Deep UV Lasers 224.3 and 248.6nm

Features

- Wavelengths from 224 – 248 nm, > 200 mW

- Innovative plug-and-play instrument solutions

- Rugged design for reliability

- Wide operating environment (-200 – 100 °C)

- Square pulse width from 10 – 200 µs

- "Soft" pulse output reduces thermal damage

- Narrow line width < 3 GHz (0.0005 nm, 0.5 pm, 0.1 cm^{-1})

- Instant on (< 10 µs from cold start)

- 90VAC–240VAC input at<10W, no water cooling or toxic chemicals

- USB or Ethernet interface with LabView

- Built-in laser power monitor

Deep Ultraviolet For Less

The DUV family of lasers offer 224.3 nm and 248.6 nm for fraction of the cost of the competition. The laser is the size, weight and power consumption of a HeNe laser but with output in the deep UV. The self-contained, integrated, laser controller enables remote computer control for ease of operation and flexible data collection via LabView software. With an input power less than 10 W the need for water cooling and other thermal management issues is eliminated. The lasers reach full power in less than 20 microseconds from a cold start from any ambient temperature from -200 to 100 °C without preheating or temperature regulation. With output over 100mW and linewidths less than 3GHz or 0.0005nm these are great sources for a wide range of applications.

Ultra-easy ultraviolet. Make ultra-sensitive measurements of Raleigh, Raman, fluorescence or phosphorescence emissions generated by deep UV excitation. Our "instrument solutions" combine a deep UV laser source with an array of analyzer and detector plug-and-play modules. Detection choices include single and multi-channel PMT and photodiode detector modules that are gated in synchronism with the laser and offer flexible boxcar integration and averaging for enhanced signal-to-noise data collection. Analyzer options include UV Raman, laser induced native fluorescence, CE and HPLC modules. The combination of plug-and-play source, analyzer and detector modules enables you to rapidly develop breadboard and prototype instruments for a wide range of applications from research to product analysis to environmental monitoring with data sampling rates up to 20 Hz.

Flexible for the lab, made for the real world. An array of accessories such as emission line purity modules and fiberoptic couplers enable you to mate our components with a wide range of devices from third-party suppliers. Communication with the laser and all plug-and-play modules is accomplished via USB or Ethernet using LabView drivers. Our "instrument solutions" provide a seamless fit for many applications such as laser induced native fluorescence or UV resonance Raman analyzers, photoluminescence, capillary electrophoresis, high performance liquid chromatography, phosphorescence and many other types of instruments. Rugged design, reliable performance and low cost make them ideal for the field researcher and the OEM.

PHOTON SYSTEMS

HeAg lasers @ 224.3nm

Model	HeAg 70-224SL	HeAg 30-224SL
Peak power (quasi-cw)	>50 mW	>10 mW
System dimensions	10x10x70 cm	5x13x30 cm
System weight	3.6 kg	1.4 kg
Pulse frequency	1 – 20 Hz	1 – 5 Hz
Longitudinal mode spacing	257 MHz	642 MHz
Pulse width	20 µS to 120 µS, adjustable	
Pulse synchronism	internal or external	
Beam diameter	3 mm	
Beam divergence	< 4 mrad	
Oscillation bandwidth	< 3 GHz, < 0.10 cm^{-1}	
Power consumption	< 10 W	
Line requirements	90-250VAC, 47-63 Hz, 100mA or 24VDC@400mA	

Series 30 Laser with integrated controller

NeCu lasers @ 248.6nm

Model	NeCu 70-248	NeCu 30-248
Peak power (quasi-cw)	>250 mW	>50 mW
System dimensions	10x10x70 cm	5x13x30 cm
System weight	3.6 kg	1.4 kg
Pulse frequency	1 – 20 Hz	1 – 5 Hz
Longitudinal mode spacing	257 MHz	642 MHz
Pulse width	20 µS to 120 µS, adjustable	
Pulse synchronism	internal or external	
Beam diameter	3 mm	
Beam divergence	< 4 mrad	
Oscillation bandwidth	< 3 GHz, < 0.10 cm^{-1}	
Power consumption	< 10 W	
Line requirements	90-250VAC, 47-63 Hz, 100mA or 24VDC@400mA	

Series 70 Laser with integrated controller

Laser Radiation
Avoid exposure to beam

Class IIIb laser product (CDRH)
Class 3B laser product (IEC 825-1:1993)
< 400 µJ max at 200 - 250 nm

Model:
Serial Number:
Manufacture date:

Photon Systems, Covina, California, USA

Laser Aperture
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PHOTON SYSTEMS