



FL-785-LN-L/1-500mW

LOW-NOISE FIBER LASER AT 785nm

The 785nm 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 Cooling of Rb atoms, Atomic gravity interferometer, Atomic clock and scientific research , etc.



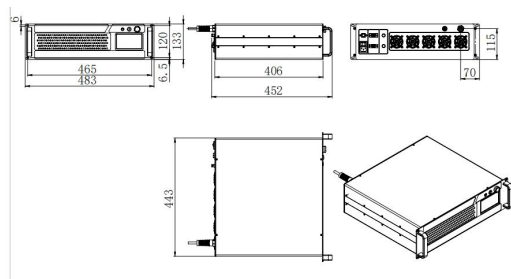
SPECIFICATIONS

Wavelength (nm)	785±1	
Operating mode	CW	
Free space output power (mW)	1-100	100-500
Fiber coupled output power (mW)	1-50	50-250
Power stability (rms, 4 hours ±3°C)	<2%, <1%	
Longitudinal mode	Single	
Current adjustment range	1-100%	
Spectral linewidth (nm)	<0.002	
Relative intensity noise (DC-3MHz)	<0.1%, <0.05%	
Frequency shift (MHz)(over ±2°C and 8hours)	<±200	
M ²	TEM ₀₀ , <1.1	
Fiber core diameter	0.14NA	
Fiber connector ¹	FC/APC	
Fiber length(m) ²	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	Air cooled/Water cooled (optional)	
Operating temperature (°C)	15-30	
Operating voltage (VAC)	110/220V	
Expected lifetime (hours)	>10000	



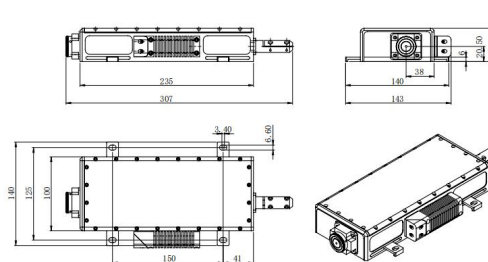
LASER HEAD (Driver integrated)³

Fundamental Frequency



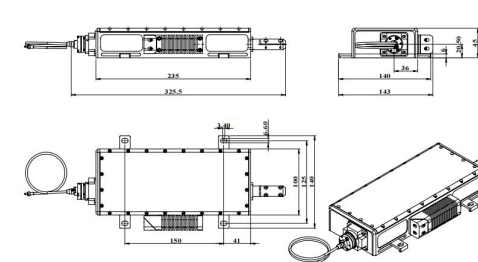
452(L)×483(W) ×133(H) mm³, 10kg

Second harmonic (Free space)

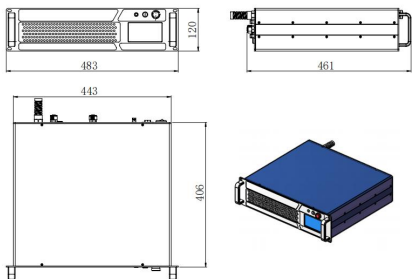
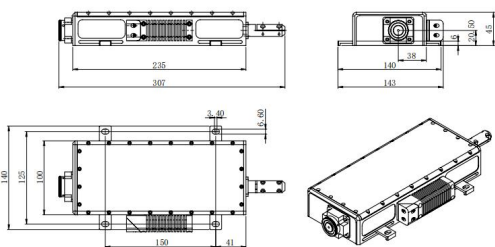
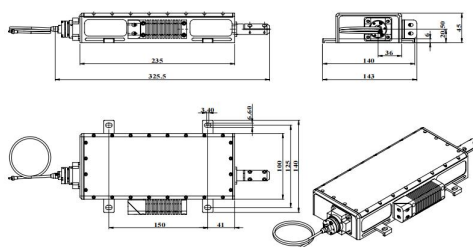


307(L)×143(W) ×45(H) mm³, 1.3kg

Second harmonic (Fiber coupled)



325.5(L)×143(W) ×45(H) mm³, 1.4kg

LASER HEAD (Driver integrated) ⁴		
Fundamental Frequency	Second harmonic (Free space)	Second harmonic (Fiber coupled)
 483(L)×461(W) ×120(H) mm³, 11kg	 307(L)×143(W) ×45(H) mm³, 1.3kg	 325.5(L)×143(W) ×45(H) mm³, 1.4kg

1 Other output mode can be customized.

2 Other lengths are available on request.

3 Air cooled.

4 Water cooled.