



Er-Doped Single-Pass FHG Narrow Linewidth Laser

Based on high-power, low-noise Er-doped fiber lasers amplifier and frequency quadrupling technology, Precilasers can provide high-power, narrow linewidth laser output from 382 to 399 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

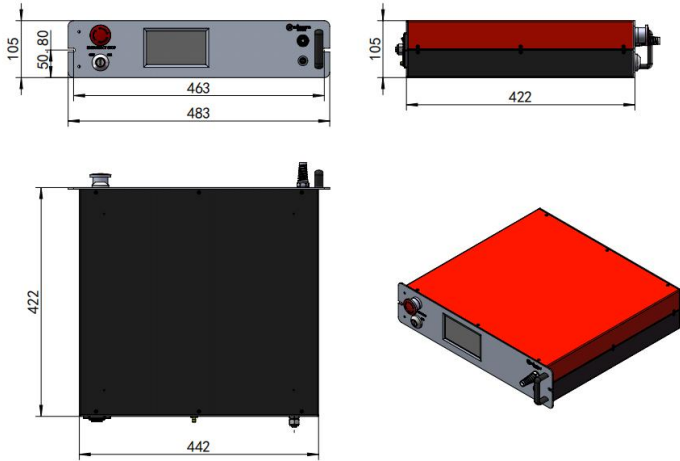
- Lithium Ion, Calcium Ion, Strontium Atom Cooling
- Quantum Simulation
- Laser Spectroscopy
- Medicine And Biophotonics
- Electromagnetically Induced Transparency



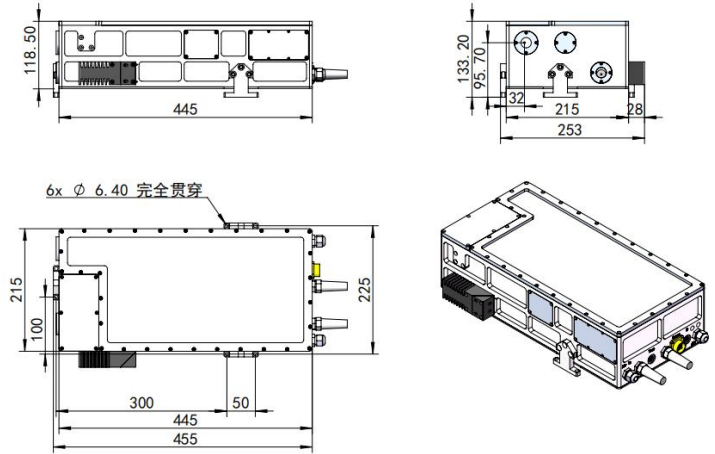
Specification			
Partnumber	FL-SF-XXXX-YY-CW ⁽¹⁾		
Wavelength Range	382-385nm	385-392.5nm	392.5-399nm
Typical Wavelength	385nm	390nm	399nm
Seed Laser Type	Fiber DFB Seed Laser (1530-1596nm)		Fixed External Cavity Diode Laser (FECL,1530-1596nm)
Output Power	> 2W/4W	> 2W/4W/8W	> 2W
Thermal Tuning Range	> 0.25nm, Never Mode-hop		> 30GHz, Never Mode-hop
Output Mode	Free Space Output		
Beam Diameter ⁽²⁾	0.7-1.0mm		
Power Tuning Range	10-100%		
Beam Pointing Stability	< 50μrad		
Linewidth ⁽³⁾ (100us)	< 4kHz/10kHz		< 20kHz/40kHz
PER	linear, > 20dB		
Power Stability	< 0.75%@3hours, RMS		
Beam Quality	TEM ₀₀ , M ² < 1.2		
Fast Frequency Tuning Range	> 3GHz		> 1GHz
Fast Frequency Tuning Bandwidth	> 5kHz,PZT Tuning		> 1MHz,Current Tuning
AOM Tuning Range (Optional)	> ±5MHz		/
AOM Tuning Bandwidth (Optional)	> 500kHz		/
RIN	< 0.3% (RMS,10Hz-100MHz)		
Cooling	Water Cooling		
Operation 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 2W 390nm laser,the partnumber is FL-SF-390-2-CW
(2)Beam diameter is only applicable to free space output mode, For PM fiber output mode, the fiber without collimator
(3)Measured by self-hetrodyne method

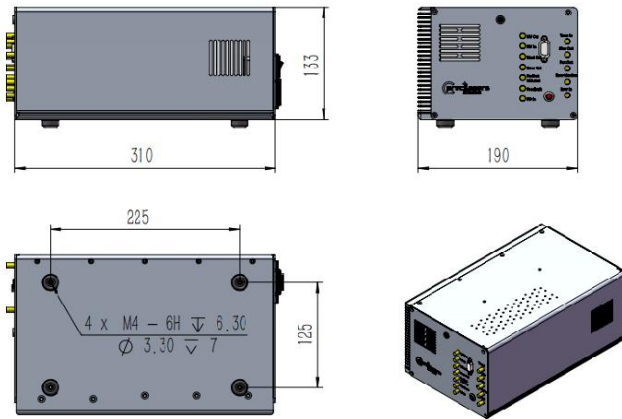
Water Cooling Control Unit Dimension



Laser Head Output Dimension



Precilock Dimension



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⚠ DANGER

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