



窄线宽激光器 (671nm-710nm)

基于窄线宽的光纤DFB激光器，低噪声光纤放大器和高效率的和频模块，频准激光可以提供高功率窄线宽的671-710nm激光器。广泛的应用于锂原子的量子模拟等领域。

特点

- 窄线宽
- 可调谐
- 线偏振
- 长寿命

应用

- 量子模拟



光学参数

型号	FL-SF-XXX-Y-CW ⁽¹⁾				
波长范围	670-710nm				
常用波长	670.90nm, 679nm, 689nm, 698nm, 707nm				
输出功率	>0.2W	>1W	>2W	>5W	>8W
运行模式	连续				
调谐范围 (温度)	>0.3nm, 连续不跳模				
输出模式	单模保偏光纤				
线宽 ⁽²⁾ (100us积分时间)	<10kHz		<20kHz		
偏振消光比	>20dB				
功率稳定性 (3 小时 RMS)	<0.75%				
光束质量	$M^2 < 1.1$				
PZT调谐范围	>3GHz				
PZT调谐带宽	>5kHz				
冷却方式	风冷			水冷	

(1) XXX代表波长的整数部分, 单位为nm, Y代表输出功率, 单位为W, 例如2W的671nm激光器, 型号为FL-SF-671-2-CW.

(2) 光纤延迟自外差拍频法测量

选件

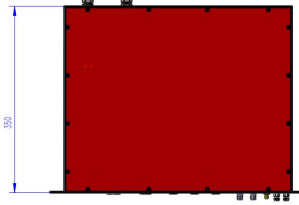
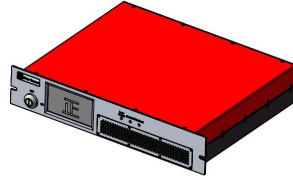
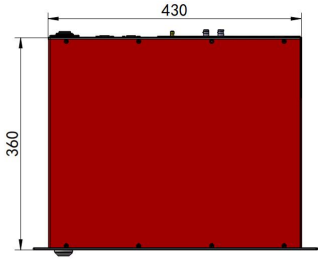
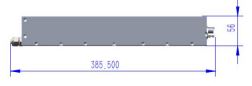
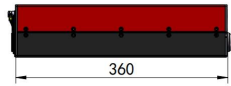
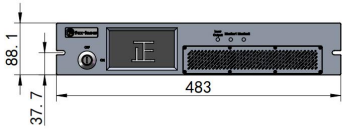
AOM选件	在种子和放大器之间加入 AOM和VCO驱动, 实现 500kHz调谐带宽, >±5MHz调谐范围
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其他参数

工作温度	15-25°C
供电	100V-240V, AC, 50/60Hz

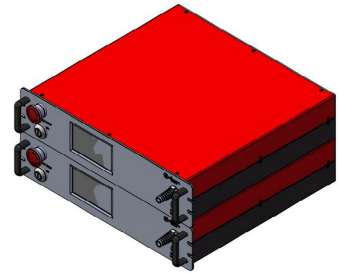
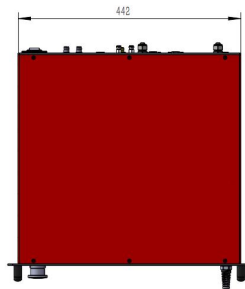
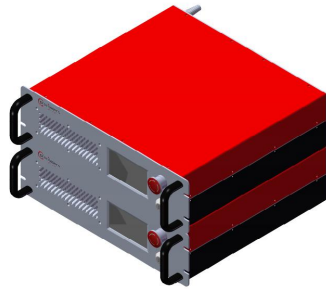
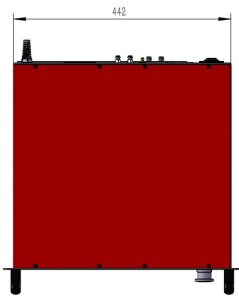
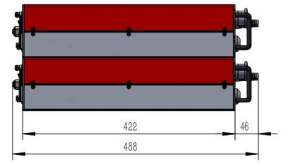
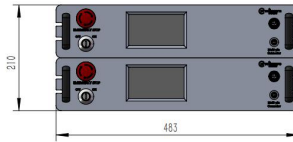
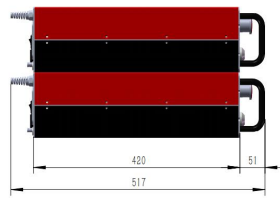
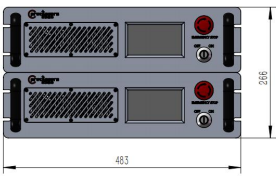
风冷版本尺寸

