

578nm-610nm Narrow Linewidth Laser

A thulium-doped fiber DFB laser is frequency-doubled, then sum frequency generated with a erbium-doped fiber laser to produce high-power narrow-linewidth laser output.

Features

- Narrow Linewidth
- Low Intensity Noise
- High Power
- Active Power Stabilization:<0.75%rms, 3hrs
- Excellent Beam Quality (M² <1.1)
- Never Mode-hop

Applications

- Optical Lattices, Atomic Cooling and Trapping
- Laser Medical Treatment
- Solar Cell Processing

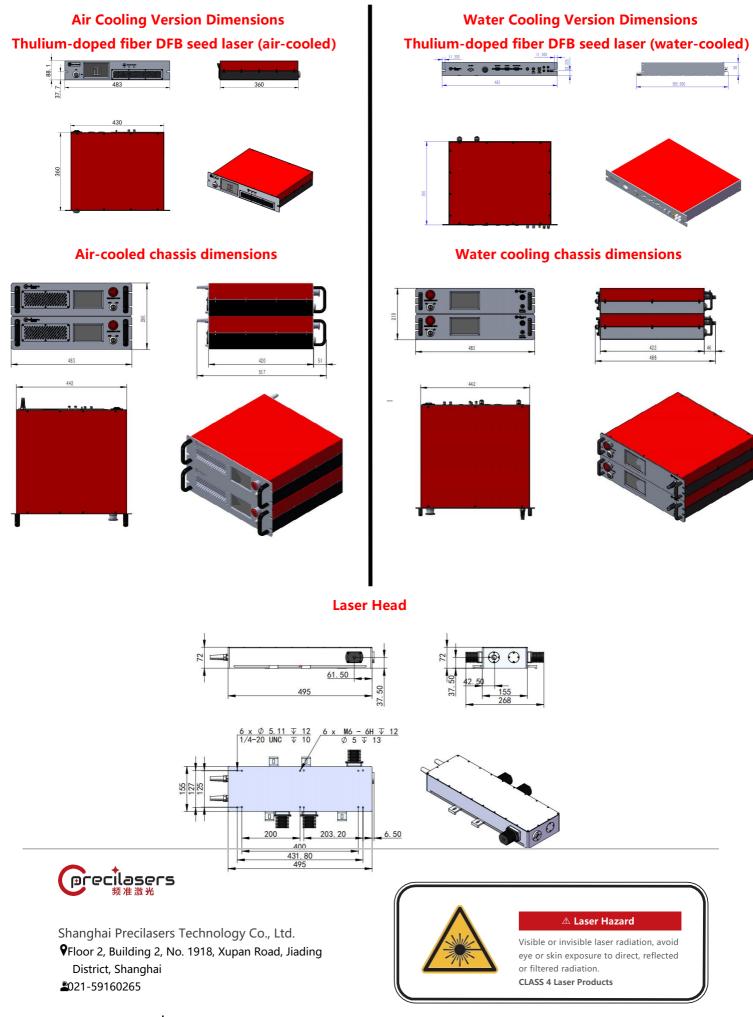




	Crecification
	Specification
Partnumber	FL-SF-XXXX-YY-CW ⁽¹⁾
Selectable Center Wavelength	578-610nm
Typical Wavelength	578nm, 594nm, 604nm
Output Power	> 2W > 5W
Tuning Range (temperature) ⁽²⁾	> 150GHz,Continuous without mode hop
Output Mode	Spatially collimated output
Beam Waist Diameter	0.7-1.0mm
Power Adjustment Range	Power adjustment range 5-100%
Pointing Stability	< 10µrad
Linewidth ⁽³⁾ (100 us integration)	< 30kHz
Polarization Extinction Ratio	Linear > 20dB
Power Stability	< 0.75%@3hours, RMS
Beam Quality	TEM ₀₀ , M ² < 1.1
Fast Tuning Range	> 3GHz
Fast Tuning Bandwidth	> 5kHz
Current Tuning Range	> 500MHz
Current Tuning Bandwidth	> 1MHz
Relative Intensity Noise	< 0.08% (RMS,10Hz-100MHz integral)
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 center wavelength, in nm, YY laser power, in W, for example, 578nm output power > 5W: FL-SF-578-5-CW
(2) The 1.5um seed can be replaced with a wide-tuning seed laser to achieve a tuning range of >2nm
(3) Measurement of fiber delay by self-heterodyne beat frequency method





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