

Laser Module LC-LMD-650-12

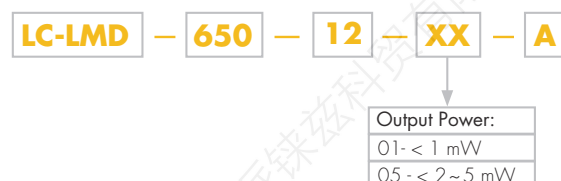
Laser Module coaxial aligned Ø 10.5 mm, 650 nm

Features

1. APC (auto power control) IC inside
2. 1 mW / 5 mW output power
3. The output beam is aligned to the centre-line of the module.
The tolerance of $\theta / 2$ is $\pm 0.05^\circ$. It is a special purpose, reliable visible laser module and features in small size and easy operation.



Part No. Indications



Absolute Maximum Ratings

Item	Symbol	Rating	Unit
Power supply voltage	V_{CC}	3.3	V
Laser Module optical output power	P_o	< 5	mW
Operation temperature	T_{opr}	-5 ~ 40	°C
Storage temperature	T_{stg}	-20 ~ 60	°C

1 Germany & Other Countries
Laser Components GmbH
Tel: +49 8142 2864 - 0
Fax: +49 8142 2864 - 11
info@lasercomponents.com
www.lasercomponents.com

USA
Laser Components USA, Inc.
Tel: +1 603 821 - 7040
Fax: +1 603 821 - 7041
info@laser-components.com
www.laser-components.com

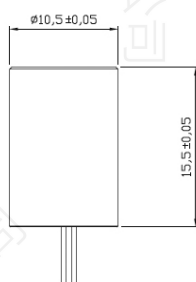
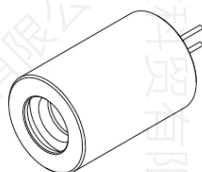
United Kingdom
Laser Components (UK) Ltd.
Tel: +44 1245 491 499
Fax: +44 1245 491 801
info@lasercomponents.co.uk
www.lasercomponents.co.uk

France
Laser Components S.A.S.
Tel: +33 1 39 59 52 25
Fax: +33 1 39 59 53 50
info@lasercomponents.fr
www.lasercomponents.fr

Electrical and Optical Characteristics ($T_c = 25\text{ }^{\circ}\text{C}$)

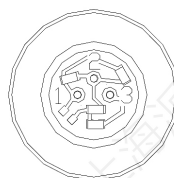
Item	Symbol	Min.	Typ.	Max	Unit	Condition
Wavelength	λ	650	655	660	nm	$P_o = 4.5\text{ mW}$
Output power	P_{out}	2	4.5	5	mW	$V_{cc} = 3\text{ V}$
Operation current	I_{op}	-	30	40	mA	$P_o = 4.5\text{ mW}$ $V_{cc} = 3\text{ V}$
Operation voltage	V_{op}	2.8	-	3.3	Volt	
Laser Beam spot size at 10 m		< 15 mm				
Divergence angle		1.2 mrad				
Coaxial precision		$\theta < 0.1\text{ degree}$				
Mean time to failure (MTTF) 4.5 mW 25 °C		>10000 hrs				

Outline Dimensions (Units: mm)



Pin Assignment

Pin 1: V_{cc}
Pin 2: GND
Pin 3: NC (no external connection)



A type: Heat sink stand (-)