



1U Small Size 780nm Laser (FECL)

Based on fixed external cavity semiconductor seed laser, low noise erbium-doped fiber amplifier and high efficiency frequency doubling module, as well as integrated drive circuit, Precilasers can provide 1U small volume frequency doubling 780nm laser, which is widely used in quantum precision measurement and optical precision measurement.

- **Features**
- Ultra-Small Size
- Narrow Linewidth
- Tunable
- Continuous Laser

Applications

- Rubidium Atom Quantum Computing
- Rubidium Atomic Gravimeter
- Precision Distance Measurement



Specification		
Partnumber	FECL-SF-780-X ⁽¹⁾ -1U	
Center Wavelength	780.24nm	
Output Power	> 500mW	> 2W
Operation Mode	continuous	
Tuning Range (Temperature)	> 15GHz, Continuous without mode hop	
Output Mode	Single-mode polarization-maintaining fiber	
Linewidth ⁽²⁾ (100 us integration)	< 6kHz	< 15kHz
Polarization Extinction Ratio	> 20dB	
Power Stability (3 Hours RMS)	< 0.75%	
Beam Quality	$M^2 < 1.1$	
Current Tuning Range	> 1GHz	
Current Tuning Bandwidth	> 1MHz	
RIN Relative Intensity Noise (10Hz-100MHz, RMS)	< 0.08%	
Cooling	Air Cooling	

(1) X represents power, for example, 0.5W, model number is FECL-SF-780-0.5-1U

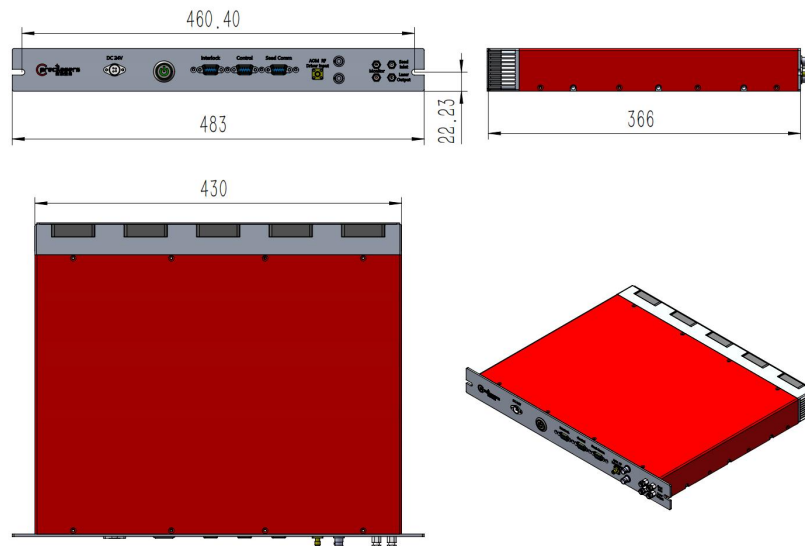
(2) Fiber delay self-heterodyne beat frequency measurement

Options	
AOM Options	AOM Tuning range: > ± 5 MHz AOM Tuning bandwidth: > 500kHz

Other Parameters	
Power Supply	100-240V , 50/60Hz

❖ Product Dimensions

1U air-cooled laser dimensions



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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

