



Opolette UX

TUNABLE LASER



OPOTEK continues its tradition of offering the smallest form factor tunable lasers with the Opolette UX. Built to accommodate the diverse needs of our customers, the Opolette UX fits the tight constraints of the modern laboratory while continuing to offer wide tunable ranges from the UV to MIR.

Opolette UX TUNABLE LASER

SYSTEM FEATURES

- Intergrated pump laser with quick connect cables
- Flashlamp based pump laser with minimal maintenance
- End user replaceable flashlamp (50 million shot lifetime) and DI cartridge
- Flashlamp and/or Q-Switch external triggering
- Computer controlled via a single USB connection
- Control software and software development kit (SDK)
- No factory installation required
- End user accessible alignment verification
- Temperature controlled, motorized harmonic(s)
- All tunable wavelengths output from the same port
- Access to pump laser wavelengths (1064nm, 532nm, and/or 355nm)
- All tunable wavelengths accessible without any manual configuration changes

AVAILABLE OPTIONS AND ACCESSORIES

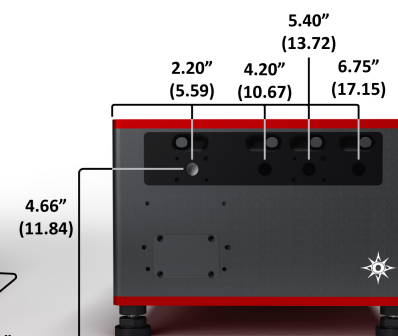
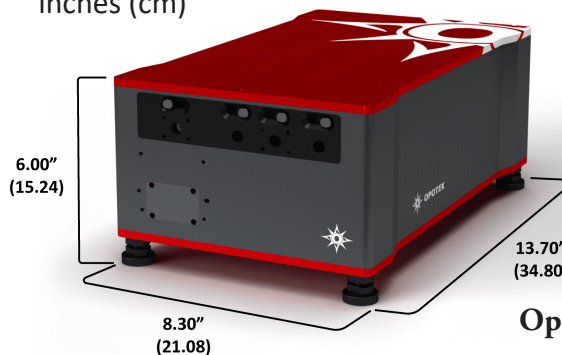
Extended UV Tuning Range: Extends the tuning range to 210-410nm (UV). Reduces OPO by 20%. Available on Opolette UX10230 only.

Motorized Variable Attenuator (MVA): Externally mounted and computer controlled. End user removable/installable. Reduces OPO by 10-15% when installed. Can only be used with visible and near-infrared wavelengths.

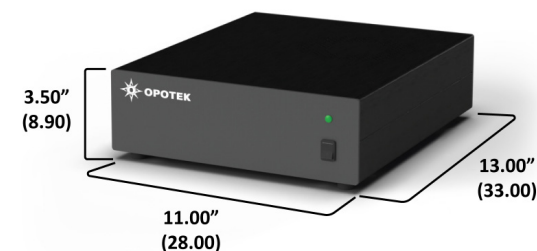
Fiber Delivery Kit (FD): End user changeable output from free space to fiber output. Standard fiber is 1mm core, 2m long, NA=0.22, SMA connector. Fiber coupler assembly installed directly onto the front of the system.

Wavemeter (WM): Real-time wavelength monitoring and harmonic auto-optimization.

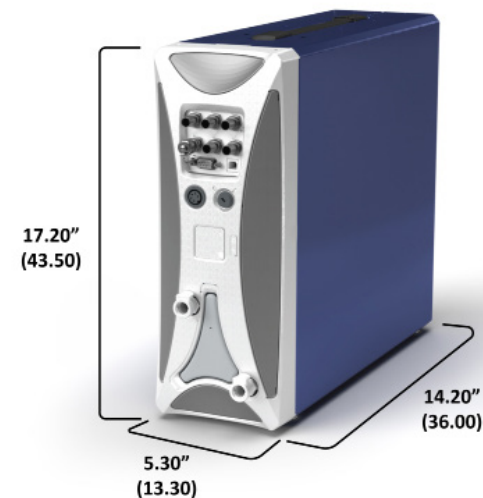
DIMENSIONS inches (cm)



