



## Er-Doped Single-Pass FHG Narrow Linewidth Laser

Based on high-power, low-noise Er-doped fiber lasers amplifier and frequency quadrupling technology, Precilasers can provide high-power, narrow linewidth laser output from 382 to 399 nm.



### Features

- Narrow Linewidth
- Low RIN
- High Power
- Power Stability:  $<0.75\%_{rms}$ , 3hrs
- Excellent Beam Quality ( $M^2 < 1.1$ )
- Never Mode-hop
- High Temperature And Vibration Resistance

### Applications

- Lithium Ion, Calcium Ion, Strontium Atom Cooling
- Quantum Simulation
- Laser Spectroscopy
- Medicine And Biophotonics
- Electromagnetically Induced Transparency

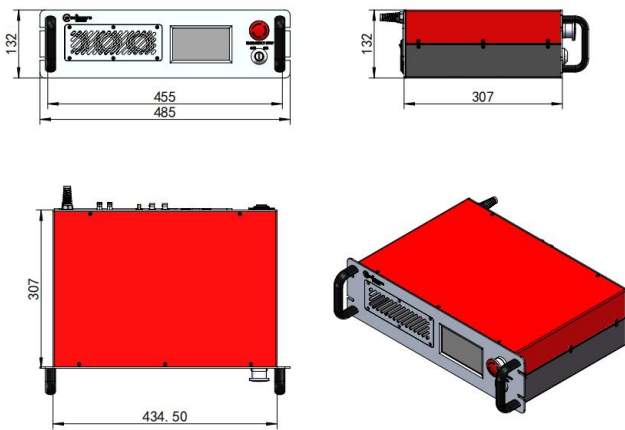
Specification			
Partnumber	FL-SF-XXXX-YY-CW <sup>(1)</sup>		
Wavelength Range	382-385nm	385-392.5nm	392.5-399nm
Typical Wavelength	385nm	390nm	399nm
Seed Laser Type	Fiber DFB Seed Laser (1530-1596nm)	Fixed External Cavity Diode Laser (FECL,1530-1596nm)	
Output Power	> 40mW		
Thermal Tuning Range	> 0.25nm, Never Mode-hop	> 30GHz, Never Mode-hop	
Output Mode	Free Space Collimated Output		
Beam Diameter <sup>(2)</sup>	0.7-1.0mm		
Power Tuning Range	5-100%		
Beam Pointing Stability	< 10 $\mu$ rad		
Linewidth <sup>(3)</sup> (100us)	< 4kHz/10kHz	< 20kHz/40kHz	
PER	linear, > 20dB		
Power Stability	< 0.75%@3hours, RMS		
Beam Quality	TEM <sub>00</sub> , M <sup>2</sup> < 1.1		
Fast Frequency Tuning Range	> 3GHz	> 1GHz	
Fast Frequency Tuning Bandwidth	> 5kHz,PZT Tuning	> 1MHz,Current Tuning	
AOM Tuning Range (Optional)	> $\pm$ 5MHz	/	
AOM Tuning Bandwidth (Optional)	> 500kHz	/	
RIN	< 0.16% (RMS,10Hz-100MHz)		
Cooling	Air Cooling/Water Cooling		
Operation Environment & Power Supply			
Temperature	15-30 °C (Air Cooling) or 15-35 °C (Water Cooling)		
Power Supply	100V-240V, AC, 50/60Hz		
Communication	RS422		

(1)XXXX is the laser center wavelength, YY is the laser power, for a 0.04W 390nm laser,the partnumberis FL-SF-390-0.04-CW

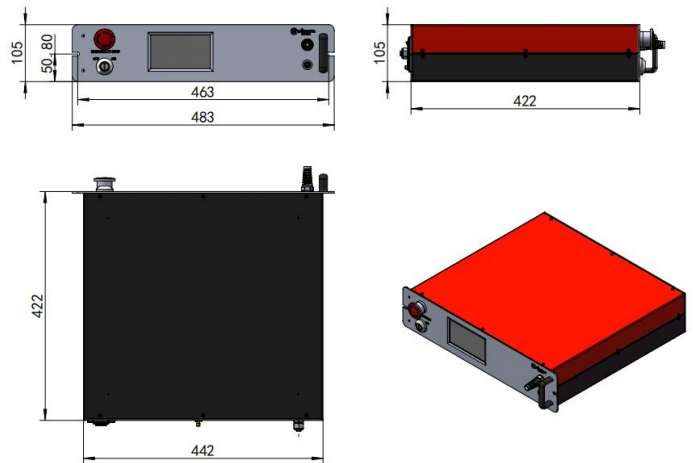
(2)Beam diameter is only applicable to free space output mode, For PM fiber output mode, the fiber without collimator

(3)Measured by self-hetrodyne method

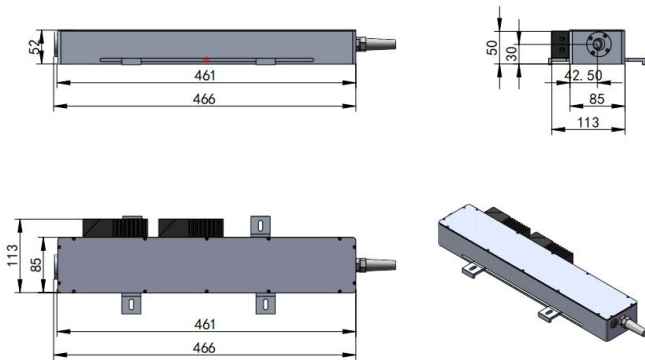
## Air Cooling Control Unit Dimension



## Water Cooling Control Unit Dimension



## Laser Head Output Dimension



ShanghaiPrecilasersTechnologyCo.,Ltd.

📍 Floor2,Building2,No.1918,XupanRoad, JiadingDistrict,Shanghai

☎️ 021-59160265

[info@precilasers.com](mailto:info@precilasers.com)

[www.precilasers.com](http://www.precilasers.com)



**⚠️ DANGER**

VISIBLE AND INVISIBLE LASER RADIATION  
AVOID EYE OR SKIN EXPOSURE TO  
DIRECT OR SCATTERED RADIATION  
CLASS 4 LASER PRODUCT