

Narrow linewidth Yb-doped fiber lasers(1016nm-1134nm)

Based on Yb-doped fiber DFB seed laser and Yb-doped fiber amplifier, Precilasers can provide narrow linewidth lasers in 1016-1134nm range, and maximum power of 160W, all of these lasers has very low phase noise and intensity noise.



Feature

- Low phase noise
- Low intensity noise
- Good beam quality

Application

- Pumping lasers for OPO
- Optical lattice
- Precision measurement

Specification

Partnumber	FL-SF-X-Y-CW ⁽¹⁾				
Wavelength range	1016-1020nm	1020-1080nm	1080-1095nm	1095-1110nm	1110-1134nm
Output power	> 2W/10W/30W/50W/100W	> 2W/10W/30W/50W/100W/130W/160W	> 2W/10W/30W/50W/100W	> 2W/10W/30W	> 2W/5W/10W
Frequently used wavelength	1018nm, 1064nm, 1112nm				
Seed laser type	Fiber DFB seed laser (1016-1134nm)		Fixed external cavity diode laser (FECL, 1525-1625nm)		
Linewidth(100s Integration Time)	<3kHz/5kHz		<10kHz/30kHz		
Total tuning range (Temperature)	>0.7nm		>5GHz		
Fast tuning bandwidth	>5kHz, PZT tuning		>1MHz, Current tuning		
Fast tuning range	>3GHz/10GHz		>500MHz		
AOM tuning bandwidth (optional)	>500kHz				
AOM tuning range (optional)	>±5MHz				
Relative intensity noise	<0.03% (RMS, 10Hz-10MHz integration)				
Power stability	<0.75% @3hours, RMS				
Power tuning range	1-100%				
Output mode	PM fiber with FC/APC connector (Power≤2W) OR Free space collimated output (For all power)				
Beam diameter ⁽²⁾	0.6±0.2mm(Power≤30W), 1.7±0.2mm(Power>30W)				
Pointing stability	<±2μrad/°C				
Beam quality	TEM ₀₀ , M ² <1.1				
Polarization	Linear, >23dB				
Output isolaton	>25dB				
Cooling	Air cooling (Power≤20W)/Water cooling (For all power)				

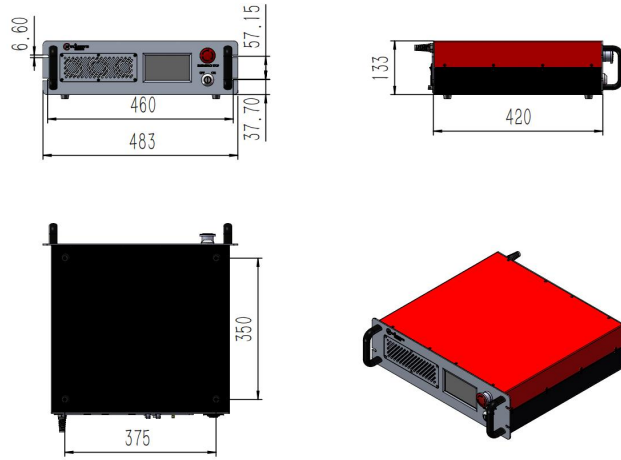
Environment and Power supply

Temperature	15-30 °C (Air cooling) OR 15-35 °C (Water cooling)
Power supply	100V-240V, AC, 50/60Hz
Communication	RS422

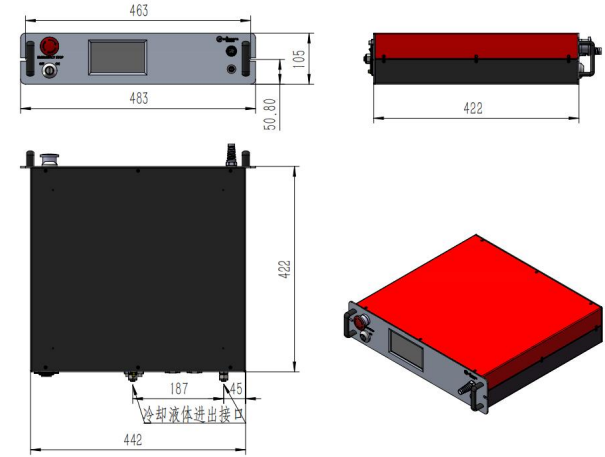
(1)X is the center wavelength, Y is the laser power, for a 100W 1064nm laser, the partnumber is FL-SF_1064-100-CW

(2) Beam diameter for free space collimated output, not for FC/APC PM fiber output

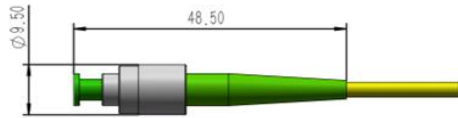
Air cooling size (Power≤20W)



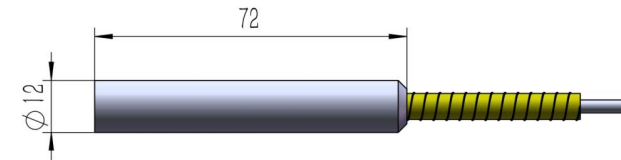
Water cooling size (For all power)



