



Electro Optical Components, Inc.

5460 Skylane Boulevard, Santa Rosa, CA 95403

Toll Free: 855-EOC-6300

www.eoc-inc.com | info@eoc-inc.com



532nm Sub-nanosecond DPSS Laser



The 532nm 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 source 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

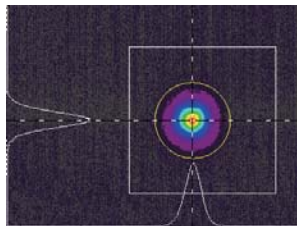
- ♦ Pulse width < 1ns (Min < 200ps);
- ♦ Pulse energy 10-80µJ (Max > 2mJ);
- ♦ Peak power up to 100kW;
- ♦ Internal and external trigger mode (repetition rate less than 10kHz);
- ♦ High repetition rate up to 100 kHz;

Standard Wavelengths

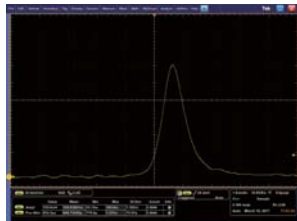
532nm

Applications

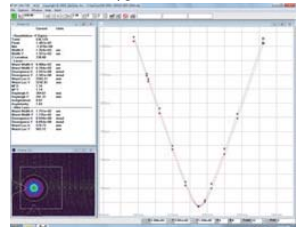
- Raman spectroscopy
- Mass spectrograph
- Atmospheric detection
- LIDAR
- Non-linear optics
- Biohazard detection
- Micromachining
- Two-photon microscopy
- Laser Induced Fluorescence



Beam profile



Typical Pulse



M² < 1.2

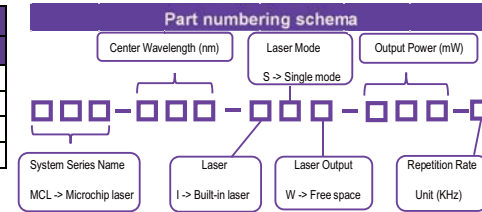
Optical parameters	
Wavelength (nm)	532
Repetition rate (kHz)	0.5 1 5 10
Pulse width (ns)	0.8 0.5 0.5 0.7
Average output power (mW)	40 50 100 100
Pulse energy (µJ)	80 50 20 10
Short term power stability (1min)	≤ 1%
Long term power stability (8hrs)	± 3%
Beam profile	TEM00
M²	< 1.3
Polarization (dB)	> 100:1
System parameters	
Power supply voltage	100-240V, 50/60Hz
Modulation input	TTL
Control interface	USB 2.0, 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
532nm	40mW	MCL-532-ISW-040-0.5	0.5KHz
	50mW	MCL-532-ISW-050-1	1KHz
	100mW	MCL-532-ISW-100-5	5KHz
	100mW	MCL-532-ISW-100-10	10KHz

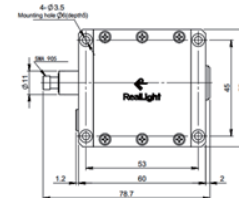
Part numbering schema



Mechanical Specifications



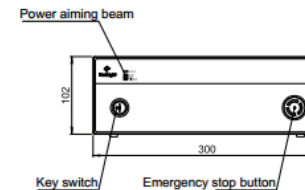
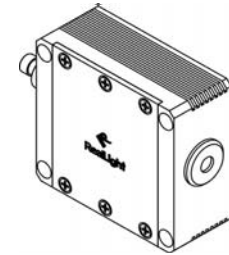
Laser Left View



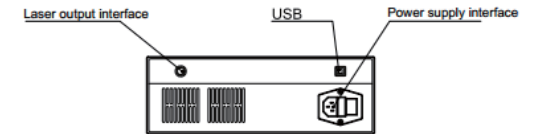
Laser Top View



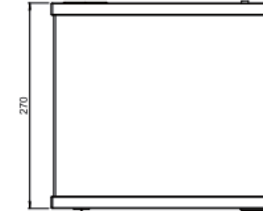
Laser Front View



Power Supply Front View



Power Supply Back View



Power Supply Top View



Unit: mm