



Known for industry leading OPO engineering, OPOTEK has redesigned the RADIANT for the modern laboratory. With an improved mechanical design, the RADIANT QX tunable laser system can now be installed by you; saving time and money over competing solutions. By offering tuning ranges from the deep UV to the mid IR, choosing the best system for your application has never been easier. Never let fixed wavelength laser technology limit the boundaries of your discovery.

SYSTEM FEATURES

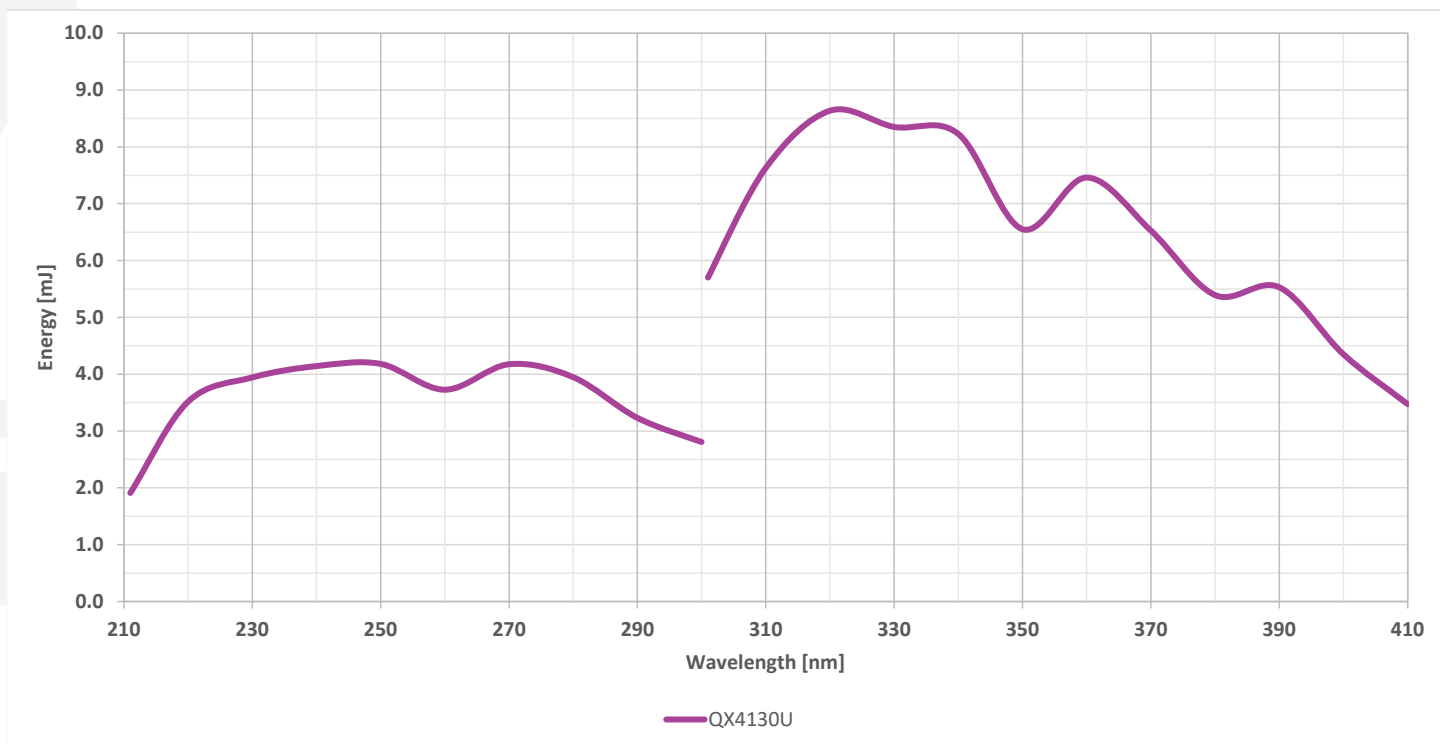
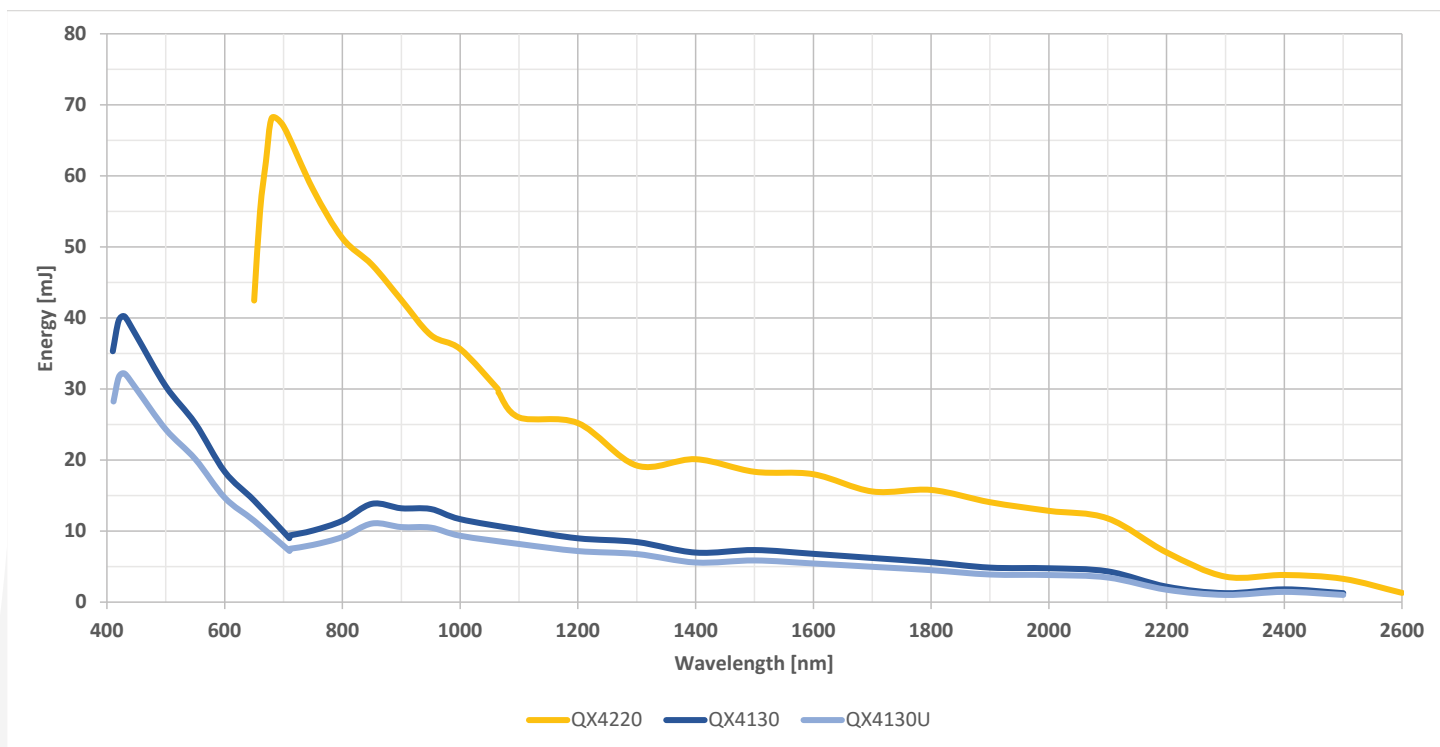
- Fully integrated optical layout
- Flashlamp based pump laser with minimal maintenance
- Flashlamp lifetime: 100 million laser shots
- Flashlamp and/or Q-Switch external triggering
- Computer controlled via a single USB connection
- Control software and software development kit (SDK)
- Programmable scans
- No factory installation required
- End user accessible alignment verification
- Fast temperature stabilized pump laser and harmonics (< 20 min)
- All tunable wavelengths output from a single port
- Access to 1064 nm and pump beam (532nm or 355nm)
- Fiber bundle compatible output ports