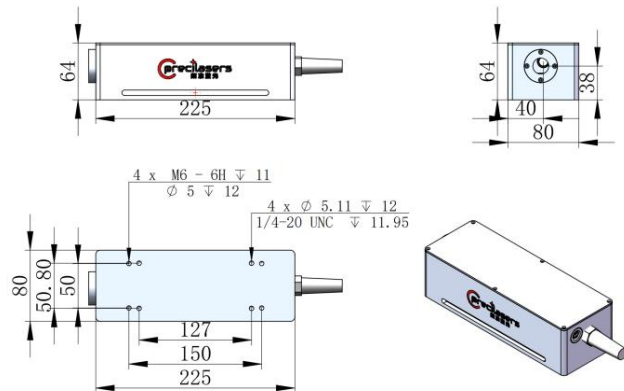
FC/APC connector (Power≤2W)



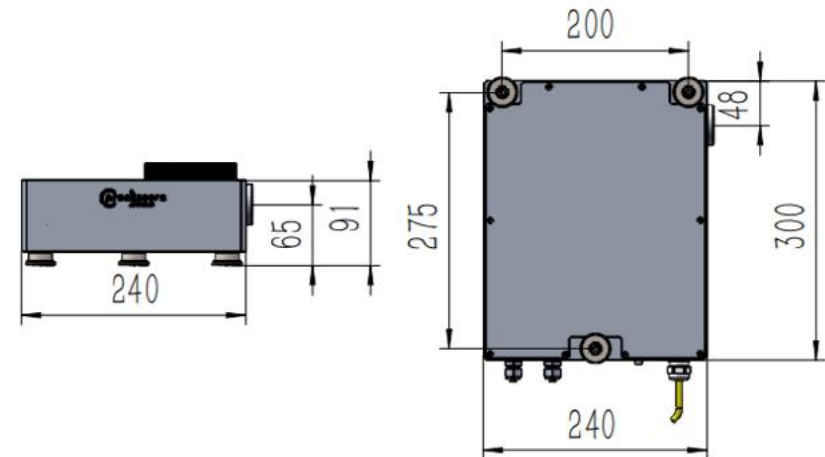
Collimator size (Power≤20W)



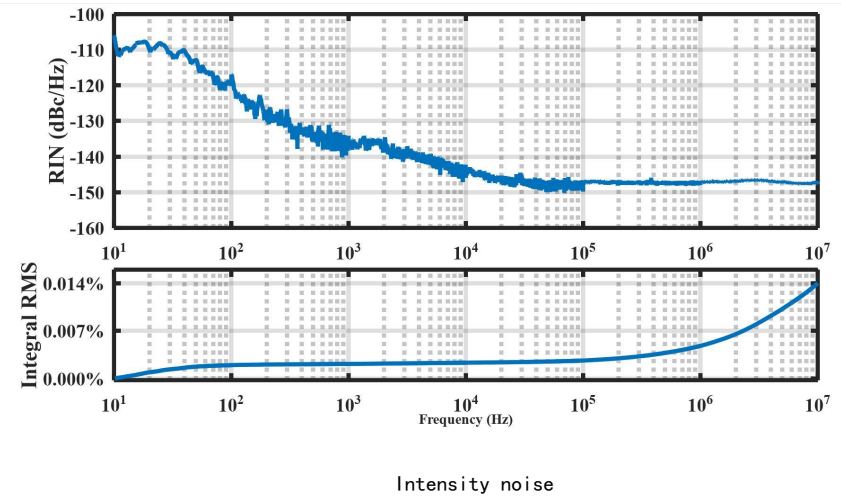
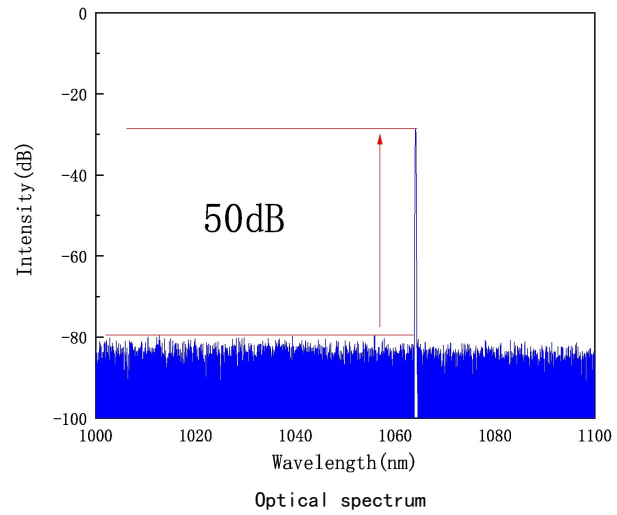
Laser head (Power ≤50W)



Laser head (Power>50W)



❖ Test data (typical)



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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