



Point Diode Laser Modules

PRODUCT FEATURES

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

APPLICATIONS

- ▲ Targeting & alignment
- ▲ Automation & machine vision
- ▲ Analytical & bio-instrumentation
- ▲ Flow cytometry
- ▲ Particle analysis
- ▲ Metrology & instrumentation

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 laser diode modules with different output power wavelength combinations and many customization options.

Standard series laser modules

- ▲ LM series designed for OEM applications where longevity, economical price and small size are important requirements.
- ▲ LDL and LDH series show all features of industrial grade modules including high quality laser diodes, aspherical glass collimator, low power consumption, anodized aluminium housing and reverse polarity protection.

Peltier-cooled laser modules

- ▲ LDT laser modules for highest requirements in bioanalytics, spectroscopy, particle analysis and other measurement applications. These modules include active temperature stabilization (TEC) and power adjustment. Optionally, TTL modulation up to 1 MHz is available.

Computer-controlled laser modules

- ▲ LDC 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.

SPECIFICATIONS

| Standard series | LM | LDL | LDH |
|------------------------|-------------------------------|--------------|------------------------------------|
| Output power* | up to 3.5 mW | up to 5 mW | up to 400 mW |
| Wavelength | 635 – 670 nm | 635 – 980 nm | 450 – 980 nm |
| Collimation | fixed | adjustable | |
| Power stability | < 1 % | | |
| Noise | < 0.5 % RMS | | < 1 % RMS |
| Pointing stability | < 50 µrad | | < 25 µrad |
| Dimensions (Ø x L, mm) | 8 x 36 or 9 x 19 or 9 x 25 | 10.5 x 26 | 12 x 51 or 15 x 72 |
| Options | - | | TTL modulation & fiber-coupling |

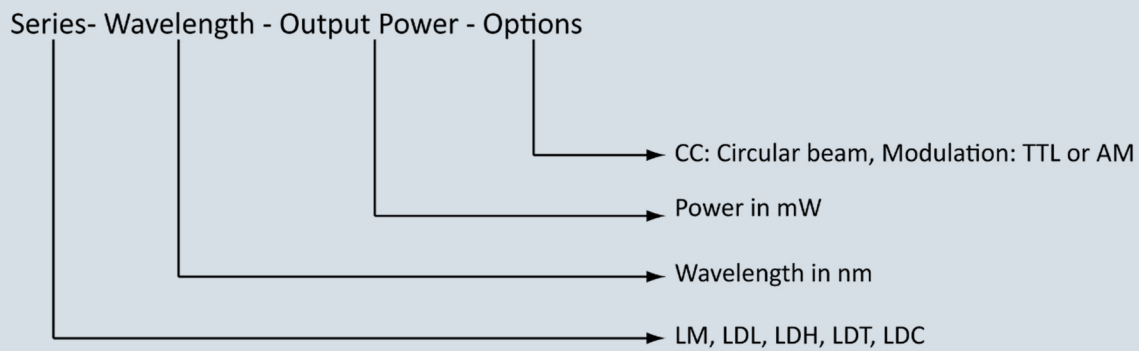
| Peltier-cooled series | LDT |
|------------------------|---------------------------------|
| Output power* | up to 400 mW |
| Wavelength | 405 – 980 nm |
| Collimation | adjustable |
| Power stability | < 0.5 % |
| Noise | < 0.5 % RMS |
| Pointing stability | < 10 µrad |
| Dimensions (Ø x L, mm) | 25.4 x 76.2 |
| Options | TTL modulation & fiber-coupling |

| Computer-controlled series | LDC |
|----------------------------|---------------------------------------|
| Output power* | up to 150 mW |
| Wavelength | 405 – 830 nm |
| Collimation | fixed |
| Power stability | < 0.5 % |
| Noise | < 0.5 % RMS |
| Pointing stability | < 10 µrad |
| Interface | RS-232/USB |
| Dimensions (W x H x L, mm) | 40 x 42.5 x 100 |
| Modulation | TTL modulation, up to 1 MHz |
| Options | beam circularization & fiber-coupling |

* Depending on wavelength

ORDERING INFORMATION

Please use the following code for ordering:



Examples:

LDH – 405 – 40 – CC - TTL: Point diode laser module with 405 nm wavelength, 40 mW output power, circularized beam and TTL-Modulation.

LDC – 440 – 30 – CC: Computer controlled laser module with 440 nm, 40 mW and circularized beam.

Please add the desired customization options to your request.

CUSTOMIZATION OPTIONS

- ▲ Custom electronic drivers with firmware and software
- ▲ Mechanical design
- ▲ Fiber-coupled versions (multimode, single mode and polarization-preserving)
- ▲ Modulation
- ▲ Other wavelengths
- ▲ Cable length
- ▲ Connector
- ▲ Supply voltage
- ▲ Working distance
- ▲ Projection Patterns (DOE), for more details please see our datasheet on Pattern Generators