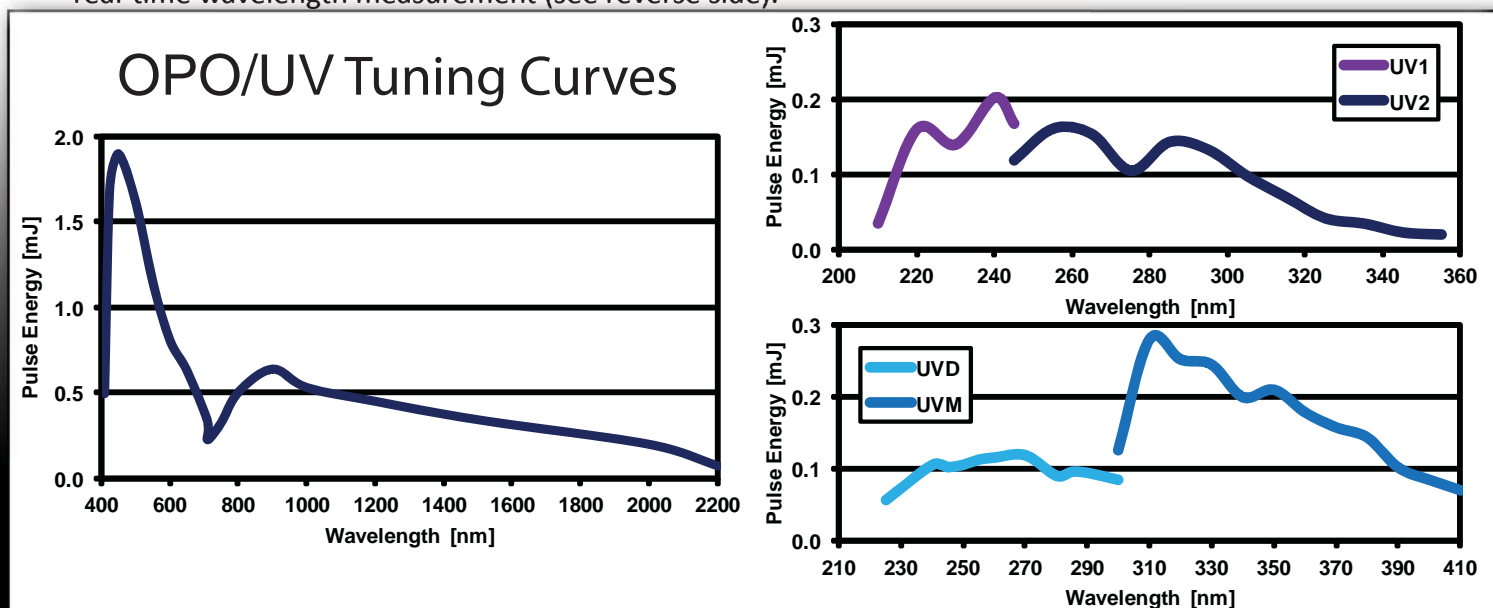




# Opolette™ HR 355 LD

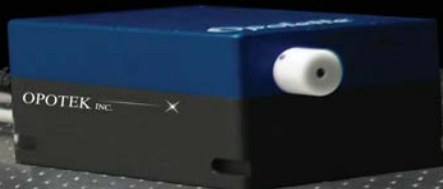
The *Opolette*™ HR 355 LD series of products are **ultra-compact, portable**, turn-key tunable laser systems that utilizes OPOTEK's patented\* optical parametric oscillator (OPO) technology to generate a **low divergence beam** and **broad tuning range with high efficiency**. The system incorporates a **Diode-Pumped-Solid-State (DPSS)** laser as the pump source and can operate at pulse repetition rates of **up to 100 Hz**. All system components (pump laser, OPO and optional accessories) are integrated into a single unit which results in a compact, **9x12"** footprint which is **ready out-of-the-box**. The system includes optics necessary to separate OPO wavelengths which all **exit the system at the same location**. The entire system is 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 curves represent standard and UV configurations. Performance may vary depending on other installed options.

## Features

- Wide tuning range
- Little to no maintenance
- No installation required
- Low divergence (2 mrad)
- Small footprint: 9x12"
- Computer controlled
- Software development kit
- 100 Hz pulse repetition rate



# Opolette™ HR 355 LD



## Pump Laser Specifications

Pump Laser	Nd:YAG	Diode pumped
Pump Wavelength	355 nm	
Pulse Repetition Rate	100 Hz	Computer selectable lower repetition rate
Pulse Length	9 ns	Nominal
Beam Diameter	3 mm	Nominal
External Trigger	Diode and Q-Switch	

## OPO Parameters

Wavelength Tuning Range	410 - 2200 nm	No wavelength "gap" at degeneracy
Peak OPO Energy	2 mJ	See tuning curve
Spectral Linewidth	~4 - 7 cm <sup>-1</sup>	
Beam Divergence	< 2 mrad	FWHM, circular beam
Polarization	Signal Horizontal; Idler Vertical	Linear polarization
Access to residual 355 nm	~1.5 mJ	Simultaneous with OPO output
Computer Control	All laser and OPO functions	ON, OFF, Power, Rep-Rate, Tuning, Scan

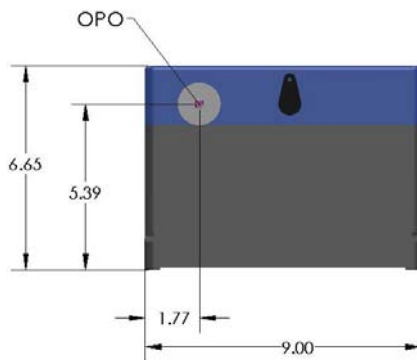
Options	Option Code	Description
Access to Pump Laser Wavelengths	-1X/2X	Access to 1064 nm, 532 nm
Automated Range Selection	-RS	Switch between Signal and Idler automatically
Motorized Harmonics	-MH	Control harmonics via computer software
Fiber Delivery	-FD	2-meter fiber, coupling lens, polishing kit
UV Add-on (210-355 nm)	-UV12	Includes -RS option and UV/OPO separation optics
UV Add-on (225-410 nm)	-UV2M	Includes UV/OPO separation optics; 710-2200 nm optional (side aperture)
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

\* Not available with UV add-ons

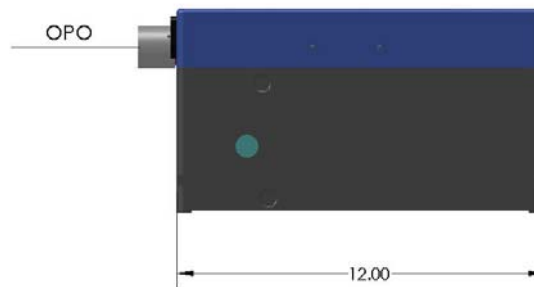
\*\* Requires -MH and -WM options

## Laser Head Dimensions

Weight: 30 lbs



Front



Side



	Pump Laser Power Supply	Control Electronics Unit	Cooling Unit
Dimensions	3.5" (H) x 19" (W) x 18" (L)	3.75" (H) x 10.25" (W) x 11.5" (L)	7" (H) x 5" (W) x 7.5" (L)
Weight	15 lbs	5 lbs	8 lbs
Voltage	Single phase, 90 - 240 V	Single phase, 90 - 240V	Single phase, 90 - 240V
Input Power	< 300 W	< 100 W	200 W
Cooling	Closed-cycle water cooled		