Opolette UX Laser Head

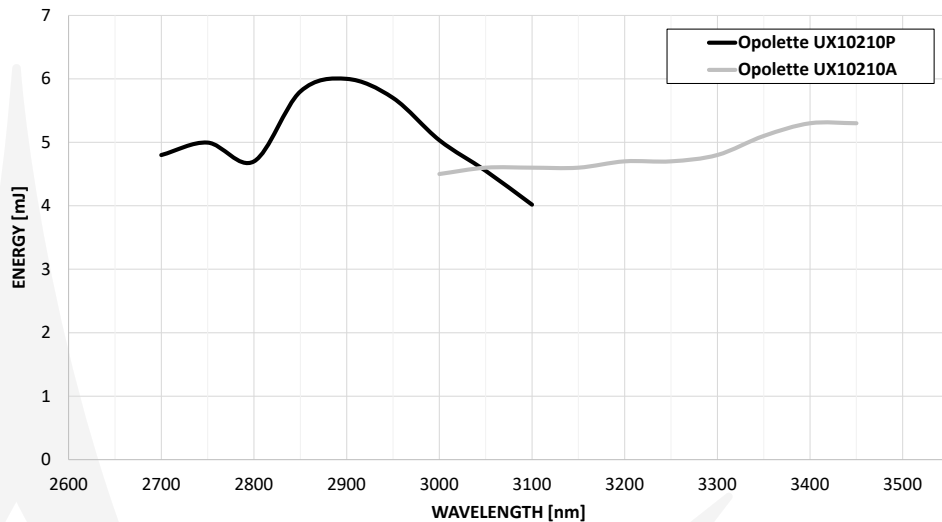


Electronics Box

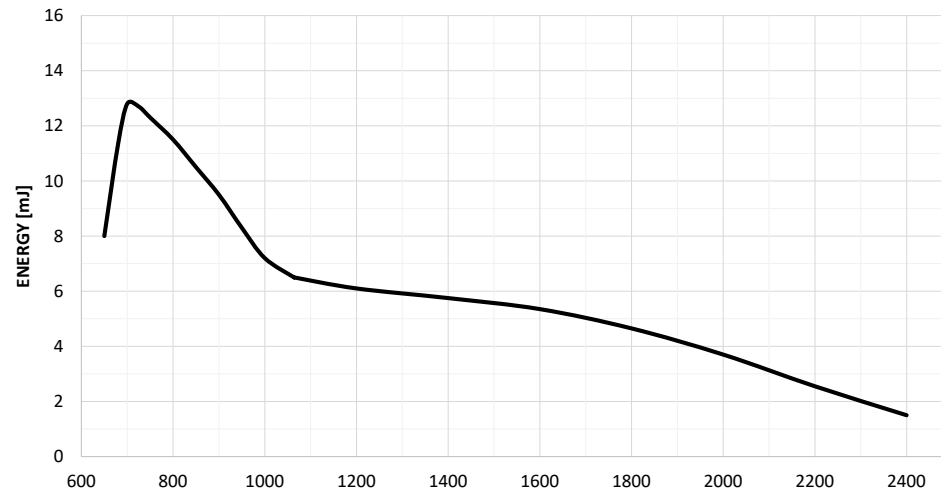


Power Supply

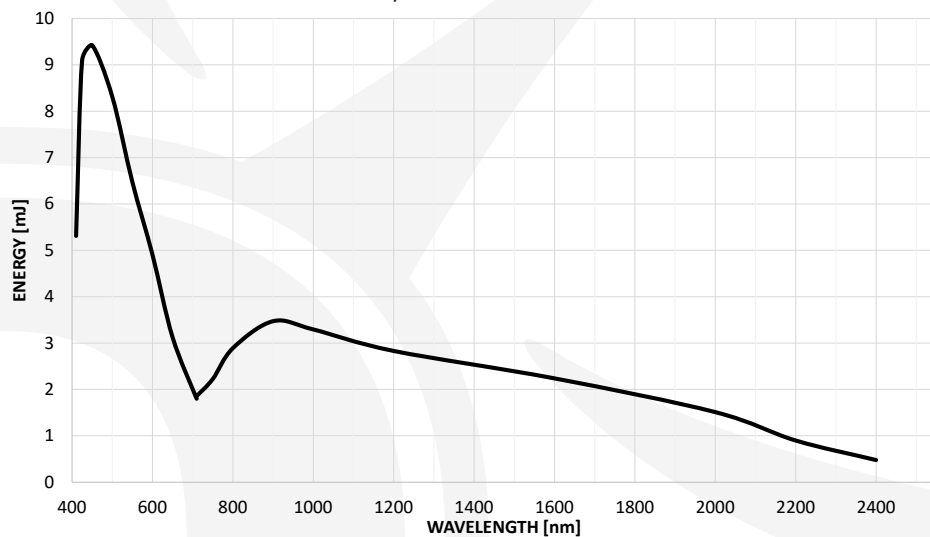
Opolette UX10210
MIR TUNING RANGE



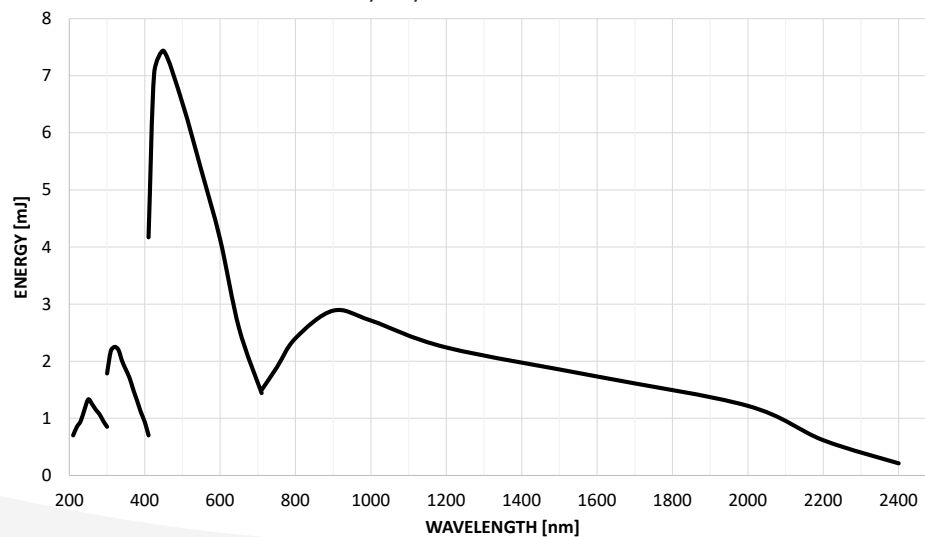
Opolette UX10220
NIR TUNING RANGE



Opolette UX10230
VIS/NIR TUNING RANGE



Opolette UX10230U
UV/VIS/NIR TUNING RANGE



NOTE: All tuning curves represent nominal values.

OPO SPECIFICATIONS	Opolette UX10210		Opolette UX10220	Opolette UX10230	
	Opolette UX10210A	Opolette UX10210AP		Opolette UX10230	Opolette UX10230U
Wavelength Range (nm)	3000-3450	2700-3100	650-2400	410-2400	210-2400
Peak OPO Energy (mJ)	3.3	6.0	12.8	9.4	7.5
Peak UV Energy (mJ)		--	--	---	2.2
Pulse to Pulse Stability (%) ¹		< 2	< 2		< 2
Pump Laser Residual Energy (mJ)		60 at 1064 nm	18-22 at 532 nm		15-20 at 355 nm
Linewidth (cm ⁻¹)		4 - 7	10 - 15		4 - 7
Tuning Resolution (nm)		< 1	< 1		< 1
Pulse Duration (ns)		6	6		6
Beam Diameter (mm) ²		4	4		4
Beam Divergence (mrad) ³		< 5 (vertical); < 10 (horizontal)	< 2 (Both Axis)		< 1.5 (Both Axis)
Polarization		Vertical	Horizontal (650 - 1064 nm) Vertical (1064 - 2400 nm)		Vertical (210 - 410 nm) Horizontal (410 - 710 nm) Vertical (710 - 2400 nm)

PUMP LASER SPECIFICATIONS

OPO Pump Wavelength (nm)	1064	532	355
