

## Narrow Line width 1550nm laser

The 1550nm laser of PreciLasers laser, with narrow Line width and low noise, can be used in the fields such as neutral atomic confinement and precision measurement.

### Features

- narrow linewidth
- tunable
- linear polarization
- Continuous laser

### Applications

- Neutral atomic captivity
- precision measurement



Optical parameters						
Central wavelength	1550nm					
Output power	1W	2W	5W	10W	20W	50W
Tuning range (temperature)	> 1nm					
Output mode	Space collimated output <sup>(1)</sup> / Optical fiber output					
Line width <sup>(2)</sup> (100us integration time)	< 2kHz					
Polarized extinction ratio	> 20dB					
Power Stability (3-hour RMS)	< 0.75%					
Beam quality	$M^2 < 1.1$					
Intensity noise (10Hz-10 MHz integration)	< 0.05%					
PZT tuning range	> 3GHz					
PZT tuning bandwidth	> 5kHz					
Cooling method	Air Cooling			Water cooling		

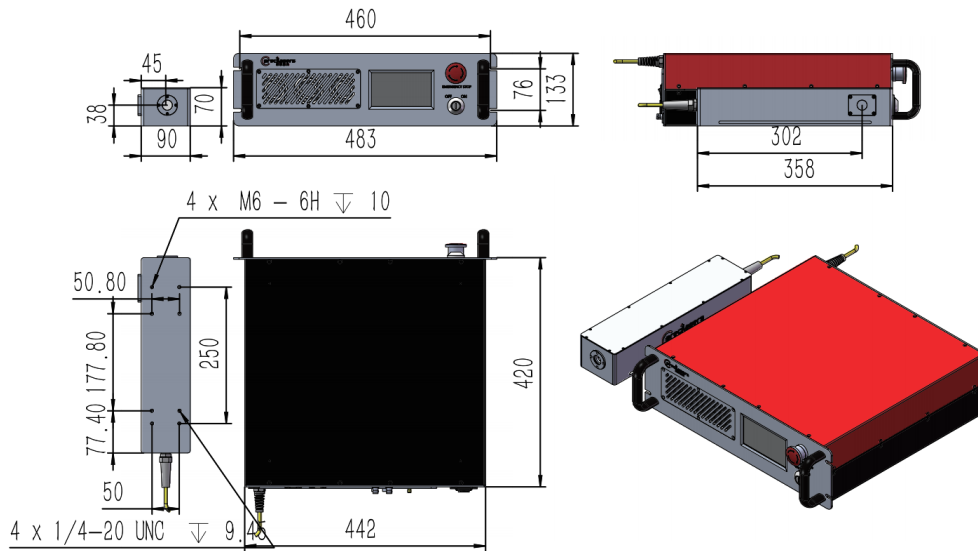
(1) Output power is 5W, Optional

(2) Measure the Line width of the seed laser from the heterobeat beat method

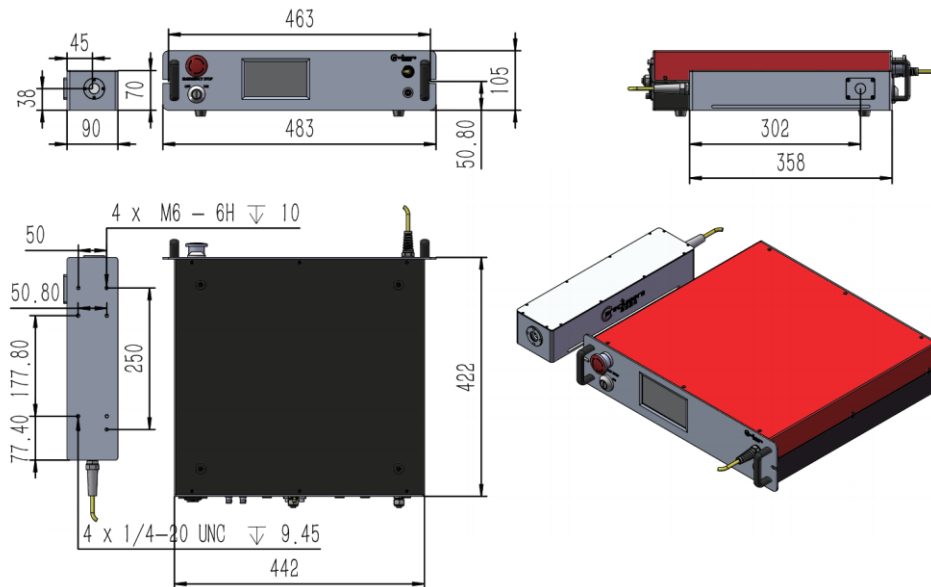
Option	
AOM option	AOM and VCO drives were added between the seed and the amplifier to achieve a 500kHz tuning bandwidth with $\pm 5$ MHz tuning range

