# MCM Series High Energy Microchip Laser





This series of microchip lasers are RealLight's self-developed, passively Q-switched diode-pumped solid-state lasers, featuring high energy, good value and low power consumption. The integrated design of diode-pumped module and laser crystal results in the compactness. And water cooling is not required for this laser. This series is also available with miniaturized drive boards for OEM control for applications include LIBS and laser ablation, which is easy to install and integrate, and is suitable for handheld devices.

#### **Key Features**

- Pulse width < 3ns</li>
- Pulse energy > 10mJ
- Compact size, no water cooing required
- Suitable for handheld devices
- Cost effective

## **Applications**

Laser ablation

Laser-induced breakdown spectroscopy (LIBS)

Optical damage threshold testing

#### **Technical Specifications**

Optical Parameters						
Part Number		MCM-1064-0.01-10				
Wavelength(nm)		1064				
Repetition rate(Hz)		10				
Pulse energy (mJ)		>10				
Pulse width (ns)		<3				
Power stabilty (RMS)		<3%				
Full angle divergence Typ. (mrad)	Horizontal @1/e²	3				
	Vertical @1/e²	3				
Cooling method		air cooling				
Laser dimensions (W×H×L,mm)		17×16.1×58.5(customizable)				
Operation temperature (°C)		15~35				
Storage temperature (°C)		-20~60				
Driver Parameters						
Supply power voltage		12VDC				
Control interface		RS-232,I/O				
Power consumption (W)		15W (MAX)				
Drive board dimensions (W×H×L,mm)		45×39.6×110.3				
Trigger mode		Trigger In/Out				

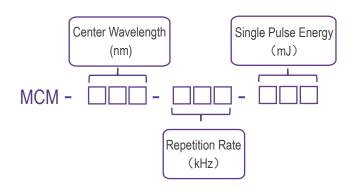




## **Order Information**

Wavelength (nm)	Part Number	Repetition rate(kHz)	Pulse energy(mJ)
1064	MCM-1064-0.01-10	0.01	10

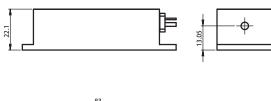
# Part Numbering Schema



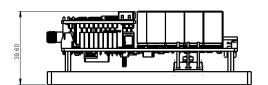


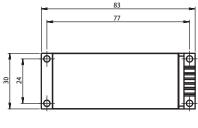
Typical pulse width

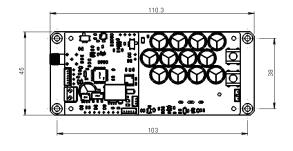
# Mechanical Drawings (in mm)



Laser Head







Board

PIN	Function	PIN	Function
1	RT	2	RT
3	LD(+)	4	LD(-)
5	TEC(-)	6	TEC(+)
	PIN  1  3  5	1 RT 3 LD(+)	1 RT 2 3 LD(+) 4

