

# MCF Series Microchip Laser



Reallight's 1535nm MCF series microchip lasers operate in the eyesafe wavelength regime, have great advantages in applications including laser ranging and LIDAR. This series of laser modules feature no tail pulse, stable single pulse energy and excellent beam profile. The integrated design of diode-pumped module and laser crystal brings convenience to installation and integration due to the compact size. MCF series supports internal and external triggering. The internal hermetic module of the laser head is available to customers for tailor-made development.

## Applications

LIDAR  
Laser ranging

## Key Features

- ◆ 1535nm, eye safe
- ◆ Pulse width down to 5ns
- ◆ Pulse energy up to 1000μJ
- ◆ Repetition rate up to 10kHz

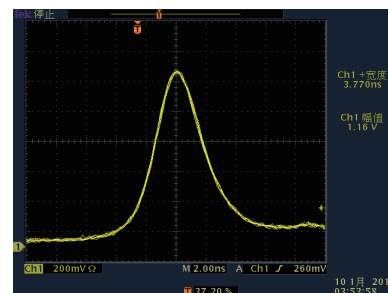
## Technical Specifications

Optical Parameters										
Wavelength (nm)	1535									
Repetition rate (kHz)	0.01		0.01	0.005	1	2.5	5	10		
Pulse energy (μJ)	100	200	300	500	1000	40	20	10	5	
Pulse width (ns)	5		6	8	5	6	8	10		
Power stability (8h)	3%									
Beam profile	TEM <sub>00</sub>									
Full angle divergence Typ. (mrad)	Horizontal @1/e <sup>2</sup>	10		8	7	16	17	18	20	
	Vertical @1/e <sup>2</sup>	10		8	7	16	17	18	20	
System Parameters										
Supply power voltage	100-240 VAC, 50/60 Hz									
Modulation input	TTL0-5V, SMA接口									
Control interface	RS232, USB									
Power consumption (W)	≤3			≤7						
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. As products are constantly being updated, the right of final interpretation of technical specifications or illustrations in datasheet belongs to Reallight.

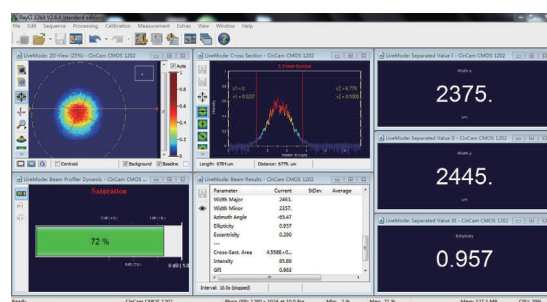
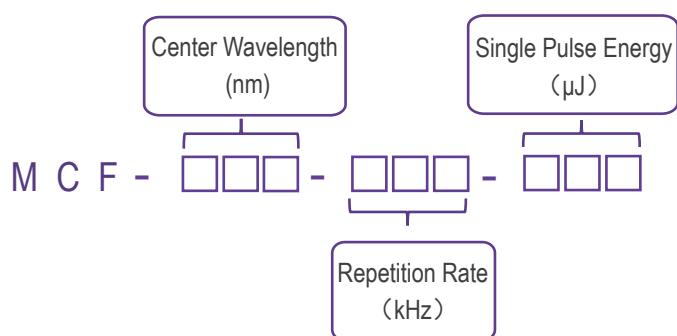
## Order Information

Wavelength (nm)	Part Number	Repetition rate (kHz)	Pulse energy ( $\mu\text{J}$ )
1535	MCF-1535-0.01-100	0.01	100
	MCF-1535-0.01-200	0.01	200
	MCF-1535-0.01-300	0.01	300
	MCF-1535-0.01-500	0.01	500
	MCF-1535-0.005-1000	0.005	1000
	MCF-1535-1-040	1	40
	MCF-1535-2.5-020	2.5	20
	MCF-1535-5-010	5	10
	MCF-1535-10-005	10	5



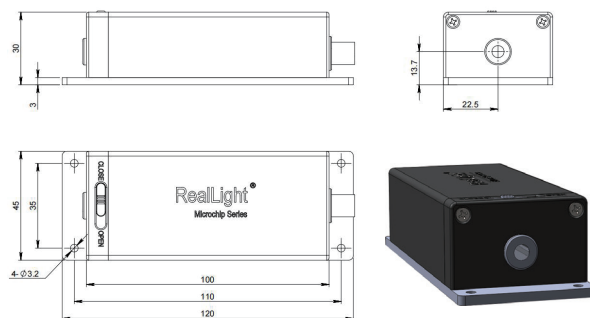
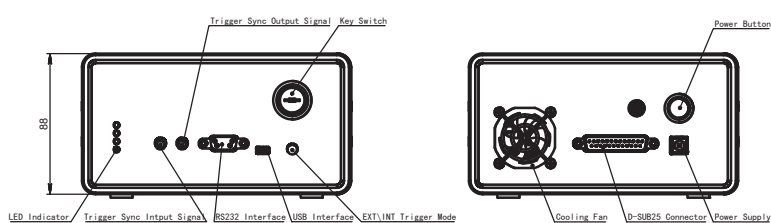
Typical Pulse

## Part Numbering Schema

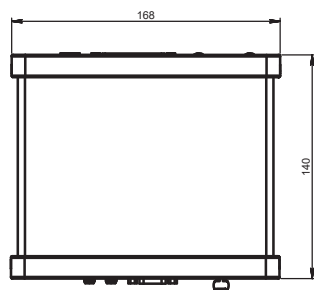


Beam Profile

## Mechanical Drawings (in mm)



Laser Head



Power Supply

