

1064nm 550ps Microchip Laser System of MCB Series



DESCRIPTION

MCB 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.

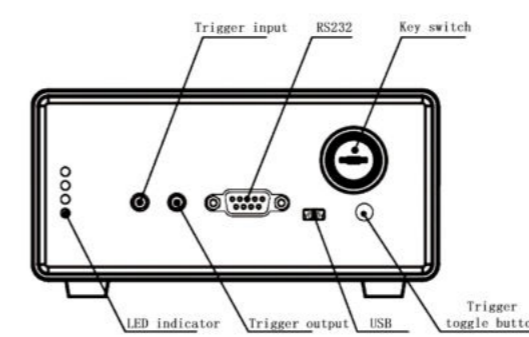
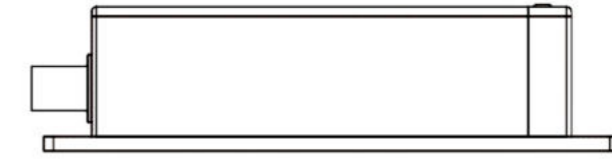
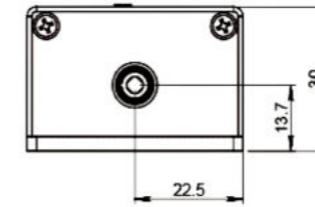
FEATURES

- Pulse width up to 500ps
- Pulse energy up to 170μJ
- External pump source fiber pump pulse
- Maximum repetition frequency up to 1kHz
- Charge energy up to 360μJ
- Fully sealed design, high reliability

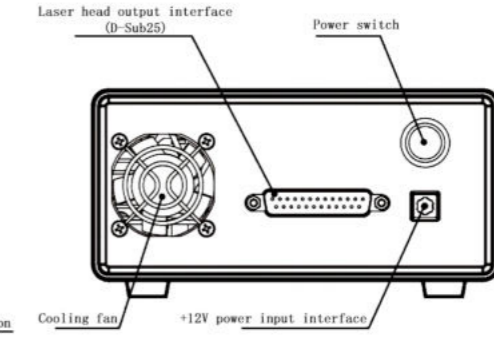
APPLICATIONS

- Seed source
- Micromachining
- Biomedical Science
- Laser ultrasonic inspection
- Laser ionization mass spectrometry
- Laser-induced fluorescence

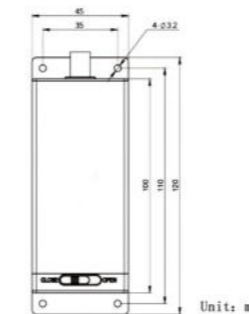
OUTLINE SIZE(mm)



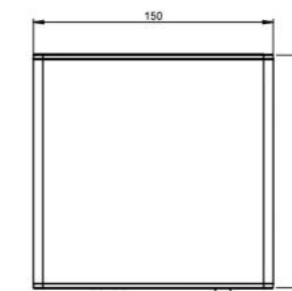
Main view of Driven



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-170μJ-MCB010	CL1064-100Hz-360μJ-MCB011	CL1064-1KHz-130μJ-MCB012	
Optical Parameter	Wavelength (nm)	1064	1064	1064
	Repetition Frequency (kHz)	0.1	0.1	1
	Average Powe (mW)	17	36	130
	Output Energy (uJ)	170	181	130
	Pulse Width (ps)	550	550	550
	Power Stability (8h)	±3%	±3%	±3%
	Beam Mode	TEM ₀₀	TEM ₀₀	TEM ₀₀
	Full-Angle Divergence Angle Typ. (Mrad) Level @ 1/e ²	< 5	< 5	< 8
	Vertical @ 1 / e ²	< 5	< 5	< 8
	Polarization Characteristics	> 100:1	> 100:1	> 100:1
System Parameter	Power Input	100-240 VAC,50/60Hz	100-240 VAC,50/60Hz	100-240 VAC,50/60Hz
	Modulation Input	TTL0-5V,SMA interface	TTL0-5V,SMA interface	TTL0-5V,SMA interface
	Control Interface	RS232、USB	RS232、USB	RS232、USB
	System Power Consumption (W)	< 15	< 15	< 25
	Power Supply Size (W × H × L, mm)	150×76×146/150×76×200*	150×76×146/150×76×200*	150×76×146/150×76×200*
	Laser Head Size (W × H × L, mm)	45×30×120	45×30×120	45×30×120
	Working Temperature (°C)	15-35	15-35	15-35
	Storage Temperature (°C)	0-60	0-60	0-60

