

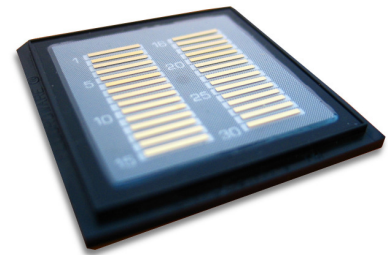
# 1470 nm high-power laser bar for CW applications

## ML1835



## OVERVIEW

ML1835 is an unmounted laser bar (laser array) producing up to 20 W of output power at 1470 nm. The product is designed for reliable CW operation.



## APPLICATIONS

Material processing  
Industrial

Medical  
Pumping

## ELECTRO-OPTICAL CHARACTERISTICS

Parameter	Symbol	Typical value	Unit
Threshold Current	$I_{TH}$	< 8	A
Optical Output Power	$P_{OPT}$	20	W
Operating Current	$I_{OP}$	65	A
Operating Voltage	$V_{OP}$	< 1.4	V
Slope Efficiency	$\eta$	0.35	W/A
Peak Wavelength	$\lambda$	$1470 \pm 15$	nm
Wavelength Temperature Coefficient	$\Delta\lambda/\Delta T$	0.6	nm/K
Spectral Width	$\delta\lambda$	< 12	nm
Parallel Beam Divergence (FWHM)	$\theta_{  }$	5...10	°
Perpendicular Beam Divergence (FWHM)	$\theta_{\perp}$	30...35	°

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

## ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Rating	Unit
LD reverse voltage	$V_{RLD}$	2	V
LD forward current	$I_{FLD}$	100	A
Operating temperature range	$T_{OP}$	-20 - +40	°C

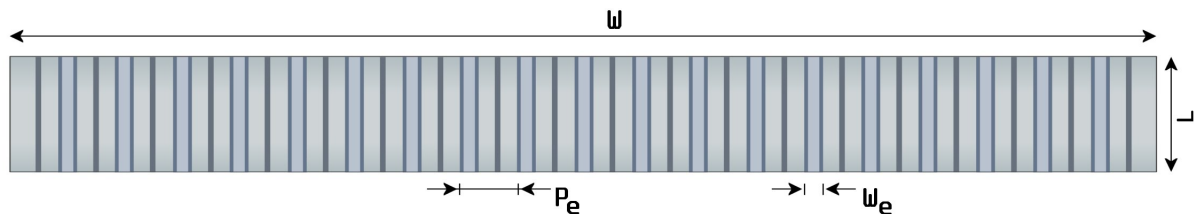
# 1470 nm high-power laser bar for CW applications ML1835



## MECHANICAL SPECIFICATIONS

Parameter	Symbol	Value	Unit
Cavity Length	L	1000	$\mu\text{m}$
Bar Width	W	10	mm
Emitter Pitch	$P_e$	500	$\mu\text{m}$
Emitter Width	$W_e$	100	$\mu\text{m}$
Fill Factor	FF	20	%
Bar Thickness	H	100	$\mu\text{m}$
Emitters in a Bar		19	

## BAR LAYOUT



## SAFETY INFORMATION

- The laser light emitted from this laser diode is invisible but may be harmful to the human eye. Avoid eye 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.

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