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25Gbps CWDM Laser TO
(Preliminary)

L-TT-ICXX-01 Series

TYPE NAME: L-TT-ICXX-01
Product Description:

This Luxnet L-TT-ICXX-01 4pin 25Gbps CWDM Laser TO38 header assembly is designed for high speed, high performance data communication and telecommunication applications. This device is integrated with a 1270 nm, or 1290nm, or 1310nm, or 1330nm 25Gbps CWDM laser, a TO-38 header, a monitoring photodiode, and an aspherical lens cap. 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 CWDM laser is transmitted into a single mode fiber.

Product Specifications:

Absolute Maximum Ratings

Parameter	Symbol	Units	Min	Max	Note
Operating Temperature (case)	Tc	℃	-40	+85	
Storage Temperature	Tstg	℃	-40	+85	
Soldering Temperature (10 sec)	STEM	℃	-	260	
Laser Reverse Voltage	V_{RL}	V	-	2	
Laser Forward Current	I_{FL}	mA	-	100	
Photodiode Reverse Voltage	V_{RD}	V	-	2	
Photodiode Forward Current	I_{pd}	mA	-	10	

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

Parameter		Symbol	Units	Min	Typ	Max	Test condition
Threshold Current		I_{th}	mA	-	8	-	CW, Tc = 25°C
				-	-	30	CW, Tc = 85°C
Forward Voltage		V_f	V	-	-	2	CW, Tc = 25°C, I_{op} =I_{th}+30mA
Slope Efficiency		η	mW/mA	0.20	-	-	CW, Tc = 25°C, Iop =Ith+30mA Ith+ 10 mA to Ith+20 mA
Peak Wavelength	L-TT-IC27-01	λ	nm	1264.5	-	1277.5	Tc =-40~85°C
	L-TT-IC29-01			1284.5	-	1297.5	
	L-TT-IC31-01			1304.5	-	1317.5	
	L-TT-IC33-01			1324.5	-	1337.5	
Center Wavelength drift vs. Temp.		△λ/△T	nm/°C	0.08	0.09	0.1	Tc =-40~85°C
Side Mode Suppression Ratio		SMSR	dB	35	-	-	Tc = 25°C, I_{op} =I_{th}+30mA Scan resolution <0.1nm
Focal Length of Fiber Coupling		FL	mm	3.2	3.5	3.8	CW, maximum coupling to SMF (9/125), PC fiber without theta alignment
Rise Time / Fall Time[1]		τ_r/τ_f	ps	-	20/20	-	Tc=25°C, I_{op} = I_{th}+30mA, 20-80%

* Specifications are subject to change without notice. Version 2.1
* Screening per customer-specified reject limits is available.

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Note:
1. 100G CWDM4 Mask, PRBS 2^{31}-1, BER:1*e^{-12}, Data rate 25.78125G

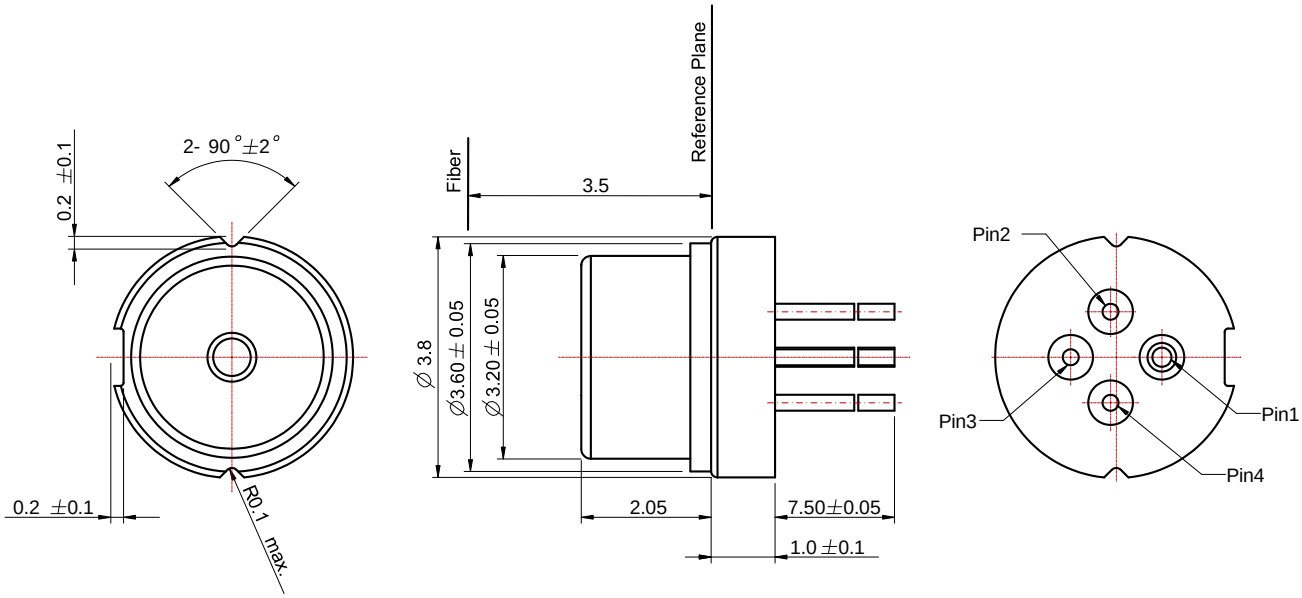
Photodiode Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Units	Min	Typ	Max	test condition
PD Monitor Current	Ipd	mA	0.1	-	-	CW, I_{op} = I_{th}+30mA
PD Dark Current	I_d	nA	-	-	100	P oc = 0, V r = 1.7V
PD Capacitance	C	pF	-	10	20	V_r= 5V @ 1MHz

L-TT-ICXX-01

***Dimensions**: (mm)*

All dimensions are nominal



TOCAN PINOUT (Bottom View)

L-TT-ICXX-01	
Number	Function
Pin1	GND/ Photodiode Anode
Pin2	Laser Diode Anode (LD+)
Pin3	Photodiode Cathode (PD-)
Pin4	Laser Diode Cathode (LD-)