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LDM650/5LJM

- **Red Laser Diode Module**
- **650 nm, <5 mW**
- **Adjustable Focus**
- **Automatic Power Control (APC)**
- **Modulation up to 1 kHz**
- **3.0 – 5.0 VDC Input Voltage**

Description

LDM650/5LJM is a small size diode laser module with a focusable lens, emitting at a wavelength of typically **650 nm**, and an optical output power of **< 5 mW**. It features automatic power control **(APC)** driving electronics for stable operation, and features a modulation input for repetition rates of up to 1 kHz. **LDM650/5LJM** has been designed for 3-5 VDC supply voltage. A matching **power supply, holder and heat sink** is optionally available for quick setup (see page 3 for details).

Maximum Ratings (T_{CASE} = 25°C)

Parameter	Values Min.	Values Max.	Unit
Operating temperature	- 10	+ 50	°C
Storage temperature	- 25	+ 85	°C

Electro-Optical Characteristics (T_{CASE} = 25°C)

Parameter	Values Min.	Values Typ.	Values Max.	Unit
Peak Wavelength	640	650	665	nm
Optical Output Power			**5**	**mW**
Laser Class		3R		
Output Aperture		4		mm
Beam Diameter (@10 m)			8	mm
Beam Divergence		0.5		mrad
Beam Shape		Elliptical		
Supply Voltage	**3**		**5**	**VDC**
Operating Current		20	30	mA
Modulation capability			1	kHz
Body		Brass, black anodized		
Collimating Lens		Acryl		
Dimensions		Ø 12 x 30		mm
MTTF (@25°C)	10000			h

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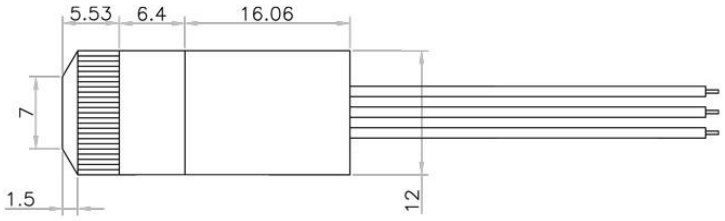
Outline/Connection

Lead	Description
Red	+VDC
Black	GND
Yellow	Modulation [TTL]



all dimensions in mm

- TTL input (yellow lead) lead must carry +VDC signal for CW operation
- Module body is on +VDC potential

Optional Accessories

Heat Sink SQ50x34

- **Al, black anodized**
- **Clamping mechanism**
- **50 x 50 x 34 mm**
- **114 g**

Holder RLM-1250

- **Steel, black anodized**
- **Height, reach, tilt adjustable**
- **Fixture 360° turnable**
- **Max. diameter: 12.5 mm**
- **69 x 67 mm**
- **152 g**

Power supply LPS31C

- **100-240VAC**
- **AC Europlug (CEE7/16)**
- **IEC 60130-10 Type A con.**
- **Output 3 VDC, max 1 A**
- **CE certified**
- **30 x 80 x 75 mm**
- **80 g**

Precautions

Static Electricity:

Precautions against electrostatic discharge (ESD) must be taken when handling or operating the module. Surge voltage or electrostatic discharge can result in complete failure of the laser module.

Heat Sinking:

In order to maintain lifetime and stability of the laser module, efficient heat management is recommended.

Safety:

This laser module emits highly concentrated invisible light which 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**.