

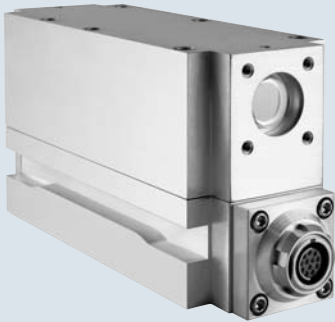


Genesis MX IR Series MTM (OEM)

High-Power Optically Pumped Semiconductor Lasers (OPSL)

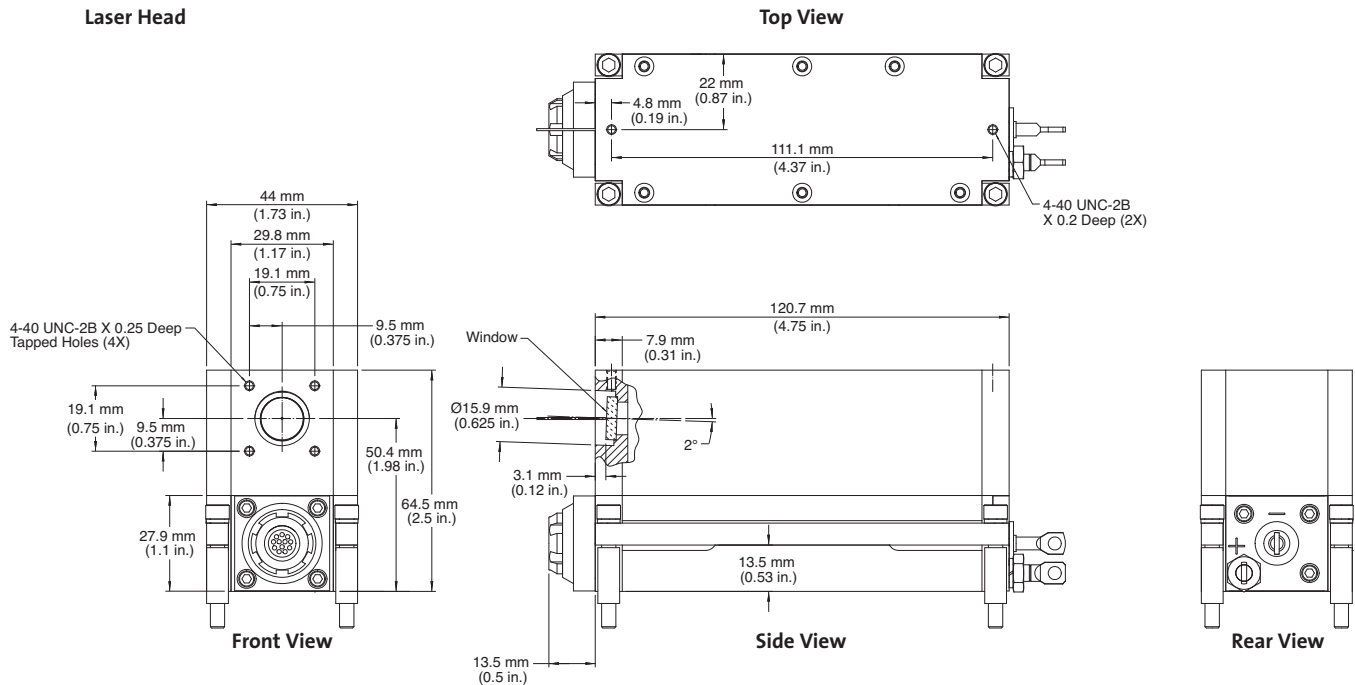
Features

- OPSL reliability
- Compact, efficient design
- Modulation rate to >50 kHz
- Ability to deliver:
 - Up to 4W at 920 nm
 - Up to 10W at 1064 nm
 - Up to 6W at 1154 nm
- Low heat load for ease of integration



Mechanical Specifications

Laser Head



Superior Reliability & Performance

Genesis™ MX IR Series MTM (OEM)

High-Power Optically Pumped Semiconductor Lasers (OPSL)

Optical Specifications¹

Genesis	PRELIMINARY MX 920-4000	PRELIMINARY MX 1064-10000	PRELIMINARY MX 1154-6000
Wavelength (nm)	920 ±10	1064 ±10	1154 ±15
Output Power (mW)	4000	10,000	6000
Spatial Mode	Multimode		
Bandwidth (nm)	<5.0		
Beam Waist Dimensions (mm)			
Horizontal Size ² (FW, 1/e ² , mm)	0.6		
Vertical Size ² (FW, 1/e ² , mm)	0.6		
Location ^{2,3} (mm)	-150		
Beam Divergence			
Horizontal ² (FW, 1/e ² , mrad)	3.5		
Vertical ² (FW, 1/e ² , mrad)	3.5		
M ²			
Horizontal	≤2		
Vertical	≤2		
Pointing Stability ⁴ (μrad/°C)	<5		
Noise ⁷			
10 Hz to 10 MHz (% rms)	<0.5		
10 Hz to 100 kHz (% rms)	<10		
Polarization Ratio	Vertical, >100:1		
Direct Modulation ⁵	Available		

Utility and Environmental Requirements

Operating Diode Current (A)	<30	<38	<32
Maximum Diode Current (A)	<36	<45	<38.5
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 ⁶	256 x 49 x 71 mm (10.07 x 1.93 x 2.76 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 At operating power.

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 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

U.S. Patent No. 5,991,318
U.S. Patent No. 6,167,068
U.S. Patent No. 6,285,702
U.S. Patent No. 6,438,153
U.S. Patent No. 6,683,901
U.S. Patent No. 7,180,928

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