



Er-Doped Single-Pass SHG Narrow Linewidth Laser

Based on high-power, low-noise Er-doped fiber lasers amplification and frequency doubling technology, Precilasers can provide high-power, narrow linewidth laser output with a wavelength ranging from 765 to 798 nm.



Features

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

Applications

- Rb Atom Cooling
- Magic Optical Lattice
- Atom Interferometry
- Atom Clock

Specification			
Partnumber	FL-SF-XXXX-YY-CW ⁽¹⁾		
Wavelength Range	765-770nm	770-785nm	785-798nm
Typical Wavelength	767nm、770nm	780nm	795nm
Seed Laser Type	Fiber DFB Seed Laser (1530-1596nm)		Fixed External Cavity Diode Laser (FECL,1530-1596nm)
Output Power ⁽²⁾	> 0.2W/2W/6W	> 0.2W/2W/8W/15W	> 0.2W/2W/4W
Thermal Tuning Range	> 0.5nm, Never Mode-hop		> 15GHz, Never Mode-hop
Output Mode	PM Fiber Output, FC/APC (Output Power \leq 2W) 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)	< 2kHz/5kHz		< 10kHz/20kHz
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)	> \pm 5MHz		/
AOM Tuning Bandwidth (Optional)	> 500kHz		/
RIN	< 0.08% (RMS,10Hz-100MHz)		
Cooling	Air Cooling/Water Cooling		
Operating Environment & Power Supply			
Temperature	15-30 °C (Air Cooling) or 15-35 °C (Water Cooling)		
Power Supply	100V-240V, AC, 50/60Hz		
Communication	RS422		

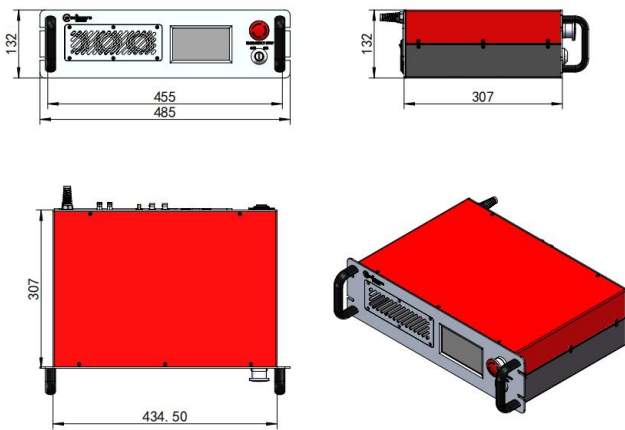
(1)XXXX is the laser center wavelength, YY is the laser power, for a 6W 770nm laser,the partnumber is FL-SF-770-6-CW

(2)If the laser output power \leq 2W, the PM fiber output version can be choosed

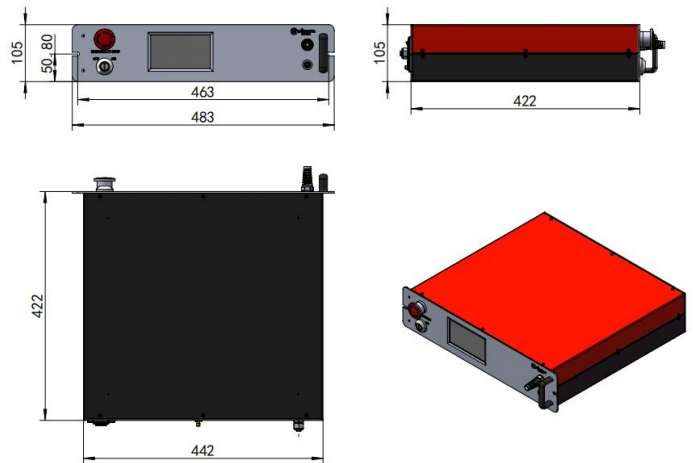
(3)Beam diameter is only applicable to free space output mode, For PM fiber output mode, the fiber without collimator

(4)Measured by self-hetrodyne method

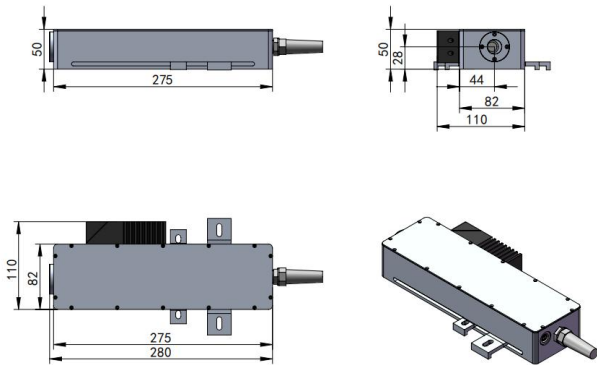
Air Cooling Control Unit Dimension



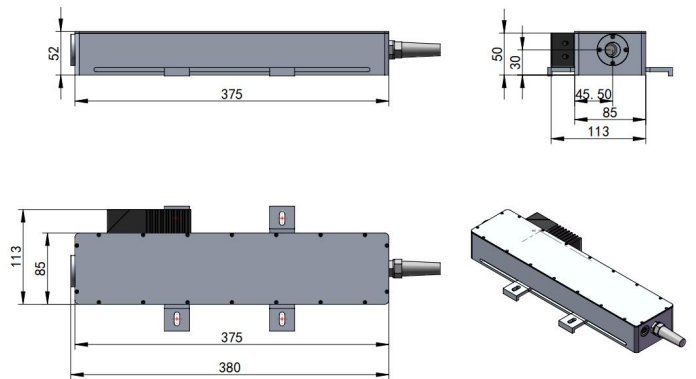
Water Cooling Control Unit Dimension



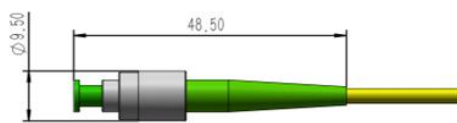
Laser Head Output Dimension



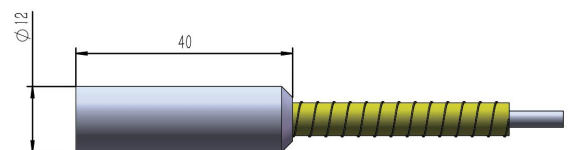
High Power Laser Head Output Dimension



FC/APC Dimension (Output Power ≤ 2W)



Collimator Dimension (Output Power ≤ 2W)



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