



FL-631-LN-L/1mW-1.5W

LOW-NOISE FIBER LASER AT 631nm

The 631nm 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, quantum simulation and scientific research, etc.



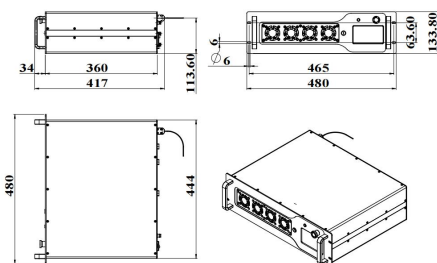
SPECIFICATIONS

Wavelength (nm)	631±1
Operating mode	CW
Free space output power (mW) ¹	1mW-1.5W
Fiber coupled output power (mW)	1-500
Power stability (rms, 4 hours ±3°C)	<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°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	Air cooled or Water cooled
Operating temperature (°C)	15-30
Operating voltage (VAC)	110/220V
Expected lifetime (hours)	>10000



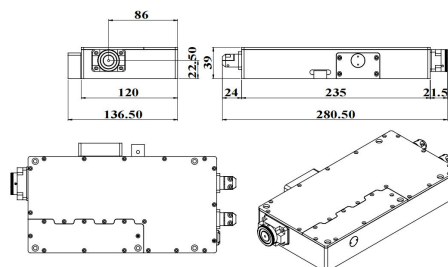
DIMENSION⁴

Fundamental Frequency (Free space)



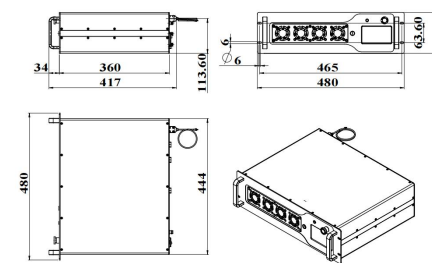
417(L)×480(W) ×134(H) mm³, 10kg

SFG Module (Free space)

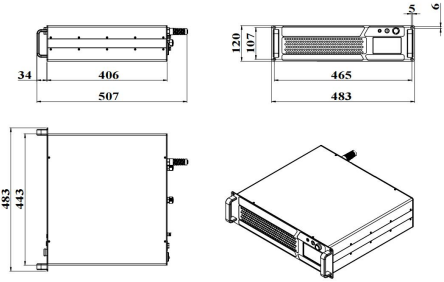
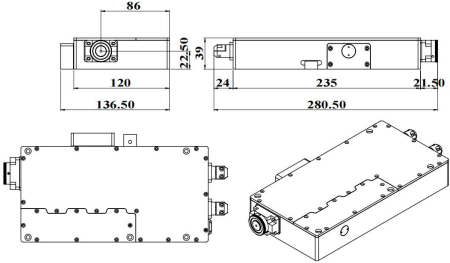
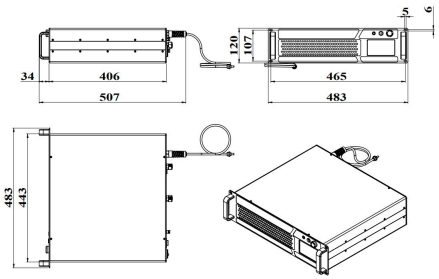


280.5(L)×136.5(W) ×39(H) mm³, 3kg

Fiber coupled



417(L)×480(W) ×134(H) mm³, 13kg

DIMENSION ⁵		
Fundamental Frequency (Free space)	SFG Module (Free space)	Fiber coupled
 461(L)×483(W) ×120(H) mm³, 13kg	 280.5(L)×136.5(W) ×39(H) mm³, 3kg	 507(L)×483(W) ×120(H) mm³, 16kg

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.