



## 589nm Narrow Linewidth Laser

Based on high-power, low-noise raman fiber lasers amplifier and frequency doubling technology, Precilasers can provide high-power, narrow linewidth laser output at 589nm



### 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

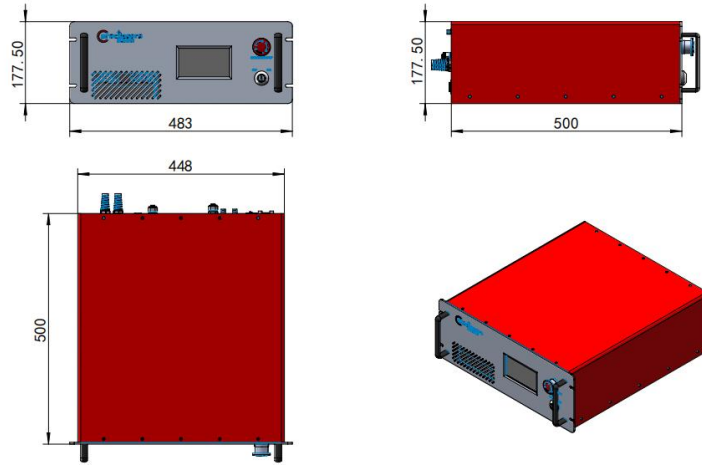
- Lithium Atom Cooling
- Quantum Simulation
- Bioscience
- Medical Beauty

Specification			
Partnumber	FL-SF-XXXX-YY-CW <sup>(1)</sup>		
Center Wavelength	589nm		
Operation Mode	CW		
Output Power	> 2W	> 10W	> 30W
Thermal Tuning Range	> 15GHz, Never Mode-hop		
Output Mode	Free Space Output		
Beam Diameter	0.7-1.0mm		
Linewidth <sup>(2)</sup> (100us)	< 40kHz		
PER	> 20dB		
Fast Frequency Tuning Range	> 500MHz		
Fast Frequency Tuning Bandwidth	> 1MHz		
AOM Tuning Range (Optional)	> ±5MHz		
AOM Tuning Bandwidth (Optional)	> 500kHz		
Power Stability	< 0.75%		
Beam Quality	$M^2 < 1.1$		
RIN (10Hz-100MHz, RMS)	< 0.75%		
Cooling	Water Cooling		
Operating Environment & Power Supply			
Temperature	15-30 °C (Air Cooling) or 15-35 °C (Water Cooling)		
Power Supply	100V-240V, AC, 50/60Hz		
Communication	RS422		

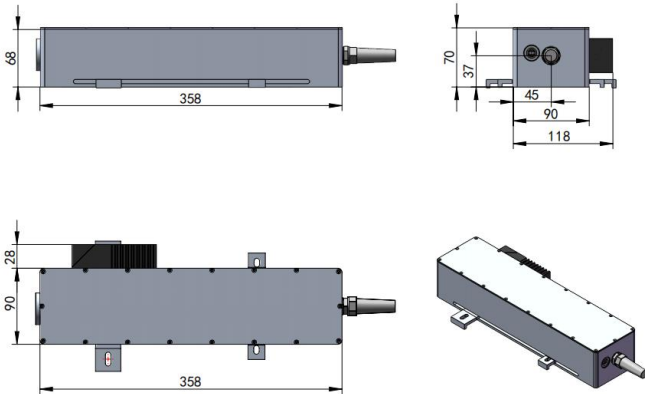
(1)XXXX is the laser center wavelength, YY is the laser power, for a 2W 589nm laser,the partnumberis FL-SF-589-2-CW

(2)Measured by self-hetrodyne method

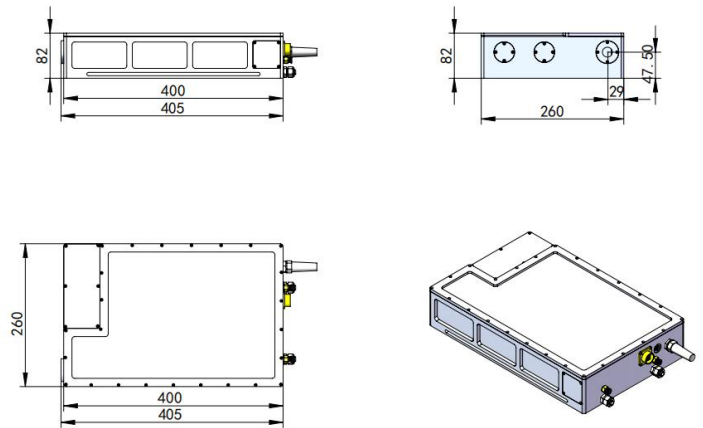
## Water Cooling Control Unit Dimension



## Laser Head Output Dimension (Output Power ≤ 2W)



## Laser Head Output Dimension (Output Power > 2W)



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

