



# Electro Optical Components, Inc.

5460 Skylane Boulevard, Santa Rosa, CA 95403

Toll Free: 855-EOC-6300

[www.eoc-inc.com](http://www.eoc-inc.com) | [info@eoc-inc.com](mailto:info@eoc-inc.com)



## 1064nm Sub-nanosecond DPSS Laser



The 1064nm Sub-nanosecond Laser is based on a passively Q-switched DPSS laser with pulse length of only a few hundred picoseconds. The high pulse energy and excellent beam quality make it an ideal choice for industrial and scientific applications. The pump diode module is integrated in the power supply. The laser can be operated from external or internal trigger mode.

### Key Features

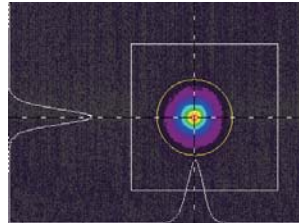
- Pulse width < 1ns (Min < 200ps);
- Pulse energy 10-100uJ (Max > 3mJ);
- Peak power up to 100kW;
- Internal and external trigger mode (repetition rate less than 10kHz);
- High repetition rate up to 100 kHz.

### Standard Wavelengths

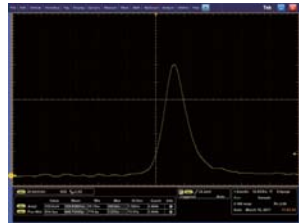
1064nm

### Applications

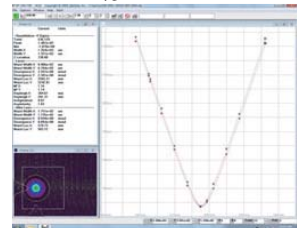
- |                            |                       |
|----------------------------|-----------------------|
| Super-continuum generation | Seed light source     |
| Raman spectroscopy         | Ranging               |
| LIDAR                      | 3D Scanning           |
| 3D Imaging                 | Bio-photonics         |
| Micromachining             | Atmospheric detection |



Beam profile



Typical Pulse



M<sup>2</sup> < 1.2

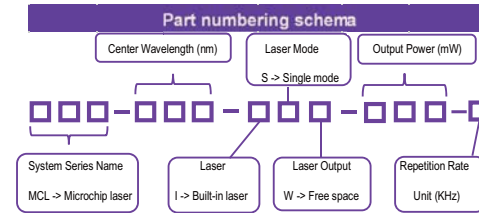
Optical parameters		
Wavelength (nm)	1064	
Repetition rate (kHz)	0.5 1 5 10 20	
Pulse width (ns)	1 0.6 0.6 0.9 0.8	
Average output power (mW)	80 100 200 200 200	
Pulse energy (uJ)	160 100 40 20 10	
Short term power stability (1min)	≤ 1%	
Long term power stability (8hrs)	± 3%	
Beam profile	TEM00	
Full angle divergence (mrad)	Horizontal @ 1/e <sup>2</sup>	typ. 5
	Vertical @ 1/e <sup>2</sup>	typ. 5
M <sup>2</sup>	< 1.2	
Polarization (dB)	> 100:1	
System parameters		
Power supply voltage	100-240V, 50/60 Hz	
Modulation input	TTL	
Control interface	Serial interface	
Power consumption	< 50W	
Storage humidity	0-80%RH	
Power dimensions (W×H×L, mm)	250×100×300	
Laser head dimensions (W×H×L, mm)	45×25×78	
Operating temperature	15-35°C	
Storage temperature	0-50°C	

Note: Above 2 kHz more than one amplitudes with 10-20% jumps due to intrinsic laser dynamics may appear.

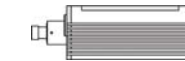
### Ordering information

MCL Series Model List			
Wavelength	Power	Part number	Repetition rate
1064nm	80mW	MCL-1064-ISW-080-0.5	0.5KHz
	100mW	MCL-1064-ISW-100-1	1KHz
	200mW	MCL-1064-ISW-200-5	5KHz
	200mW	MCL-1064-ISW-200-10	10KHz
	200mW	MCL-1064-ISW-200-20	20KHz

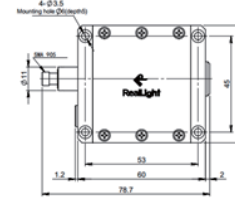
### Part numbering schema



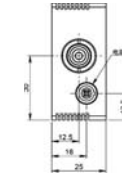
### Mechanical Specifications



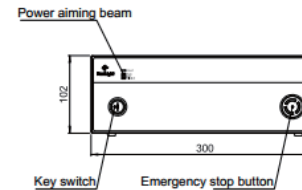
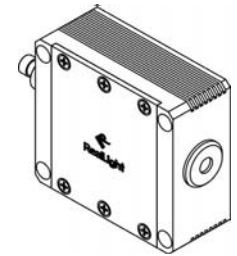
Laser Left View



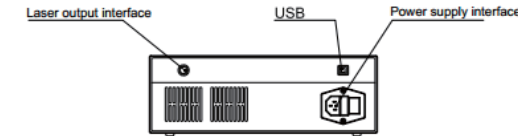
Laser Top View



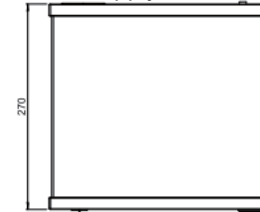
Laser Front View



Power Supply Front View



Power Supply Back View



Power Supply Top View



Unit: mm