

10Gbps 1270nm DFB 4-Pin TO-56 (Preliminary)

L-TT-ED27-xx Series

TYPE NAME: L-TT-ED27-07

Product Description:

The LuxNet L-TT-ED27-07 TO-56 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-56 header, a monitoring photodiode, and a 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.

Product Specifications:

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min.	Max.	Note
Operating Temperature(Ta)	T _{op}	°C	-40	85	
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	

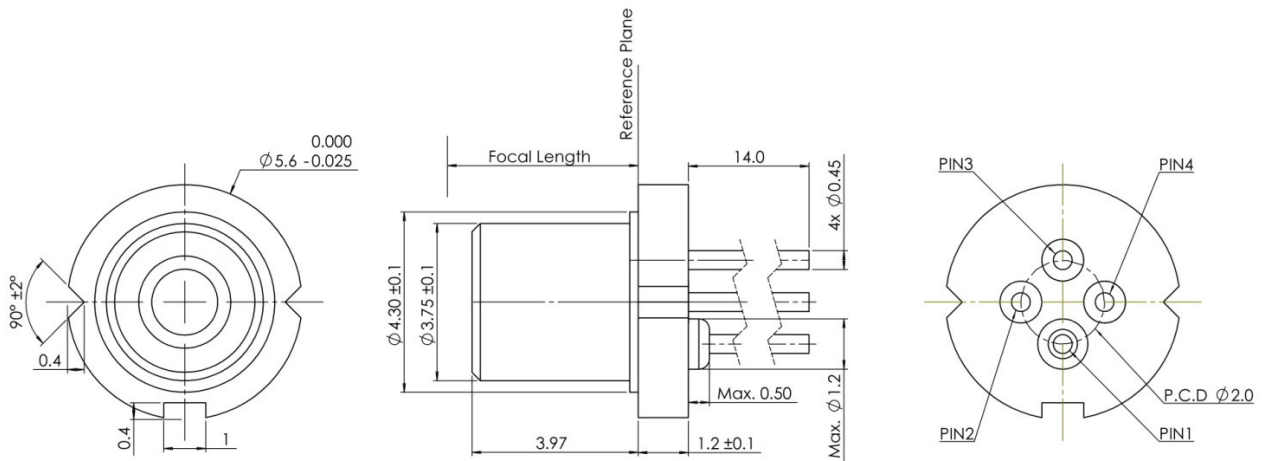
Electro-Optical Characteristics (Tc = 25°C, unless noted otherwise):

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	0.30	-	-	Average, I _{th} +5 mA to I _{th} +20 mA
Peak Wavelength	λ _p	nm	1262.5	1270	1277.5	CW, I _{op} =I _{th} +20mA Temp. -40°C ~ 85°C
Spectral width	≥λ	nm	-	-	1	CW, I _{op} =I _{th} +20mA Scan resolution <0.1nm
Side Mode Suppression Ratio	SMSR	dB	35	-	-	CW, I _{op} =I _{th} +20mA
Rise / Fall Time	tr ,tf	ps	-	50/50	-	I _{th} +20 mA, 20-80%
Focal Point of Fiber Coupling	FL	mm	7.2	7.5	7.8	CW, maximum coupling to SMF (9/125), PC fiber without theta alignment

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

Parameter	Symbol	Unit	Min.	Typ	Max	Test Condition
Monitor Current	I_m	mA	0.1	-	1.0	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-ED27-07

Dimensions: (mm)


PINOUT

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