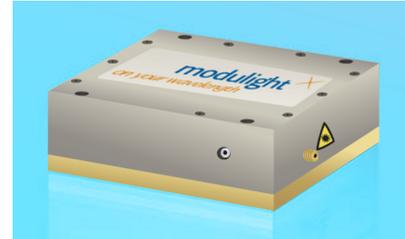


FiberLight

Two-bar fiber-coupled high-power laser module 635...1550 nm

Overview

FiberLight is a compact fiber-coupled laser bar (laser array) module designed for reliable CW operation at high power levels. Due to its proprietary beam shaping technique, we can offer high brightness and coupling efficiency. Options: Aiming beam, photodiode for power monitoring.



Applications

Defense	Industrial	Medical
Illumination Range-finding	Laser marking Optical pumping Display applications	Photodynamic therapy Aesthetic Treatments Surgery

Electro-optical Characteristics, Typical Values

Parameter	Symbol	ML1951 ¹	ML1989 ²	ML1967 ²	ML1947 ²	Unit
Wavelength	λ	635	650	1470	1550	nm
Optical Output Power	P_{OPT}	9	12	30	25	W
Operating Current	I_{OP}	18	25	60	75	A
Operating Voltage	V_{OP}	4.5	4.3	2.9	2.7	V
Threshold Current	I_{TH}	9	12	7	8	A

¹ ML1951: Values are typical for CW operation @ 15°C.

² Other models: Values are typical for CW operation @ 20°C.

Fiber Pigtail Characteristics*

Parameter	Symbol	Typical Value	Unit
Core Diameter	\varnothing_{CORE}	400	μm
Fiber Numerical Aperture	NA	0.22	
Fiber Length (module-to-connector)	l	1.5	m
Minimum Bending Radius	R_{MIN}	12	cm
Connector Type		SMA-905	

* Optional fiber supplied per customer request.

Absolute Maximum Ratings

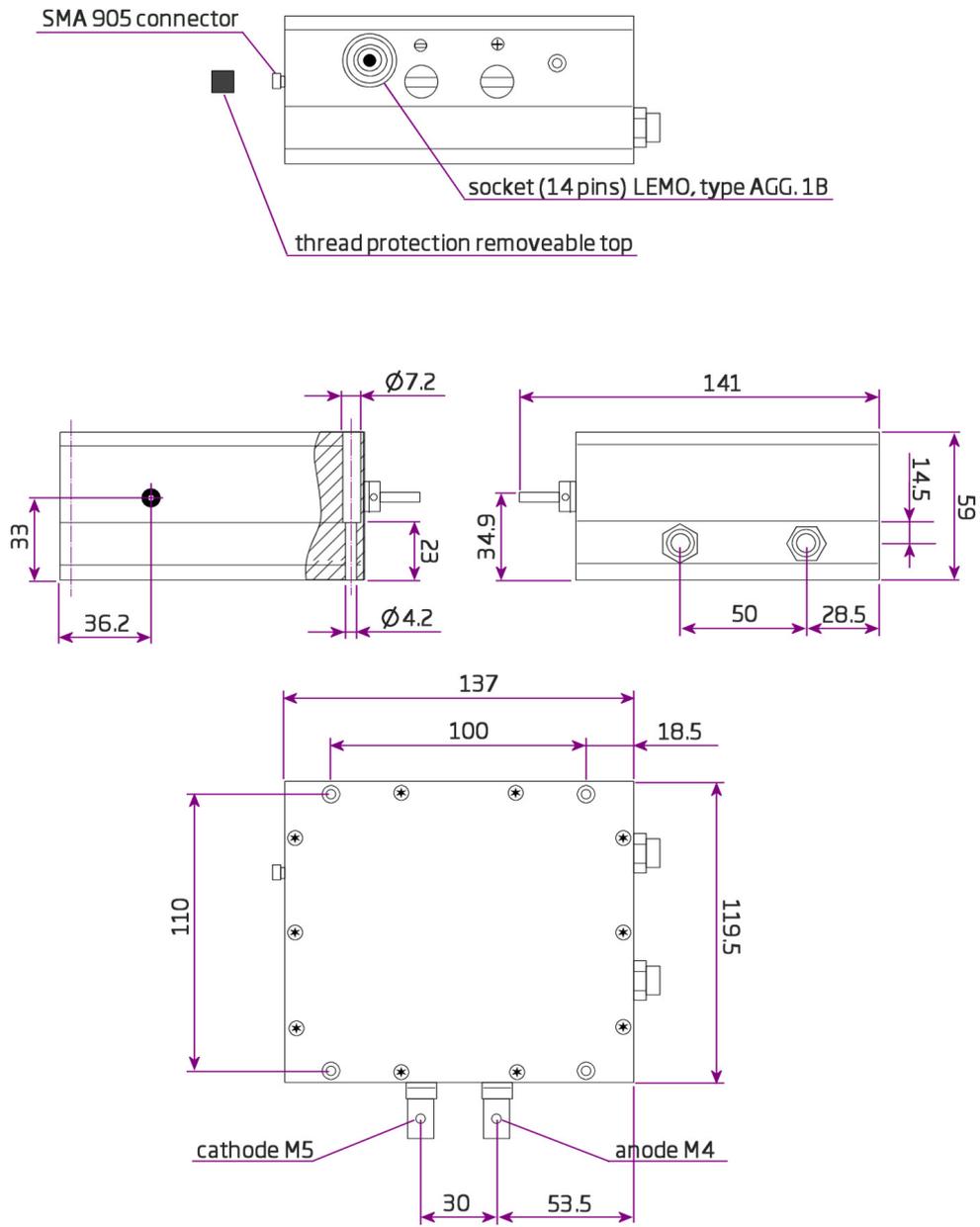
Parameter	Symbol	ML1951	ML1989	ML1967	ML1947	Unit
LD Reverse Voltage	V_{RLD}	0	0	2	2	V
LD Forward Current	I_{FLD}	20	30	70	80	A
Operating Temperature	T_{OP}	0...20 ³	0...30 ³	0...30 ³	0...30 ³	°C
Storage Temperature	T_{STG}	-20...50	-20...50	-20...50	-20...50	°C

