



Yb-Doped Single-Pass SHG Narrow Linewidth Laser

Based on high-power, low-noise Yb-doped fiber lasers amplifier and frequency doubling technology, Precilasers can provide high-power, narrow linewidth laser output from 506 to 567 nm.



Features

- Narrow Linewidth
- Low RIN
- High Power
- Power Stability: <math><0.75\%</math>rms, 3hrs
- Excellent Beam Quality ($M^2 < 1.1$)
- Never Mode-hop
- High Temperature And Vibration Resistance

Applications

- Laser cooling, trapping, Optical Lattice
- Pump laser for OPO, Ti:Sapphire
- Biomedical
- Fundamental light for UV laser

Specification					
Partnumber	FL-SF-XXXX-YY-CW ⁽¹⁾				
Wavelength Range	506-512nm	512-532nm	532nm	543-556nm	556-567nm
Typical Wavelength	509nm	515nm	532nm	556nm	567nm
Seed Laser Type	Fiber DFB Seed Laser (1012-1134nm)		Fixed External Cavity Diode Laser (FECL,1012-1134nm)		
Output Power	> 1W/2W/2.5W	> 1W/5W	> 0.2W/1.5W/10W	> 0.5W/1.5W	> 0.5W/1W
Thermal Tuning Range ⁽²⁾	> 0.35nm, Never Mode-hop		> 10GHz, Never Mode-hop		
Output Mode	PM Fiber Output, FC/APC (Output Power $\leq 0.5W$) OR Free Space Output (Compatible with all versions)				
Beam Diameter ⁽³⁾	0.7-1.0mm				
Power Tuning Range	5-100%				
Beam Pointing Stability	< 10 μ rad				
Linewidth ⁽⁴⁾ (100us)	< 6kHz/20kHz		< 20kHz/60kHz		
PER	linear, > 20dB				
Power Stability	< 0.75%@3hours, RMS				
Beam Quality	TEM ₀₀ , M ² < 1.1				
Fast Frequency Tuning Range	> 3GHz		> 1GHz		
Fast Frequency Tuning Bandwidth	> 5kHz,PZT Tuning		> 1MHz,Current Tuning		
AOM Tuning Range (Optional)	> ± 5 MHz				
AOM Tuning Bandwidth (Optional)	> 500kHz				
RIN	< 0.06% (RMS,10Hz-100MHz)				
Cooling	Air Cooling/Water Cooling				

Operation Environment & Power Supply

Operation Temperature	15-30 °C (Air Cooling) or 15-35 °C (Water Cooling)
Power Supply	100V-240V, AC, 50/60Hz
Communication	RS422

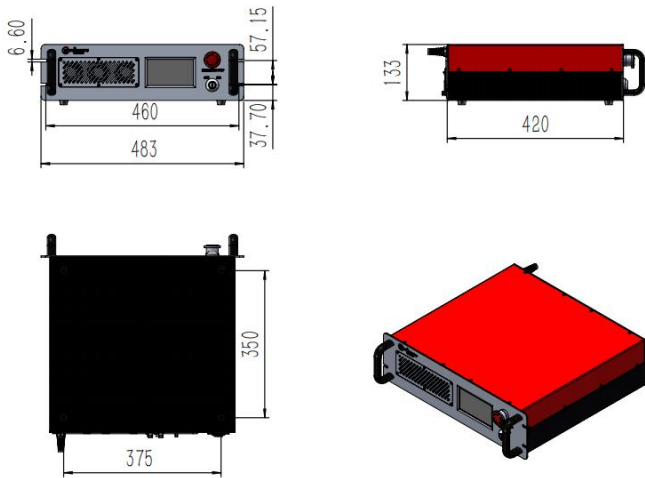
(1)XXXX is the laser center wavelength, YY is the laser power, for a 1W 509nm laser,the partnumberis FL-SF-509-1-CW

(2)Wide thermal tuning range option can made the tuning range up to >5nm

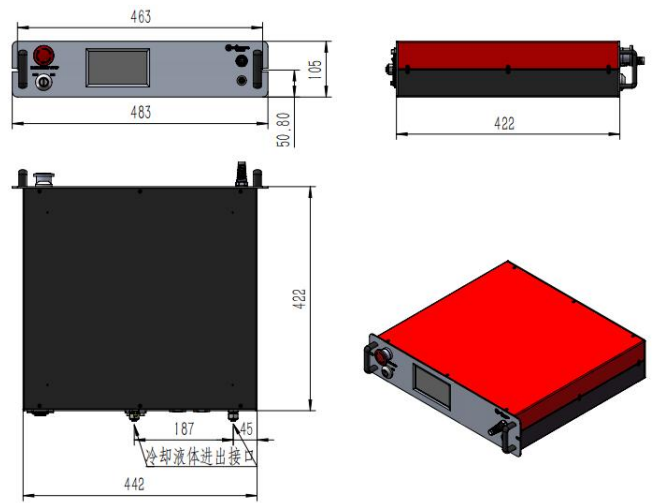
(3)Beam diameter is only applicable to free space output mode, For PM fiber output mode, the fiber without collimator

(4)Measured by self-hetrodyne method

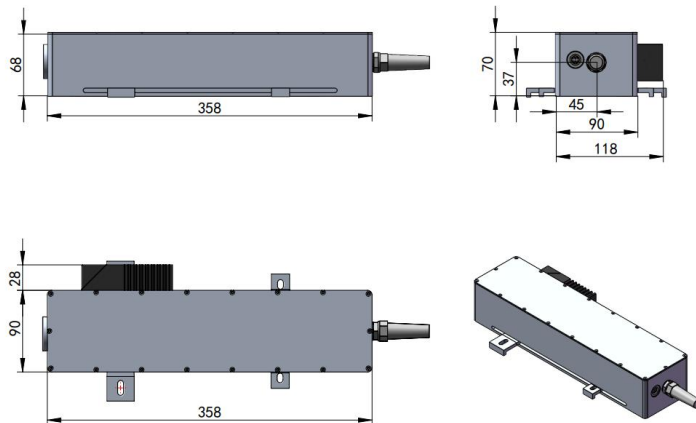
Air Cooling Control Unit Dimension



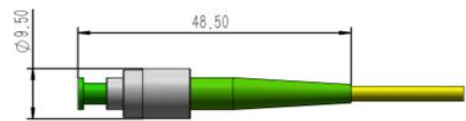
Water Cooling Control Unit Dimension



Laser Head Output Dimension



FC/APC Dimension (Applying to Output Power $\leq 2W$)



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⚠ DANGER

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