水冷版本尺寸



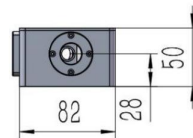
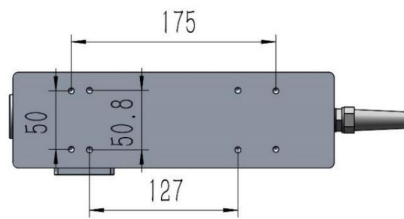
掺铥光纤DFB种子激光器-风冷

掺铥光纤DFB种子激光器-水冷



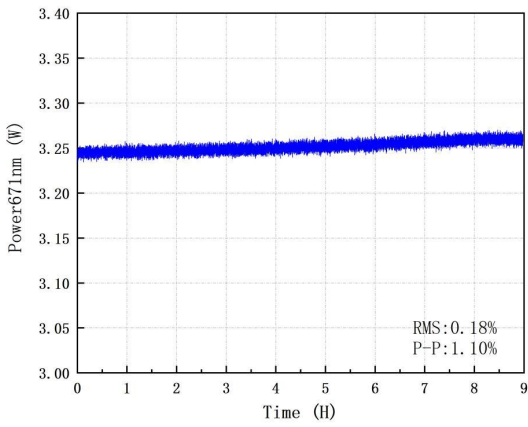
机箱-风冷

机箱-水冷

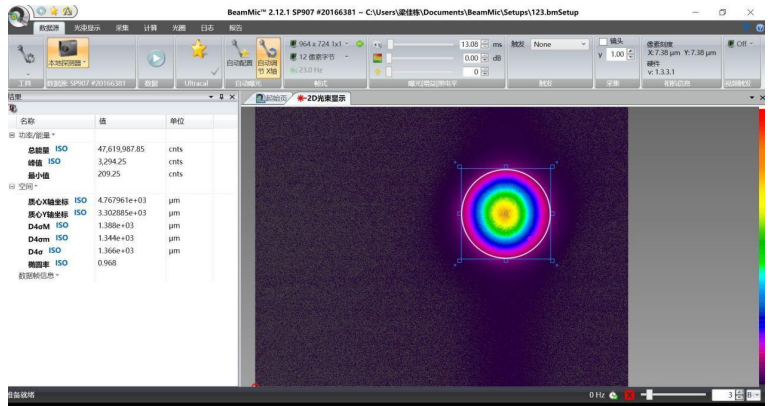


激光头尺寸

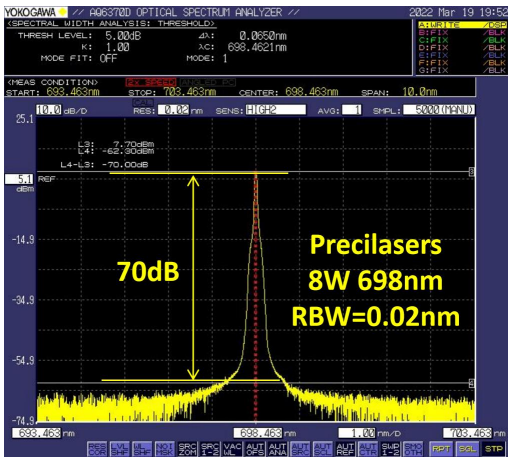
❖ 性能指标测试（典型值）



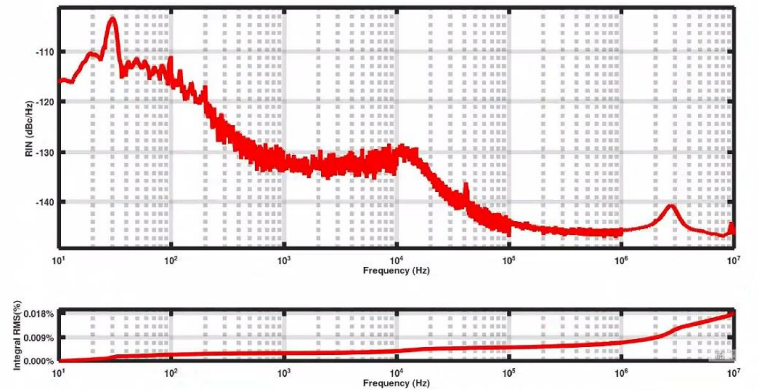
功率稳定性测试



光斑质量, $M^2 < 1.1$, 椭圆度 0.96



光谱信噪比测试



8W 698nm 强度噪声



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