



Genesis MX 607/639 STM

High-Power Optically Pumped Semiconductor Lasers (OPSL)

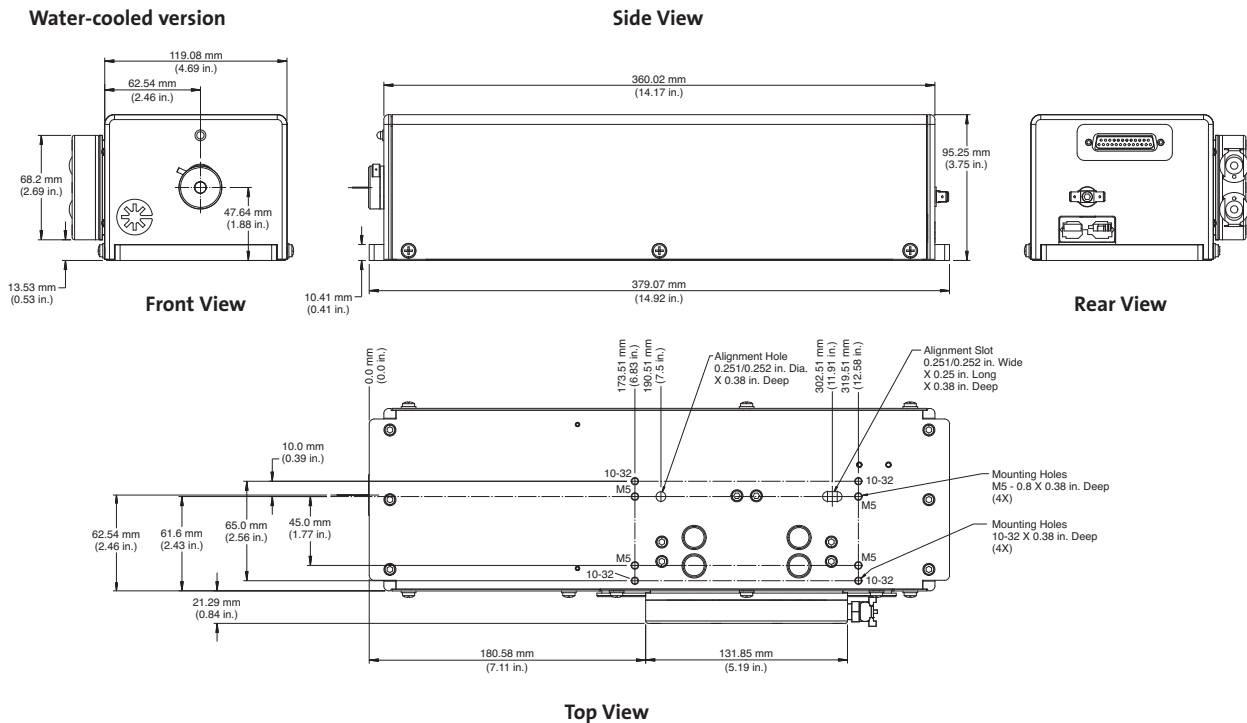


Features

- End user, turn key solution
- OPSL reliability
- Compact, efficient design
- Optimum wavelengths and power for superior results
 - 500 mW at 607 nm
 - 1W at 639 nm
- Choice of air or water-cooled solutions

Mechanical Specifications

MX-Series STM
Water-cooled version



Superior Reliability & Performance

Genesis™ MX 607/639 STM

High-Power Optically Pumped Semiconductor Lasers (OPSL)

Optical Specifications¹

Genesis	MX 607-500	MX 639-1000
Wavelength (nm)	607 ±3	639 ±3
Bandwidth (nm)		<0.5
Pulse Format		CW
Spectral Purity (%)		>99
Output Power (mW)	500	1000
Spatial Mode		TEM ₀₀
Beam Quality (M ²)		<1.2
Beam Circularity ³		1.1 ±0.1
Beam Waist Diameter ² (mm)(FW, 1/e ²)		1.0
Beam Divergence ² (mrad)(FW, 1/e ²)		<1.5
Beam Waist Location ⁴ (m)		0.25 ±0.5
Beam Pointing Stability ^{5,6} (μrad/°C)		<10
Horizontal Beam Position Tolerance ⁶ (mm)		±<1.0
Vertical Beam Position Tolerance ⁶ (mm)		±<1.0
Beam Pointing Tolerance ⁶ (mrad)		<10
Polarization Ratio		Linear, >100:1
Polarization Direction		Horizontal, ±5°
Noise		
RMS (%) (10 Hz to 10 MHz) ¹⁰		<5
RMS (%) (10 Hz to 100 kHz) ¹⁰		<1
Power Stability ⁷ (%) (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 ⁸ (%)	5 to 95
CE Marking	IEC 61010-1/EN 61010-1
Dimensions (L x W x H)	
Laser Head ⁹	360 x 120 x 96 mm (14.17 x 4.69 x 3.75 in.)
Cables (laser head to controller)	2m (6.5 ft.)

