

# MCI Series

## 2.5ns Microchip Laser



### Applications

Laser-induced fluorescence (LIF)  
Laser-based ultrasound detection  
Laser ranging  
Raman spectroscopy

### Key Features

- ◆ Compact design, excellent stability
- ◆ Polarization-stable
- ◆ Repetition rate up to 1kHz
- ◆ Spatial mode TEM<sub>00</sub>

### Technical Specifications

Optical Parameters			
Wavelength (nm)		946	473
Repetition rate (kHz)		1	1
Average power (mW)		20	4
Pulse energy (μJ)		20	4
Pulse width (ps)		2500	2000
Power stability (8h)		±3%	
Beam profile		TEM <sub>00</sub>	
Beam full divergence (typ., mrad)	Horizontal @1/e <sup>2</sup>	9	7
	Vertical @1/e <sup>2</sup>	9	7
Polarization ratio		>100:1	
System Parameters			
Supply power voltage		100-240 VAC, 50/60 Hz	
Control interface		RS232, USB	
Power consumption (W)		≤15	≤15
Power dimensions (W×H×L, mm)		168×88×140	
Laser head dimensions (W×H×L, mm)		45×30×120	
Operation temperature (°C)		15~35	
Storage temperature (°C)		0~60	

1. \*Side laser outlet configuration (middle laser outlet configuration unless otherwise stated)

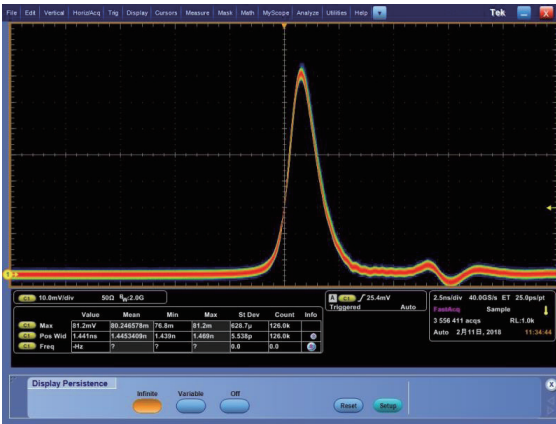
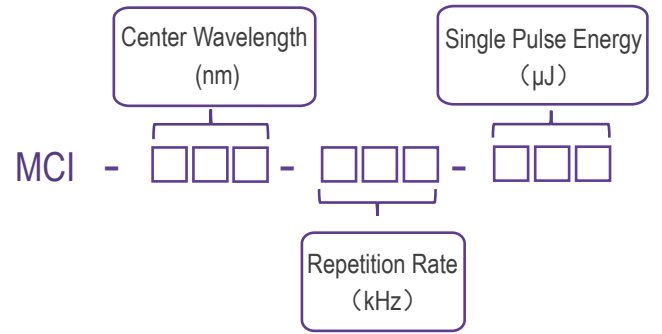
Lasers with repetition rate < 20kHz are positive-edge-triggered, and lasers with repetition rate > 20kHz are gate-triggered. All systems rely on 5V TTL levels and have SMA interfaces for external triggering input. See mechanical specifications for more details!

2. Built-in beam expander and collimator are available upon request, and divergence can be less than 2mrad.

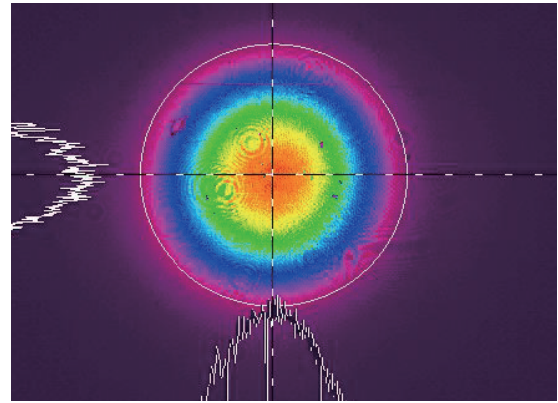
## Order Information

Wavelength (nm)	Part Number	Repetition rate (kHz)	Pulse energy (μJ)
946	MCI-946-1-20	1	20
473	MCI-473-1-4	1	4

## Part Numbering Schema

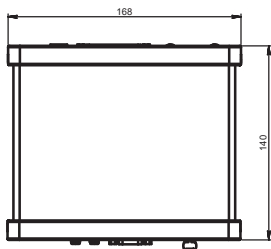
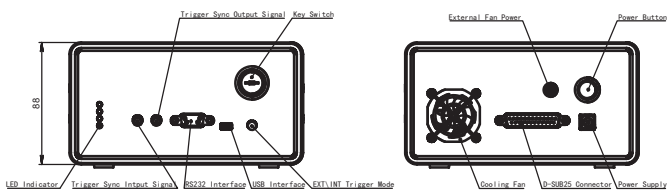


Typical Pulse

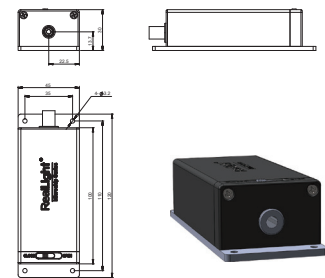


Beam Profile

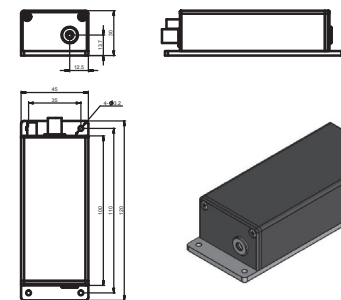
## Mechanical Drawings (in mm)



Power Supply



Laser Head (middle laser outlet)



Laser Head (side laser outlet)

