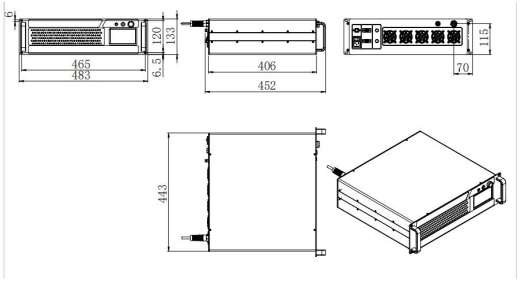
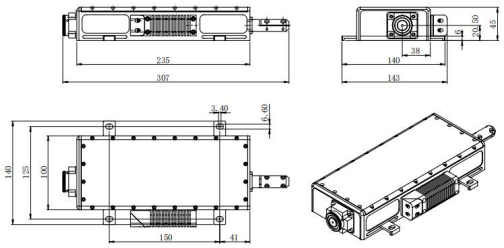
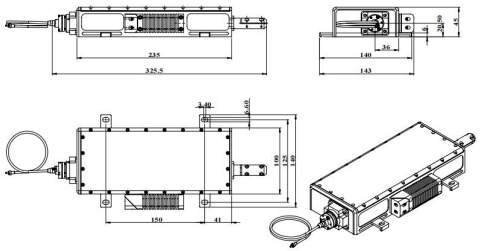
FL-785-SF/1~500mW

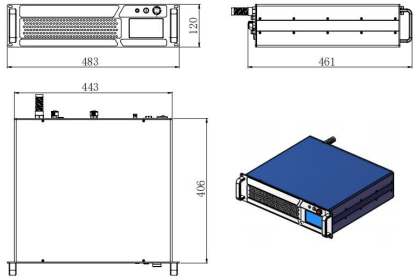
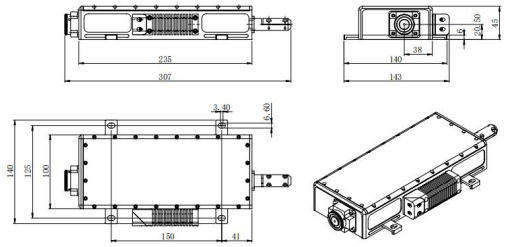
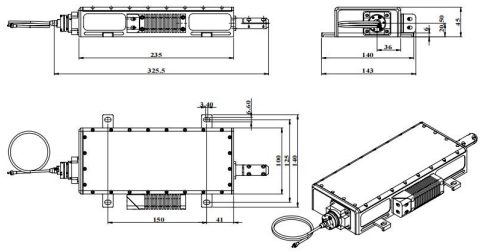
SINGLE FREQUENCY MODE FIBER LASER AT 785 nm

All polarization fiber single frequency mode high power laser at 785nm is consisting of the seed laser and an amplifier optimized for low noise operation and application demanding more optical power, which has been designed for operation in Atom clock, Atom interferometry, Magic optical lattice, RB atom cooling etc.

SPECIFICATIONS

Wavelength (nm)	780±1	
Operating mode	CW	
Free space output power (mW)	1-100	100-500
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 (kHz)	<20	
Temperature Turning range (nm)	>0.2	
PZT Turning range (GHz)	>5	
PZT Turning bandwidth (kHz)	>5	
Relative intensity noise (DC-3MHz)	<0.3%, <0.1%, (<0.05% optional)	
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.