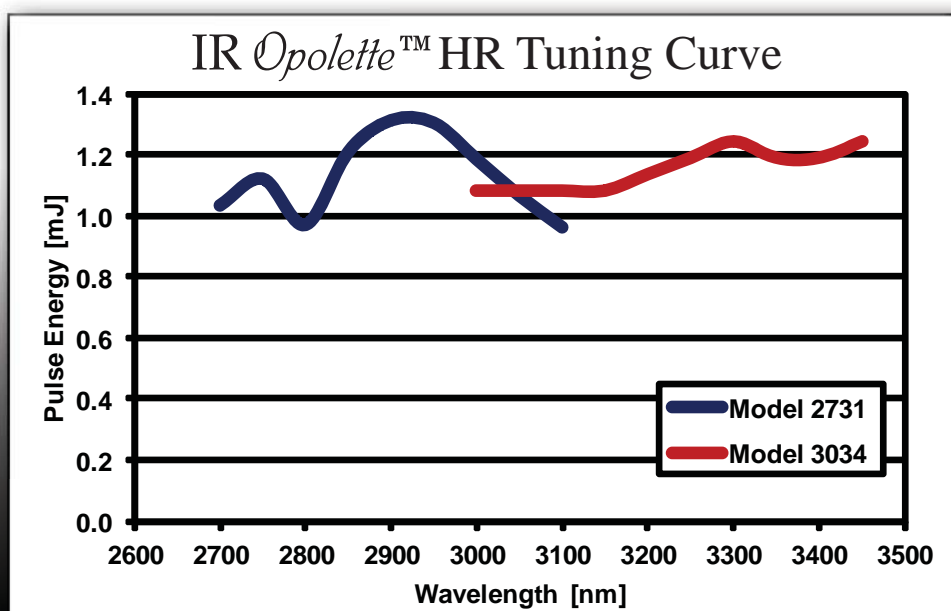




# IR *Opolette*<sup>TM</sup> HR

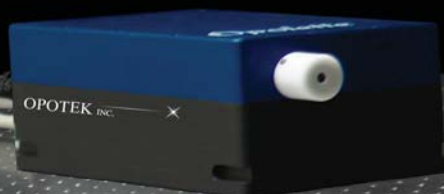
The IR *Opolette*<sup>TM</sup> HR series of products are **ultra-compact**, **portable**, turn-key tunable laser systems that utilizes OPOTEK's optical parametric oscillator (OPO) technology to generate mid-IR wavelengths. The OPO is pumped by a **diode-pumped solid state (DPSS) Nd:YAG laser at 100 Hz**. All system components (pump laser and OPO) are integrated into a single unit which results in a compact, **9x12"** footprint. A **built-in 650 nm laser diode** is aligned colinear with the mid-IR output for beam stirring guidance. 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 the addition of harmonic modules for 532 and 355 nm laser light generation and variable power attenuation.



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

## Features

- Wide tuning range
- Little to no maintenance
- 100 Hz pulse repetition rate
- Small footprint: 9 x 12"
- Computer controlled
- Software development kit





## Pump Laser Specifications

<b>Pump Laser Specifications</b>	Nd:YAG	Diode pumped
<b>Pump Wavelength</b>	1064 nm	
<b>Pulse Repetition Rate</b>	100 Hz	Computer selectable lower repetition rate
<b>Pulse Length</b>	9 ns	Nominal
<b>Beam Diameter</b>	3 mm	Nominal
<b>External Trigger</b>	Diode and Q-Switch	

## OPO Parameters

<b>Wavelength Tuning Range</b>	2700 - 3100 nm	Model 2731
	3000 - 3450 nm	Model 3034
<b>Peak OPO Energy</b>	1.3 mJ	See tuning curve (Model 2731)
	1.3 mJ	See tuning curve (Model 3034)
<b>Spectral Linewidth</b>	4 - 7 cm <sup>-1</sup>	FWHM
<b>Polarization</b>	Horizontal	Linear polarization
<b>Built-in laser diode</b>	~ 650 nm	OPO beam guidance
<b>Computer Control</b>	All laser and OPO functions	ON, OFF, Power, Rep-Rate, Tuning, Scan

## Options

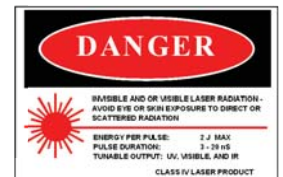
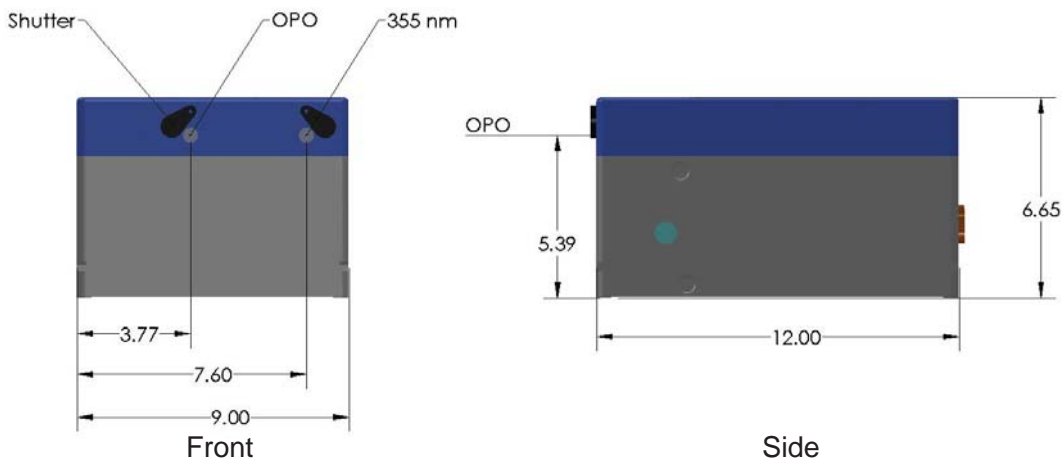
## Option Code

## Description

<b>Access to Pump Laser Wavelength</b>	<b>-1X</b>	Access to 1064 nm
<b>Harmonics for 355 and 532 nm</b>	<b>-2X/3X</b>	Access to 532 nm, 355 nm
<b>Variable Attenuator</b>	<b>-VA</b>	Manually attenuate OPO output from 10 - 100%

## Laser Head Dimensions

**Weight:** 30 lbs



## Pump Laser Power Supply

## Control Electronics Unit

## Cooling Unit

<b>Dimensions</b>	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)
<b>Weight</b>	15 lbs	5 lbs	8 lbs
<b>Voltage</b>	Single phase, 90 - 240 V	Single phase, 90 - 240V	Single phase, 90 - 240V
<b>Input Power</b>	< 300 W	< 100 W	200 W
<b>Cooling</b>	Closed-cycle water cooled		