

1064nm narrow linewidth laser

PreciLasers 1064nm laser has the Features of narrow linewidth and low noise, which can be used in the fields of neutral atom trapping and precision measurement.

Features

- Narrow Line width
- Tunable
- Linear polarization
- Continuous laser

Application

- Trapped neutral atoms
- Precision measurement



Optical parameters						
Selectable range of wavelength	1064nm					
Output power	5W	10W	30W	50W	100W	130W
Tuning range (temperature)	> 0.7nm					
Output mode	Spatially collimated output (1)			Fiber output		
Linewidth (2) (100us integration time)	< 5kHz(3)			< 10kHz		
Polarization extinction ratio	> 20dB					
Power stability (3 hours RMS)	< 0.75%					
Beam quality	M2 < 1.1					
Intensity Noise (10Hz-10MHz Integral)	< 0.05%					
PZT tuning range	> 3GHz					
PZT tuning bandwidth	> 5kHz					
Cooling method	Air Cooling			Water cooling		

(1) Output power \leq 30 W, Optional

(2) Measurement of fiber delay by self-heterodyne beat frequency method

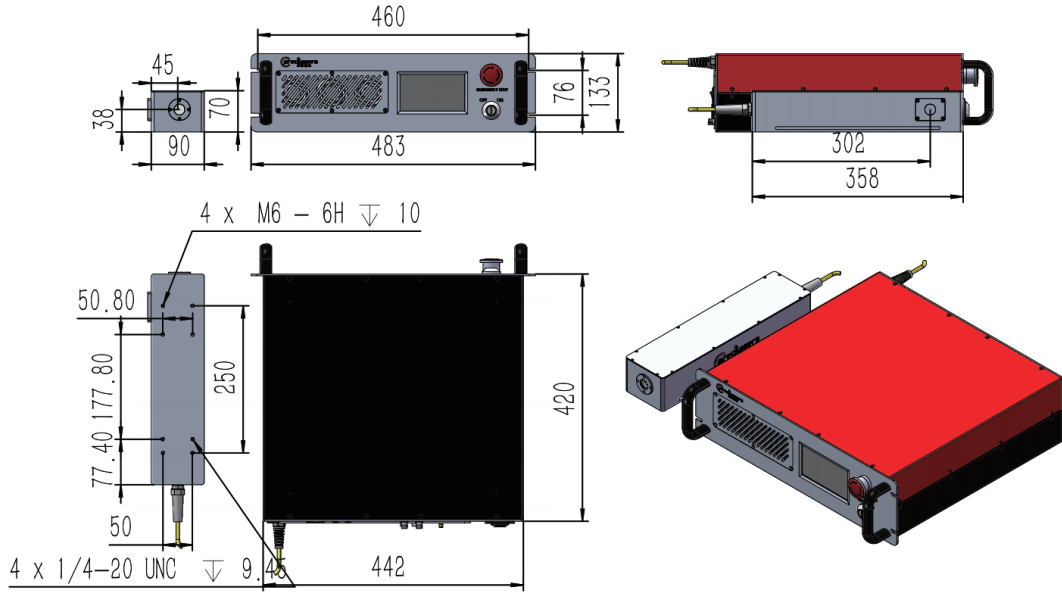
(3) Narrow linewidth Option: linewidth < 5 kHz

Options	
AOM option	AOM and VCO drive are added between the seed and the amplifier to achieve a tuning bandwidth of 500kHz and a tuning range of $> \pm 5$ MHz
EOM-RF Option	An EOM is added between the seed and the amplifier to realize sideband modulation.

