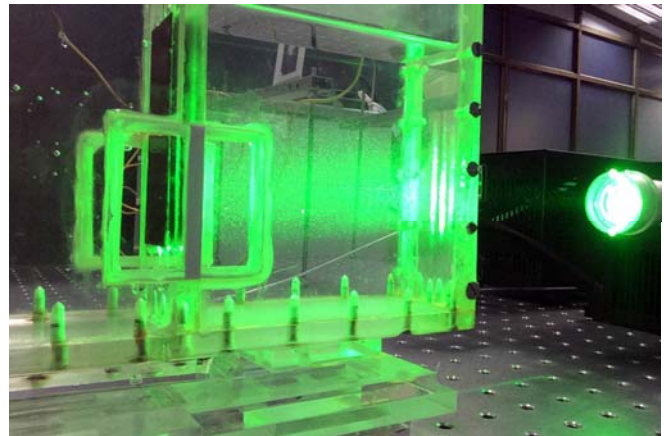
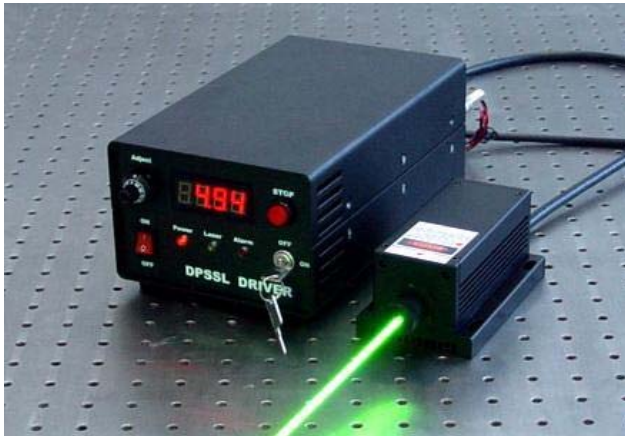


## Microvec DPSS Lasers

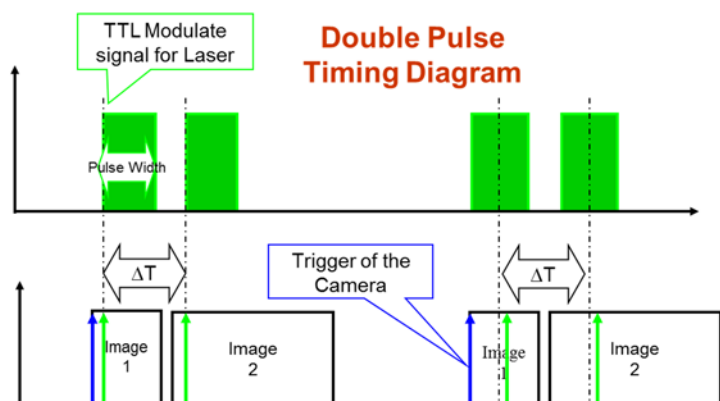
Diode-pumped solid-state lasers (DPSSLs) offered by Microvec are Q-switched Pulsed Nd:YAG solid-state lasers made by pumping a neodymium-doped YAG crystal with a laser diode. These models are especially appropriate for applications with a demand for higher repetition rates at lower energies. All models ranging from 1W to 10W feature compact laser heads and small-sized power supplies and are easy to set up and operate.



DPSS Lasers can be used in continuous wave mode or can be triggered by TTL or analog external trigger signal from MicrPulse 725 synchronizer and can be controlled with highest precision by MicroCap software. These models are generally suitable for flows with speed of up to 2m/s (with synchronizer). Double pulse can be generated by the synchronizer and MicroCap software. The time interval in double pulse can be set to between 200 $\mu$ s and 5ms for normal flow. It can be used for regular PIV/PTV systems as well as Time Resolved PIV, when using high speed cameras recording at speeds of up to about 1000 frames per second (1 KHz). Besides being a standard part of Micro PIV system, these DPSS lasers can also be used in field measurements of 5 to 15 cm.

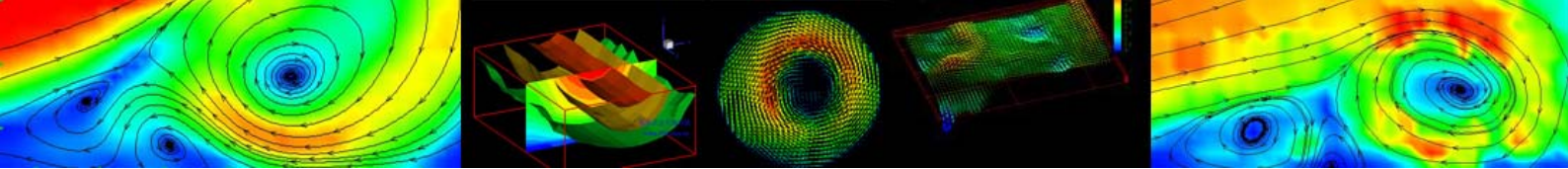
### Main Features:

- Compact laser head and power supply with small footprint
- Quick and easy to install
- Excellent beam quality and reliable optical stability
- Long diode lifetime
- Laser optics sheet included
- Double pulse available through the Synchronizer and MicroCap software
- Maintenance-free pumping chamber



**MicroVec**





## Specifications:

Descriptions	Specifications
Wavelength	532 nm
Output Power	1W, 2W, 3W, 5W, 8W, 10W
Energy Adjustment	0 - P <sub>max</sub>
Energy Stability	<3% RMS over 4 hours
Beam Diameter	3mm
Beam Pattern	Near TEM <sub>00</sub>
Beam Propagation Factor (M <sup>2</sup> )	<1.5
Temporal Jitter	<1 ns
Divergence	<1.5 mrad
Pointing Stability after Warm-up	< ± 50 μrad
Spectral line width	<0.1 nm
Amplitude Noise	3% rms

## Operating Requirements:

Operating Temperature	10 - 35°C
Expected Lifetime	10,000 hours
Relative Humidity	20 - 50% non-condensing
Voltage	85-265 VAC, 50/60 Hz
Laser Class	IV

## Sample Models:

Model		SM-SEMI-1	SM-SEMI-5	SM-SEMI-10
TTL Modulation (Hz)		30,000		
Analog Modulation (Hz)		20,000		
Power (W)		1	5	10
Dimensions (mm)	Optical laser head	168 x 98 x 102	168 x 98 x 102	180 x 133 x 95
	(L x W x H) Power supply	244 x 144 x 139	244 x 144 x 139	330 x 140 x 125
Weight (kg)		2.8	5.5	10.2

Note: Specifications subject to change without notice



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