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 Circularity defined as vertical diameter divided by horizontal diameter.

⁴ Negative value corresponds to a location inside head.

⁵ After 2-hour warm-up.

⁶ Measured at the output window.

⁷ Measured over 8 hrs.

⁸ Non-condensing.

⁹ Back connector not included in laser head length dimension.

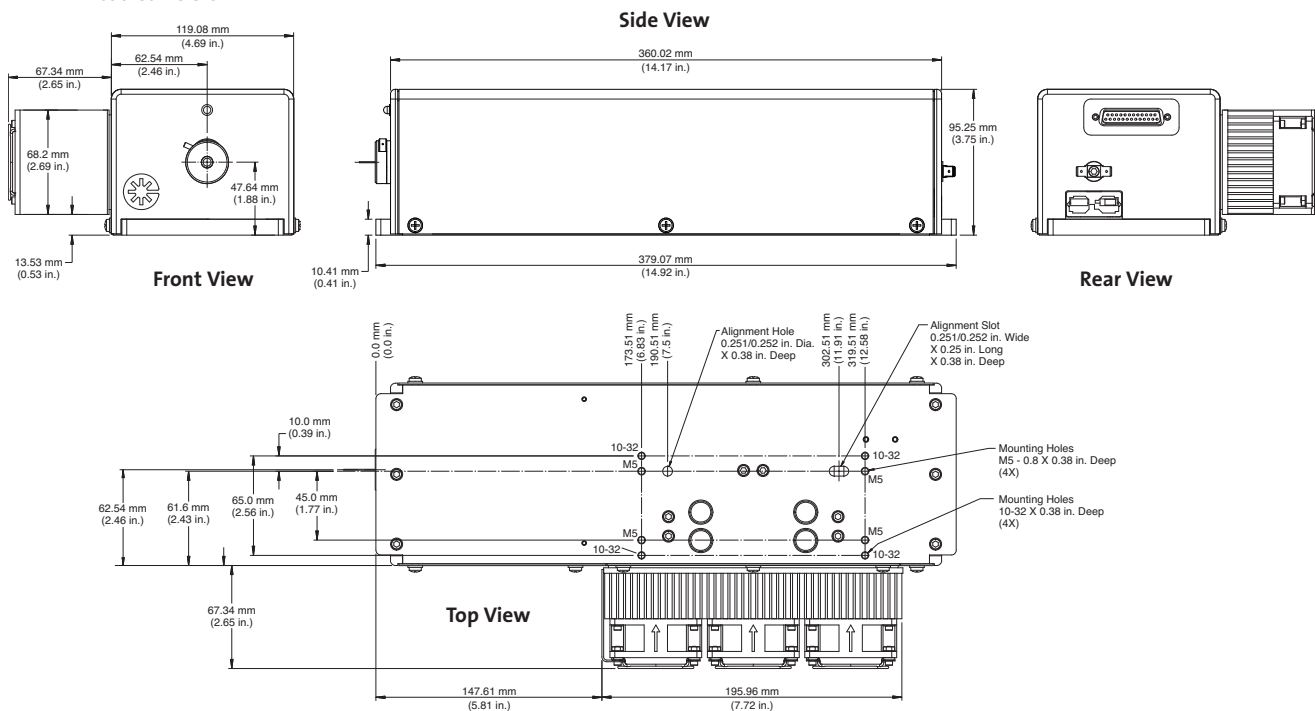
¹⁰ At rated power.

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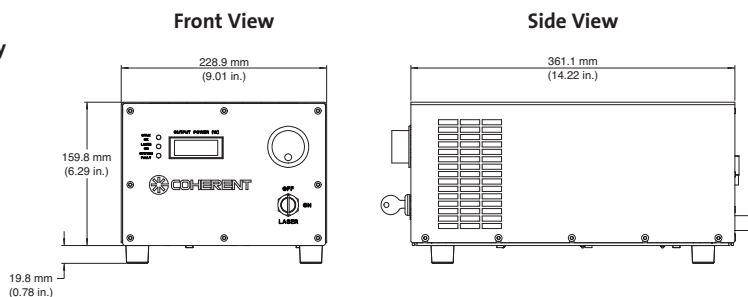
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Mechanical Specifications

MX-Series STM 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 or contact your local Sales or Service Representative.



www.Coherent.com

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