

## 25Gbps CWDM DFB 4Pin TO-38

### L-TT-ICXX-08 Series

Ver. : 2.0

**TYPE NAME: L-TT-ICXX-08**

#### Product Description:

This Luxnet L-TT-ICXX-08 4pin 25Gbps CWDM Laser TO-38 header assembly is designed for high speed, high performance data communication and telecommunication applications. This device is integrated with 25Gbps DFB 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 DFB laser is transmitted into a single mode fiber.

#### Application Note:

- 25G CWDM DFB TO-38

#### Product Specifications:

##### Absolute Maximum Ratings

Parameter	Symbol	Units	Min	Max	Note
Operating Temperature (case)	T <sub>c</sub>	°C	-5	+80	
Storage Temperature	T <sub>stg</sub>	°C	-40	+85	
Soldering Temperature (10 sec)	STEM	°C	-	260	
Laser Reverse Voltage	V <sub>RL</sub>	V	-	2	
Laser Forward Current	I <sub>FL</sub>	mA	-	100	
Photodiode Reverse Voltage	V <sub>RD</sub>	V	-	2	
Photodiode Forward Current	I <sub>pd</sub>	mA	-	10	

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

Parameter	Symbol	Units	Min	Typ	Max	Test condition	
Threshold Current	I <sub>th</sub>	mA	-	8	-	CW, T <sub>c</sub> = 25°C	
			-	-	30	CW, T <sub>c</sub> = 80°C	
Forward Voltage	V <sub>f</sub>	V	-	-	2	CW, T <sub>c</sub> = 25°C, I <sub>op</sub> = I <sub>th</sub> + 30mA	
Slope Efficiency	η	mW/mA	0.25	-	-	CW, T <sub>c</sub> = 25°C, I <sub>op</sub> = 40 to 50mA	
Peak Wavelength	L-TT-IC27-08	λ	nm	1264.5	-	1277.5	T <sub>c</sub> = -5~80°C
	L-TT-IC29-08			1284.5	-	1297.5	
	L-TT-IC31-08			1304.5	-	1317.5	
	L-TT-IC33-08			1324.5	-	1337.5	
	L-TT-IC35-08			1344.5	-	1357.5	
	L-TT-IC37-08			1364.5	-	1377.5	

Side Mode Suppression Ratio	SMSR	dB	35	-	-	Tc = 25°C, I <sub>op</sub> = I <sub>th</sub> +30mA Scan resolution 0.2 nm
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	$\tau_r/\tau_f$	ps	-	20/20	-	Tc = 25°C, I <sub>op</sub> = I <sub>th</sub> +30mA 20-80%

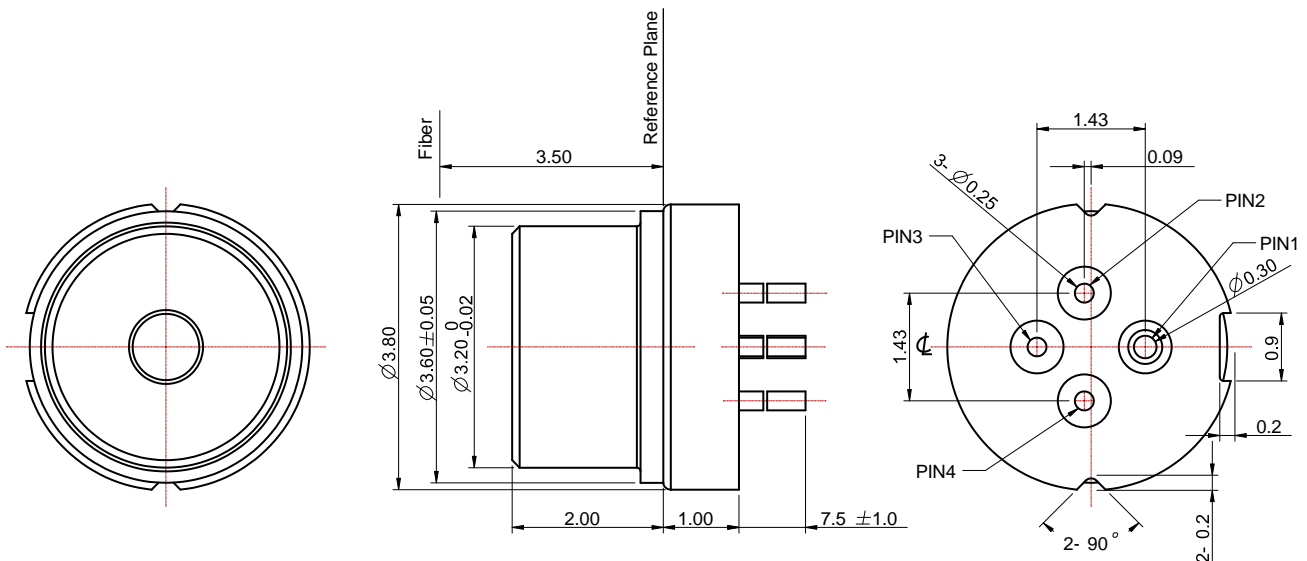
Electro-Optical Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Units	Min	Typ	Max	test condition
PD Monitor Current	I <sub>pd</sub>	mA	0.1	-	-	CW, I <sub>op</sub> = I <sub>th</sub> +30mA
PD Dark Current	I <sub>d</sub>	nA	-	-	100	P <sub>oc</sub> = 0, V <sub>r</sub> = 1.7V
PD Capacitance	C	pF	-	10	20	V <sub>r</sub> = 5V @ 1MHz

## L-TT-ICXX-08

**Dimension:** (mm)

*All dimensions are nominal*



PINOUT (Bottom View)

L-TT-ICXX-08	
Number	Function
Pin1	GND/ Photodiode Anode
Pin2	Laser Diode Anode (LD+)
Pin3	Photodiode Cathode (PD-)
Pin4	Laser Diode Cathode (LD-)