



FEATURES

- XAUI Electrical Interface: 4 Lanes @ 3.125Gbit/s
 - Hot Z-Pluggable
 - SC-Duplex Optical Receptacle
 - MDIO, DOM Support
 - Uncooled 1.3 μ m DFB-LD
 - PIN Photo-detector
 - Operating Case Temperature: 0 to 70 °C
- Compliant to IEEE 802.3ae 10GBASE-LR Application
 - Compliant to X2 MSA
 - Mechanical Footprint: 91mm L x 36mm W x 13.46* H [*Other heights available]

REFERENCE

IEEE 802.3ae as 10GBASE-LR, X2 MSA Release 1.0b.

DESCRIPTION

General

POFLink's 10GbE X2 transceiver module PX2-10G-LR is a hot pluggable in the Z-direction module that is usable in typical router line card applications, Storage, IP network and LAN and compliant to X2 MSA. The PX2-10G-LR is a fully integrated 10.3Gbit/s optical transceiver module that consists of a 10.3Gbit/s optical transmitter and receiver, XAUI interface, Mux and Demux with clock and data recovery(CDR). This version of POFLink Inc. transceiver line uses an uncooled direct modulation (DM) 1310nm DFB Laser Diode to achieve 10km over standard single mode fiber as 10GBASE-LR of the IEEE 802.3ae..

PERFORMANCE SPECIFICATIONS

Absolute Maximum Ratings

Stresses in excess of the Absolute Maximum Ratings can cause permanent damage to the transceiver.

Table 1. Absolute Maximum Ratings

No.	Parameter	Symbol	Min.	Max.	Unit	Remarks
1	Supply Voltage	VCC1	0	+5.5	V	+5V
2	Supply Voltage	VCC2	0	+3.6	V	+3.3V
3	Supply Voltage	VCC3	0	+1.5	V	APS
4	Optical Receiver Input	PIMAX	-	+1.5	dBm	Average
5	Case Temperature	Tc	0	+70	°C	Figure 1
6	Storage Temperature	TSTR	-40	+85	°C	

Operating Environment

Electrical and optical characteristics below are defined under this operating environment, unless otherwise specified.

Table 2. Operating Environment

No.	Parameter	Symbol	Min.	Typ	Max	Unit	Remarks
1	Supply Voltage	VCC1	4.75	5	5.25	V	+5V
2	Supply Voltage	VCC2	3.135	3.3	3.465	V	+3.3V
3	Supply Voltage	VCC3	1.152	1.2	1.248	V	APS
3	Case Temperature	TC	0	25	70	°C	Figure 1

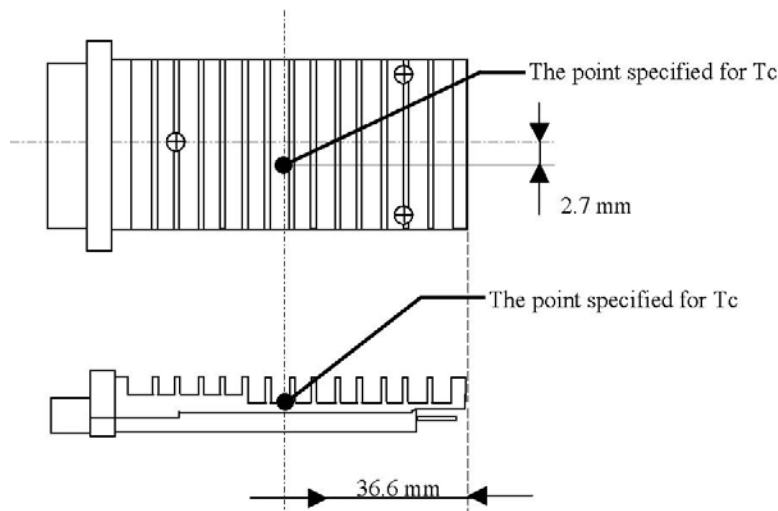


Figure 1 The Point Specified for Case Temperature (Tc)

Optical Characteristics

Table 3. Optical Characteristics

No.	Parameters	Symbols	Min.	Typ.	Max.	Unit	Remarks
1	Center Wavelength	λ_C	1280	1310	1340	nm	
2	Signaling speed		-	10.3125	-	Gbit/s	
3	Signaling speed variation from nominal		-100	-	+100	ppm	
4	Optical modulation amplitude	OMA	-5.2	-	-	dBm	
5	Optical Output Power	Pf	-	-	+0.5	dBm	Average
6	Optical Waveform	-				-	
7	Side Mode Suppression Ratio	Sr	30	-	-	dB	Average
8	Extinction Ratio	Er	3.5	-	-	dB	
9	Off Transmit Power	Poff	-	-	-30	dBm	Average
11	Receiver Sensitivity in OMA	OMArmin	-	-	-10.3	dBm	
12	Receiver Overload	Rro	+0.5	-	-	dBm	Average
13	Receiver Return Loss	RL	12	-	-	dB	Average

