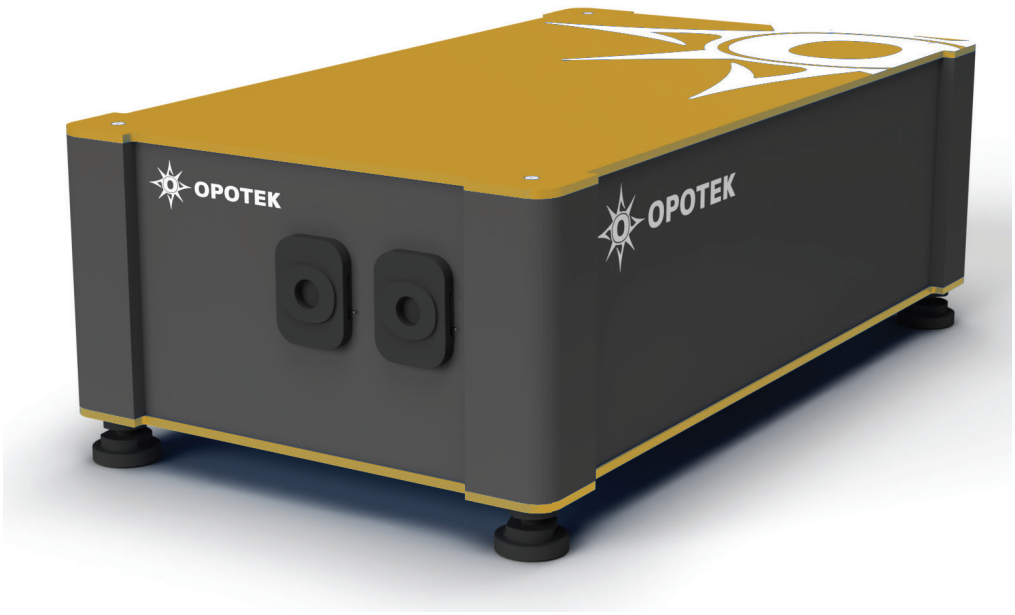
OPOTEK

Opolucis™ C
Tunable Laser



Introducing OPOTEK's third generation high energy, tunable lasers based on OPO technology. With a new advanced tuning mechanism and diode-pumped solid state (DPSS) pump laser, take your application to the next level with up to ten times higher repetition rates and wide tunability from the deep UV to near infrared. Acquiring more data points per second improves signal averaging, allows the detection of experimental events in real time and increases imaging frame rates.

SYSTEM FEATURES

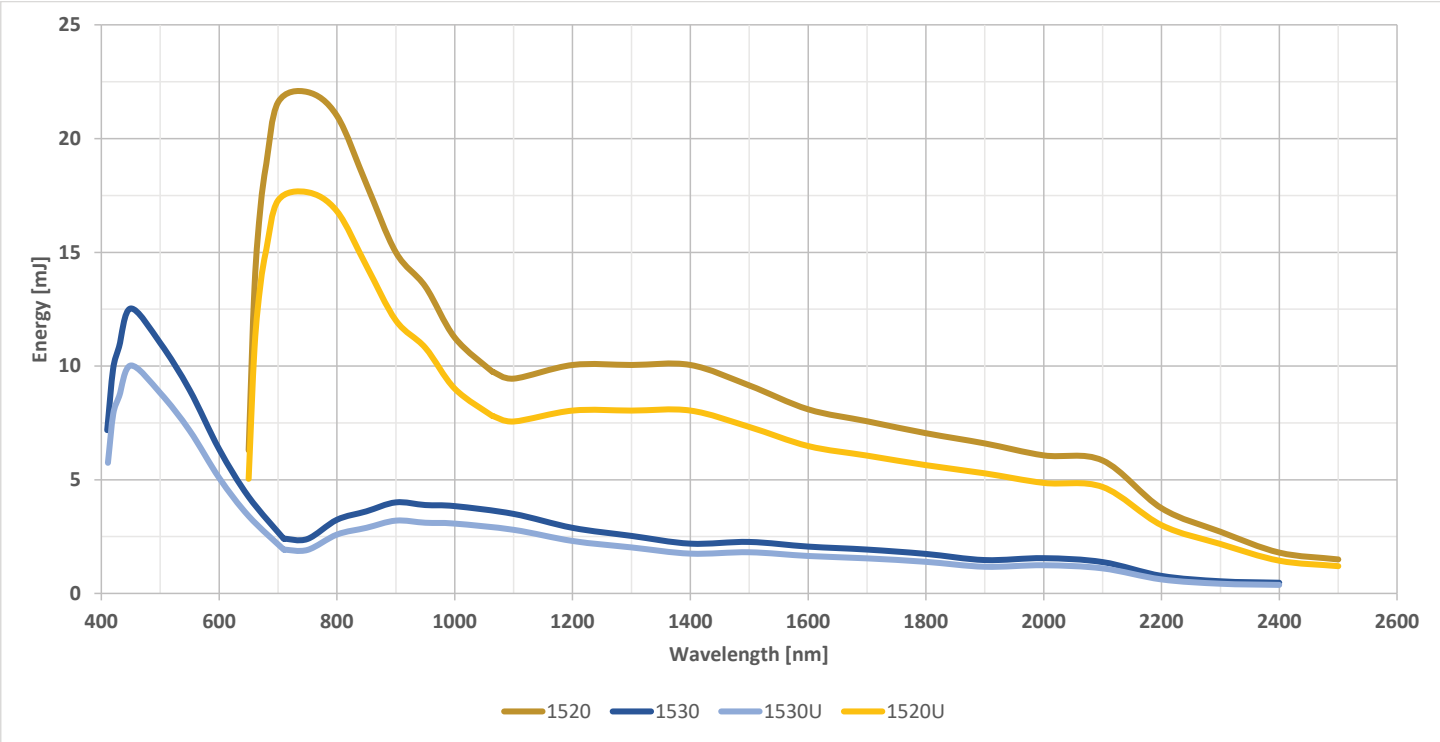
- Compact and truly-integrated laserhead
- Water-Cooled DPSS, low RF noise pump laser
- DPSS lifetime: 4 billion laser shots
- DPSS and/or Q-Switch external triggering
- Computer controlled via a single USB connection
- Control software and software development kit (SDK)
- Programmable scans
- No factory installation required
- End user accessible alignment verification
- Fast temperature stabilized pump laser and harmonics
- All tunable wavelengths output from a single port
- Access to 1064 nm and pump beam (532 nm or 355 nm)
- Fiber bundle compatible output ports

