

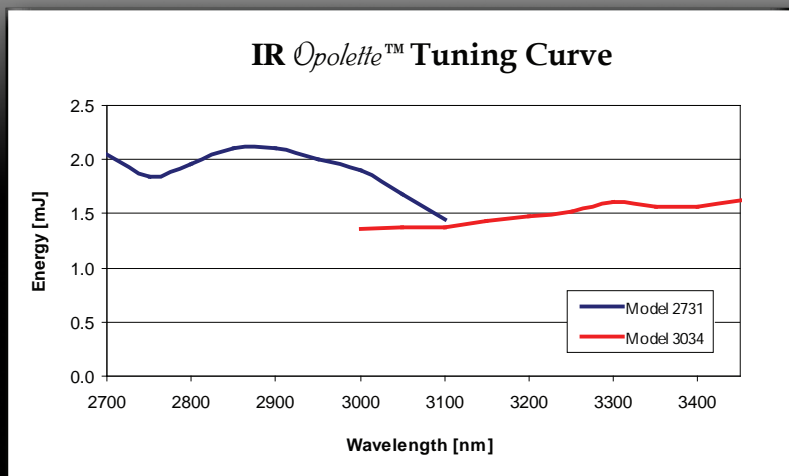


# IR *Opolette*™

The IR *Opolette*™ is an integrated tunable laser system based on Optical Parametric Oscillator (OPO) Technology. The OPO is pumped by a Nd:YAG laser at 20 Hz. Two wavelength ranges are available: 2.7 μm to 3.1 μm and 3.0 μm to 3.4 μm. Wavelength tuning is completely computer controlled via a single USB cable.

In addition to tunable mid-infrared output, optional 355 nm output is available. Interchanging between UV and IR modes is done by flipping a shutter. The 355 nm photons can be simultaneously output with the IR for two photon applications. Optional optical fibers for the IR and UV are available.

The IR *Opolette*™ is well suited for IR MALDI as well as atmospheric pressure “matrix-free” IR LDI and ELDI. The compact design and turn-key operation of the IR *Opolette*™ allows for commercial mass spectrometer retrofitting.



Tuning curve represents a typical system. Results may vary.

## Features

- Wide tuning range in the Mid-IR
  - Minimal maintainance
  - Small footprint 7x12"
  - Computer controlled
- Interchangeable or simultaneous access to UV
- Software development kit





### Pump Laser Specifications

Pump Laser	Nd:YAG	Flashlamp pumped
Pump Wavelength	1064 nm	
Pulse Repetition Rate	20 Hz	Lower rep rate can be selected
Pulse Length	5 ns	Nominal
Beam Diameter	3 mm	Nominal
External Trigger	Lamp and Q-Switch	

### OPO Parameters

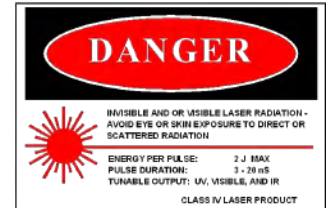
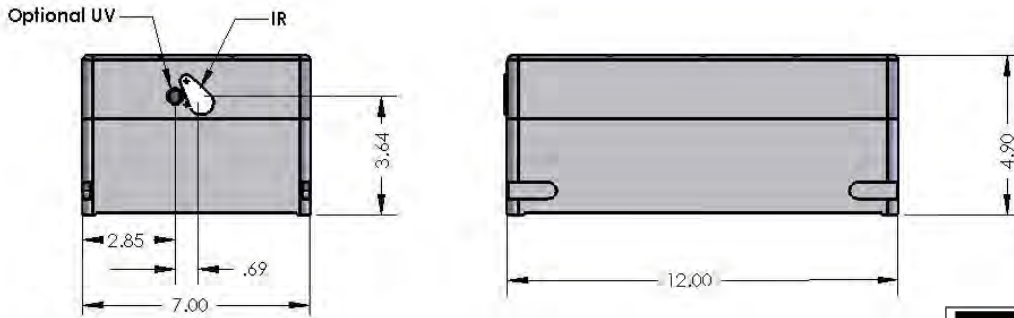
Wavelength Tuning Range	2700 - 3100 nm	IR <i>Opolette</i> ™ Model 2731
	3000 - 3450 nm	IR <i>Opolette</i> ™ Model 3034
Peak OPO Energy	2 mJ	See tuning curve
Spectral Linewidth	15 - 20 cm <sup>-1</sup>	
Polarization	Horizontal	Linear polarization
Computer Control	All the laser and OPO functions	ON, OFF, Power, Rep-Rate, Tuning, Scan

### Options

355 nm Output	~ 3 mJ, Simultaneous output available
Access to Laser Fundamental	1064 nm output
Fiber Delivery	~ 50% transmission, 2 m fiber, mounted lenses, polishing kit

### Laser Head Dimensions

Weight: 25 lbs



	Pump Laser Power Supply	Control Electronics Unit
Dimensions	14" (H) x 5.25" (W) x 17" (L)	3.75" (H) x 10.25" (W) x 11.5" (L)
Weight	32 lbs	5 lbs
Voltage	Single phase, 110 - 240 V	Single phase, 110 - 240V
Input Power	< 850 W	< 100 W
Cooling	Closed cycle water cooled	