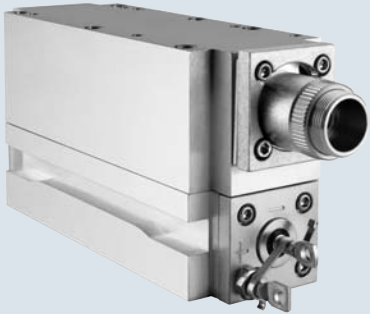




Genesis MX-Series STM (OEM)

High-Power Optically Pumped Semiconductor Lasers (OPSL)

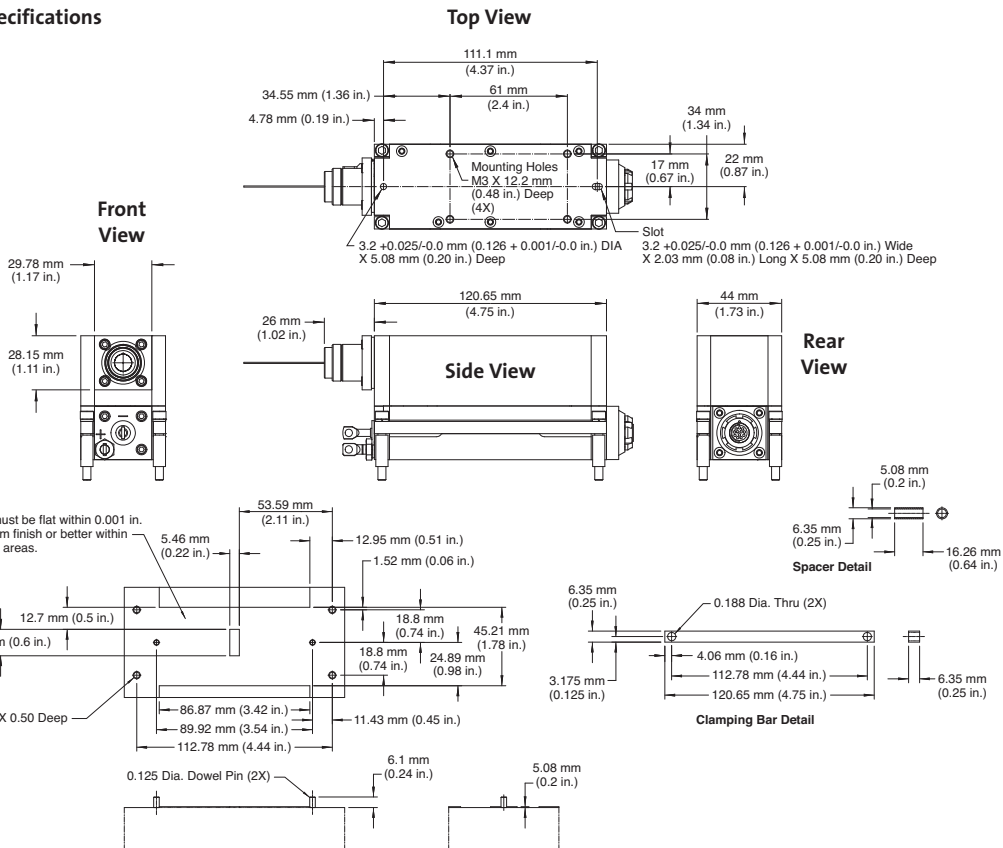


Features

- 500 mW and 1W output power at 532 nm
- Low noise performance
- Superior mode quality
- OEM laser head designed for easy integration
- OPSL reliability
- Compact, efficient design

Mechanical Specifications

Laser Head



Superior Reliability & Performance

Genesis™ MX-Series STM (OEM)

High-Power Optically Pumped Semiconductor Lasers (OPSL)

Optical Specifications¹

Genesis	MX 532-500/1000
Wavelength (nm)	532 ±3
Output Power (mW)	500, 1000
Spatial Mode	TEM ₀₀
FWHM Linewidth (GHz)	<30
Pulse Format	CW
Beam Circularity	1.0 ±0.1
Beam Position	
Horizontal	<1.0
Vertical	<1.0
Beam Waist Diameter ² (1/e ² , mm)	1 ±0.1
Beam Divergence ² (1/e ² , mrad)	0.7 ±0.1
Beam Waist Location ² (m)	0.25 ±0.25
M ²	
Horizontal	<1.1
Vertical	<1.1
Pointing Stability ⁴ (μrad/°C)	<5
Noise	
10 Hz to 10 MHz ² (% rms)	<0.1
10 Hz to 5 kHz (% peak-to-peak)	<1 ⁷
Polarization Ratio	Horizontal, >100:1
CDRH Compliance	No
Warm-Up Time (minutes)	<10
Direct Modulation ⁵	Available

Utility and Environmental Requirements

Operating Diode Current (A)	<10
Maximum Diode Current (A)	<12
Diode Voltage (V)	1.5 to 2.2
Cooling Requirements ⁶	Active cooling required
Case Temperature (°C)	25 ±2
Humidity	Non-condensing
Dimensions (L x W x H)	
Laser Head	121 x 44 x 65 mm (4.76 x 1.73 x 2.56 in.)
Weight	
Laser Head (g)	730 ±10

¹ Optical parameters measured at the output plane of the laser head. Unless noted all parameters valid for the lifetime of the unit.

² Typical value.

³ Measured from the output face, negative value corresponds to a location inside the head; positive outside.

⁴ Measured at the output window: tolerance relative to the nominal center of the output window and perpendicular to the mounting plane.

⁵ Theoretical limit is >1 MHz; actual performance will be limited by the diode-driver (not included).

⁶ Contact integration support for options on air-cooling TEC or waterplate.

⁷ Over 8 hours.

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 Genesis MX-Series lasers. 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.



www.Coherent.com

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