

High-brightness modules

High-power, high-brightness modules at 915/940/976 nm.

Overview

The 2-pin fiber-coupled laser module series offers a highly reliable laser output with small footprint. Standard configuration includes a 105 μm core multimode fiber and an SMA-905 connector. Other connector and fiber types are available on request. For pumping applications, a protection with >45 dB isolation at wavelength range of 1040...1100 nm can be included.



Applications

Defense	Industrial	Medical
Pumping	Pumping Materials processing	Surgery Laser therapy

Electro-optical Characteristics, Typical Values

Parameter	Symbol	ML2072	ML2073	ML1991	Unit
Peak Wavelength	λ	915	940	976	nm
Optical Output Power	P_{OPT}	50	50	50	W
Operating Current	I_{OP}	12	12	12	A
Operating Voltage	V_{OP}	10.8	10.8	10.8	V
Spectral Width	$\delta\lambda$	< 5	< 5	< 5	nm
Wavelength - Temp. Coefficient	$\Delta\lambda/\Delta T$	0.3	0.3	0.3	nm/K

All the above values are typical for CW operation @ 25°C.

Fiber Pigtail Characteristics

Parameter	Symbol	Typical Value	Unit
Core Diameter	\varnothing_{CORE}	105	μm
Fiber Numerical Aperture	NA	0.15 or 0.22	-
Standard fiber Length	L	100	cm
Connector at the fiber end	-	SMA-905 / ST / FC / no connector	-

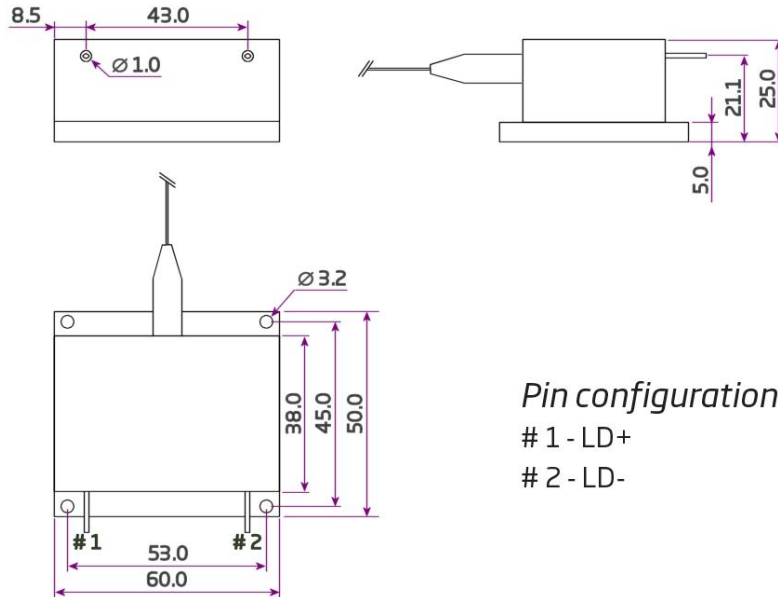
Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
LD Reverse Voltage	V_{RLD}	15	V
LD Forward Current	I_{FLD}	14	A
Operating Temperature	T_{AMB}	10-30 ¹	°C
Storage Temperature	T_{STG}	-20...80	°C

¹ A non-condensing environment should be ensured over the useful temperature range.

Package Information

The footprint of the module is 50 x 60 mm, and height 25 mm. The fiber pigtail is fixed.



All dimensions are millimeters (mm).

Safety Information

- The laser light emitted from this laser diode is invisible and harmful to the human eye. Avoid eye and skin exposure to the beam, both direct and reflected.
- Products are subject to the risks normally associated with sensitive electronic devices including static discharge, transients, and overload. Please ensure ESD protection prior to handling the products.
- These Modulight products are not intended for use in systems where product malfunction can reasonably be expected to result in personal injury.

DANGER

INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED BEAM

Peak power:	50 W
Wavelength:	910...980 nm
Class 4 laser product	

Peak power and wavelength are for safety analysis only, not to present device performance.

Liability note

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