

# 1064nm 750ps Microchip Laser System of MCC Series



## DESCRIPTION

MCC series microchip laser products have very ideal narrow pulse width, but also can achieve high single pulse energy. The product is a passive Q-switched solid-state laser based on semiconductor pump. The laser pulse is pure and tailless, the single pulse energy is stable, and the beam quality is good. The integrated design of semiconductor pump module and laser crystal makes the compact laser head easy to install and integrate. The system supports internal and external triggering. This series of products include four wavelengths of 1064nm, 532nm, 355nm and 266nm. The full sealing module inside the laser head can be used by customers for secondary development and application. The superior product performance index makes its application range very wide, especially in laser measurement, which can meet many different kinds of measurement needs, and also has excellent performance in the application of laser seeds. We can also provide 1064nm and 532nm isolators.

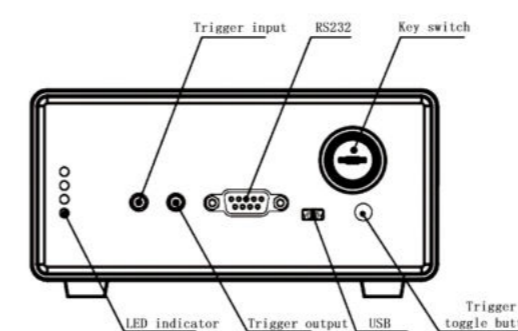
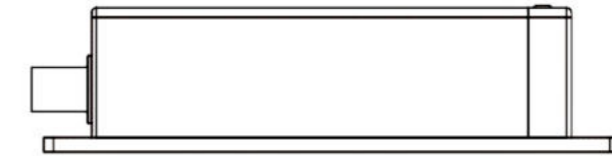
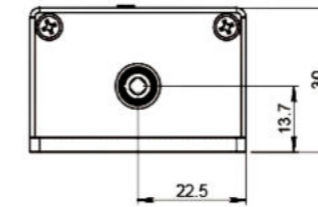
## FEATURES

- Pulse width up to 700ps
- Pulse energy up to 80μJ
- External pump source fiber pump pulse energy can reach 500μJ
- Repetition frequency up to 10kHz
- Beam mode is TEM<sub>00</sub>
- Fully sealed design, high reliability

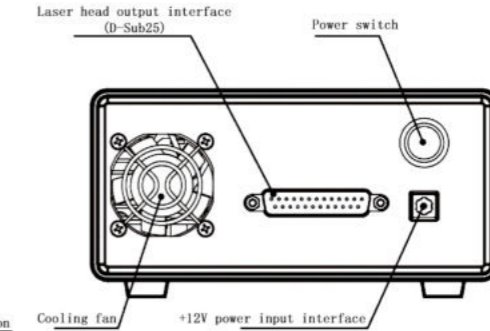
## APPLICATIONS

- Seed source
- Micromachining
- Biomedical Science
- Laser ultrasonic inspection
- Laser ionization mass spectrometry
- Optical Parametric Oscillating Pump Source

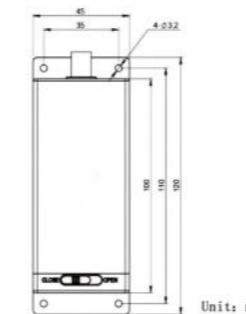
## OUTLINE SIZE(mm)



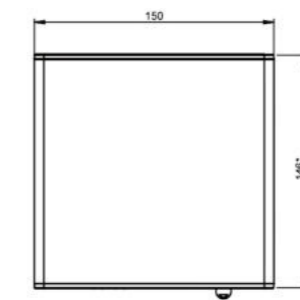
Main view of Driven



Rear view of Driven



Unit: mm



Top view of Driven



\* Optical fiber pump for external pump source, power supply length: 200mm



## PARAMETERS

Model	CL1064-100Hz-500μJ-MCC015	CL1064-500Hz-300μJ-MCC016	CL1064-1KHz-80μJ-MCC017	CL1064-5KHz-70μJ-MCC018	CL1064-10KHz-40μJ-MCC019	
Optical Parameter	Wavelength (nm)	1064	1064	1064	1064	1064
	Repetition Frequency (kHz)	0.1*	0.5*	1	5	10
	Average Powe (mW)	50	150	80	350	400
	Output Energy (uJ)	500	300	80	70	40
	Pulse Width (ps)	750	750	750	750	750
	Power Stability (8h)	±3%	±3%	±3%	±3%	±3%
	Beam Mode	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>
	Full-Angle Divergence Angle Typ. (Mrad) Level @ 1/e <sup>2</sup>	< 5	< 5	< 8	< 8	< 10
	Vertical @ 1 / e <sup>2</sup>	< 5	< 5	< 8	< 8	< 10
	Polarization Characteristics	> 100:1	> 100:1	> 100:1	> 100:1	> 100:1
System Parameter	Power Input	100-240 VAC,50/60Hz				
	Modulation Input	TTL0-5V,SMA interface				
	Power Supply Size (W × H × L, mm)	150×76×146/150×76×200*				
	Control Interface	RS232、USB				
	System Power Consumption (W)	< 15	< 20	< 25	< 20	< 30
	Laser Head Size (W × H × L, mm)	45×30×120	45×30×120	45×30×120	45×30×120	45×30×120
	Working Temperature (°C)	15-35	15-35	15-35	15-35	15-35
	Storage Temperature (°C)	0-60	0-60	0-60	0-60	0-60

