COHERENT

Unmounted Diode Laser Bars (UMBs), 965-985 nm

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

Based on Coherent's high performance AlGaAs technology, Coherent 965-985 nm diode laser bars provide world-class performance and reliability. Standard options include 60W 10% fill factor bars, 100W 18% fill factor bars, and 150W 30% fill factor bars rated to >20k hrs lifetime. Specifications—including power, wavelength, and emitter configuration—can be tailored to your demands.

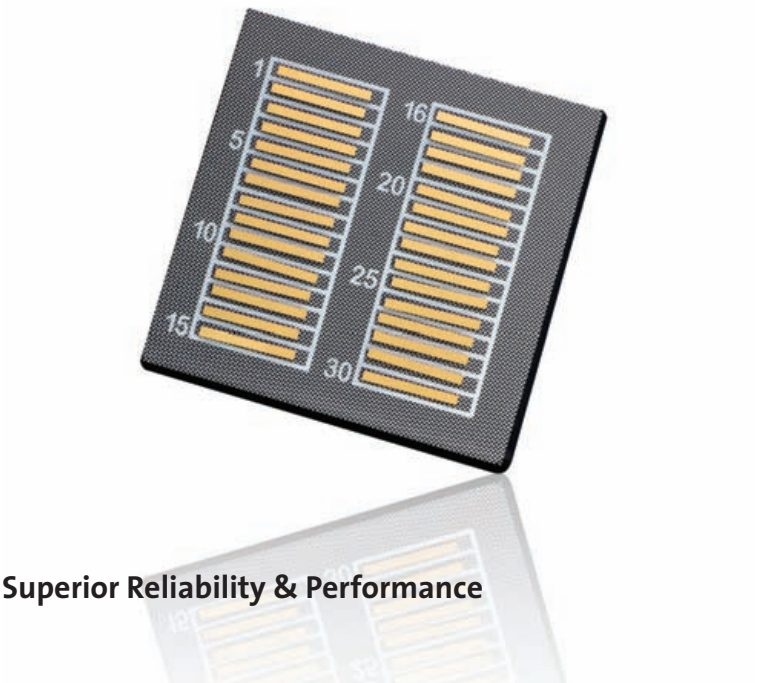
Please contact Coherent to discuss your unique requirements.

Unmounted Diode Laser Bars, 965-985 nm Features:

- **High performance AlGaAs technology for highest reliability and lifetime**
- **Powers up to 150W CW**
- **High efficiency**
- **Wide variety of bar configurations (emitter width, fill factor, and cavity length)**

Unmounted Diode Laser Bars, 965-985 nm Applications:

- **Materials Processing**
- **Laser Pumping**
- **Medical**
- **Illumination**



Superior Reliability & Performance

www.Coherent.com/UMB965-985

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Device Specifications[1,2,3]	**60W 10FFx4 mm**	**100W 18FFx4 mm**	**150W 30FFx4 mm**
Bar Geometry	10FFx4mm	18FFx4mm	30FFx4mm
Rated Power (W)(at Tj ≤50°C)	60	100	150
Fill Factor (%)	10	18	30
Number of Emitters	10	19	19
Emitter Width (µm)	100	90	150
Emitter-to-Emitter Pitch (µm)	1000	500	500
Cavity Length (mm)	4	4	4
Centroid Wavelength Available[4] (nm)	965 to 985	965 to 985	965 to 985
Centroid Wavelength, Standard (nm)(at 25°C)	975 ±10	975 ±10	975 ±10
Spectral Width, Standard (nm)(FWHM)	<10	<10	<10
Wavelength Temperature Coefficient (nm/°C)	0.4	0.4	0.4
Fast Axis Divergence (degrees)(FWHM)	31	31	31
Slow Axis Divergence (degrees)(FWHM)	<10	<10	<10
Polarization	TE	TE	TE
Threshold Current (A)	5 typical	8 typical	14 typical
Operating Current (A)	<70 (62A typical)	<120 (110A typical)	<175 (165A typical)
Operating Voltage (V)	<1.7 (1.5V typical)	<1.7 (1.5V typical)	<1.7 (1.5V typical)

1 Wavelength specifications are based on testing of unmounted bars under low current, low duty cycle, short-pulsewidth test conditions. Contact factory for details.

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

3 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.

4 Contact factory for availability.

Operation Notes

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

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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 or contact your local Sales or Service Representative.