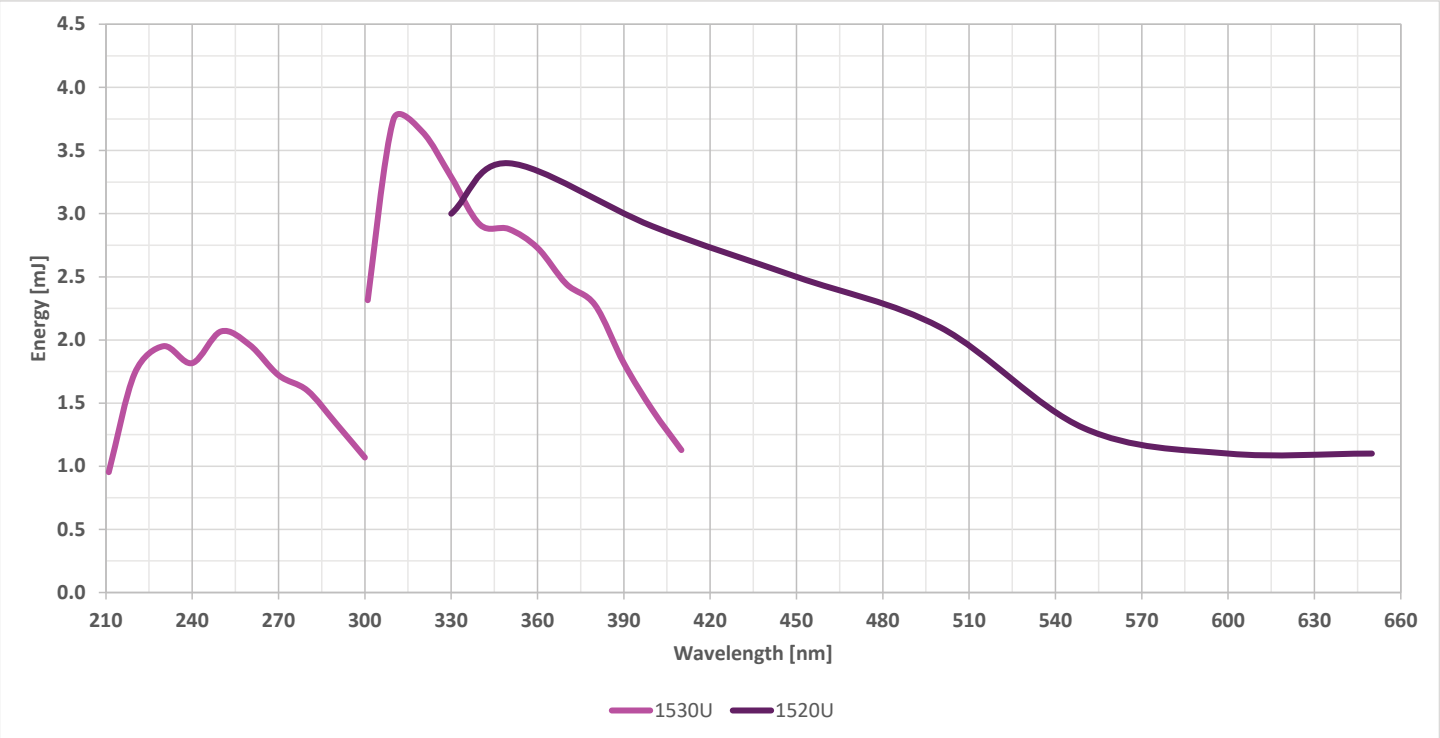
APPLICATIONS

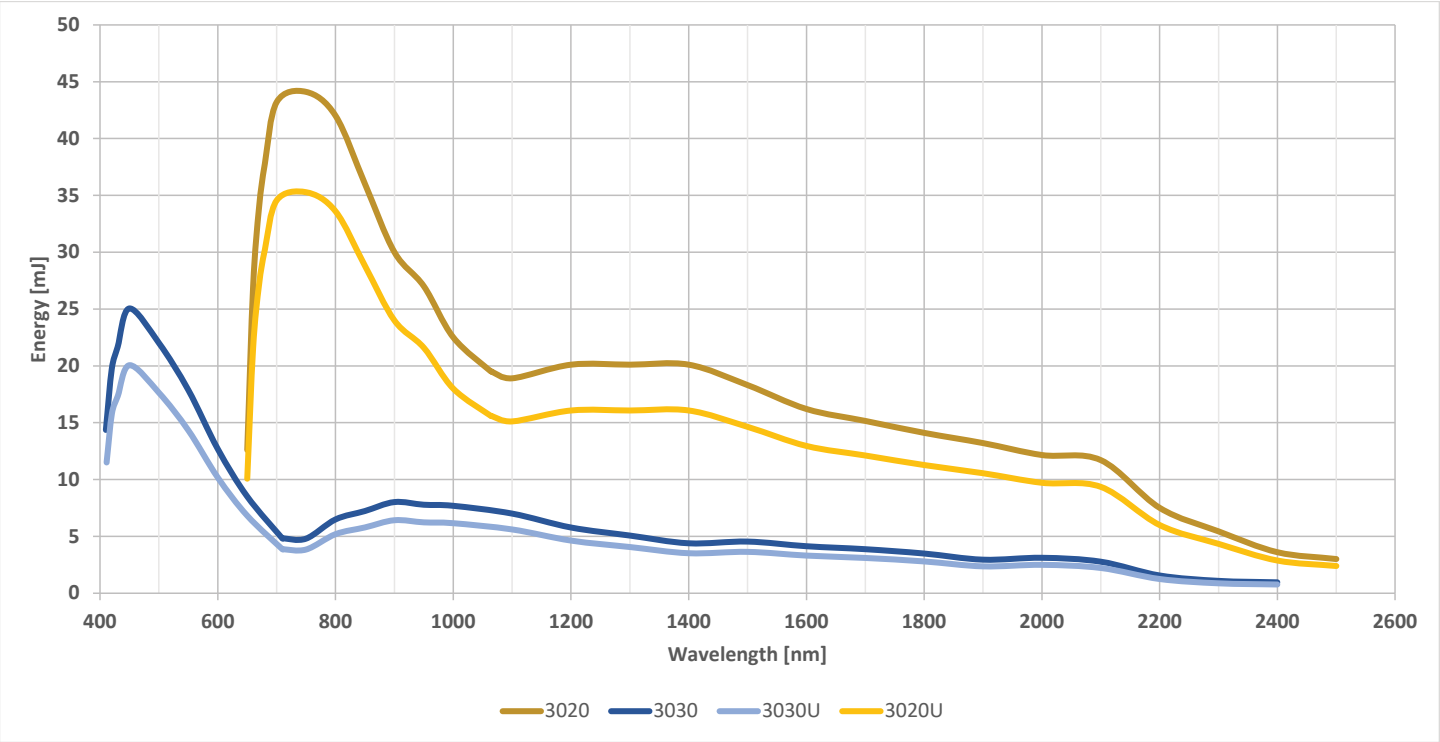
- Endoscopic Photoacoustic Imaging
- LCD Manufacturing
- Optical Damage Testing
- Mass Spectrometry Imaging (MSI)
- Time Resolved Spectroscopy
- Photodynamic Therapy (PDT)
- Laser Induced Breakdown Spectroscopy (LIBS)
- Laser Ablation ICP Mass Spectrometry
- Environmental Monitoring & Remediation
- *Any applciation requiring high repetition rate tunable, pulsed laser light*