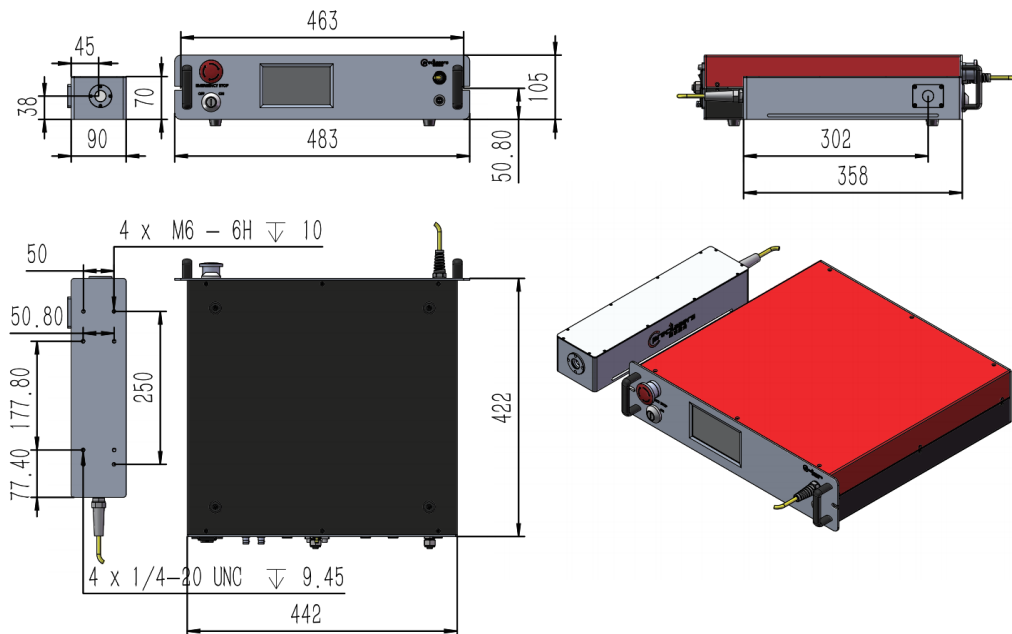
Other parameters	
Working temperature	15-25°C
Power supply	100V-220V, AC, 50Hz

◆Product Dimensions

The laser consists of a case and a laser head.

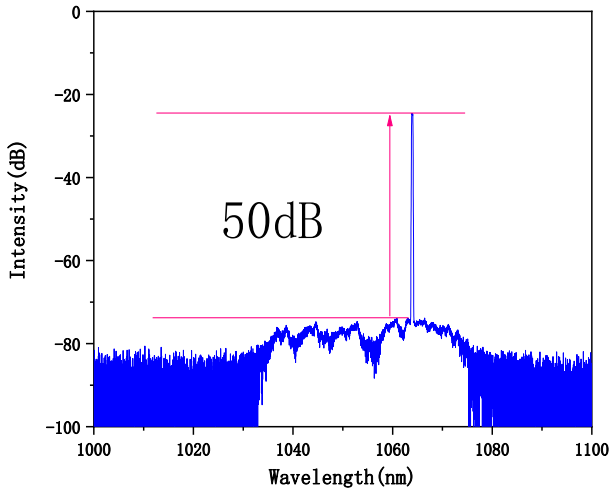


Enclosure Dimensional Drawing-Air Cooled

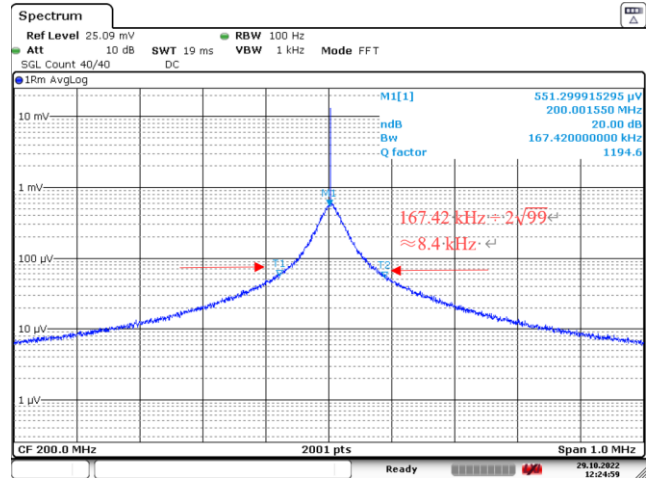


Enclosure Dimensional Drawing-Water Cooling

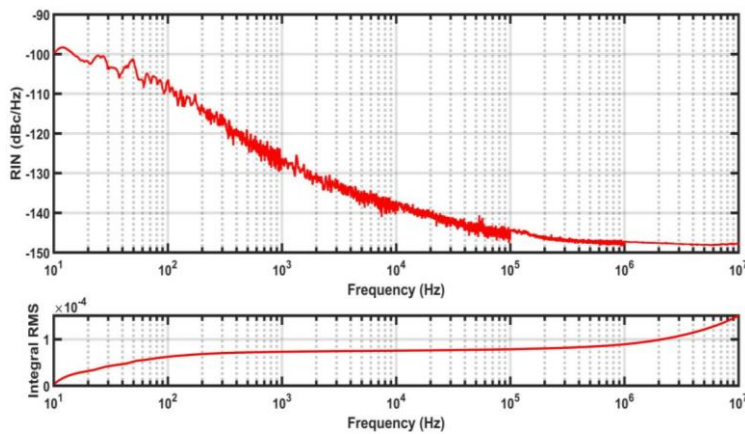
❖ Performance index test (typical value)



Output spectrum: SNR 50dB



Line width test chart: 8.4kHz



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



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