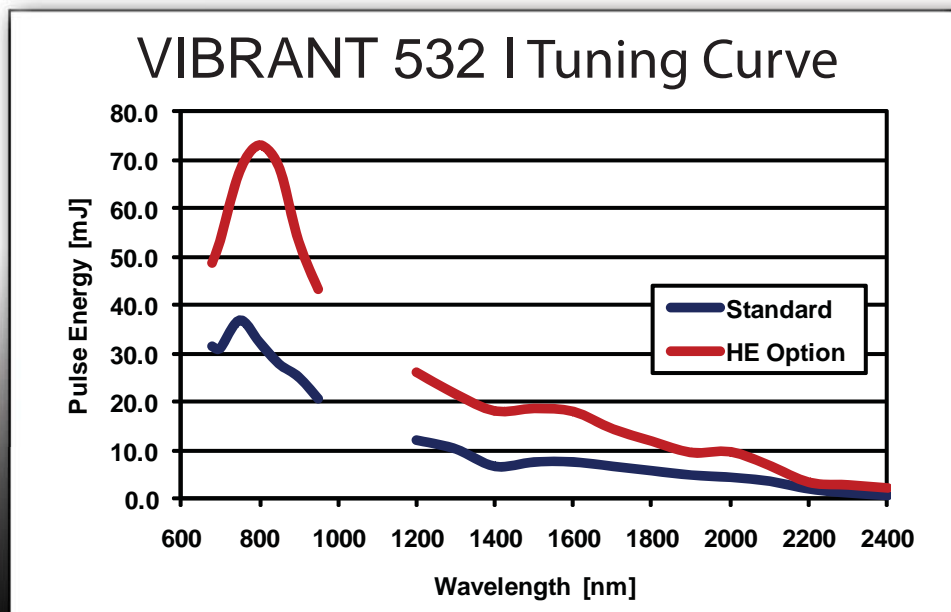




VIBRANT 532 I

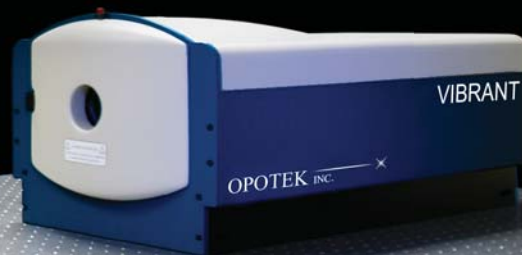
The VIBRANT 532 series of products are motorized, turn-key tunable laser systems that utilizes OPOTEK's patented* optical parametric oscillator (OPO) technology to generate a **broad tuning range with high efficiency**. All system components (pump laser, OPO, control electronics and optional accessories) are integrated into a **single unit** which results in a **compact, robust design**. The system includes optics necessary to separate OPO wavelengths which all **exit the system at the same location**. OPO and harmonic modules are **hermetically sealed** to protect sensitive crystal components. All system functions are accessible from user-friendly software which can be operated from any computer with a USB port. A **software development kit (SDK)** is available for integrating system functions into end-user software. A **number of options** are available for added functionality such as motorized harmonics, variable power attenuation and real-time wavelength measurement (see reverse side).



Tuning curve represents standard and HE configuration. Performance may vary depending on other installed options.

Features

- Wide tuning range
- Computer controlled
- Software development kit
- Compact and rugged
- Little to no maintenance



VIBRANT 532 I



Pump Laser Specifications		
Pump Laser	Nd:YAG	Flashlamp pumped
Pump Wavelength	532 nm	
Pulse Repetition Rate	10 Hz	Computer selectable lower repetition rate
Pulse Length	5 ns	Nominal
Beam Diameter	6 (9)* mm	Nominal
External Trigger	Flashlamp and Q-Switch	

OPO Parameters		
Wavelength Tuning Range	680 - 950 nm & 1200 - 2400 nm	Wavelength "gap" at degeneracy point
Peak OPO Energy	35 (75)* mJ	See tuning curve
Spectral Linewidth	~30 cm ⁻¹ (680 nm) - ~100 cm ⁻¹ (950 nm)	
Beam Divergence	~2 mrad (680 nm) - ~10 mrad (950 nm)	FWHM, circular beam
Polarization	Horizontal	Signal & Idler
Computer Control	All laser and OPO functions	ON, OFF, Power, Rep-Rate, Tuning, Scan

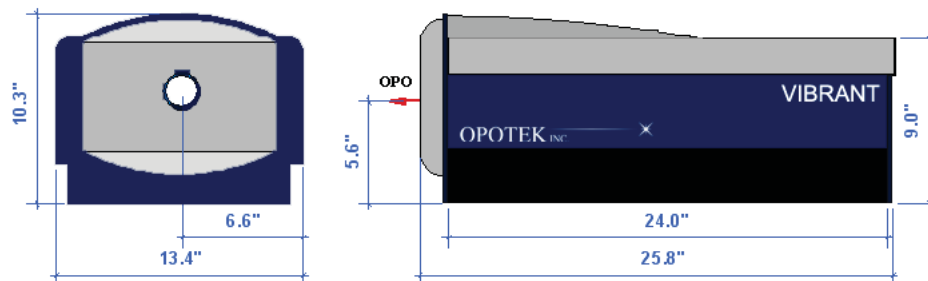
* Data in () refers to system with -HE option, which incorporates a high energy pump laser.

Options	Option Code	Description
Access to Pump Laser Wavelengths	-1X/2X/4X	Access to 1064 nm, 532 nm, 266 nm
High Energy Pump Laser	-HE	Greater OPO energy using higher energy pump laser
Motorized Harmonics	-MH	Control harmonics via computer software
High Repetition Rate	-20Hz	20 Hz pump laser; OPO energy 10-15% lower (standard system only)
Motorized Variable Attenuator	-MVA	Attenuate OPO output from 0 - 100% via computer
Wavemeter	-WM	Real-time wavelength measurement, Closed-loop tuning
Harmonics Auto-Optimization**	-HAO	Automated harmonic optimization

** Requires -MH and -WM options

Laser Head Dimensions

Weight: 65-80 lbs (depending on options added)



Power Supply	
Dimensions	23" (H) x 13" (W) x 23" (L)
Weight	150 lbs
Voltage	Single phase, 90 - 240 V
Input Power	< 1.1 kW
Cooling	Closed-cycle water cooled

