



# MCA Series 1.5ns Microchip Lasers



## Key Features

- ♦ Pulse width < 1.5ns
- ♦ Pulse energy up to 180μJ
- ♦ Repetition rates up to 20kHz
- ♦ Excellent beam quality
- ♦ Sealed design, high reliability

## Applications

- |            |                    |                            |
|------------|--------------------|----------------------------|
| LIDAR      | Laser Ranging      | Laser Induced Fluorescence |
| LIPS       | Air Monitoring     | Laser Ultrasound Testing   |
| LIBS       | Optical Metrology  | OPO Pumping Source         |
| LIMS       | Raman Spectroscopy | 3D Scanning and Imaging    |
| Biomedical |                    |                            |

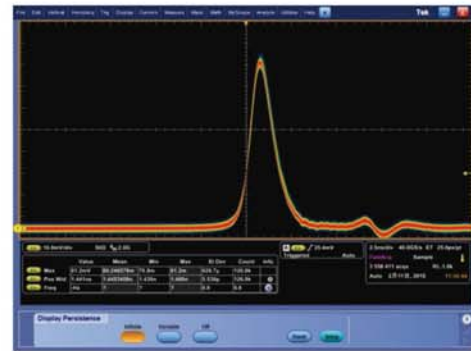
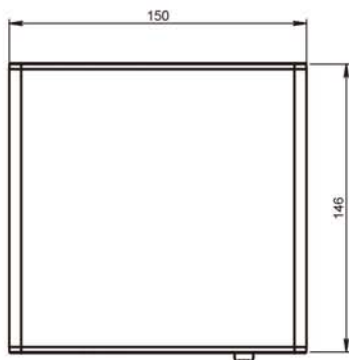
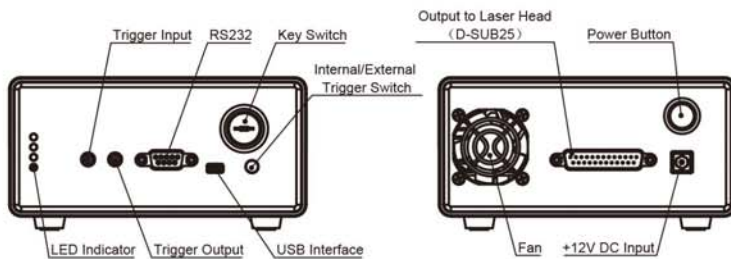
MCA Series																					
Wavelength ( nm )		1064					532					355					266				
Repetition rate ( kHz )		0.1	1	5	10	20	0.1	1	5	10	20	0.1	1	5	10	20	0.1	1	5	10	20
Average power ( mW )		18	120	300	400	600	6	50	125	200	200	2	15	25	40	60	1	5	15	20	20
Pulse energy ( μJ )		180	120	60	40	30	60	50	25	20	10	20	15	5	4	3	10	5	3	2	1
Pulse width ( ns )		1.5					1.2					1.2					1.2				
Power stability ( 8h )		±3%					±3%					±3%					±3%				
Beam profile		TEM <sub>00</sub>					TEM <sub>00</sub>					TEM <sub>00</sub>					TEM <sub>00</sub>				
Beam divergence full angle ( mrad )	Horizontal @1/e <sup>2</sup>	Typ.5					Typ.4					Typ.4					Typ.4				
	Vertical @1/e <sup>2</sup>	Typ.5					Typ.4					Typ.4					Typ.4				
Polarization		> 100:1					> 100:1					> 100:1					> 100:1				
System Parameters																					
Supply power voltage		100-240 VAC, 50/60 Hz																			
Modulation input		TTL 0-5V, SMA input																			
Control interface		RS232, USB																			
Power consumption ( W )		<15	<25	<30	<45	<50	<15	<25	<30	<45	<50	<15	<25	<30	<45	<50	<15	<25	<30	<45	<50
Power dimensions ( mm )		146×76×150 ( W×H×L )																			
Laser head dimensions ( mm )		45×30×120 ( W×H×L )																			
Operation temperature ( °C )		15-35																			
Storage temperature ( °C )		0-50																			

## Ordering information

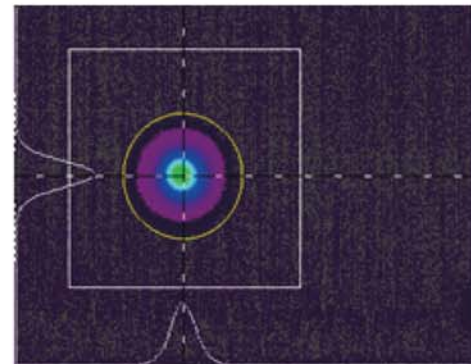
MCA Series Model List			
Wavelength ( nm )	Part Number	Repetition rate ( kHz )	Pulse energy ( $\mu\text{J}$ )
1064	MCA-1064-0.1-180	0.1	180
	MCA-1064-1-120	1	120
	MCA-1064-5-060	5	60
	MCA-1064-10-040	10	40
	MCA-1064-20-30	20	30
532	MCA-532-0.1-060	0.1	60
	MCA-532-1-050	1	50
	MCA-532-5-025	5	25
	MCA-532-10-020	10	20
	MCA-532-20-010	20	10
355	MCA-355-0.1-020	0.1	20
	MCA-355-1-015	1	15
	MCA-355-5-005	5	5
	MCA-355-10-004	10	4
	MCA-355-20-003	20	3
266	MCA-266-0.1-010	0.1	10
	MCA-266-1-005	1	5
	MCA-266-5-003	5	3
	MCA-266-10-002	10	2
	MCA-266-20-001	20	1

\* All specifications are subject to change without prior notice

## Mechanical Specifications

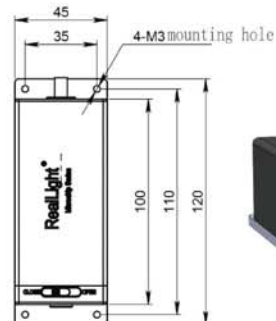
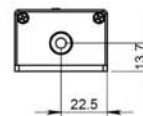
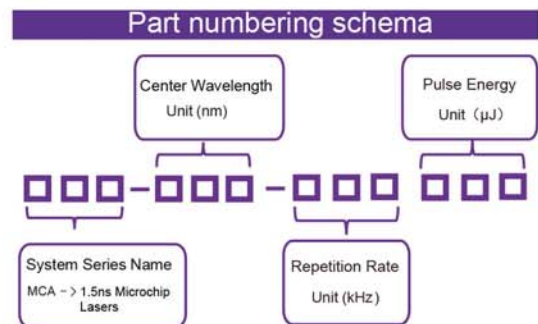


Typical Pulse



Beam Profile

## Part numbering schema



Unit: mm