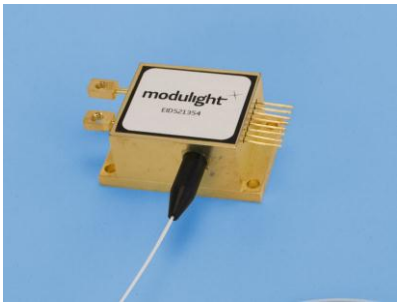
4-chip 635…680 nm modules

Fiber-coupled laser modules 635…680 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 µm NA=0.22 fiber terminated with SMA-905 connector. The package includes a thermistor, a TEC-element and a photodiode.



Applications

Industrial	Medical
Illumination	Aesthetic Treatments
Imaging	Fluorescence
Pumping	Photodynamic Therapy

Electro-optical Characteristics, Typical Values

Parameter	Symbol	ML2075	ML2076	ML2077	ML2078	Unit
Wavelength	λ	635	650	670	680	nm
Optical Output Power	P_{OPT}	1.5	3	3	3	W
Operating Current	I_{OP}	1.1	1.8	1.6	1.6	A
Operating Voltage	V_{OP}	9	9	8.7	8.7	V
Threshold Current	I_{TH}	0.6	0.65	0.66	0.66	A

All values are typical for CW operation @ 20°C.

Fiber Pigtail Characteristics

Parameter	Symbol	Typical Value	Unit
Core Diameter	$\varnothing_{CORE}$	200	µm
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

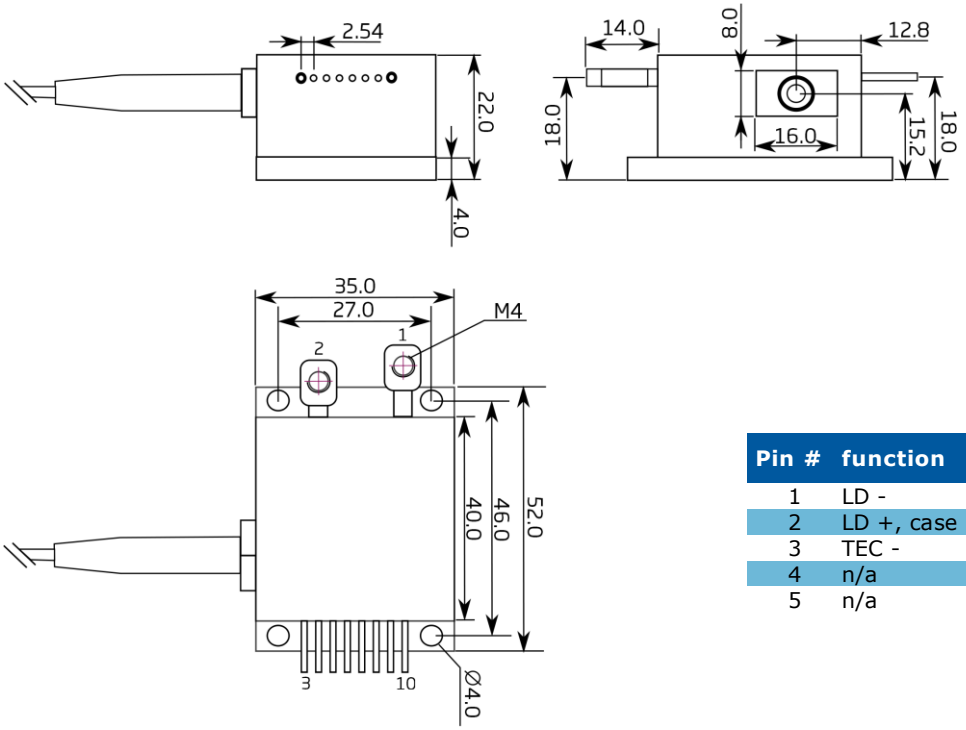
[1] Standard connector: SMA-905. Other connectors and fibers are available per request.

Absolute Maximum Ratings

Parameter	Symbol	ML2075	ML2076	ML2077	ML2078	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}	1.6	3.2	3.2	3.2	W
Laser Diode Temperature	T_{LD}	10…25	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.

Liability note