

## 589nm narrow linewidth laser

Based on the high power and low noise Raman fiber amplification and frequency doubling technology, the high power narrow Line width laser output at 589nm is realized.

### Features

- narrow linewidth
- Low intensity noise
- high power
- Active power stability
- Excellent light beam quality
- Never mode-hop
- High and low temperature resistance, vibration of the working environment

### Applications

- Lithium atomic cooling
- Quantum simulation
- Bio-science
- Medical cosmetology



### Optical parameters

Part Number	FL-SF-XXXX-YY-CW <sup>(1)</sup>		
Central wavelength	589nm		
Operation Mode	Continuous		
Output power	> 2W	> 10W	> 30W
Output mode	Spatial collimation output, with a diameter of 0.7-1.0mm		
Tuning range (temperature)	> 15GHz, Continuous Never mode-hop		
Line width <sup>(2)</sup> (100us integration time)	< 40kHz		
Fast-frequency tuning range	> 6GHz		
Fast-frequency tuning bandwidth	> 5kHz		
Polarized extinction ratio	> 20dB		
Power Stability (3-hour RMS)	< 0.75%		
Beam quality	$M^2 < 1.1$		
Cooling method	Air cooling	Water cooling	

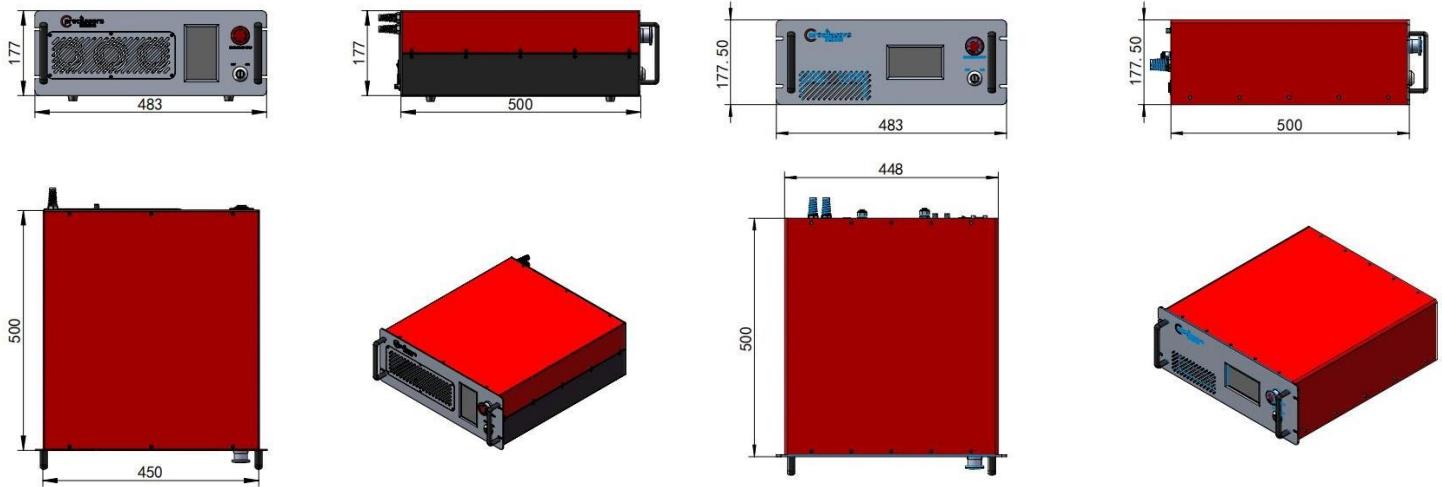
(1) XXXX center wavelength, unit nm, YY laser power, unit W, such as 589nm Output power> 2W: FL-SF-589-2-CW.

(2) Fiber optic delay from the exo-differential beat frequency method measurement.

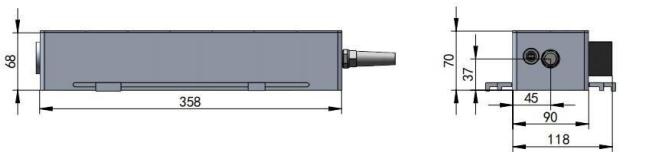
### parameters

Working temperature	15-35°C
Power consumption	< 300W
Supply electricity	100-240V AC, 50/60Hz

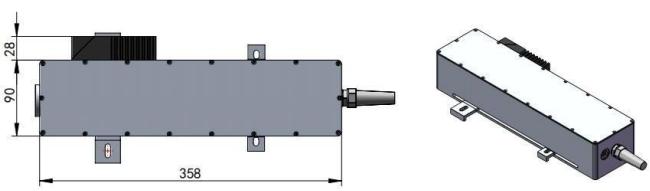
## ❖ Product Dimensions



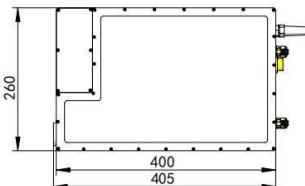
Raman Product  
Dimensions-Air-cooled



Raman Product Dimensions-  
Water-cooled



Single-pass multiplier output cavity dimensions



Size diagram of the resonant  
multiplier frequency output cavity



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