



FL-SLM Series (775-785nm)

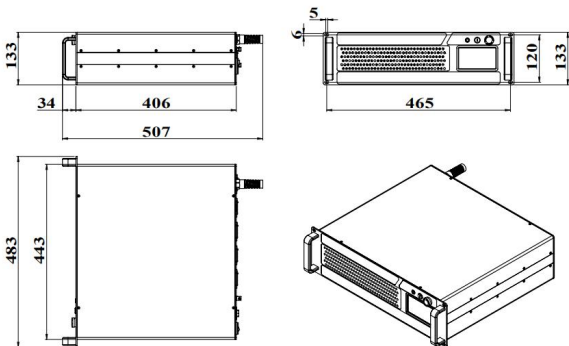
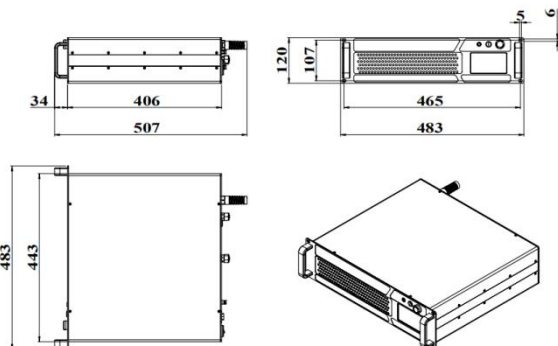
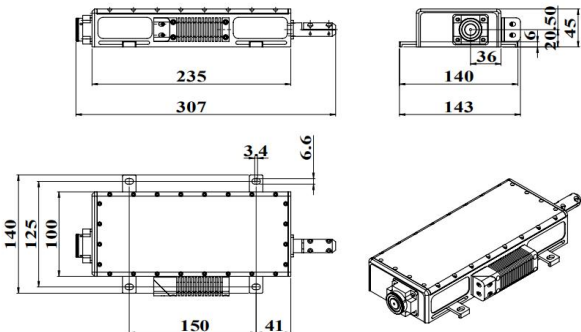
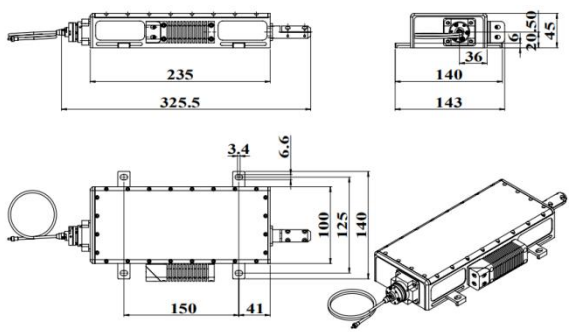
SINGLE LONGITUDINAL MODE FIBER LASER

The high-power, single-longitudinal-mode, PM fiber laser comprises a seed laser and an amplifier. It is optimized for narrow linewidth operation and applications that require higher optical power, which has been designed for operation in atom clock, atom interferometry, magic optical lattice, RB atom cooling etc.



SPECIFICATIONS

Wavelength (nm)	775±1	780±1	785±1
Operating mode	CW		
Free space output power (mW) ¹	1-2000	1-2000	1-500
Fiber coupled output power (mW)	1-500	1-500	1-250
Power stability (rms, 4 hours ±3°C)	<2%, <1%		
Transverse mode	TEM ₀₀		
Longitudinal mode	SLM		
Current adjustment range	1-100%		
Spectral linewidth (kHz)	<20		
Temperature turning range (nm)	>0.2		
PZT Turning range (GHz)	>5		
PZT Turning bandwidth (kHz)	>5		
Relative intensity noise (rms, 10Hz-3MHz)	<0.3%, <0.1%, (<0.05% optional)		
Frequency shift (MHz)(over ±2°C and 8 hours)	<±200		
M ²	<1.1		
Numerical aperture	0.12NA		
Fiber connector ²	FC/APC		
Fiber length(m) ³	1		
Fiber jacket	PVC, Metal optional		
Beam diameter (mm)	~1@free space output		
Pointing stability over temperature (urad/°C)	<50		
Polarization ratio (dB)	>15 Horizontal (Vertical optional)		
Warm-up time (minutes)	<30		
Cooled method ⁴	Air cooled or Water cooled		
Operating temperature (°C)	15-30		
Operating voltage (VAC)	110/220V		
Expected lifetime (hours)	>10000		

DIMENSION	
Fundamental Frequency ⁵	Fundamental Frequency ⁶
 507(L)×483(W)×133(H) mm³, 16kg	 507(L)×483(W)×120(H) mm³, 19kg
Second harmonic (Free space)	Second harmonic (Fiber coupled)
 307(L)×143(W)×45(H) mm³, 1.8kg	 325.5(L)×143(W)×45(H) mm³, 1.9kg

1 Any power level can be selected in this range.

2 Other output mode can be customized.

3 Other lengths are available on request.

4 Air cooled ($\leq 1W$); Water cooled ($\leq 2W$).

5 Air cooled.

6 Water cooled.