

## HIGH POWER SINGLE FREQUENCY ER-DOPED FIBER LASER

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

The erbium-doped single-frequency fiber amplifier can be divided into two versions according to different output power. The low-power version has a maximum output power of 15W with extremely low noise and RIN below -140 dBc/Hz (100 kHz). The high power version has a maximum output of 40W. It can be used for remote interferometry, coherent communication, and atomic physics after frequency doubling. The amplifier remains mode-hopping-free and stable under wide temperature variation and high mechanical vibration, which is great for frequency locking. The fiber laser is an optimal solution for applications in outdoor harsh conditions.



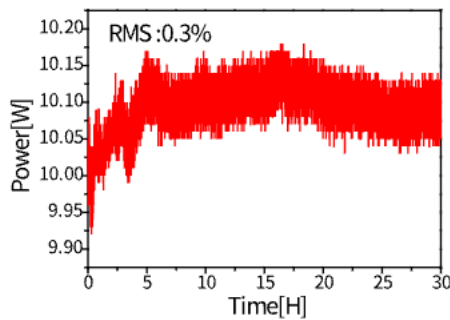
### Key Features:

- Narrow Linewidth(<1 kHz)
- Support Seed built-in, Tunable
- Extremely Low Intensity Noise (RIN -140 dBc/Hz @100 kHz)
- Excellent Beam Quality( $M^2 < 1.1$ )
- Seed Power off Protection System

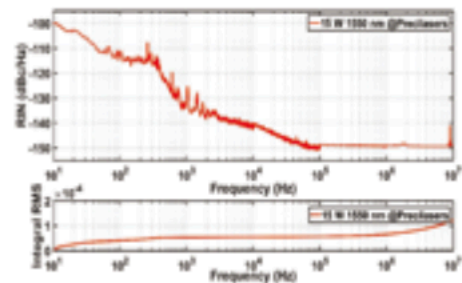
### Applications:

- Optical Communication
- Laser Lidar
- Pump Laser for Frequency Doubling
- Interferometry
- Pump Laser for OPO

### Product: EFA-SF-1550-10-CW



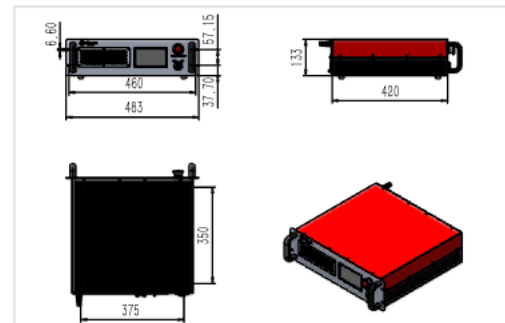
Power stability test of 10 W 1550 nm fiber amplifier



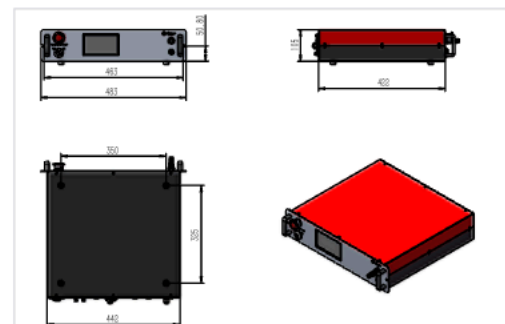
Relative intensity noise test of 10 W 1550 nm fiber amplifier

Model	EFA-SF-XX-YY-ZZ <sup>1</sup>	
Central Wavelength, nm	1535-1605	
Output Power, W	15	40
Seed Laser Power, mW	>1	>1
Linewidth FWHM, kHz	Down to 1 kHz (With Precilaser' DL-SF-1XXX-S or EFL-SF-1XXX-S)	
Operation Mode	CW	CW
RIN, dBc/Hz	RMS Integration: <0.05% (10Hz-10 MHz)	RMS Integration: <0.2% (10Hz-10 MHz)
Beam Quality	TEM <sub>00</sub> , M <sup>2</sup> <1.1	
Polarization, dB	>20	>20
RMS Power Stability	<0.5 % @ 3hrs	
Output	Collimated Output	
Cooling	Air Cooling	Water Cooling

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



Size for Air-cooling Version



Size for Water-Cooling Version