OPO Pump Energy (mJ)	100	55	30
Pulse Duration (ns)	7	7	7
Beam Divergence (mrad)	< 3	< 3	< 3
Pulse to Pulse Stability (%) ⁴	< 2	< 2	< 2
Pulse Repetition Rate (Hz)	20	20	20

¹ RMS @ peak OPO wavelength, 99% of shots

² at output of the laser

³ Full angle, at 1/e² of the peak; at peak wavelength

⁴ RMS, 99% of shots

DIMENSIONS (all systems)

Laser Head (L x W x H; inches [cm])	13.70 x 8.30.0 x 6.00 [34.80 x 21.08 x 15.24]
Electronics Box (L x W x H; inches [cm])	13.00 x 11.00 x 3.50 [33.00 x 28.00 x 8.90]
Power Supply (L x W x H; inches [cm])	14.20 x 5.30 x 17.20 [36.00 x 13.30 x 43.50]
Laser Head Weight (lbs [kg])	30.00 [13.63]
Electronics Box Weight (lbs [kg])	5.00 [2.30]
Power Supply Weight (lbs [kg])	31 [14.09]

OPERATING REQUIREMENTS (all systems)

Cooling System	Integrated air-water heat exchanger (included)
Coolant	Distilled water
Temperature	64-82°F / 18-28 °C
Power	100-240 VAC, 50/60 Hz, single phase 1000VAC



VERSION 1.01

Due to ongoing product improvements, all specifications are subject to change without notice.

All tuning curves represent nominal values.

All dimensions approximate in inches (centimeters).

 All standard Opolette UX Tunable Lasers are Class 4 Laser Products
 Opolette UX Tunable Laser without access to residual output are Class 3B Laser Products
