High power single frequency Er-doped fiber laser

The product description

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 modehopping-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.

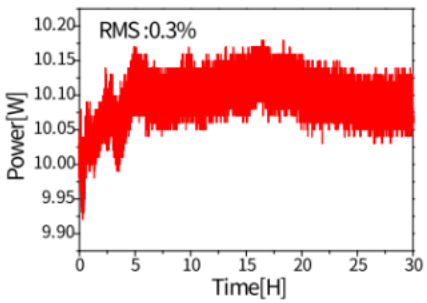
Key Features:

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

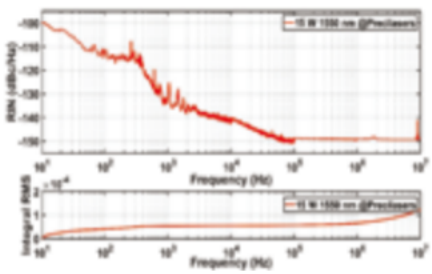
Applications:

- 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

Technical indicators

Model	EFA-SF-XX-YY-ZZ¹
Central Wavelength , nm	1535-1605
Output Power, w	15 40

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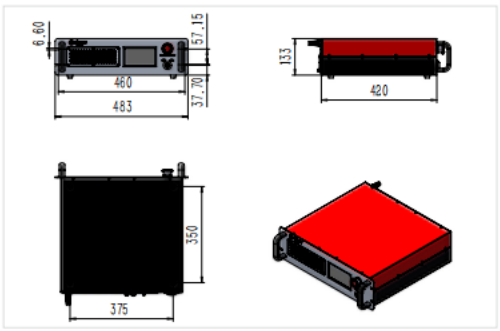
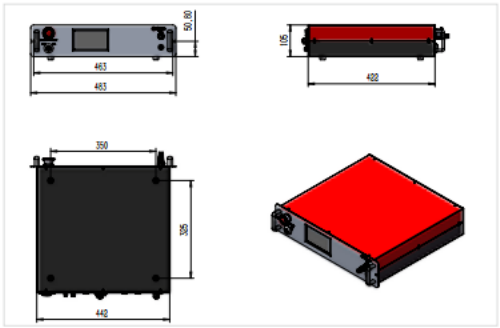
Seed Laser Power , mW	>1
Linewidth FWHM , kHz	Down to 1 kHz(With Precilaser' DL-SF-1XXX-S or EFL-SF-1XXX-S)
Operation Mode	CW
RIN, dBc/Hz	RMS Integration: <0.05% (10Hz-10 MHz) RMS Integration: <0.2% (10Hz-10MHz
Beam Quality	TEM00, M2 <1.1
Polarization, dB	>20
RMS Power Stability	<0.5 %@3hrs
Output	Collimated Output
Cooling	Air Cooling Water Cooling
1: XX: Central Wavelength；YY: Output Power；ZZ: Operation Mode	

Structure size



Size for Air-cooling Version



Size for Water-Cooling Version

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