Other parameters		
Cooling method	Air Cooling	Water cooling
Working temperature	15-25°C	
Supply electricity	100V-220V, AC , 50Hz	

❖ Product Dimensions

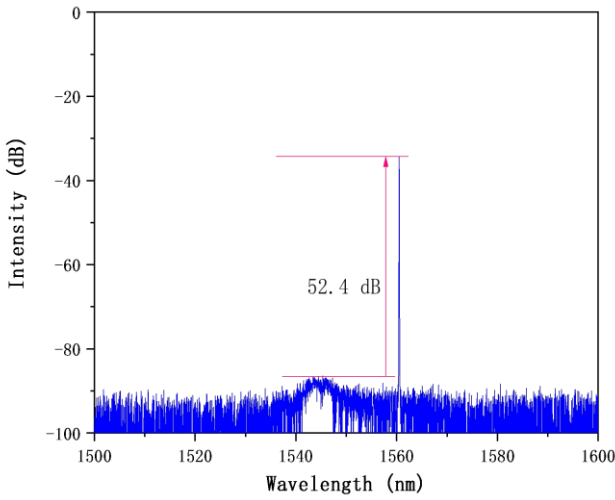


Product Dimensions-Air-cooled

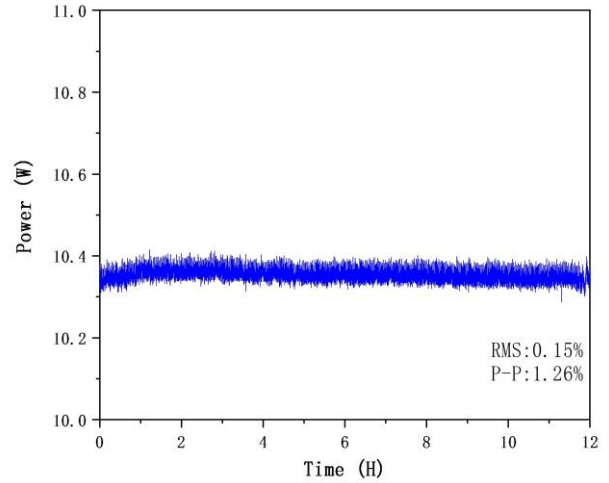


Product Dimensions-water-cooled

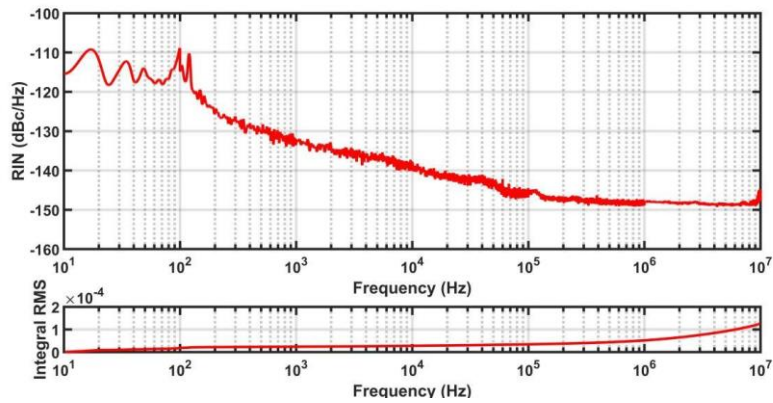
❖ Performance indicator test (typical value)



Output spectrum: signal-to-noise ratio 52.4dB



Power stability test (12h): RMS = 0.15%, P-P=1.26%




Relative Intensity Noise Test (RIN): <0.02% [10Hz-10 MHz]



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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**