm
Damage Threshold per lane	P_D	3.3	-	-	dBm
Receiver Sensitivity per lane	R	-	-	-11.5	dBm
LOS Assert	LOS_A	-	-	-15	dBm
LOS De-Assert	LOS_D	-25	-	-	dBm
LOS Hysteresis	LOS_H	0.5	-	-	dB

Product Ordering Information

Part Number	Description
PRE-QSFP-LR4L	QSFP, 1310nm, SMF, 2km, 40Gbps
PRE-QSFP-LR4	QSFP, 1310nm, SMF, 10km, 40Gbps