

# MCO Series Energy Adjustable Fiber Pigtailed Microchip Laser



RealLight's MCO series sub-nanosecond fiber pigtailed microchip laser is composed of integrated electronic control module for energy adjustment, photodetector module and laser drive board, with a 200um 0.22NA fiber. This super compact laser is plug and play, making it an ideal source for a variety of applications.

## Key Features

- ◆ Pulse width < 1ns
- ◆ Repetition rate variable from 1~200Hz
- ◆ Energy adjustable by PC control
- ◆ Photodiode output signal with time jitter < 100ps
- ◆ Sealed package, high reliability
- ◆ Plug and play, include PC control software

## Technical Specifications

Optical Parameters				
Wavelength (nm)	1064	532	355	266
Repetition rate (Hz)	1~200			
Max. energy @ Fiber coupled output (μJ)	50	25	25	10
Pulse width (ns)	≤1			
Energy stability (RMS)	≤3%			
Adjusting precision of output energy	≤2%			
Polarization	≥100:1			
Fiber	200μm/0.22NA			
System Parameters				
Supply power voltage	24V DC			
Modulation input	TTL 0-5V, SMB input			
Control interface	RS-232			
Peak power consumption (W)	<20			
Average power consumption (W)	<10			
Laser dimensions (W×H×L,mm)	82x79x250			
Operation temperature (°C)	15~35			
Storage temperature (°C)	-10~60			

## Applications

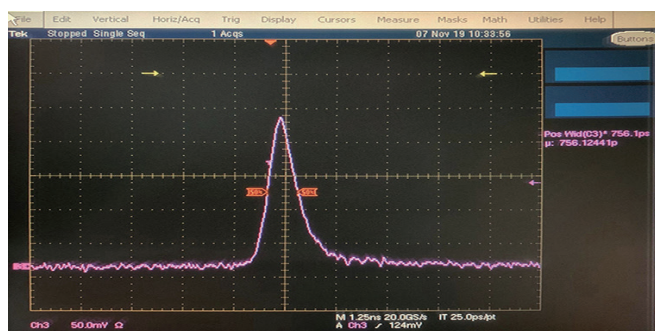
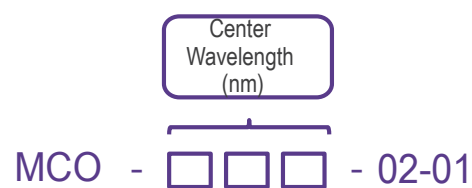
- Laser engraving
- Laser-induced breakdown spectroscopy (LIBS)
- Laser photoluminescence
- Laser marking
- Laser capture microdissection
- Laser-induced fluorescence (LIF)
- Laser mass spectroscopy
- Ultraviolet microscopy
- Raman spectroscopy
- LiADR
- Thin film scribing and processing
- Semiconductor inspection
- Photoacoustic imaging
- Laser spark plug
- Laser remote sensing

1. Operation Frequency is 16~200 Hz, in Continuous mode or Burst mode.
2. As products are constantly being updated, the right of final interpretation of technical specifications or illustrations in datasheet belongs to RealLight.

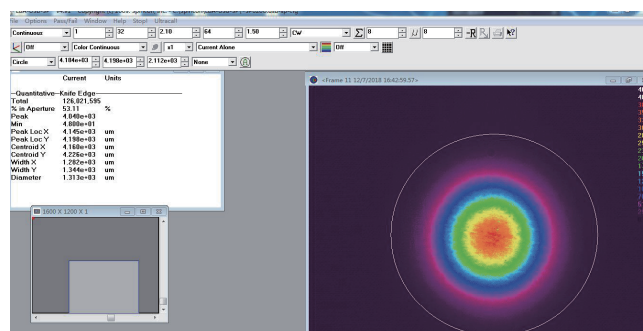
## Order Information

Wavelength (nm)	Part Number	Repetition rate (Hz)	Pulse energy ( $\mu\text{J}$ )
1064	MCO-1064-02-01	200	50
532	MCO-532-02-01	200	25
355	MCO-355-02-01	200	20
266	MCO-266-02-01	200	10

## Part Numbering Schema

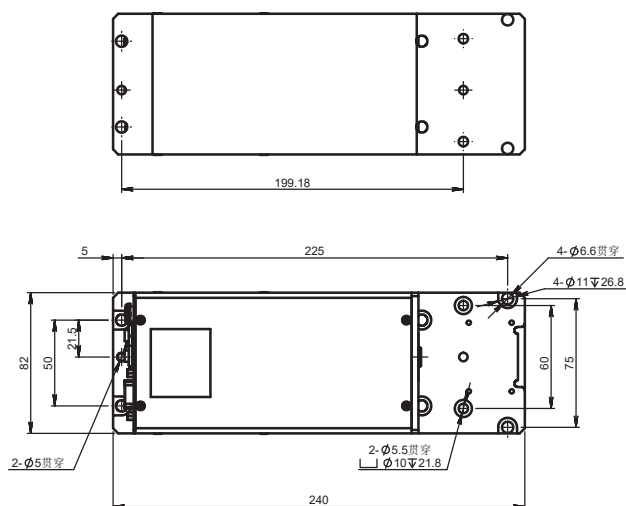


Typical Pulse

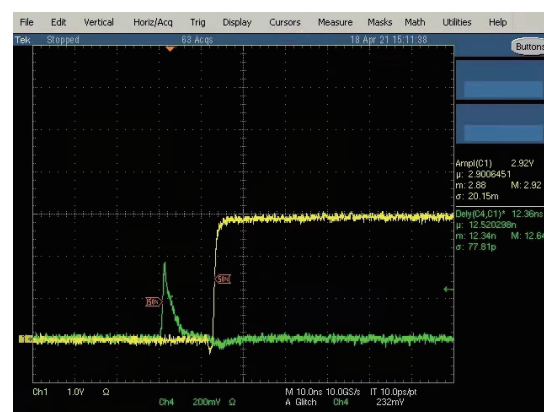


Beam Profile

## Mechanical Drawings (in mm)



Free Space



photodetector module output

