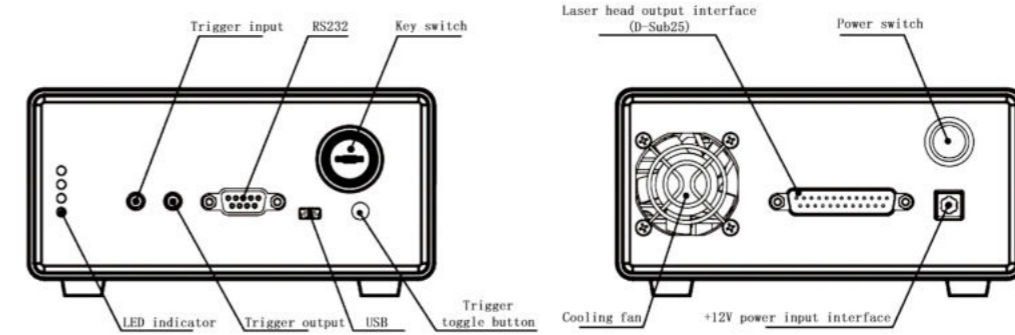


# 1064nm 2ns Microchip Laser System of MCA Series



## OUTLINE SIZE(mm)

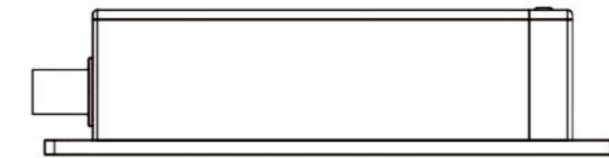
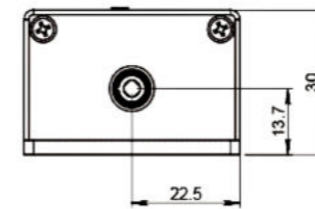


Main view of Driven

Rear view of Driven

## DESCRIPTION

MCA series microchip laser is a passively Q-switched solid-state laser based on semiconductor pump. The laser pulse is pure without tail, 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.

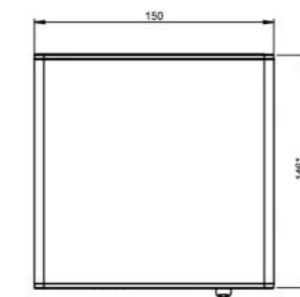
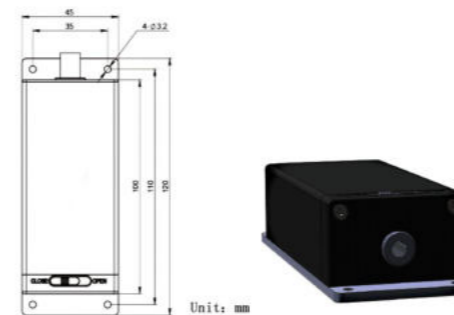


## FEATURES

- Pulse width up to 1.5ns
- Pulse energy up to 200  $\mu$ J
- External pump source fiber pump pulse energy can reach 1.2mJ
- Repetition frequency up to 20kHz
- Beam mode is TEM00
- Fully sealed design, high reliability

## APPLICATIONS

- Lidar
- Laser Ranging
- Atmospheric monitoring
- Laser ultrasonic inspection
- Optical metrology
- Laser-induced fluorescence



Top view of Driven



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



## PARAMETERS

Model	CL1064-100Hz-200μJ-MCA020	CL1064-100Hz-1200μJ-MCA021	CL1064-1KHz-150μJ-MCA022	CL1064-2.5KHz-130μJ-MCA023	CL1064-5KHz-50μJ-MCA024	CL1064-10KHz-35μJ-MCA025	CL1064-20KHz-35μJ-MCA026
Optical Parameter	Wavelength (nm)	1064	1064	1064	1064	1064	1064
	Repetition Frequency (kHz)	0.1	0.1*	1	2.5	5	10
	Average Powe (mW)	20	120	150	325	250	350
	Output Energy (uJ)	200	1200	150	130	50	35
	Pulse Width (ps)	2000	2000	2000	2000	1500	1500
	Power Stability (8h)	±3%	±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>	TEM <sub>00</sub>
	Full-Angle Divergence Angle Typ. (Mrad) Level @ 1/e <sup>2</sup>	< 4	< 4	< 6	< 6	< 10	< 10
	Vertical @ 1/e <sup>2</sup>	< 4	< 4	< 6	< 6	< 10	< 10
	Polarization Characteristics	> 100:1	> 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	< 15	< 15	< 20	< 25	< 30
	Laser Head Size (W × H × L, mm)	45×30×120	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	15-35
Storage Temperature (°C)	0-60	0-60	0-60	0-60	0-60	0-60	

