



1064nm Narrow Linewidth Laser

Precilasers' 1064nm laser has the characteristics of narrow linewidth and low noise, and can be used in fields such as neutral atom trapping and precision measurement.

Features

- Narrow Linewidth
- Tunable Linear
- Polarization
- Continuous Laser

Applications

- Neutral Atom Trapping
- Precision Measurement



Specification							
Wavelength Optional range	1064nm						
Output Power	5W	10W	30W	50W	100W	130W	200W
Tuning Range (temperature)	> 0.7nm						
Output Mode	Spatially collimated output ⁽¹⁾			Optical fiber output			
Linewidth ⁽²⁾ (100 us integration)	< 5kHz ⁽³⁾			< 10kHz			
Polarization Extinction Ratio	> 20dB						
Power Stability (3 Hours RMS)	< 0.75%						
Beam Quality	$M^2 < 1.1$						
Intensity Noise (10Hz-10MHz integration)	< 0.05%						
PZT Tuning Range	> 3GHz						
PZT Tuning Bandwidth	> 5kHz						
Cooling	Air Cooling			Water cooling			

(1) Output power \leq 30W, optional

(2) Fiber delay self-heterodyne beat frequency measurement

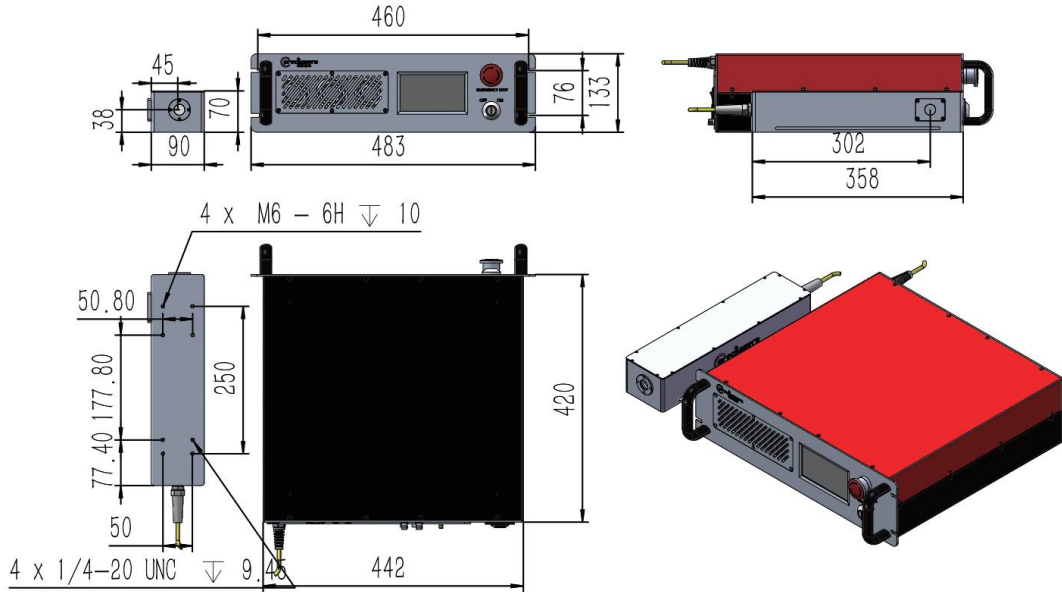
(3) Narrow line width option: Line width < 5kHz

Options	
AOM Options	Adding AOM and VCO driver between seed and amplifier enables 500kHz tuning bandwidth and $> \pm 5$ MHz tuning range
EOM-RF Options	Adding EOM between the seed and the amplifier to achieve sideband modulation

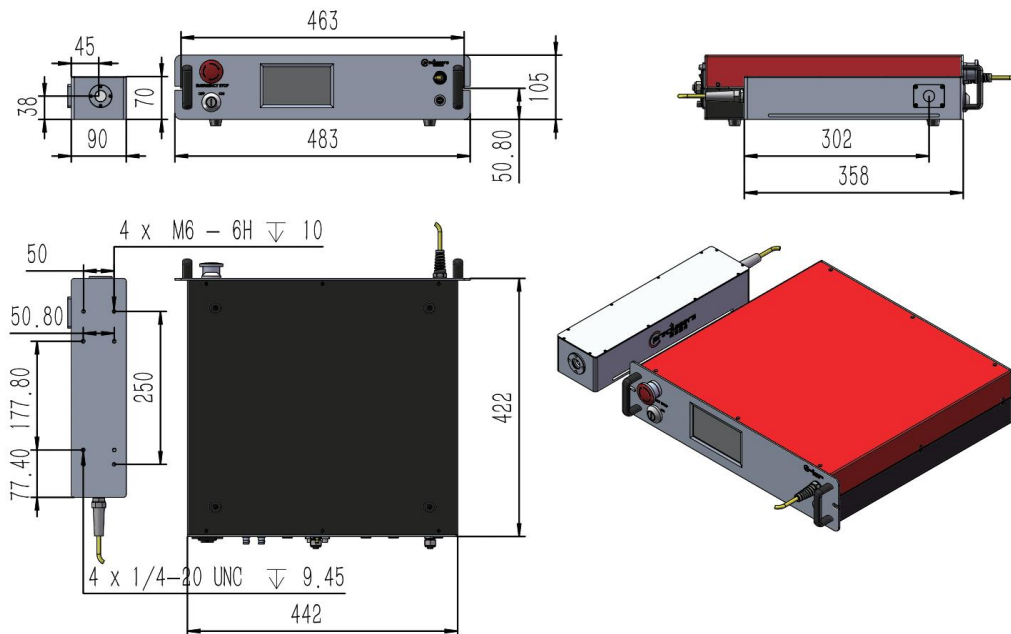
Other Parameters	
Power Supply	100V-220V, AC, 50Hz

