

508-513nm Widely Tunable Laser

Based on high-power, low-noise ytterbium-doped fiber amplification and frequency doubling technology, widely tuned narrow-linewidth laser output in the wavelength range of 508-513nm is achieved.



Features

- Narrow Linewidth
- Low Intensity Noise
- High Power
- Excellent Beam Quality
- Never Mode-hop
- Resistant to High and Low Temperature and Vibration Working Environment

Applications

- Optical Lattices, Atomic Cooling and Trapping
- Solid-state Lasers, Dye Lasers, etc.
- Laser Medical Treatment
- Solar Cell Processing

Specification			
Partnumber	FL-SF-X-Y-CW ⁽¹⁾		
Wavelength Tuning Range	508-513nm		
Operation Mode	Continuous		
Output Power	> 0.5W ⁽²⁾	> 1W	> 2.5W > 30W
Mode-hop-free Tuning Range	> 10GHz		
Output Mode	Spatial collimation output, diameter0.6-1.0mm		
Linewidth ⁽⁴⁾ (100us integration time)	< 200kHz		
Polarization Extinction Ratio	> 20dB		
Power Stability (3 Hours RMS)	< 0.75%		
Beam Quality	M ² < 1.1		
PZT Fast Tuning Range	> 3GHz		
PZT Fast Tuning Bandwidth	> 5kHz		
Current Tuning Bandwidth	> 1MHz		
Current Tuning Range	> 1GHz		
RIN Relative Intensity Noise (10Hz-100MHz, RMS)	< 0.06%		
Cooling	Air Cooling/Water Cooling		Water Cooling
Operating Environment & Power Supply			
Temperature	15-30℃ (Air Cooling)		15-35℃ (Water Cooling)
Communication	RS422		
Power Supply	100-240V, 50/60Hz		

(1) X is the center wavelength in nm, Y is the laser power in W. For example, if the output power of 509 nm is > 1 W, then FL-SF-509-1-CW is used.

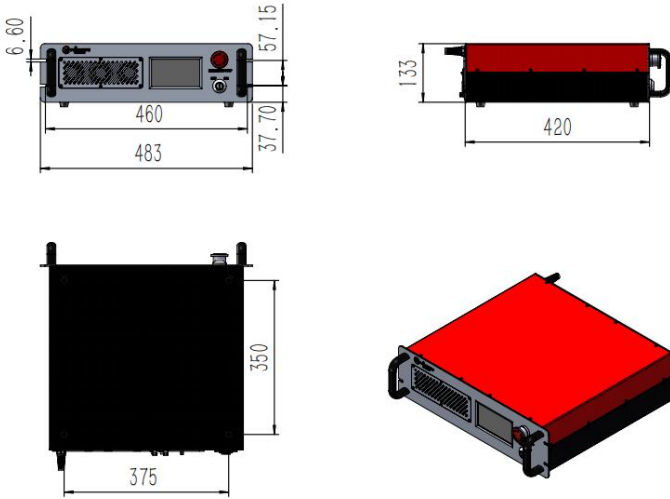
(2) Power ≤ 0.5W. Available single-mode polarization-maintaining fiber output, FC/APC connector.

(3) The wide tuning option supports a wavelength tuning range of > 5nm.

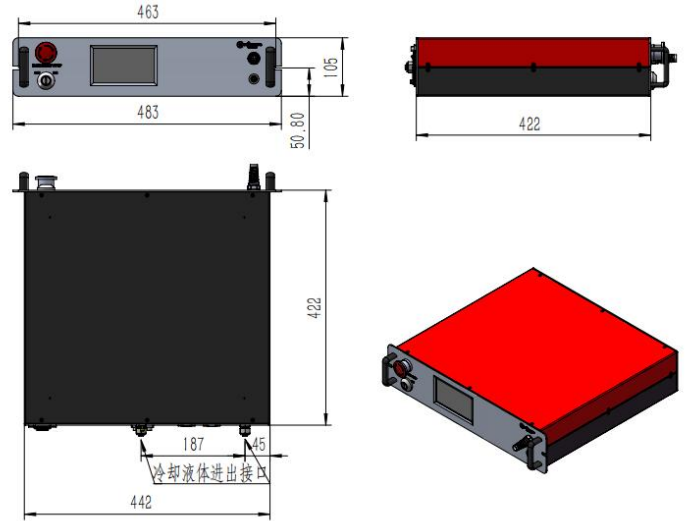
(4) Fiber delay self-heterodyne beat frequency method measurement.

❖ Product Dimensions

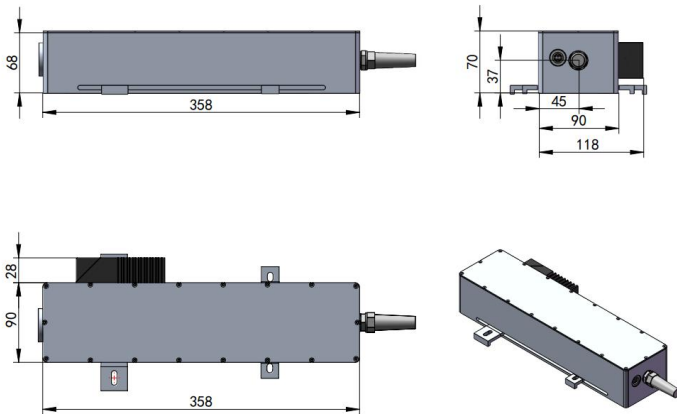
Air Cooling Version Dimensions



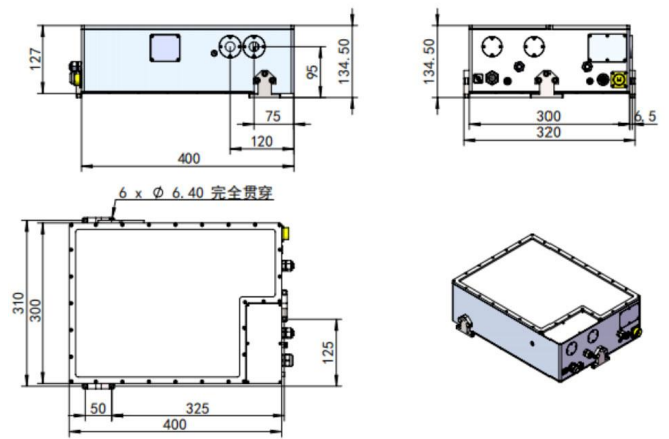
Water Cooling Version Dimensions



Laser head dimensions (power ≤ 2.5W)



Laser head dimensions (power 30W)



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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

