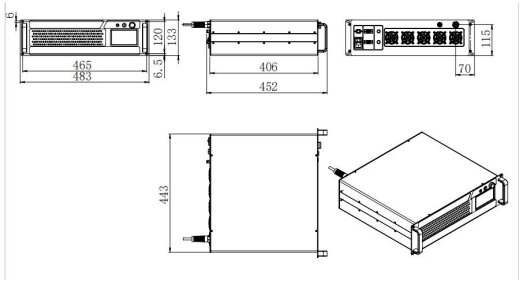
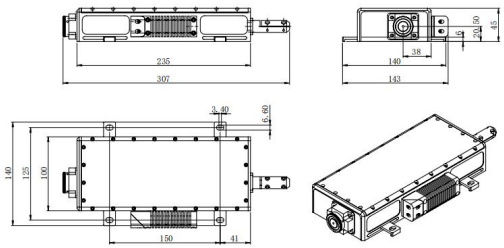
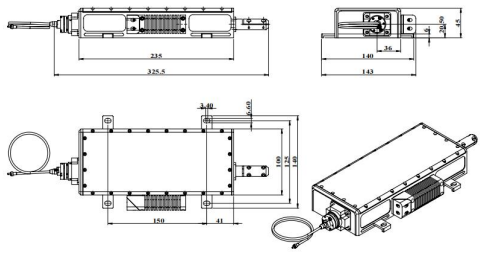
FL-780-LN-L/1mW-2W

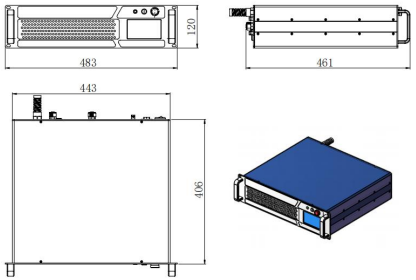
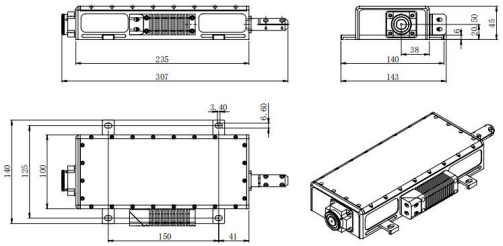
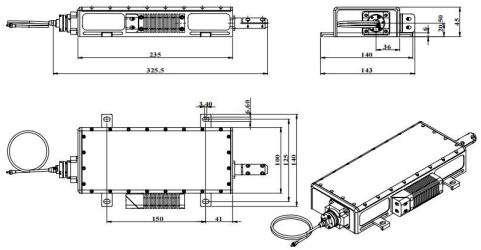
LOW-NOISE FIBER LASER AT 780nm

The 780nm 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)	780±1			
Operating mode	CW			
Free space output power (mW)	1-100mW	100-500mW	500mW-1W	1-2W
Fiber coupled output power (mW)	1-250		250-500	
Power stability (rms, 4 hours ±3℃)	<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℃ 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/℃)	<50			
Polarization ratio(dB)	>15 Horizontal (Vertical optional)			
Warm-up time (minutes)	<30			
Cooled method	Air cooled/Water cooled (optional)			
Operating temperature (℃)	15-30			
Operating voltage (VAC)	110/220V			
Expected lifetime (hours)	>10000			

LASER HEAD (Driver integrated)[3]		
Fundamental Frequency	Second harmonic (Free space)	Second harmonic (Fiber coupled)
		
452(L)×483(W) ×133(H) mm³, 10kg	307(L)×143(W) ×45(H) mm³, 1.3kg	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.