❖ Product Dimensions

The laser consists of two parts: chassis and laser head

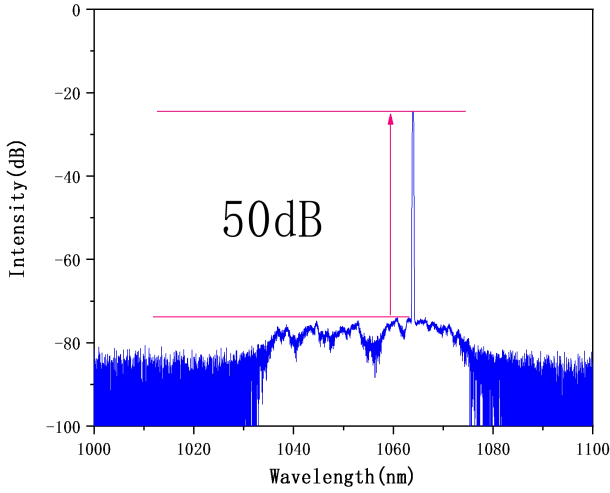


Chassis Dimensions - Air Cooling

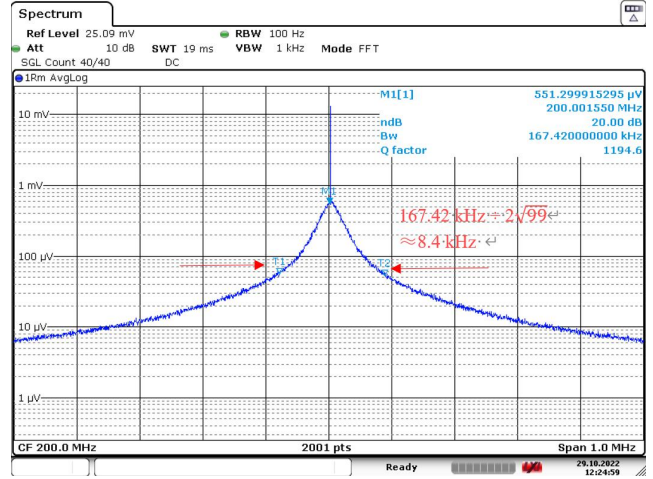


Chassis Dimensions - Water Cooling

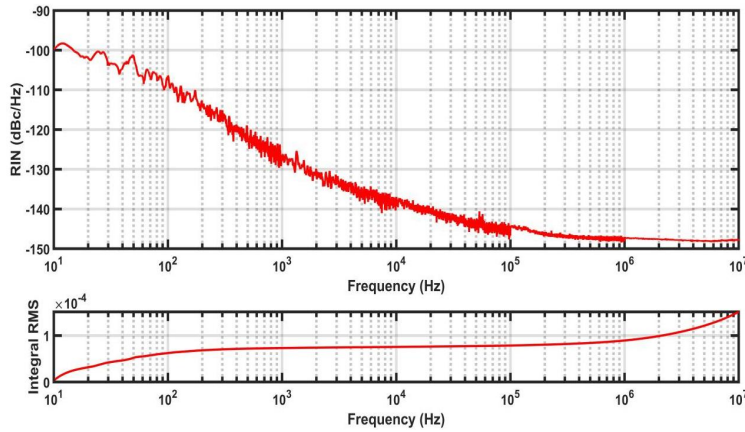
❖ Performance(typical value)



Output spectrum: signal-to-noise ratio 50dB



Line width test chart: 8.4kHz




Relative intensity noise test (RIN): 0.014% [10Hz-10MHz]



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⚠ Laser Hazard

Visible or invisible laser radiation, avoid eye or skin exposure to direct, reflected or filtered radiation.
CLASS 4 Laser Products

