

Deep UV Lasers



LUV series

Deep UV laser source
Compact laser head
280nm and 266nm

The LUV series is an ultra compact deep UV laser offering excellent performance and reliability thanks to its sealed monolithic BBO resonant cavity and its LCX DPSS laser pump source.

The LUV laser is available in free space output, with 3 beam diameter options or with a removable MM fiber coupling.

UV Raman spectroscopy
Fluorescence Imaging
Protein autofluorescence
DNA detection
Cathodoluminescence

Up to 10 mW of CW optical power
Single Longitudinal Mode
Adjustable power 10% - 100%
Fast stand-by mode for extended lifetime
Beam diameter 0.3 mm
TEM₀₀ collimated beam
Compact laser head: 200 x 138 x 70 mm
Multimode fiber coupling option
AOM modulator option

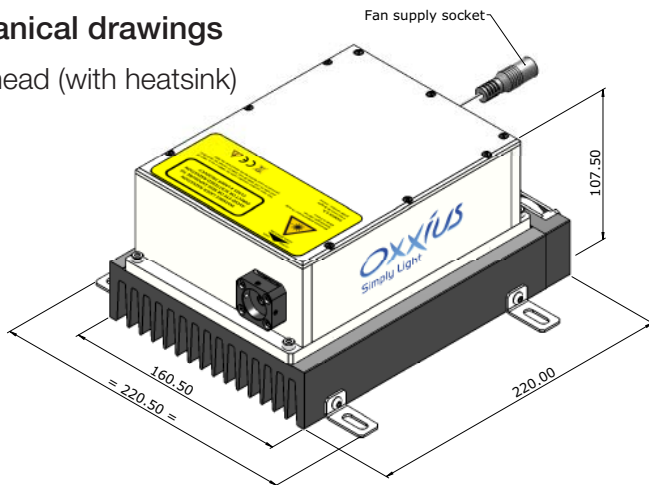
Specifications

	LUV-266-10-COL-PP	LUV-280-10-COL-PP
Optical characteristics		
Central emission wavelength	266.2 nm	280.7 nm
Linewidth	≤ 300 kHz (SLM)	
Polarization state	Linear, horizontal	
Polarization extinction ratio	≥ 100:1	
Continuous wave output power	10 mW	10 mW
Power stability over 8 hours, temperature variation of ± 3°K	± 2 %	
Optical noise rms, 50kHz - 10MHz bandwidth	0.5 %	
Transverse singlemode free-space beam *		
Beam characteristics	TEM ₀₀ collimated beam	
Beam waist diameter at 1/e ² , at 50mm from output aperture	0.2 mm	
Beam divergence at 1/e ² , full angle, in far field	1.5 mrad	
Beam quality factor (M ²)	≤ 1.4	
Beam pointing stability	≤ 5 μrad/°K	
Beam diameter options (July 2017)		
Beam waist diameter at 1/e ² , at 50mm from output aperture	x2 / x2.7 enlargement	
Beam waist diameter at 1/e ² , at 50mm from output aperture	0.6 mm / 0.8 mm	
Fiber coupling option		
Multimode Fiber Coupling	200μm core diameter, 0.22 NA	

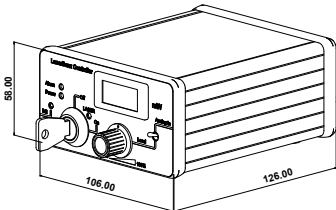
* Specifications at nominal power

Mechanical drawings

Laser head (with heatsink)



ControlBoxx



General Specifications - Plug and Play version

Technology	Monolithic resonant cavity pumped by LCX laser
Communication interfaces	USB / RS232 / I/O interface
Control electronics	Integrated into laser head
Plug&Play controller	ControlBoxx (CDRH Compliant)
Warm-up time	10 minutes typ. 15 minutes max.
Supply voltage	100 -240V AC with external power supply
Power Consumption	20 W typ., 25 W max.
Thermal dissipation	Mounted heatsink, forced air flow
Operating temperature	15 °C to 40 °C (ambient)
Dimensions (L x W x H)	
Laser head with heatsink	220 x 161 x 110 mm
Weight	6.5 kg with heatsink

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CAUTION - CLASS 4 VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION