

639nm Narrow Linewidth Laser

Based on single frequency seed laser, fiber laser amplification and high efficiency frequency conversion technology, Precilasers can provide narrow linewidth 639nm laser with high frequency stability, long lifetime and excellent beam quality.

Features

- High Power
- Narrow Linewidth
- Excellent Beam Quality
- Long life

Applications

- Precision Measurement
- Interference Exposure



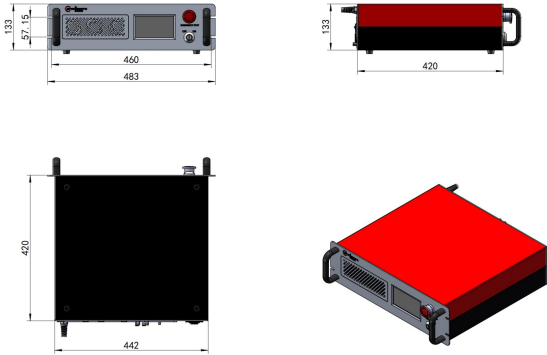
Specification			
Partnumber	FL-SF-639-X ⁽¹⁾ -CW		
Center Wavelength	639.00nm		
Linewidth ⁽²⁾ (100 us integration)	<20kHz		
Operation Mode	Continuous		
Output Power	>0.5W	>2W	>5W >10W
Beam Waist Diameter	1±0.15 mm		
Beam Waist Location Relative to Output Window (m)	Output Window±0.5m		
Beam Divergence (Full Angle)	<1mrad		
Beam Ellipticity	0.9-1.1		
Pointing Stability (μrad)	<15μrad		
Beam Quality	TEM ₀₀ , M ² <1.1		
Polarization	Linear, Vertical >20dB		
Power Stability	<0.75% @3hours, RMS		
Relative Intensity Noise	<0.2%(RMS, 10Hz-10MHz 积分)		
Cooling	Air Cooling /Water cooling	Water cooling	
Warm-up Time			
Cold Start	<2 hours		
From Standby	<30 minutes		
Dimensions & Weights			
Laser Controller Dimensions	≤483mm x 420mm x 133mm	≤483mm x 420mm x 105mm	
Laser Head Dimensions	≤358mm x 90mm x 70mm(0.5W,2W)	≤380mm x 85mm x 52mm (5W,10W)	
Chiller Dimensions	NA	≤58cm x 29cm x 52cm	
Chiller Weight	≤25kg		
Cable Length between Controller and Head	Fiber length>1.5m		
Operating Environment & Power Supply			
Temperature (No condensation conditions)	15-30 °C (Air Cooling)	15-35 °C (Water cooling)	
Power Supply	100V-240V, AC, 50/60Hz		
Power Consumption	RS422		

(1) X laser power, unit W, for example, output power 10W: FL-SF-639-10-CW.

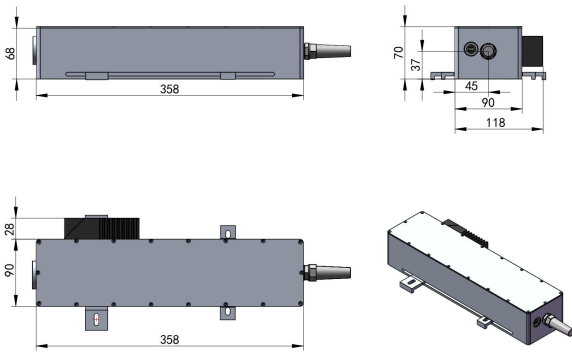
(2) Measurement of fiber delay by self-heterodyne beat frequency method

**Air Cooling Version Dimensions
(Power:0.5W & 2W)**

Laser Controller



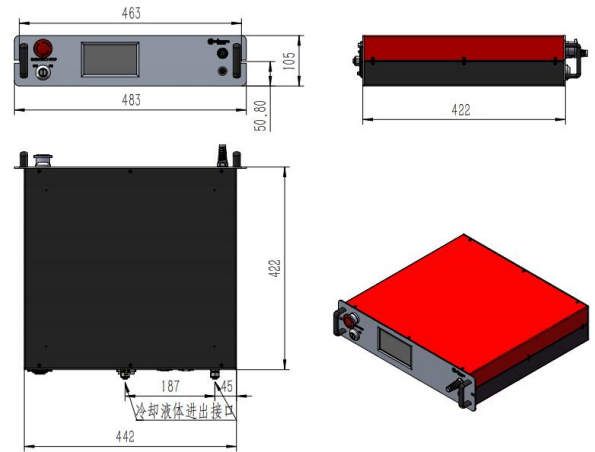
Laser Head



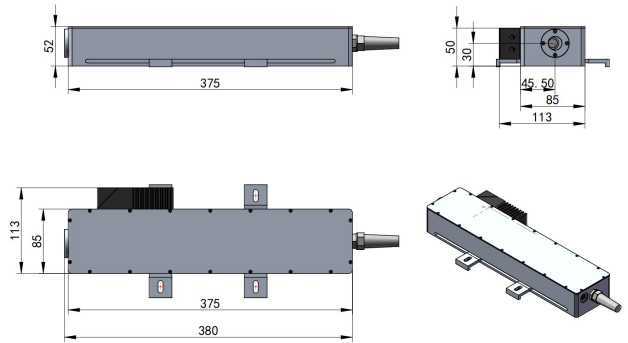
The controller and the output head are connected by a non-detachable optical fiber, the length of the optical fiber is > 1.5 meters

**Water Cooling Version Dimensions
(Power: 5W & 10W)**

Laser Controller



Laser Head



The controller and output head are connected by a detachable cable, the cable length is > 1.5 meters



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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

