

# 808...1550 nm mounted bars

Mounted high-power laser bars in near-IR wavelengths

## Overview

The LumiLase and RangerLase mounted high-power laser bars cover the near-infrared wavelengths range 808...1550nm. The bars are mounted on robust, industry standard CS-type heat sink. The LumiLase bars (8xx nm) provide very high conversion efficiency and high brightness. The Rangerlase products are targeted for applications where eye-safe wavelengths are preferred. These multimode laser bars provide efficient and stable laser light output in CW operation. Adequate cooling should be ensured during operation.



## Applications

Defense	Industrial	Medical
Illumination Range-finding	Materials Processing Optical Pumping	Aesthetic Treatments Surgery

## Electro-optical Characteristics, Typical Values

Parameter	Symbol	ML1869	ML1824	ML1769	Unit
Peak Wavelength	$\lambda$	808 $\pm$ 3	1470 $\pm$ 15	1550 $\pm$ 15	nm
Optical Output Power	$P_{OPT}$	40	20	20	W
Operating Current	$I_{OP}$	45	65	80	A
Operating Voltage	$V_{OP}$	2.0	1.4	1.5	V
Threshold Current	$I_{TH}$	9	8	12	A
Slope Efficiency	$\eta$	1.0	0.35	0.28	W/A
Wavelength - Temp. Coefficient	$\Delta\lambda/\Delta T$	0.3	0.6	0.6	nm/K
Spectral Width	$\delta\lambda$	4	12	10	nm
Parallel Beam Divergence (FWHM)	$\theta_{  }$	7	8	8	°
Perpendicular Beam Divergence (FWHM)	$\theta_{\perp}$	33	32	32	°
Fill Factor	$W_E$	30	20	20	%

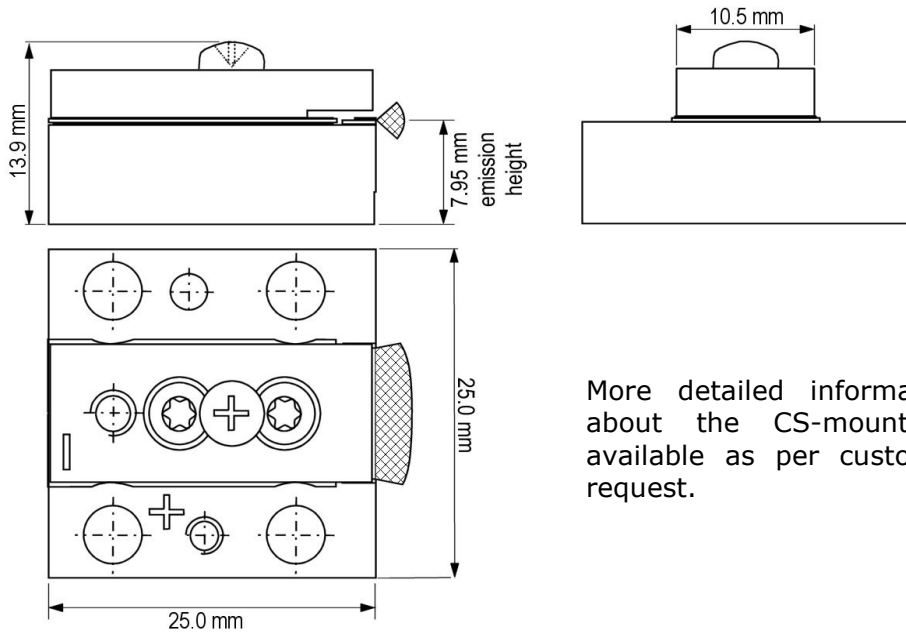
All values are typical for CW operation @ 20°C.

## Absolute Maximum Ratings

Parameter	Symbol	ML1869	ML1824	ML1769	Unit
LD Reverse Voltage	$V_{RLD}$	2	2	2	V
LD Forward Current	$I_{FLD}$	65	100	90	A
Operating Temperature	$T_{OP}$	-10...40 <sup>1</sup>	0...40 <sup>1</sup>	0...40 <sup>1</sup>	°C
Storage Temperature	$T_{STG}$	-40...85	-40...85	-40...85	°C

<sup>1</sup> A non-condensing environment should be ensured over the useful temperature range.

### Package Information



More detailed information about the CS-mount is available as per customer request.

### Safety Information

- The laser light emitted from this laser device 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.

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

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Peak power:	20...100 W
Wavelength:	808...1550 nm
<b>Class 4 laser product</b>	

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

### Liability note

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