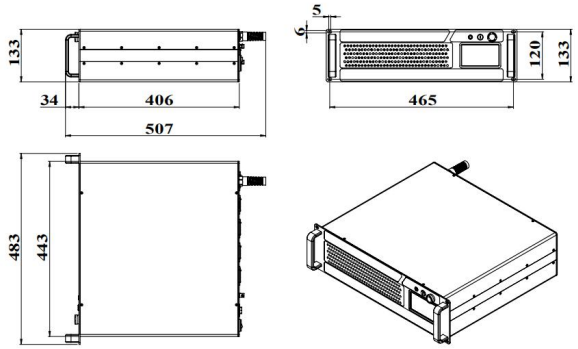
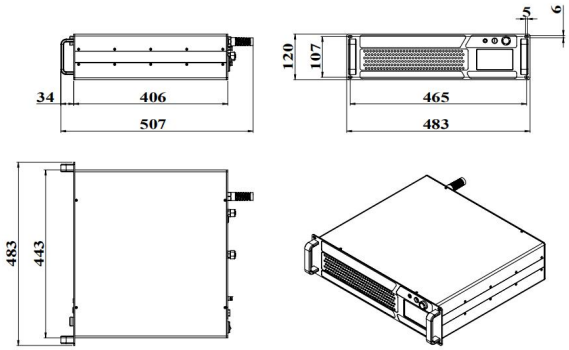
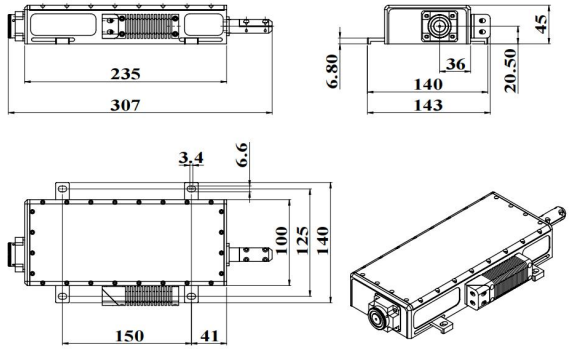
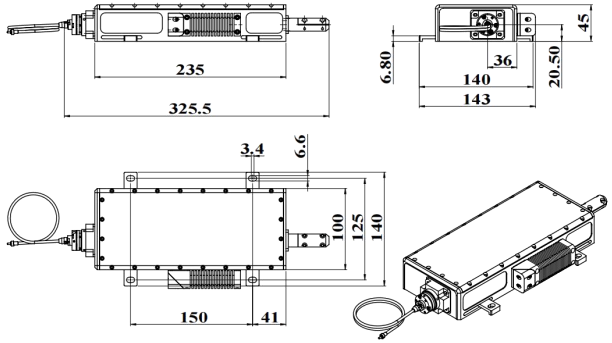
FL-LN-L Series (507-560nm)

LOW-NOISE FIBER LASER

The low-noise laser has the characteristics of ultra-stable output power, Narrow line width, excellent beam quality and extremely low relative intensity noise (RIN), which is widely used in optical lattices, atomic cooling and scientific research , etc.

SPECIFICATIONS

Wavelength (nm)	507±1	509±1	513±1	515±1	520±1	525±1	532±1	540±1	550±1	560±1
Operating mode	CW									
Free space output power (mW)[1]	1-500	1-2000	1-1000	1-2000	1-2000	1-2000	1-3000	1-2000	1-500	1-100
Fiber coupled output power (mW)	1-250	1-500	1-500	1-500	1-500	1-500	1-500	1-500	1-250	1-50
Power stability (rms, 4 hours ±3℃)	<2%, <1%									
Transverse mode	TEM_{00}									
Longitudinal mode	SLM									
Current adjustment range	1-100%									
Spectral linewidth (nm)	<0.002									
Relative intensity noise (rms, 10Hz-3MHz)	<0.1%, <0.05%									
Frequency shift (MHz) (over ±2℃ and 8hours)	<±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 (urad)	<15					<50				
Polarization ratio (dB)	>15 Horizontal (Vertical optional)									
Warm-up time (minutes)	<30									
Cooled method	Air cooled or Water cooled									
Operating temperature (℃)	15-30									
Operating voltage (VAC)	110/220V									
Expected lifetime (hours)	>10000									

DIMENSION	
Fundamental Frequency[4]	Fundamental Frequency[5]
 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, 1.9kg	 325.5(L)×143(W) ×45(H) mm³, 2kg

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.

5 Water cooled.