

## 390nm Narrow Linewidth Fiber Lasers

Based on single frequency seed laser, low noise fiber amplifier and high efficiency frequency convert technique, Precilasers can provide narrow linewidth 390nm CW lasers, maximum output power is 8W, features with high frequency stability, long life and good beam quality.

### Features

- Narrow Linewidth
- High Power
- Good Beam Quality

### Applications

- Precision Measurement
- Interference Lithography



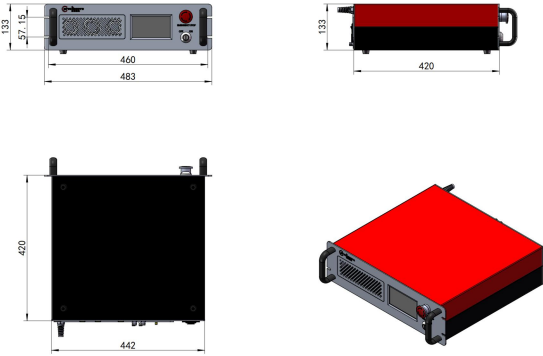
Specification				
Partnumber	FL-SF-390-X <sup>(1)</sup> -CW			
Center Wavelength	390.00nm			
Linewidth <sup>(2)</sup> (100 us integration )	<40kHz			
Operational Mode	CW			
Output Power	>50mW	>1W	>3W	>6mW >8W
Beam Diameter	1±0.15 mm			
Beam Waist Location	output aperture±0.5m			
Beam Divergence (full angle)	<1mrad			
Beam Circularity	0.9-1.1			
Beam Pointing Stability (PP)	<15μrad	<50μrad		
Beam Quality	TEM <sub>00</sub> , M <sup>2</sup> <1.3			
Polarization	linear, >20dB			
Power Stability	<0.75% @3hours, RMS			
Relative Intensity Noise	<0.2%(RMS, 10Hz-10MHz integration)			
Cooling	Air cooling/Water cooling		Water cooling	
Warm-Up Time				
Cold Start	<2 hours			
Warm Start	<30 minutes			
Demension and Weight				
Controller Size	≤483mm x 420mm x 133mm (50mW)		≤483mm x 520mm x 132mm (1W,3W,6W,8W)	
Laser head Size	≤466mm x 85mm x 50mm (50mW)		≤235mm x 468mm x 127mm (1W,3W,6W,8W)	
Chiller Size	NA		≤58cm x 29cm x 52cm	
Chiller Weight	≤25kg			
Cable length between laser head and controller	>1.5m			
Environment and Power Supply				
Operating Temperature (No condensing)	15-30 °C (Air cooling)		15-35 °C (Water cooling)	
Power Supply	100V-240V, AC, 50/60Hz			
Power Consumption	<200W			
Communication	RS422			

(1)X indicates laser power,unit in W.For example output power is 3W: FL-SF-390-3-CW.

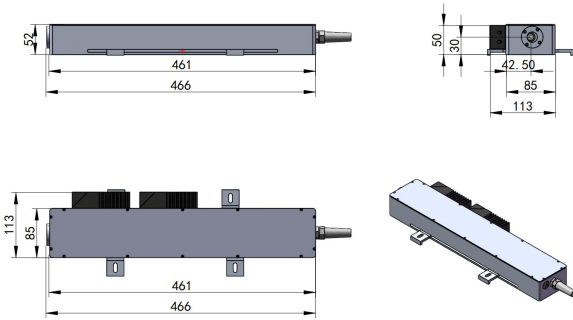
(2)Linewidth measured by delayed self-heterodyne

**Air cooling Version  
(Output Power: 50mW/1W)**

Laser Controller



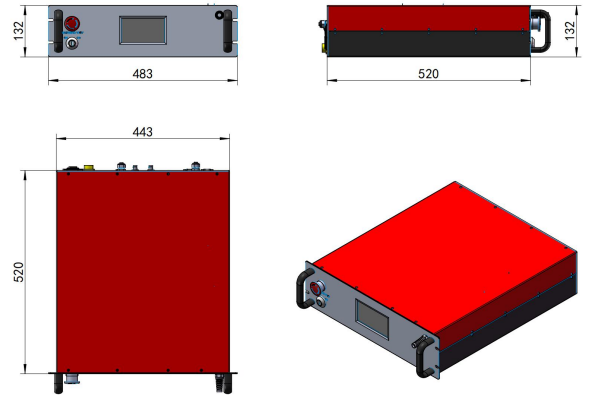
Laser Head ( 50mW)



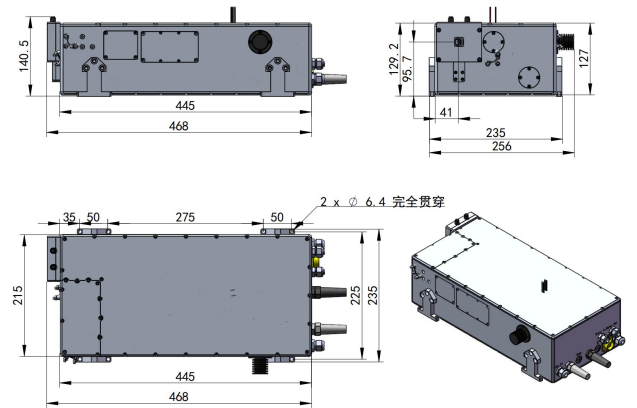
Non-dismantle fiber length  $\geq 1.5\text{m}$  between controller and laser head

**Water cooling Version  
(Output: 1W,3W,6W,8W)**

Laser Controller



Laser Head (  $\geq 1\text{W}$ )



Non-dismantle fiber length  $\geq 1.5\text{m}$  between controller and laser head



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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**