Table 4. Power Supply Characteristics

No.	Parameter	Symbol	Min.	Typ.	Max.	Unit	Remarks
1	Supply Voltage	VCC1	4.75	5.00	5.25	V	
2	Supply Voltage	VCC2	3.135	3.300	3.465	V	
3	Supply Voltage	VCC3	1.15	1.20	1.25	V	
4	Supply Current	ICC1	-	-	1.4	A	+3.3 V
5	Supply Current	ICC2	-	-	1.7	A	APS
6	Power Consumption	PDS	-	-	4.0	W	

10G X2 LR Transceiver(PX2-10G-LR)

10GBASE-LR Applications 10GbE Transceiver

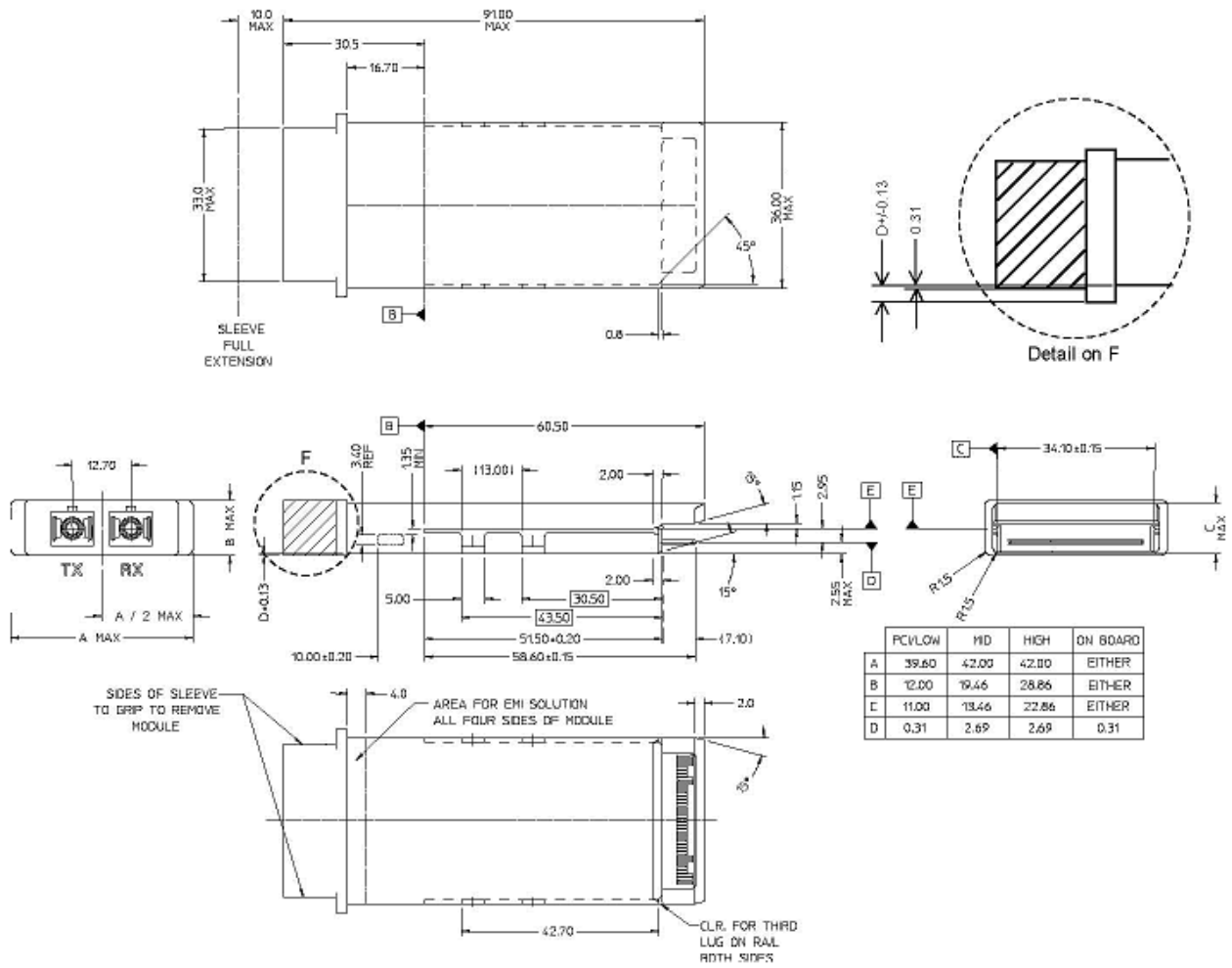


Figure 2 Mechanical dimensions