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 outputsignal with time jitter < 100ps
- Sealed package, high reliability
- Plug and play, include PC control software

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

Technical Specifications

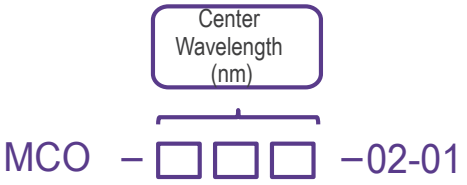
Optical Parameters				
Wavelength (nm)	1064	532	355	266
Repetition rate (Hz)	1~200			
Max. energy @ Fiber coupled output (μJ)	50	25	25	10
Pulse width (ns)	≤1			
Energy stabilty (RMS)	≤3%			
Adjusting precision of output energy	1%			
Polarization	≥100:1			
Fiber	200μm/0.22NA			
System Parameters				
Supply 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 (℃)	15~35			
Storage temperature (℃)	-10~60			

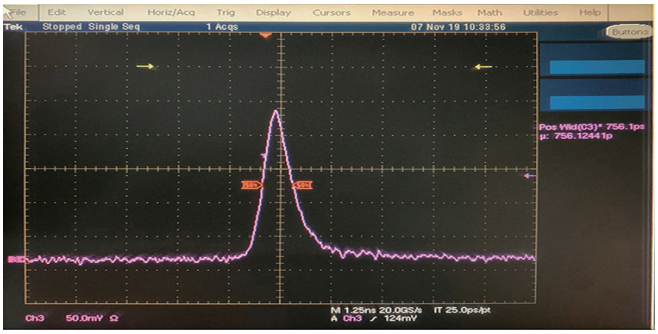
1. Operation Frequency is 16~200 Hz, in Continous mode or Burst mode.
2. As products are constantly being updated, the right of final interpretation of technical specifications or illustrations in datasheet belongs to RealLight.
3. All the data in the above table are the typical values obtained from the tests at room temperature of 25℃, and the final data is subject to the final test report.

Order Information

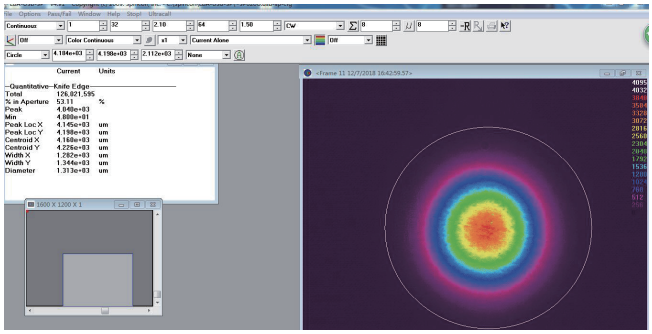
Wavelength (nm)	Part Number	Repetition rate (Hz)	Pulse energy (μJ)
1064	MCO-1064-02-01	200	50
532	MCO-532-02-01	200	25
355	MCO-355-02-01	200	25
266	MCO-266-02-01	200	10

Part Numbering Schema



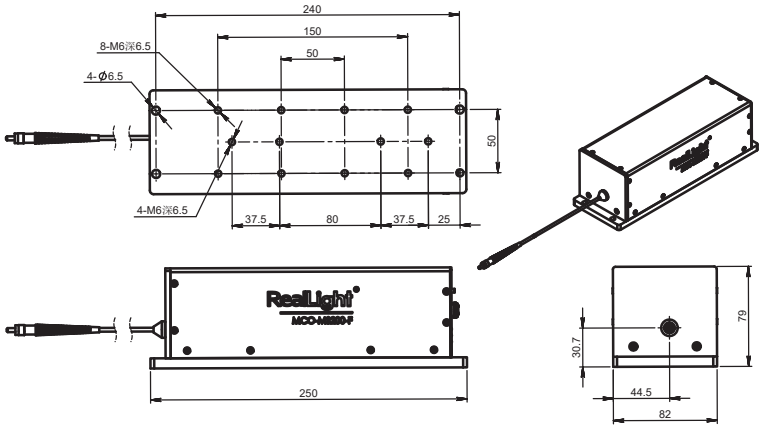


Typical Pluse



Beam Profile

Mechanical Drawings (in mm)



Fiber Pigtailed

photodetector module output