

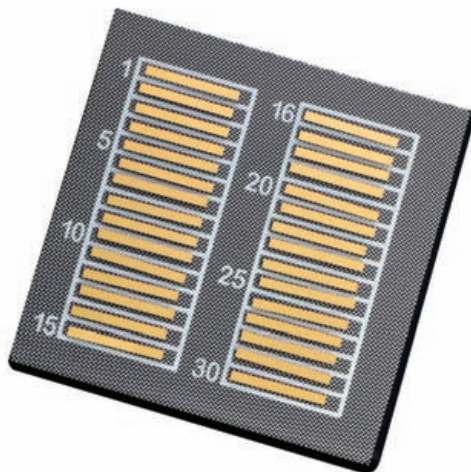


# Unmounted Diode Laser Bars (UMBs), 1430-1470 nm

High Power Diode Laser Bars for Medical and Direct-Diode Applications

Based on Coherent's high efficiency InP epitaxy, Coherent 1430-1470 nm laser diode bars provide industry leading efficiency, performance, and reliability. Standard options include 20% fill factor bars rated to 35W, at wavelengths from 1430 nm to 1470 nm. Specifications—including power, wavelength, and emitter configuration—can be tailored to your demands.

Please contact Coherent to discuss your unique requirements.



Superior Reliability & Performance

## Unmounted Diode Laser Bars, 1430-1470 nm Features:

- High efficiency InP epitaxial technology
- 35W from a 20% fill factor bar
- Custom configurations available

## Unmounted Diode Laser Bars, 1430-1470 nm Applications:

- Medical
- Aesthetics
- Illumination
- Materials Processing

[www.Coherent.com/UMB1430-1470](http://www.Coherent.com/UMB1430-1470)

# Unmounted Diode Laser Bars (UMBs), 1430-1470 nm

## High Power Diode Laser Bars for Medical and Direct-Diode Applications

### Device Specifications<sup>1,2,3</sup>

20% fill factor bars (19 x 100 μm emitters)

Rated Power (W)(at Tj ≤60°C)	35
Centroid Wavelength Available <sup>4</sup> (nm)	1430 to 1470
Centroid Wavelength, Standard Options (nm)	1430 ±20 1470 ±20
Spectral Width, Standard (nm)(FWHM)	<20
Wavelength Temperature Coefficient (nm/°C)	0.53
Fill Factor (%)	20
Number of Emitters	19
Emitter Width (μm)	100
Emitter-to-Emitter Pitch (μm)	500
Cavity Length (mm)	2
Fast Axis Divergence (degrees)(FWHM)	<40
Slow Axis Divergence (degrees)(FWHM)	<10
Polarization	TE
Efficiency (%)	>30
Operating Current (A)	<90
Operating Voltage (V)	<1.2

<sup>1</sup> Bars are qualified on a Coherent conduction cooled package (CCP) operated at 35W and 25°C. Customers' results may vary as a function of packaging stress, packaging thermal resistance, operating power, and temperature. Power-vs-current and efficiency will increase at lower temperatures and decrease at higher temperatures.

<sup>2</sup> Specifications listed here apply at beginning of life. Operating current at end of life is 120% the operating current at beginning of life.

<sup>3</sup> Please consult the factory for any requirements not listed, including the following options:

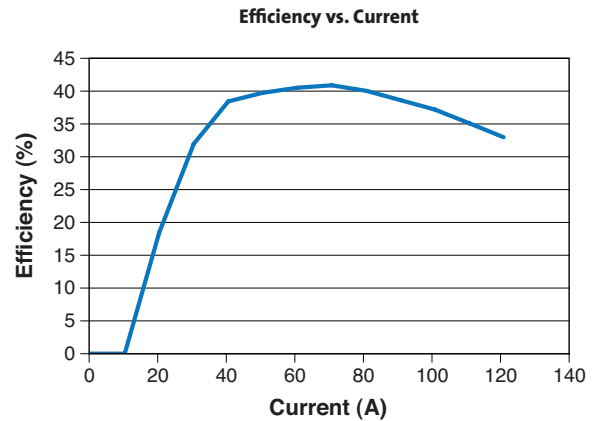
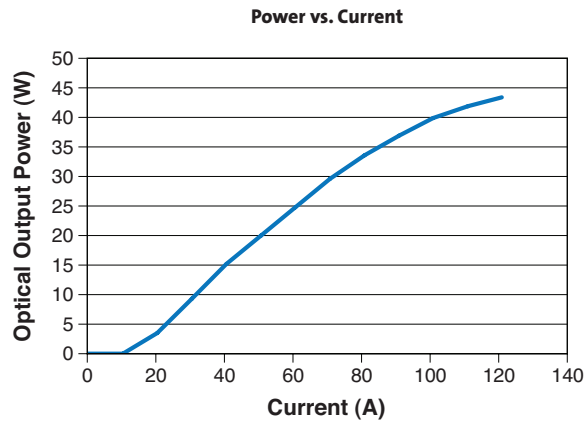
- Centroid wavelength and spectral width requirements other than listed here.
- Optical output powers other than listed here.
- Emitter aperture widths other than listed here.

<sup>4</sup> Contact factory for availability.

### Operation Notes

Negative current transients greater than 25 μA and/or reverse voltages >3V can destroy the device.

### Typical 1060 nm Unmounted Diode Laser Bar P-I Plots



# Unmounted Diode Laser Bars (UMBs), 1430-1470 nm

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**COHERENT®**

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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.

Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all Unmounted Diode Laser Bars. For full details of this warranty coverage, please refer to the Service section at [www.Coherent.com](http://www.Coherent.com) or contact your local Sales or Service Representative.