³A non-condensing environment should be ensured over the useful temperature range.

Package Information

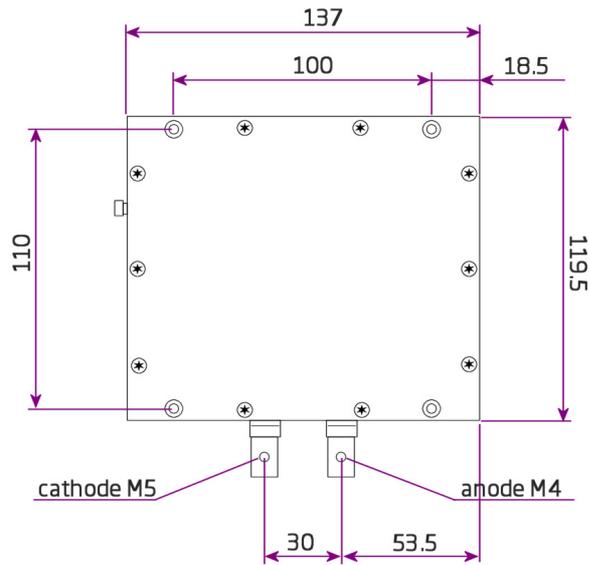
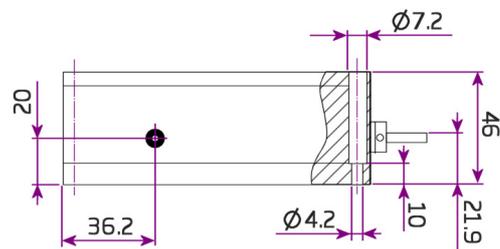
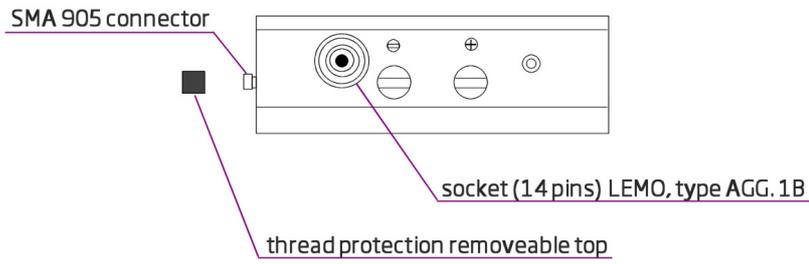
There are two versions available; water cooled and TEC cooled packages.

Water cooled package:



All dimensions are millimeters (mm)

TEC cooled package:



All dimensions are millimeters (mm)

Safety Information

- The laser light emitted from this laser device may be visible or invisible, depending on the laser selected. The laser light is 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.



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

Liability note

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