



## LDM650/3LT

- Red Laser Module
- 650 nm, 3 mW
- APC (Automatic Power Control)
- 3-glass lens, focusable
- LED power on indicator



### Description



**LDM650/3LT** is a red Diode Laser Module, designed with emphasis on superior beam quality, and reliable operation. The modules body is made of black anodized aluminum, enclosing laser diode, lens, and driving electronics. LT series features a focusable 3-lens glass collimator and a driver circuit operating at 4.5-5.0 VDC.

### Maximum Ratings

Parameter	Symbol	Values		Unit
		Min.	Max.	
Optical Power	$P_O$		3.0	mW
Operating Temperature	$T_{CASE}$	- 10	+ 50	°C
Storage Temperature	$T_{STG}$	- 25	+ 85	°C

### Electrical and Optical Characteristics ( $T_{CASE}=25^{\circ}C$ )

Parameter	Symbol	Min.	Values	Max.	Unit
			Typ.		
Emission Wavelength	$\lambda_{Peak}$	640	650	665	nm
Optical Output Power	$P_O$			3.0	mW
Laser Class			3R		
Operating Current	$I_F$		25	35	mA
Operating Voltage	$V_F$	4.5		5.0	V
Control			APC		
Focus			Adjustable		
Beam Divergence (Full Width)	$\Theta$		0.5		mrad
Spot Size			<8.0 mm at 10 m		mm
Wiring			RED (+) , BLACK (-)		
MTTF			>10000 hours @ 25 °C		hours
Dimensions			Ø12.7 x 50.0		mm



## Precautions

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### Mounting Instruction:

In order to maintain lifetime and stability of the laser diode it is essential to provide efficient heat management. For long time stable operation, proper contact between laser module and heat sink is mandatory.

### Safety Advice:

This laser module emits highly concentrated visible light that can be **hazardous to the human eye and skin**. It is classified as **CLASS 3R laser product** according to **IEC 60825-1** and **21 CFR Part 1040.10 Safety Standards**. Actual laser light emitted and precautions necessary strongly depend on mode of operation.

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