

460nm-488nm 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 460-480nm CW lasers, features with high frequency stability, long life and good beam quality.

Features

- Narrow Linewidth
- High Power
- High power Stability
- Good Beam Quality
- Never Mod Hop

Applications

- Precision Measurement
- Interference Lithography



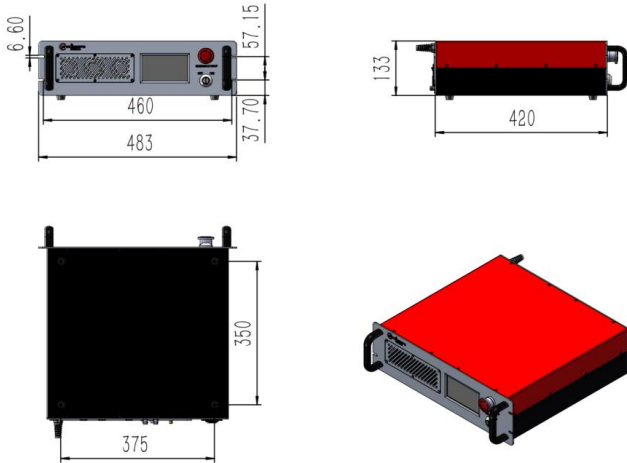
Specification			
Partnumber	FL-SF-X-Y ⁽¹⁾ -CW		
Wavelength Range	460-488nm		
Typical Wavelength	460nm, 480nm, 488nm		
Linewidth ⁽²⁾ (100 us integration)	<40kHz		
Operational Mode	CW		
Output Power	>50mW	>1W	>3W >6W
Beam Diameter	1±0.15 mm		
Beam Waist Location	output aperture±0.5m		
Beam Divergence (full angle)	<1mrad		
Beam Circularity	0.9-1.1		
Beam Pointing Stability (PP)	<15μrad	<50μrad	
Beam Quality	TEM ₀₀ , M ² <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	
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)	
Laser Head Size	≤466mm x 133mm x 52mm(50mW)	≤253mm x 455mm x 118.5mm (1W,3W,6W)	
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		
Communication	RS422		

(1)X indicates laser power,unit in W.For example output power is 1W@460nm: FL-SF-460-1-CW.

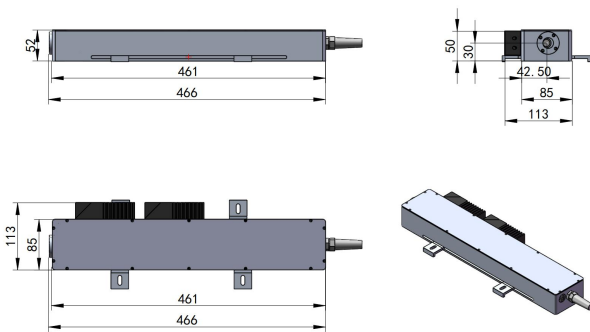
(2)Linewidth measured by delayed self-heterodyne

**Air cooling Version
(Output Power: 50mW)**

Laser Controller



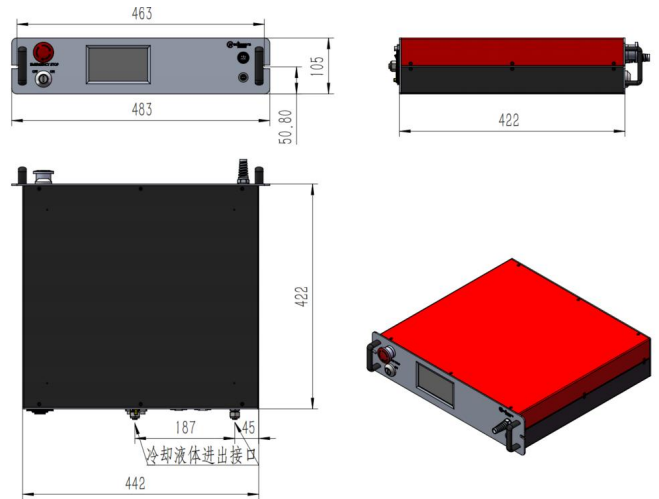
Laser Head



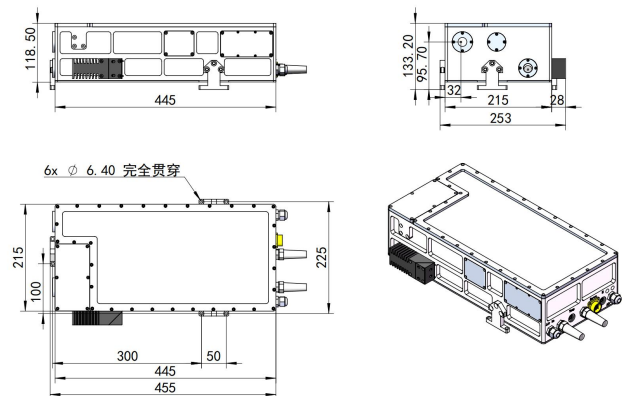
Non-dismantle fiber length $\geq 1.5\text{m}$ between controller and laser head

**Water cooling Version
(Output Power: > 1W)**

Laser Controller



Laser Head



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