MCC Series
750ps Microchip Laser

Key Features

- Single pulse energy up to 120μJ
- Repetition rate up to 10kHz
- Spatial mode TEM_{00}
- Polarization-stable
- A wide range of wavelengths

Applications

Seed laser

Micromachining

Pump source for optical parametric oscillators

Laser-induced breakdown spectroscopy (LIBS)

Laser-based ultrasound detection

Laser ionization mass spectroscopy (LIMS)

Laser ranging

Laser-induced fluorescence (LIF)

Laser ultrasonic imaging

Laser ablation

Nonlinear optical measurement

Technical Specifications

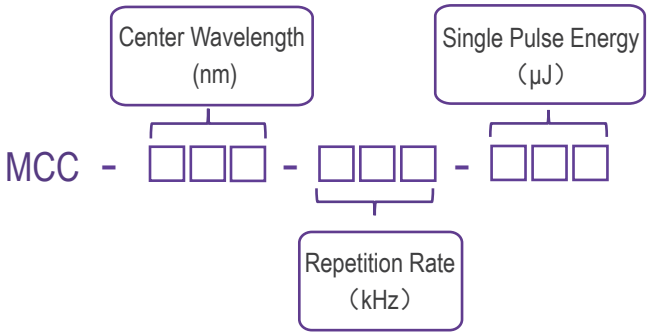
Optical Parameters														
Wavelength (nm)		1064			532			355			266			213
Repetition rate (kHz)		1	5	10	1	5	10	1*	5*	10*	1*	5*	10*	1*
Average power (mW)		100	300	300	50	150	150	20	50	50	10	40	40	4
Pulse energy (μJ)		100	60	30	50	30	15	20	10	5	10	8	4	4
Pulse width (ps)		750			750			650			650			650
Power stabilty (8h)		±3%												
Beam profile		TEM_{00}												
Beam full divergence (typ., mrad)	Horizontal @1/e²	8	12		7	10		5	8		5	8		5
	Vertical @1/e²	8	12		7	10		5	8		5	8		5
Polarization ratio		>100:1												
System Parameters														
Supply power voltage		100-240 VAC, 50/60 Hz												
Control interface		RS232, USB												
Power consumption (W)		≤25	≤20	≤30	≤25	≤30	≤35	≤25	≤25	≤30	≤25	≤30	≤30	≤25
Power dimensions (W×H×L,mm)		168×88×140												
Laser dimensions (W×H×L,mm)		45×33×120												
Operation temperature (℃)		15~35												
Storage temperature (℃)		0~60												

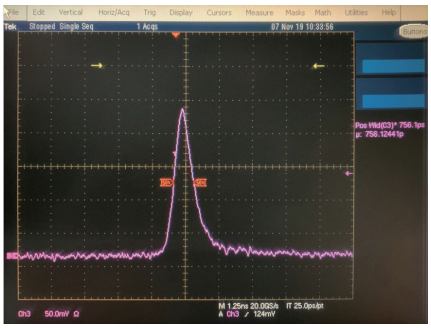
1. *Side laser outlet configuration（middle laser outlet configuration unless otherwise stated）
Lasers with repetition rate < 20kHz are positive-edge-triggered, and lasers with repetition rate > 20kHz are gate-triggered. All systems rely on 5V TTL levels and have SMA interfaces for external triggering input. See mechanical specifications for more details!
2. Built-in beam expander and collimator are available upon request, and divergence can be less than 2mrad.

Order Information

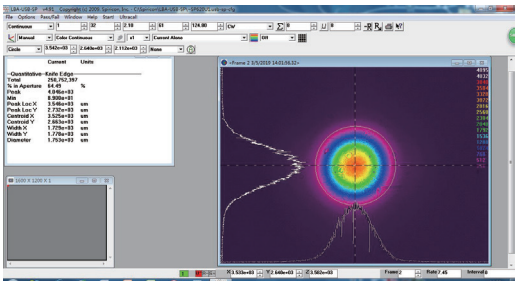
Wavelength (nm)	Part Number	Repetition rate (kHz)	Pulse energy (μJ)
1064	MCC-1064-1-100	1	100
	MCC-1064-5-060	5	60
	MCC-1064-10-030	10	30
532	MCC-532-1-050	1	50
	MCC-532-5-030	5	30
	MCC-532-10-015	10	15
355	MCC-355-1-020	1	20
	MCC-355-5-010	5	10
	MCC-355-10-005	10	5
266	MCC-266-1-010	1	10
	MCC-266-5-008	5	8
	MCC-266-10-004	10	4
213	MCC-213-1-004	1	4

Part Numbering Schema



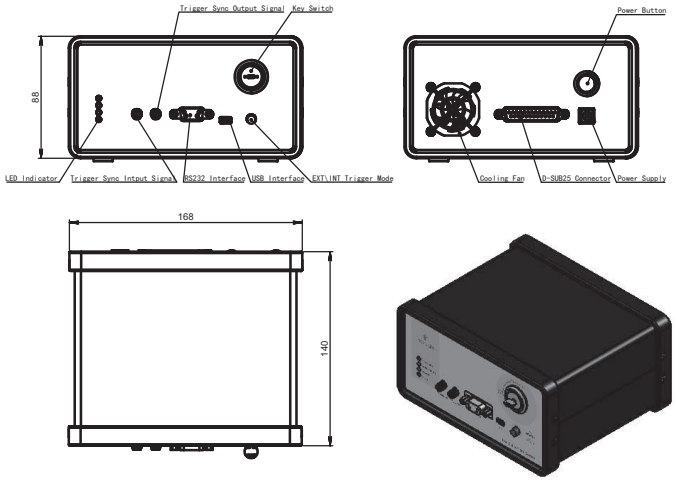


Typical Pluse

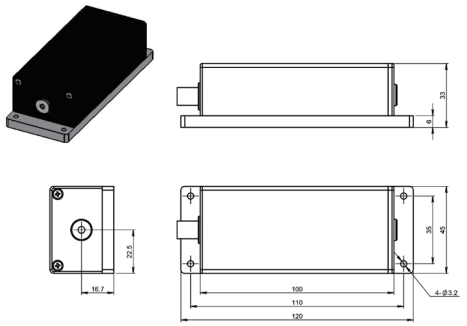


Beam Profile

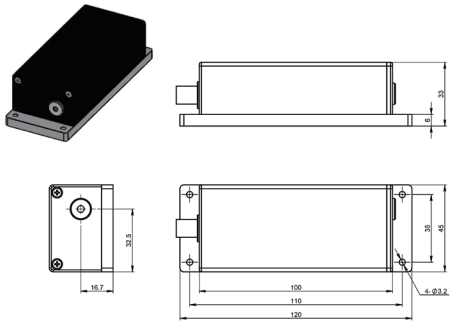
Mechanical Drawings (in mm)



Power Supply



Laser Head (middle laser outlet)



Laser Head (side laser outlet)