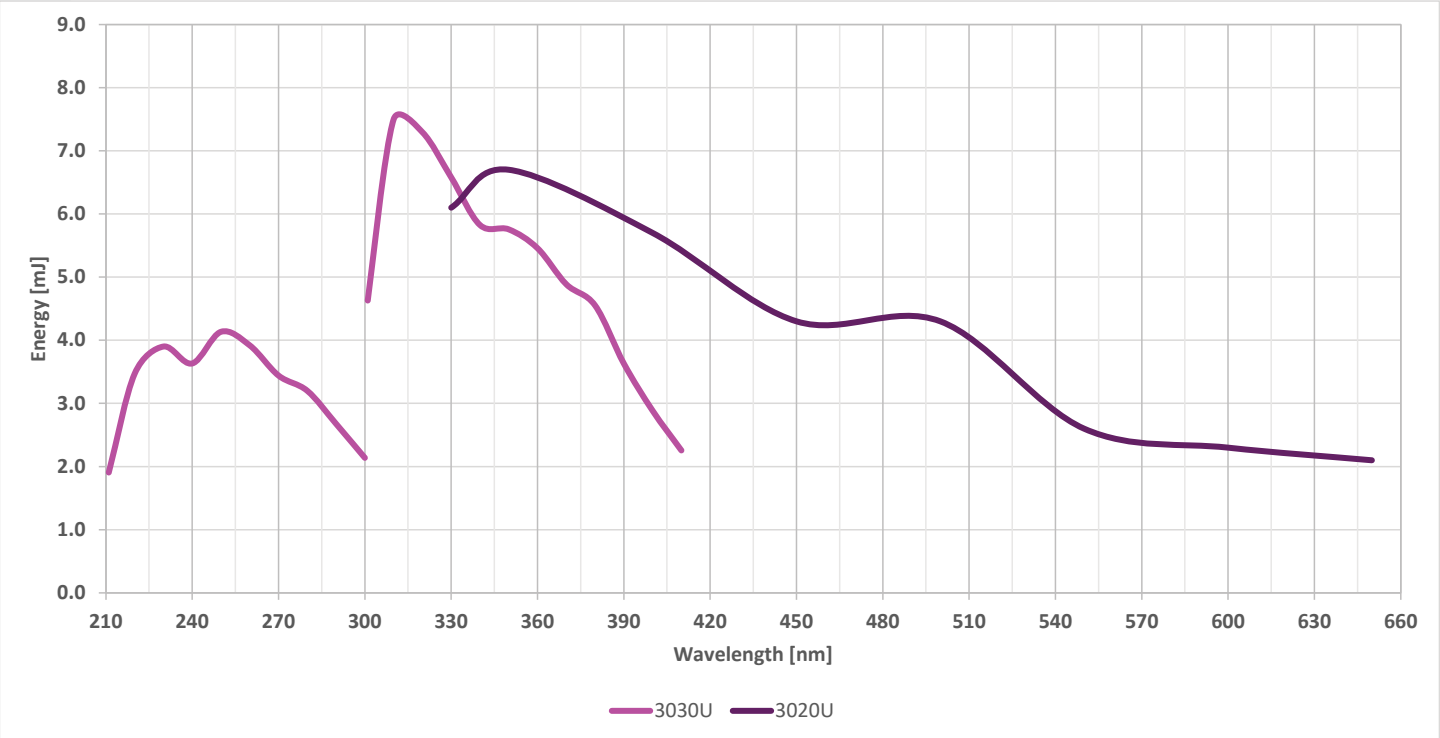
OPTIONS

- UV Tunability Add-on (210-410 nm)
- UV-VIS Tunability Add-on (330-650 nm)
- Motorized Variable Attenuator
- Real-Time Wavelength Monitoring
- Access to Full Power 355 nm
- Access to Full Power 532 nm
- Fast Tuning (< 50 ms between wavelengths)


25
20
15
10
5
0
Energy [mJ]
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
Wavelength [nm]
1520
1530
1530U
1520U


4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Energy [mJ]
210
240
270
300
330
360
390
420
450
480
510
540
570
600
630
660
Wavelength [nm]
1530U
1520U


