

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.

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

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

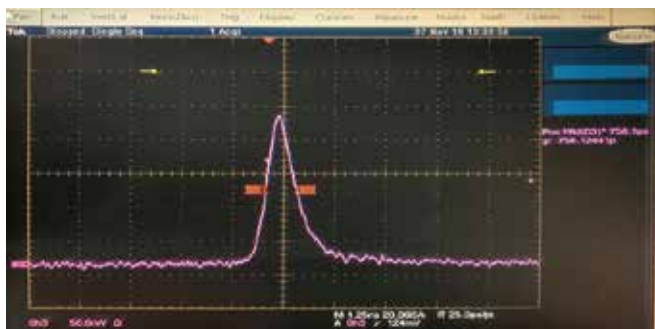
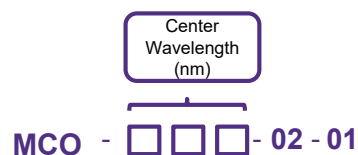
Optical Parameters				
Wavelength (nm)	1064	532	355	266
Repetition rate (Hz)	1-200			
Max. energy @ Fiber coupled output (μJ)	50	25	25	10
Pulse width (ns)	≤1			
Energy stability (RMS)	≤3%			
Adjusting precision of output energy	≤2%			
Polarization	≥100:1			
Fiber	200μm/0.22NA			
System Parameters				
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)	10-40			
Storage temperature (°C)	-10-60			

1. Operation Frequency is 16~200 Hz, in Continuous mode or Burst mode.
2. Fiber core:200 μm (0.22NA).
3. Power adapter is included for shipment, support 90~260VAC input.
4. As products are constantly being updated, the right of final interpretation of technical specifications or illustrations in datasheet belongs to RealLight.

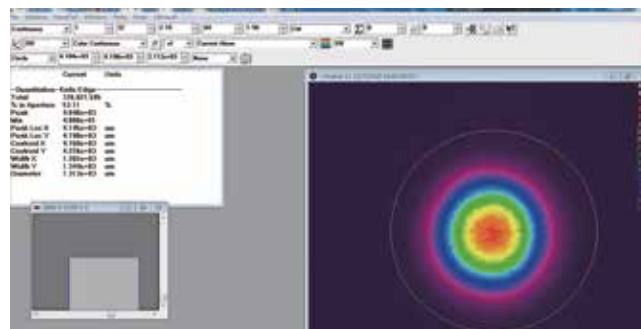
Order Information

Wavelength (nm)	Part Number	Repetition rate (Hz)	Pulse energy (μJ)
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 Width



Beam Profile



Photodiode output signal

Mechanical Drawings (in mm)

