

LO-XP-10G-ER

10Gb/s 1550nm XFP Transceiver

Product Features

- Hot Pluggable XFP Footprint
- Supports 9.95Gb/s to 11.3Gb/s bit rates
- Power dissipation < 2W
- Single 3.3V power supply
- Up to 40km transmission on SMF
- 1550nm EML Laser and PIN photo detector
- No Reference Clock Required
- Compatible with RoHS
- Built-in digital diagnostic functions



Applications

- 10GBASE-ER/EW 10G Ethernet

Ordering information

Part Number	Product Description
LO-XP-10G-ER	XFP ER 10Gb 1550nm LC DDM SMF 40km (EML+PIN)

Absolute Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Units
Storage Temperature	Tst	-40	85	°C
Supply Voltage	Vcc	0	3.6	V
Operating Relative Humidity	RH	0	85	%

Recommended Operating Conditions

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating Case Temperature	Tc	0		70	°C
Supply Voltage	Vcc	3.15	-	3.45	V
Data Rate PER Channel	-	9.95	-	11.3	Gb/s

Transceiver Electrical Characteristics

Transmitter							
Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes	
Input Differential Impedance	Z _{IN}	90	100	110	Ω	-	
Differential Data Input Swing	V _{IN}	120	-	850	mV	-	
TX Disable	Disable	-	2	-	Vcc	V	-
	Enable	-	0	-	0.8	V	-
TX Fault	Assert	-	2	-	Vcc	V	-
	Deassert	-	0	-	0.8	V	-

Receiver							
Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes	
Output differential impedance	Z _{out}	-	100	-	Ω	-	
Data output Swing Differential	V _{out}	340	650	850	mV	-	
Rx LOS	Assert	-	2	-	Vcc	V	-
	Deassert	-	0	-	0.8	V	-

Transmitter Optical Characteristics

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes
Center Wavelength Range	λ_c	1530	1550	1570	nm	-
Side-Mode Suppression Ratio	SMSR	30	-	-	dB	-
Extinction Ratio	ER	5	-	-	dB	-
Average Output Power	Po	-2	-	4	dBm	-
Jitter (p-p)	-	-	-	0.1	UI	-
Relative Intensity Noise	RIN _{12OMA}	-	-	-130	dB/Hz	-

Receiver Optical Characteristics

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes
Center Wavelength	λ_c	-	1550	-	nm	-
Receiver Sensitivity	Rsen	-	-	-14	dBm	-
Stressed Sensitivity	Rsen	-	-	-13	dBm	-
Receiver Overload	Rov	-3	-	-	dBm	-
LOS De-Assert	LOS _D	-	-	-14	dBm	-
LOS Assert	LOS _A	-28	-	-	dBm	-
LOS Hysteresis	-	0.5	-	4	dB	-

Mechanical specifications

