

Deep UV Lasers

Compact HeAg and NeCu Deep UV Lasers



Features:

- 224.3 nm and 248.6 nm Wavelengths Available
- > 250 mW Output Power
- Narrow Linewidth < 3 GHz (0.1 cm^{-1})
- “Soft” Pulse Output Reduces the Probability of Thermal Damage
- Instant on (< 10 μs from cold start)
- Wide Operating Environment from -200°C to 100°C
- 90 – 240 VAC, 47 – 63 Hz, 100 mA or 24 VDC at 400 mA Input
- < 10W Input Power
- No Water Cooling, External Gas Supply, or Toxic Chemicals
- Built-in Laser Power Monitor
- Innovative Plug-and-play Instrument Solutions
- USB or Ethernet Interface with LabView

Rugged design, reliable performance and low cost make our deep UV lasers ideal for both laboratory and field research as well as for OEM system integration.

Model	DUV-224.3-100	DUV-224.3-25	DUV-248.6-600	DUV-248.6-285
Center Wavelength	224.3 nm	224.3 nm	248.6 nm	248.6 nm
Peak Power (quasi-CW)	> 100 mW	> 25 mW	> 600 mW	> 285 mW
System Dimensions	10 x 10 x 70 cm	5 x 13 x 30 cm	10 x 10 x 70 cm	5 x 13 x 30 cm
System Weight	3.6 kg	1.4 kg	3.6 kg	1.4 kg
Pulse Frequency	1 – 20 Hz	1 – 5 Hz	1 – 20 Hz	1 – 5 Hz
Longitudinal Mode Spacing	257 MHz	642 MHz	257 MHz	642 MHz
Pulse Width (Variable)	20 μ s - 120 μ s		20 μ s - 80 μ s	
M ²	< 20			
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 – 240 VAC, 47 – 63 Hz, 100 mA or 24 VDC @ 400 mA			

About Deep UV Lasers:

Deep Ultraviolet for Less

The DUV family of lasers offers 224.3nm and 248.6nm wavelengths for a fraction of the cost of the competition. The laser is similar in size, weight and power consumption to a HeNe laser but has a deep UV output. With an input power of < 10W the need for water cooling and other thermal management issues are eliminated. Without preheating or temperature regulation these lasers reach full power in less than 10 μ s from a cold start from any ambient temperature with the range of -200°C to 100°C. With an output power greater than 250mW and a linewidth less than 3GHz (0.1cm⁻¹), these lasers are ideal sources for a wide range of applications.

Ultra-easy Ultraviolet

Make ultra-sensitive measurements of Rayleigh, Raman, fluorescence or phosphorescence emissions generated by deep UV excitation. The self-contained, integrated laser controller enables remote computer control for ease of operation and flexible data collection via LabView software. Our instrument solutions combine a deep UV laser source with an array of analyzer and detector plug-and-play modules. Detection choices include single-channel and multi-channel photomultiplier tube (PMT) and photodiode detector modules, which are gated in synchronism with the laser and offer flexible boxcar integration and averaging for enhanced signal-to-noise data collection.

Flexible for the Lab, Made for the Real World

An array of accessories, such as emission line purity modules and fiber optic couplers, enables mating of 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.

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