

10Gbps DFB 4Pin TO-38

L-TT-EDXX-22 Series

Ver. : 1.0

Type Name: L-TT-EDXX-22

Product Description:

The LuxNet L-TT-EDXX-22 TO-38 header assembly is designed for high speed, high performance data communication and telecommunication applications. This device is integrated with a 10Gbps DFB laser, a TO-38 header, a monitoring photodiode, and an aspherical lens cap. The product is designed for 10Gbps long reach and intermediate reach optical communication systems. This TO header assembly can be integrated with different types of ports that are engaged with a single mode fiber connector to provide good coupling efficiency as light generated by the DFB laser is transmitted into a single mode fiber.

Application Note:

- 10G BiDi

Product Specifications:

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min.	Max.	Note
Operating Temperature (Ta)	T _{op}	°C	-20	80	
Storage Temperature	T _{stg}	°C	-40	85	
Solder Reflow Temperature	STEM	°C	-	260	10 seconds max.
Optical Output Power	P _o	mW	-	15	
Laser Reverse Voltage	V _r	V	-	2	
Photodiode Reverse Voltage	V _{rd}	V	-	20	
Photodiode Forward Current	I _{pd}	mA	-	10	

Electro-Optical Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ	Max.	Test Condition	
Threshold Current	I _{th}	mA	-	8	15	CW	
Forward Voltage	V _f	V	-	1.2	1.5	CW, I _{th} +20mA	
Slope Efficiency	SE	mW/mA	0.20	-	-	Average, I _{th} +5 mA to I _{th} +20 mA	
Peak avelength	L-TT-ED27-22	λ _p	nm	1260	1270	1280	CW, I _{op} =I _{th} +20Ma
	L-TT-ED31-22			1300	1310	1320	
	L-TT-ED33-22			1320	1330	1340	
Side Mode Suppression Ratio	SMSR	dB	35	-	-	CW, I _{op} =I _{th} +20mA	
Rise / Fall Time	T _r /T _f	ps	-	50/50	-	I _{th} +20 mA, 20-80%	

*All specifications or information contained herein are subject to change for improvement without notice.
Further details are available from any LUXNET sales representative.*

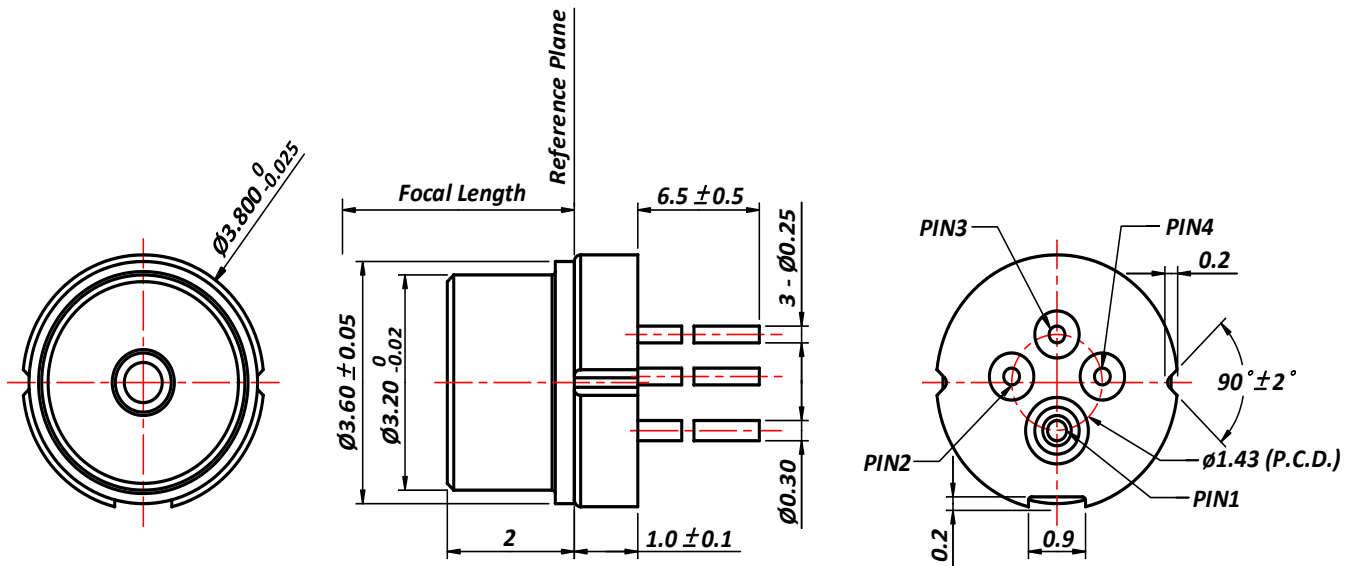
Photodiode Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ	Max	Test Condition
Focal Point of Fiber Coupling	FL	mm	3.45	3.75	4.05	CW, maximum coupling to SMF (9/125), PC fiber without theta alignment
Monitor Current	I _m	mA	0.1	-	1.2	CW, I _{th} + 20 mA
PD Dark Current	I _d	nA	-	-	100	V _r = 1.7V
PD Capacitance	C	pF	-	10	20	V _r = 5V @ 1MHz

L-TT-EDXX-22

Dimension: (mm)

All dimensions are nominal



PINOUT (Bottom View)

Number	Function
1	PD Anode / Case
2	Laser Diode Cathode
3	Photodiode Cathode
4	Laser Diode Anode

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Document History

Version	Date (MM/DD/YYYY)	Notes
1.0	04/11/2023	Initial Preliminary datasheet

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