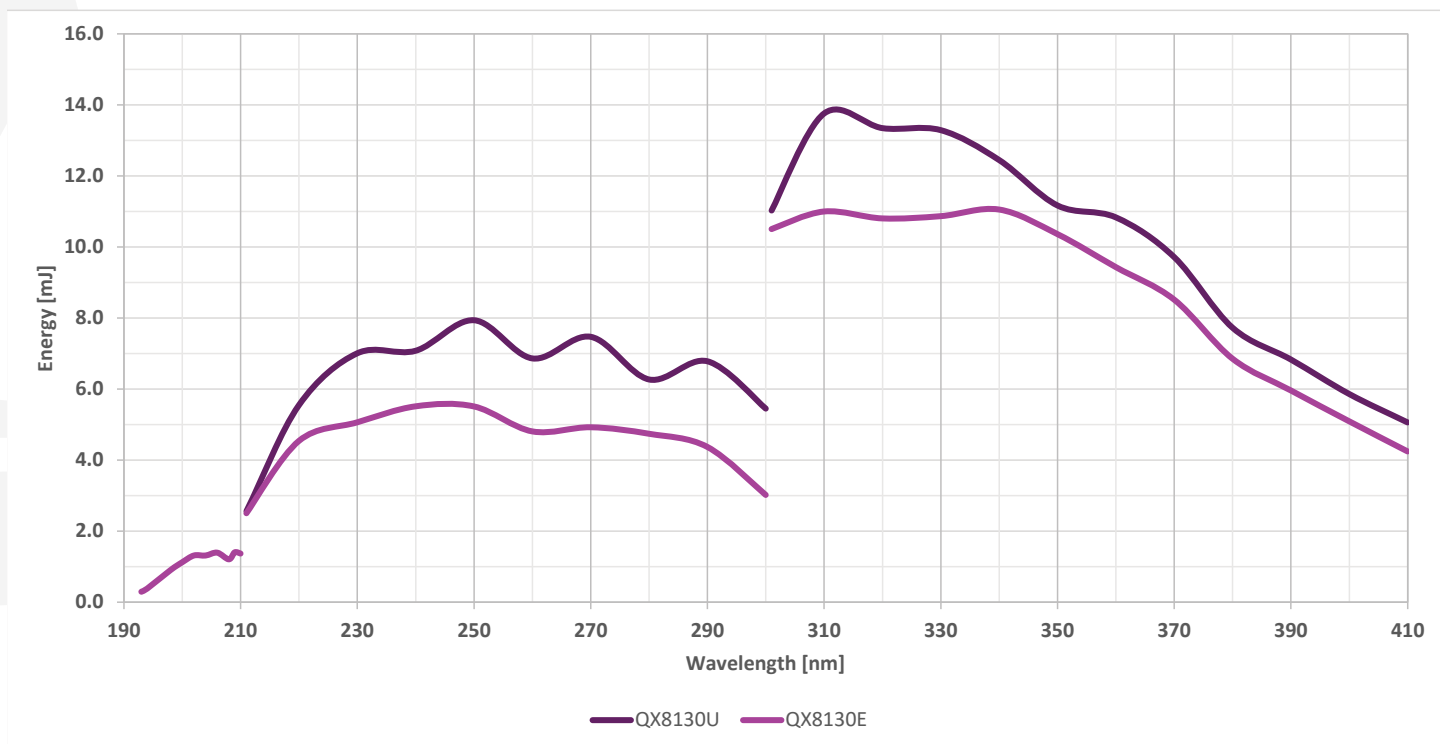
