

## Line Diode Laser Modules

### PRODUCT FEATURES

- ▲ High quality laser diodes
- ▲ Wide range of output power and wavelengths
- ▲ High stability and low noise
- ▲ Excellent power & wavelength stability
- ▲ Low power consumption
- ▲ Optional TTL modulation up to 1 MHz

### APPLICATIONS

- ▲ Industrial Targeting & alignment
- ▲ High-End Machine vision
- ▲ Biomedical
- ▲ Automation
- ▲ Spectroscopy
- ▲ Flow cytometry

**Hazard Note:** This laser module emits radiation that is harmful to the human eye. Depending on wavelength the radiation may be visible or invisible. When in use, do not look directly into the laser emitting aperture. Looking directly at laser emission at close range may cause eye damage.



**Electrical Precaution:** The case is internally connected to the circuit; damaging the anodized surface may result in failure of the laser module.

**Warranty:** One year. No warranty coverage for disassembly, modifications or damage due to abuse or misapplication.

TOPAG offers a wide range of line laser modules. All our line lasers are fully self-contained with integrated driver circuit, laser diode, aspherical and line lens optics.

### Standard series laser modules

- ▲ LM series with line laser option are low cost, fixed focus, rugged lasers for use in industrial alignment and positioning applications. A variety of fan angles with pre-focussed line is available.
- ▲ LDL and LDH series can be offered with uniform line (UL option) or Gaussian line (GL option) intensity distribution. Different fan angles are available. The high quality laser modules are equipped with adjustable line, aspherical glass collimator, low power consumption, aluminium housing, reverse polarity protection and high boresight accuracy.

### Peltier-cooled laser modules

- ▲ Line lasers modules of the LDT series include active temperature stabilization (TEC) and power adjustment.

### Computer-controlled laser modules

- ▲ LDC line modules are compact computer-controlled lasers with integrated laser head and control electronics. Output power, TEC temperature and variable modulation up to 1 MHz can be set via RS-232 / USB interface or manually using push buttons. The built-in LCD display shows laser operating parameters. These modules demonstrate excellent beam quality, power stability, temperature control and low noise for demanding applications.

TOPAG provides customized solutions for your requirements.

## SPECIFICATIONS

Standard series	LM	LDL	LDH
Output power*	up to 3.5 mW	up to 3.5 mW	up to 150 mW
Wavelength	635 – 670 nm	635 – 980 nm	450 – 980 nm
Line profile	Gaussian line	Gaussian or uniform line	
Line thickness	fixed	adjustable	
Fan angle	4°, 15°, 30°, 45°, 75°	4°, 15°, 30°, 45°, 75°, 90°	
Power stability	< 1%		
Noise	n/a	0.5 % RMS	
Pointing stability	n/a	< 50 µrad	
Dimensions (Ø x L, mm)	9 x 25	10.5 x 30	12 x 55 or 15 x 60

Peltier-cooled series	LDT	
Output power*	up to 400 mW	
Wavelength	405 - 980 nm	
Line profile	Gaussian or uniform line	
Line thickness	adjustable	
Fan angle	4°, 15°, 20°, 30°, 45°, 60°, 75°, 90°	
Power stability	< 0.5 %	
Noise	0.5 % RMS	
Pointing stability	< 10 µrad	
Dimensions (Ø x L, mm)	25.4 x 76.2	25.4 x 101.6

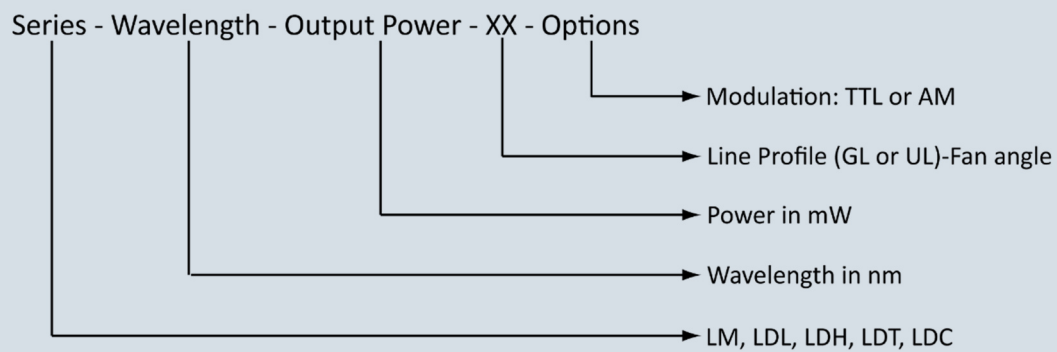
Computer-controlled series	LDC	
Output power*	up to 150 mW	
Wavelength	405 – 830 nm	
Line profile	Gaussian or uniform line	
Line thickness	Adjustable	
Fan angle	4°, 15°, 20°, 30°, 45°, 60°, 75°, 90°	
Power stability	< 0.5%	
Noise	0.5% RMS	
Pointing stability	< 10 µrad	
Dimensions (W x H x L, mm)	40 x 42.5 x 100	

\* Depending on wavelength



## ORDERING INFORMATION

Please use the following code for ordering:



E.g.: LDH – 405 – 40 - UL20 - AM: Line laser module with 405 nm, 40 mW output power, 20° fan angle with uniform intensity distribution and analogue modulation.

LDH – 405 – 40 - 20GL- AM: Line laser module with 405 nm, 40 mW output power, 20° fan angle with Gaussian intensity distribution and analogue modulation.

Please add the desired customization options to your request.

## CUSTOMIZATION OPTIONS

- ▲ Custom electronic drivers with firmware and software
- ▲ Mechanical design
- ▲ Fan angles
- ▲ Modulation
- ▲ Other wavelengths
- ▲ Cable length
- ▲ Connector
- ▲ Supply voltage
- ▲ Working distance