

# HIGH POWER SINGLE FREQUENCY 1064 NM FIBER LASER

Continuous, High Power, Ultra Low Rin, Narrow Linewidth, Tunable

Precilasers offers a high-power (up to 130 W), low intensity noise, narrow linewidth highly-reliable fiber laser for the optical lattice application. It is a combination of an all-fiber Ytterbium amplifier and an ultra-narrow linewidth ECDL laser at 1064 nm. The intensity noise of the laser is < -140 dBc/Hz from 10 kHz to 10 MHz. The full protection system of the laser ensures long-term free of maintenance and long life time. The laser occupies only a The laser is compact and robust, which only occupies an area of 300\*240 mm<sup>2</sup>.



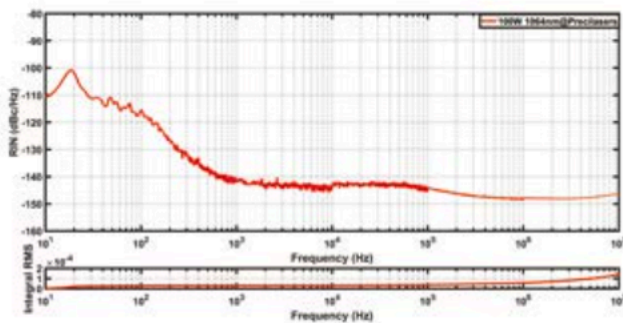
### Key Features:

- Low Intensity Noise (-140 dBc/Hz @100 kHz)
- Narrow Linewidth (<10 kHz)
- Good Beam quality ( $M^2 < 1.2$ )
- High Power (up to 130 W)
- Operation in harsh conditions
- Compact Size

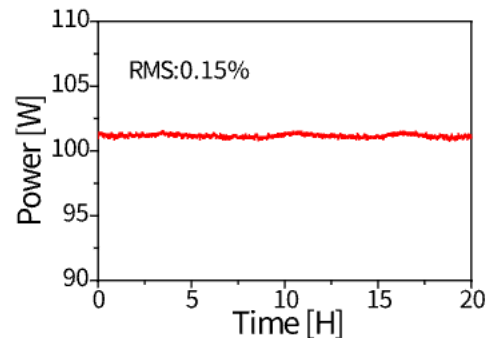
### Applications:

- Pump laser for OPO
- Optical Lattice
- Optical Traps
- Optical Tweezers
- Fundamental laser for 532 nm laser
- Holography & Interferometry
- High Resolution Spectroscopy

### Product: FA-SF-1064-100-CW

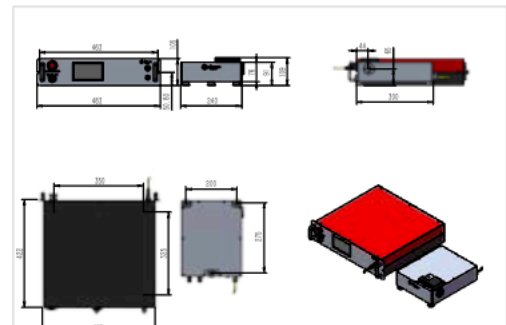


Intensity noise test of 100W single-frequency polarization fiber laser at 1064 nm

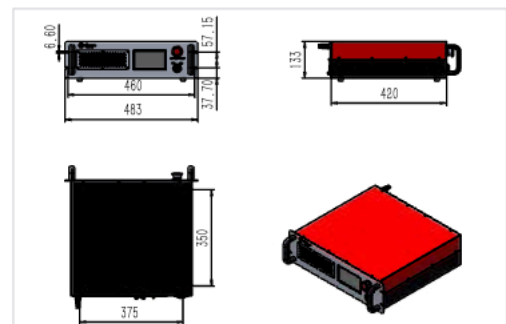


Power stability test of 100W single-frequency polarization fiber laser at 1064 nm

Model	FA-SF-XX-YY-ZZ <sup>1</sup>				
Central Wavelength , nm	1064 ± 10				
Output Power , W	10	30	50	100	130
Seed Laser Power , mW	>10				
Linewidth FWHM , kHz	Down to 5 kHz (With Precilaser' FL-SF-1XXX-S)				
Operation Mode	CW				
RIN , dBc/Hz	RMS integration: <0.03% (10Hz-10 MHz)				
Beam Quality	TEM <sub>00</sub> , M <sup>2</sup> <1.15				
PER , dB	>23				
RMS Power Stability	<0.5% @3hrs				
Output	Collimated Fiber output				
Cooling	Air Cooling		Water Cooling		
Power Supply	50-60Hz , 100-240VAC				



Size for Water-Cooling Version



Size for Air-cooling Version

1: XX: Central Wavelength; YY: Output Power; ZZ: Operation Mode;