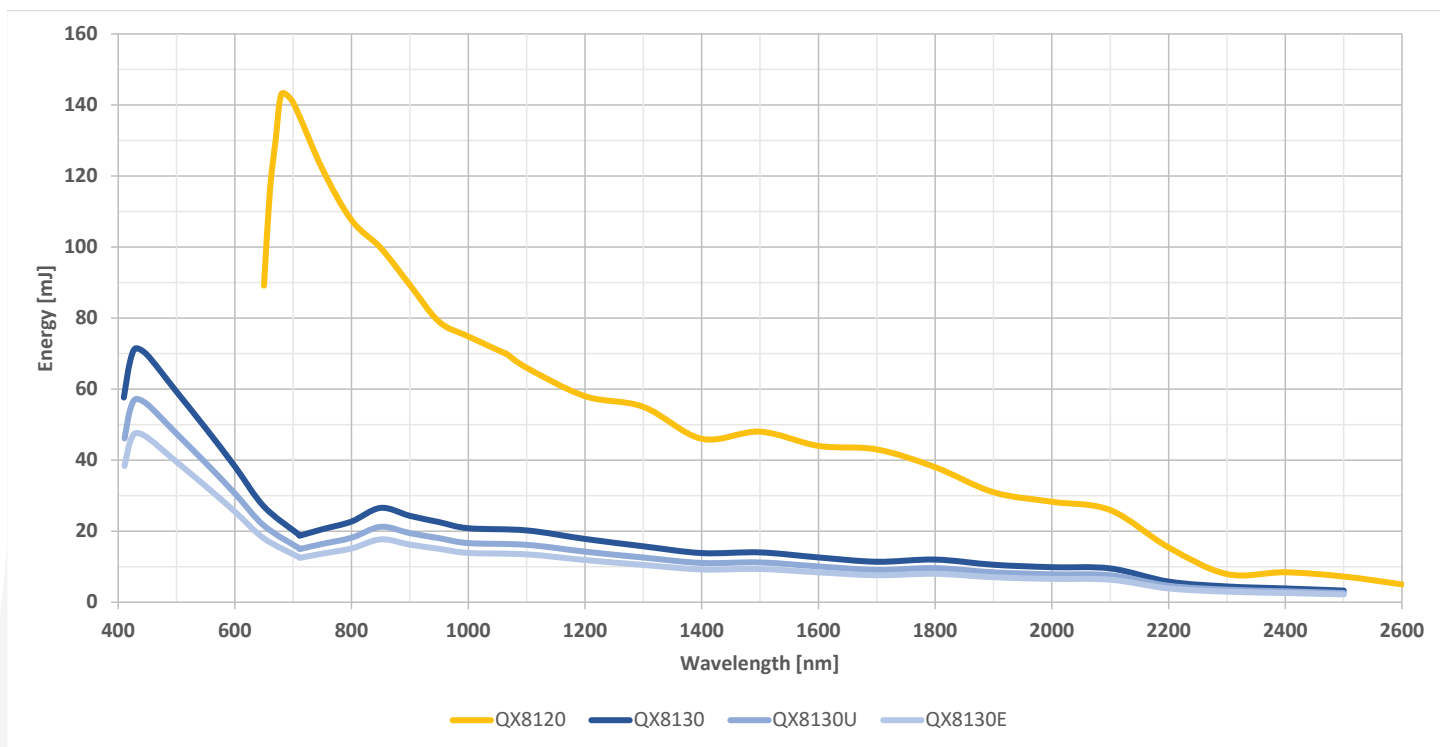
APPLICATIONS

