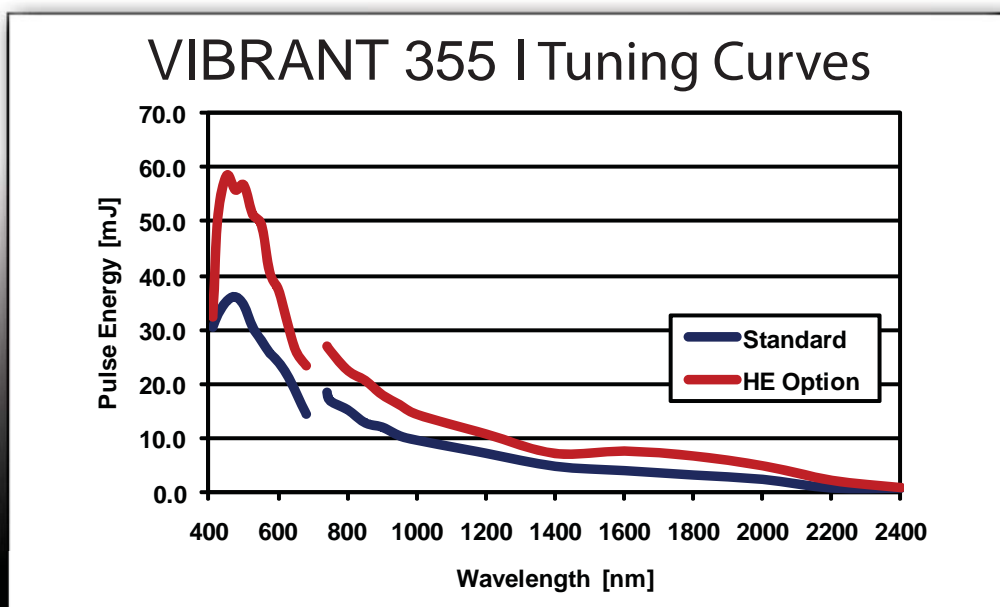




# VIBRANT 355 I

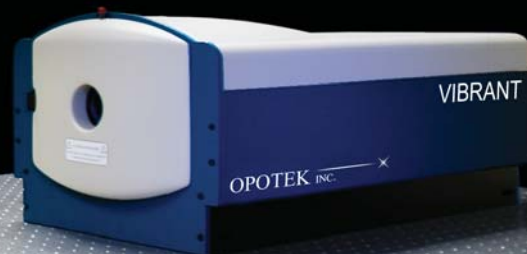
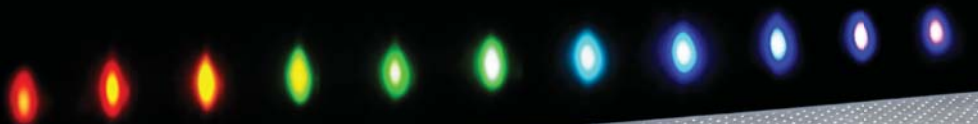
The VIBRANT 355 series of products are motorized, turn-key tunable laser systems that utilizes OPOTEK's patented\* optical parametric oscillator (OPO) technology to generate a **broad tuning range with high efficiency**. All system components (pump laser, OPO, control electronics and optional accessories) 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 tuning
- Software development kit
- Compact and rugged
- Little to no maintenance



# VIBRANT 355 I



## Pump Laser Specifications

Pump Laser	Nd:YAG, Q-Switched	Flashlamp pumped
Pump Wavelength	355 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	410 - 680 nm and 740 - 2400 nm	Wavelength "gap" at degeneracy
Peak OPO Energy	35 (60)* mJ	See tuning graph
Spectral Linewidth	~5 cm <sup>-1</sup> (410 nm) - ~100 cm <sup>-1</sup> (650 nm)	
Beam Divergence	~2 mrad (410 nm) - ~10 mrad (650 nm)	FWHM, Circular beam
Polarization	Horizontal	Linear polarization
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

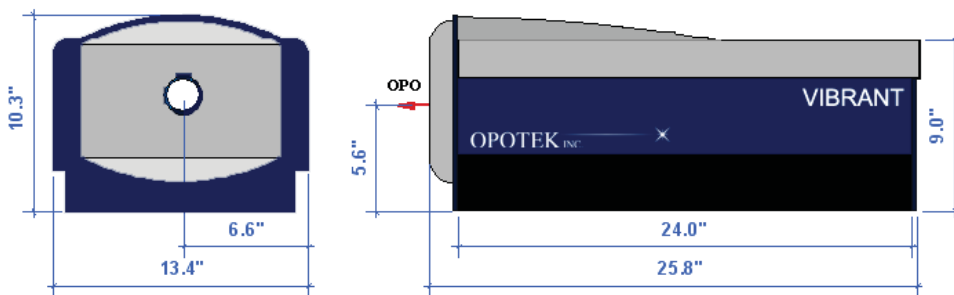
## Description

Access to Pump Laser Wavelengths	-1X/2X/3X/4X	1064 nm, 532 nm, 355 nm, 266 nm
High Energy Pump Laser	-HE	Greater OPO energy using higher energy pump laser
High Repetition Rate	-20Hz	20 Hz pump laser; OPO energy 10-15% lower (standard system only)
Motorized Harmonics	-MH	Control harmonics via computer software
Motorized Variable Attenuator	-MVA	Attenuate OPO output from 0 - 100% via computer
Wavemeter	-WM	Real-time wavelength measurement, Fast Scan™, Feed-back Tuning
Harmonics Auto-Optimization**	-HAO	Automatic harmonic energy 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

