

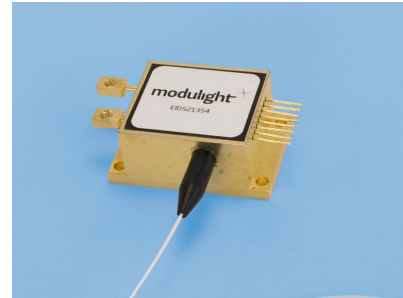
3-chip 635...690 nm modules

Fiber-coupled laser modules 635...690 nm

Overview

Modulight's new addition to FiberLight laser series comprises of multi-chip diode laser modules in the ChiliLase wavelengths. The package is robust and it has a small footprint of 35 x 52 mm and height of 22 mm.

Default output is 200 μ m NA=0.22 fiber terminated with SMA-905 connector. The package includes a thermistor, a TEC-element and a photodiode.



Applications

Industrial	Medical
Illumination Imaging Pumping	Aesthetic Treatments Fluorescence Photodynamic Therapy

Electro-optical Characteristics, Typical Values

Parameter	Symbol	ML2018	ML2019	ML1983	ML2071	Unit
Wavelength	λ	635	650	670	680	nm
Optical Output Power	P_{OPT}	1	2	2.5	2.5	W
Operating Current	I_{OP}	1.1	1.8	1.6	1.6	A
Operating Voltage	V_{OP}	6.9	6.9	6.7	6.7	V
Threshold Current	I_{TH}	0.6	0.65	0.66	0.66	A

ML2018 and ML2075 are specified for CW operation @ 15°C. ML2019 and ML2076 are specified for CW operation @ 20°C.

Fiber Pigtail Characteristics

Parameter	Symbol	Typical Value	Unit
Core Diameter	\varnothing_{CORE}	200	μ m
Fiber Numerical Aperture	NA	0.22	-
Standard fiber Length	L	100	cm
Connector at the fiber end ¹	-	SMA-905 / ST / FC / no connector	-
Minimum Bend Radius	d	50	mm

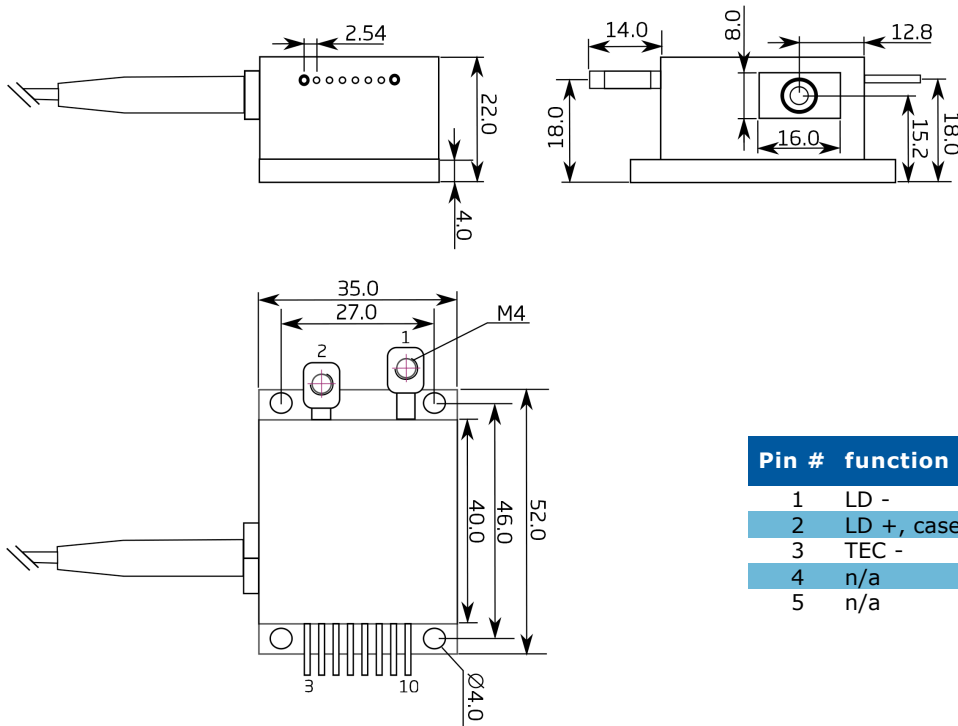
¹ Standard connector: SMA-905. Other connectors and fibers are available per request.

Absolute Maximum Ratings

Parameter	Symbol	ML2018	ML2019	ML1983	ML2071	Unit
LD Reverse Voltage	V_{RLD}	0	0	0	0	V
LD Forward Current	I_{FLD}	1.3	2	1.8	1.8	A
Output Power	P_{OPT}	1.2	2.2	2.6	2.6	W
Laser Diode Temperature	T_{LD}	10...20	10...25	10...25	10...25	°C
Ambient Temperature	T_{AMB}	30	30	30	30	°C
Storage Temperature	T_{STG}	-20...50	-20...50	-20...50	-20...50	°C

Package Information

10-pin package with footprint of 35 x 52 mm. Height 22 mm.



Pin #	function	Pin #	function
1	LD -	6	PD (p)
2	LD +, case	7	PD (n)
3	TEC -	8	thermistor
4	n/a	9	thermistor
5	n/a	10	TEC +

Safety Information

- The laser light emitted from this laser device is visible 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

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

Peak power:	1...3 W
Wavelength:	635...690 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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