- Photoacoustic Imaging
- Hyperspectral Imaging
- Optical Damage Testing
- Resonance Enhanced Multiphoton Ionization (REMPI)
- Time Resolved Spectroscopy
- Light Detection and Ranging (LIDAR)
- Laser Induced Fluorescence
- Cavity Ring Down Spectroscopy (CRDS)
- Electron Paramagnetic Resonance (EPR)
- *Any application requiring tunable, high energy, pulsed laser light*

OPTIONS

- UV Tunability Add-on (210-410 nm)
- Extended UV Tunability Add-on (193-410 nm)
- Motorized Variable Attenuator
- Real-Time Wavelength Monitoring
- Access to Full Power 355 nm
- Access to Full Power 532 nm
- Fourth Harmonic Add-on (266 nm)





SPECIFICATIONS	RADIANT QX4220		RADIANT QX8120	RADIANT QX4130	RADIANT QX8130
WAVELENGTH RANGE (nm)	650 - 2600			410 - 2500	
w/ UV (optional)	--			210 - 2500 (QX4130U)	210 - 2500 (QX8130U)
w/ EUV (optional)	--			--	193 - 2500 (QX8130E)
Repetition Rate (Hz)	20	10	10	10	
Pulse to Pulse Stability (%) ¹	2				
Linewidth (cm ⁻¹)	10 - 15 ²			3 - 5 ³	
Tuning Step Resolution (nm)					
Signal	< 0.5			< 0.1	
Idler	< 1.5			< 1.0	
Pulse Duration (ns) ⁴	6				
Beam Diameter (mm) ⁵	7	9	7	9	
Beam Divergence (mrad) ⁶	< 2				
Signal Polarization	Horizontal				
Idler/UV Polarization	Vertical				
Full Power 1064 nm Access (mJ)	350	700	400	700	
Residual 532 nm Access (mJ)	50	100	--	--	
Residual 355 nm Access (mJ)	--			30	40

¹ RMS @ peak OPO, 99% of shots

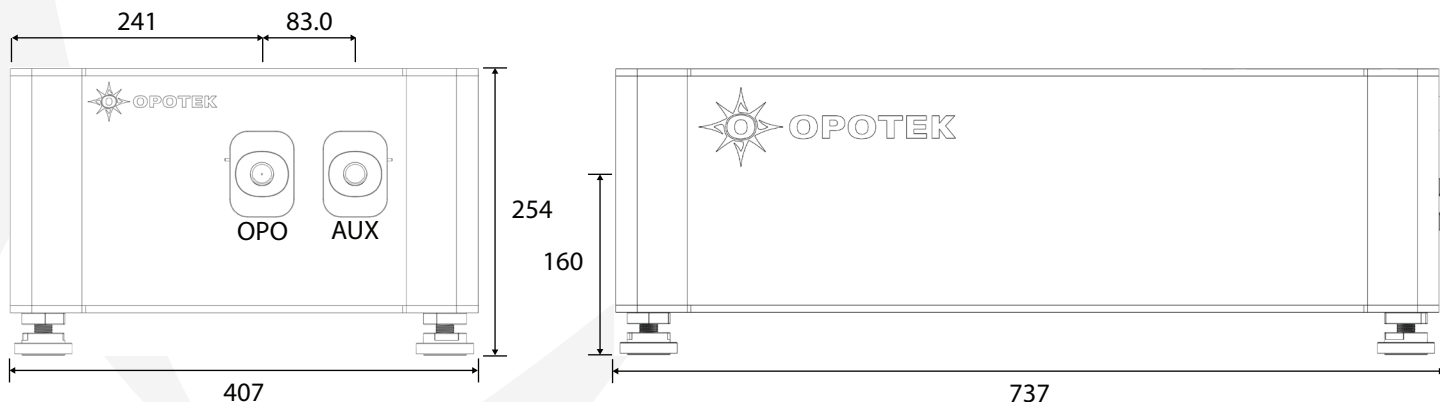
³ 410 nm and higher

⁵ At output port

² 670 nm and higher

⁴ FWHM

⁶ Full angle, at 1/e² of the peak; @ peak OPO, both axis

LASERHEAD (45.4 Kg)

POWER SUPPLY (27.0 Kg)

- 507 x 283 x 513 (L x W x H)
- Integrated air-water heat exchanger
- Distilled water coolant
- 64-82°F / 18-28 °C ambient operating environment
- 100-240 VAC, 50/60 Hz, single phase 1000 VA
- Easy to replace inline DI filter

OPO ELECTRONICS BOX (2.3 Kg)

- 330 x 280 x 89.0 (L x W x H)
- 64-82°F / 18-28 °C ambient operating environment
- 100-240 VAC, 50/60 Hz
- External for easy service and upgrading



OPOTEK LLC is certified to ISO 9001:2015. VERSION 1.10
 Tuning curves represent nominal values.
 Dimensions approximate in millimeters.

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

