



# Genesis MX-Series MTM

High-Power Optically Pumped Semiconductor Lasers (OPSL)

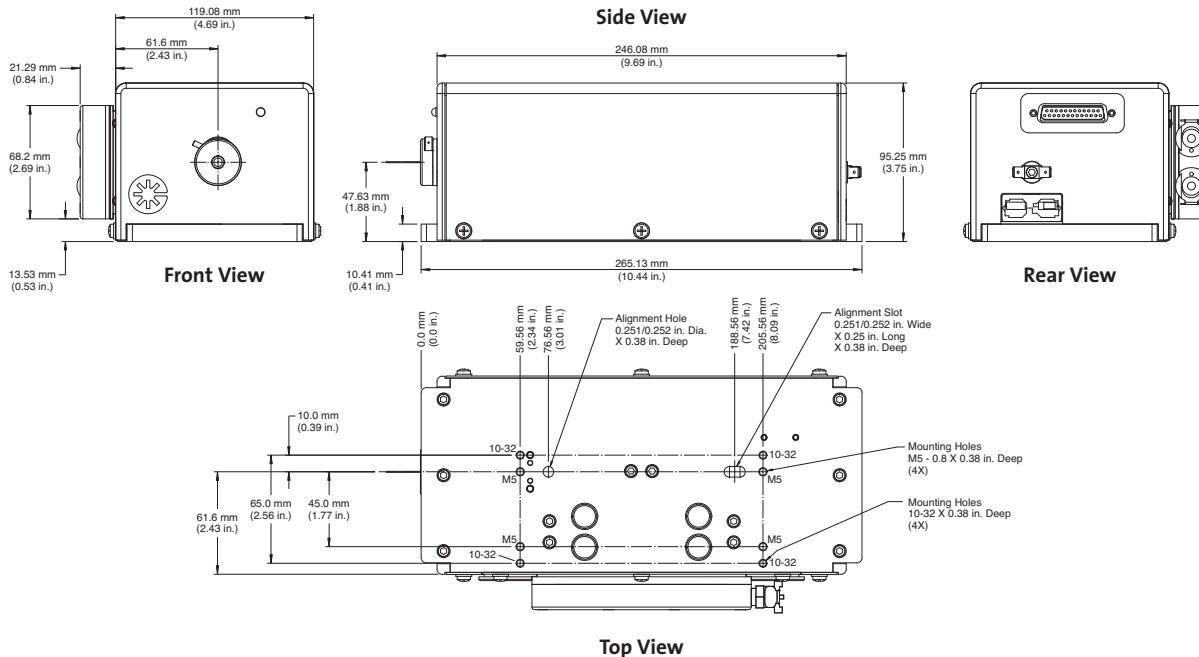
## Features

- End user, turn key solution
- OPSL reliability
- Compact, efficient design
- Optimum wavelengths and power for superior results
  - Up to 8W at 532 nm and 5W at 577 nm
  - 532 nm for strong absorption by retinal pigment epithelium
  - 577 nm matches peak absorption in oxyhemoglobin
- Choice of air or water-cooled solutions



## Mechanical Specifications

MX-Series MTM  
Water-cooled version



Superior Reliability & Performance

# Genesis™ MX-Series MTM

## High-Power Optically Pumped Semiconductor Lasers (OPSL)

Optical Specifications <sup>1</sup>	Genesis	MX 532-3000/5000/8000	MX 577-3000/5000
	Wavelength (nm)		532 ±3
Pulse Format			CW
Spectral Purity (%)			>99
Output Power <sup>3</sup> (mW)		3000, 5000, 8000	3000, 5000
Spatial Mode			
Beam Quality (M <sup>2</sup> )			
Horizontal			<4
Vertical			<7
Beam Circularity <sup>2</sup>			1.0 ±0.1
Beam Waist Diameter <sup>1</sup> (mm)(FW, 1/e <sup>2</sup> )			2.25 ±10%
Beam Divergence <sup>1</sup> (mrad)(FW, 1/e <sup>2</sup> )			<0.5
Beam Waist Location <sup>1,3</sup> (m)			±0.5
Beam Pointing Stability <sup>4</sup> (μrad/°C)			<5
Horizontal Beam Position Tolerance <sup>5</sup> (mm)			±<1.0
Vertical Beam Position Tolerance <sup>5</sup> (mm)			±<1.0
Beam Pointing Tolerance <sup>5</sup> (mrad)			<5
Polarization Ratio			Linear, >100:1
Polarization Direction			Horizontal, ±5°
Noise (% rms)(10 Hz to 10 MHz)			<0.03
Power Stability <sup>6</sup> (%)(pk-pk)			±<1
Warm-Up Time (minutes)			<10
CDRH Compliant			Yes
Electrical Specifications	Operating Voltage (VAC)		100 to 240
	Frequency (Hz)		50 to 60
	Power Consumption (W)		500
Environmental Conditions	Ambient Temperature (°C)		
	Operating		10 to 40
	Non-Operating		-10 to 60
	Relative Humidity <sup>7</sup> (%)		5 to 95
	CE Marking		IEC 61010-1/EN 61010-1
	Dimensions (L x W x H)		
Laser Head <sup>8</sup>		281 x 156 x 85 mm (11.06 x 6.14 x 3.35 in.)	
Cables (laser head to controller)		2m (6.5 ft.)	