Energy [mJ]
Wavelength [nm]
3020
3030
3030U
3020U


Energy [mJ]
Wavelength [nm]
3030U
3020U

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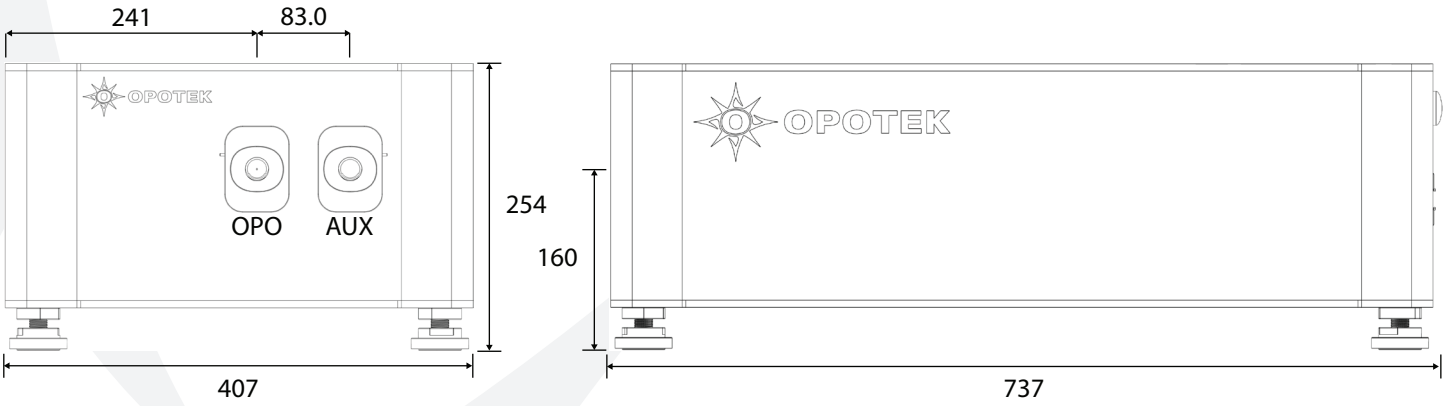
SPECIFICATIONS	1520	3020	1530	3030
WAVELENGTH RANGE (nm)	650 - 2500	650 - 2500	410 - 2400	410 - 2400
w/ UV (option)	330 - 2500 (1520U)	330 - 2500 (3020U)	210 - 2500 (1530U)	210 - 2500 (3030U)
Peak OPO/UV Energy (mJ)	*See tuning curves*			
Repetition Rate (Hz)	100			
Pulse to Pulse Stability (%)[1]	2			
Linewidth (cm^{-1})	10 - 15[2]		3 - 5[3]	
Tuning Step Resolution (nm)				
Signal	< 0.5		< 0.1	
Idler	< 1.0		< 0.5	
Pump Energy (mJ)	75 @ 532 nm	150 @ 532 nm	45 @ 355 nm	90 @ 355 nm
Pulse Duration (ns)[4]	< 9			
Beam Diameter (mm)[5]	5		6.5	
Beam Divergence (mrad)[6]	< 2			
Signal Polarization	Horizontal			
Idler/UV Polarization	Vertical			
Full Power 1064 nm Access (mJ)	150	300	150	300
Residual 532 nm Access (mJ)	30	60	--	
Residual 355 nm Access (mJ)	--		15	30

[1] RMS @ peak OPO, 99% of shots
[2] 670 nm and higher
[3] 410 nm and higher
[4] FWHM
[5] At output port
[6] Full angle, at 1/e² of the peak; @ peak OPO

LASERHEAD (50 KG)



CHILLER (25 KG)

- 590 x 290 x 470 (L x W x H)
- Integrated air-water heat exchanger
- Distilled water coolant
- 64-82°F / 18-28 °C ambient operating environment
- 220-240 VAC, 50/60 Hz, 800 VA

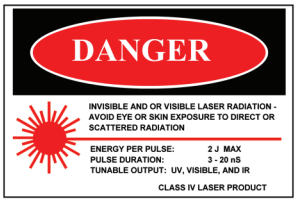
OPO ELECTRONICS BOX (2.3 KG)

- 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

DPSS POWER SUPPLY (15 KG)

- 430 x 465 x 133 (L x W x H)
- 64-82°F / 18-28 °C ambient operating environment
- 100-240 VAC, 50/60 Hz

OPOTEK LLC is certified to ISO 9001:2015. VERSION 1.11
Tuning curves represent nominal values.
Dimensions approximate in millimeters.
Due to ongoing product improvements, all specifications are subject to change without notice.
Designed and manufactured in California, USA.



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