

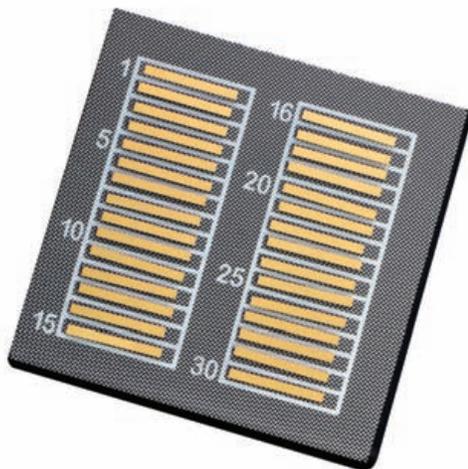


Unmounted Diode Laser Bars (UMBs), 1060 nm

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

Coherent 1060 nm laser diode bars provide an ideal solution for customers demanding consistent quality and superior performance for medical, aesthetic, and other direct-diode applications. Standard options include 50% fill factor bars rated to 100W and 20% fill factor bars rated to 40W. 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, 1060 nm Features:

- High performance 1060 nm technology
- 100W from a 50% fill factor bar
- 40W from a 20% fill factor bar
- Custom configurations available

Unmounted Diode Laser Bars, 1060 nm Applications:

- Medical
- Aesthetics
- Illumination
- Materials Processing

www.Coherent.com/UMB1060

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

Device Specifications^{1,2,3,4}

	40W 20FFx1mm	100W 50FFx1.5mm
Rated Power (W)(at Tj ≤55°C)	40	100
Centroid Wavelength (nm)	1060 ±20	1060 ±20
Spectral Width (nm)	<10	<10
Wavelength Temperature Coefficient (nm/°C)	0.4	0.4
Fill Factor (%)	20	50
Number of Emitters	19	49
Emitter Width (µm)	100	100
Emitter-to-Emitter Pitch (µm)	500	200
Cavity Length (mm)	1	1.5
Fast Axis Divergence (degrees)(FWHM)	<35 (30 typical)	<35 (30 typical)
Slow Axis Divergence (degrees)(FWHM)	<7	<7
Polarization	TE	TE
Threshold Current (A)	<4 (2 typical)	<13 (10 typical)
Operating Current (A)	<49	<135
Operating Voltage (V)	<1.7	<1.7

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 Bars are qualified on a Coherent conduction-cooled package (CCP) operated at full power and 25°C. Customers' results may vary as a function of packaging stress, packaging thermal resistance, operating power, and temperature.

³ Specifications listed here apply at beginning of life. Operating current at end of life is 120% the operating current at beginning of life.

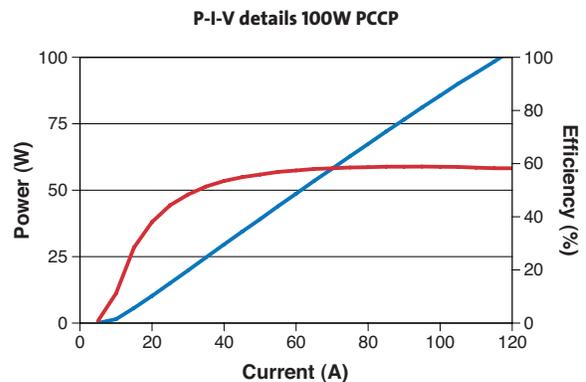
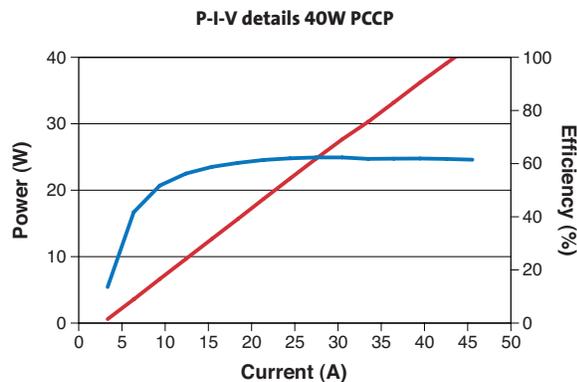
⁴ Please consult the factory for any requirements not listed, including the following options:

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

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



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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.