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

<sup>2</sup> Circularity defined as vertical diameter divided by horizontal diameter.

<sup>3</sup> Negative value corresponds to a location inside head.

<sup>4</sup> After 2-hour warm-up.

<sup>5</sup> Measured at the output window.

<sup>6</sup> Measured over 8 hrs.

<sup>7</sup> Non-condensing.

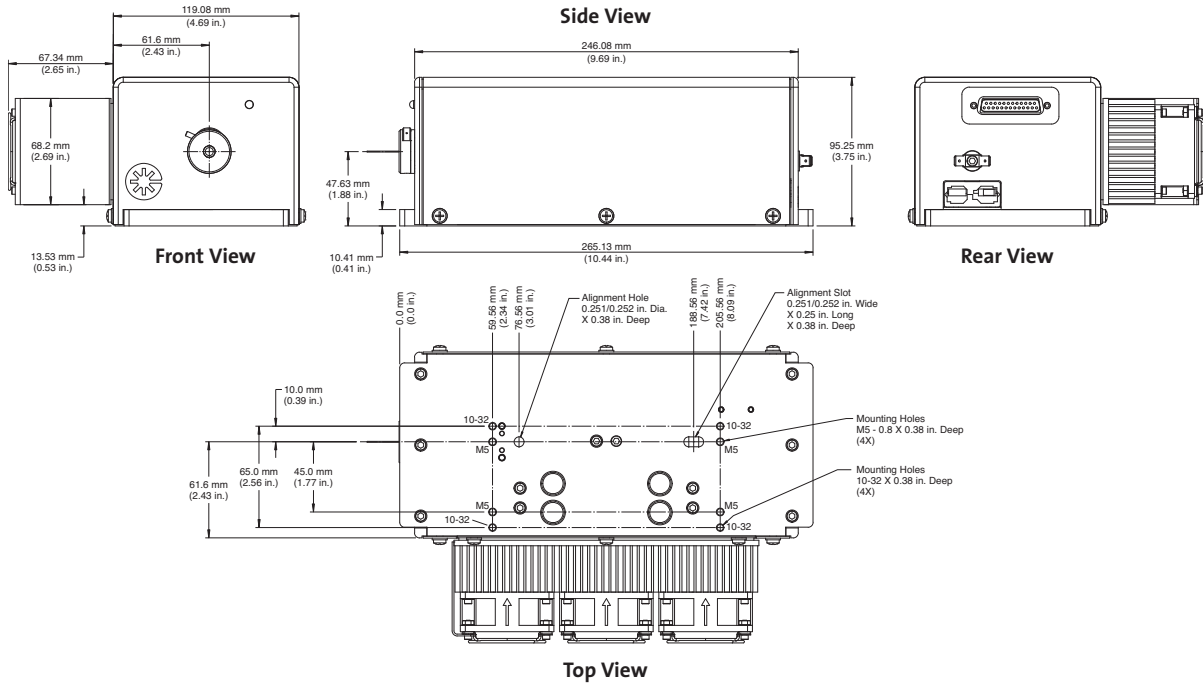
<sup>8</sup> Back connector not included in laser head length dimension.

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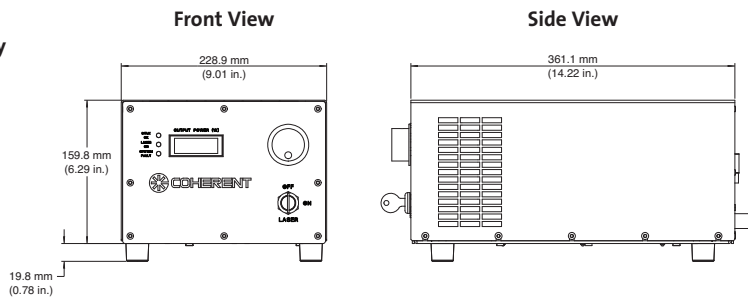
## High-Power Optically Pumped Semiconductor Lasers (OPSL)

### Mechanical Specifications

#### MX-Series MTM Air-cooled version



#### Genesis MX-Series Benchtop Power Supply



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](http://www.Coherent.com) or contact your local Sales or Service Representative.



[www.Coherent.com](http://www.Coherent.com)

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