

532nm narrow linewidth laser(resonance)

PreciLasers' 532nm laser uses a 1064nm laser as a seed, and is output after fiber amplification and resonant frequency doubling. It has the features of narrow linewidth, high frequency stability and low intensity noise, and can be widely used in optical precision measurement, nonlinear optical optical pumping, Quantum computing and other fields.

Features

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

application

- Optical precision measurement
- Optical Pumping for Nonlinear Optics
- Quantum computing



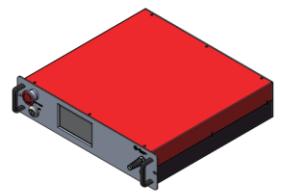
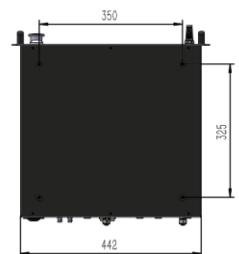
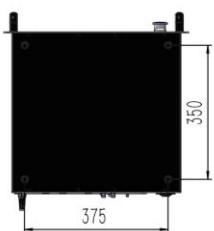
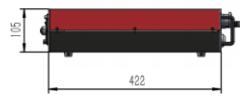
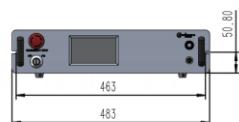
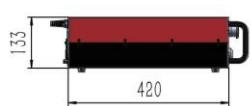
Optical parameters			
Wavelength Optional range	532nm		
Output power	15W	20W	30W
Tuning range (temperature)	$\pm 0.15\text{nm}$		
Output Mode	Spatially collimated output		
Linewidth ⁽¹⁾ (100us integration time)	< 20kHz		
Polarization extinction ratio	< 20dB		
Power Stability (3 Hours RMS)	< 0.75%		
Beam quality	$M^2 < 1.1$		
Intensity noise (10Hz-10MHz integration)	< 0.06%		
Cooling method	Air Cooling	Water Cooling	

(1) Fiber-delay self-heterodyne beat frequency method measurement

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

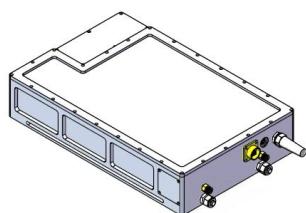
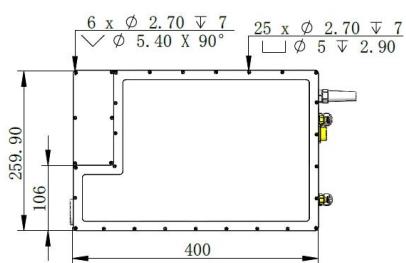
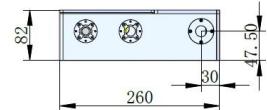
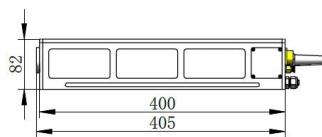
Other parameters	
Weight	< 25kg
Working temperature	15-25°C
Power consumption	< 560W
Supply electricity	100V-220V, AC, 50Hz

❖ Product Dimensions



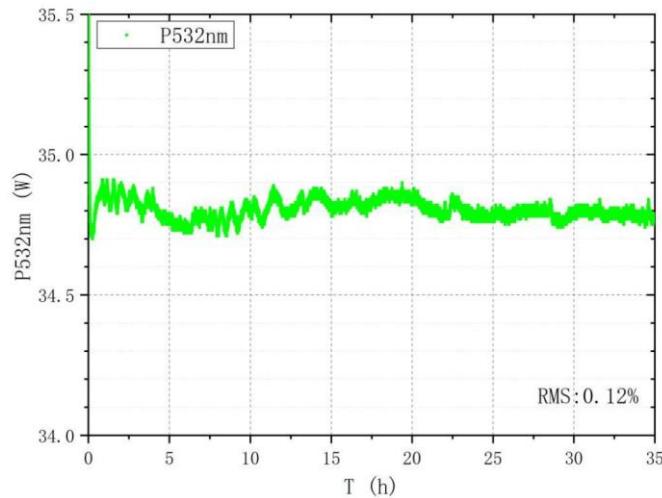
Air-cooled chassis dimensions

Water cooling chassis dimensions

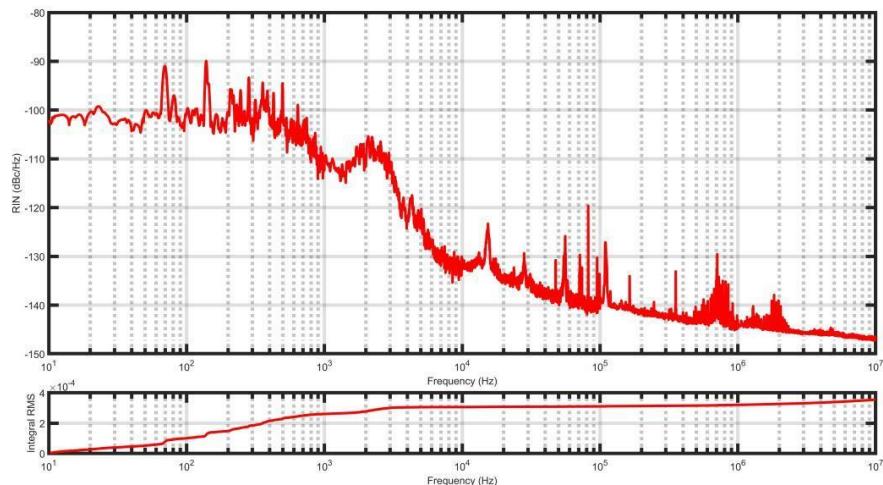


Resonant frequency doubling head dimensions

❖ Performance index test (typical value)



Power stability test chart:RMS=0.21%,35h



Relative intensity noise test (RIN) :0.04%[10Hz-10MHz]



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