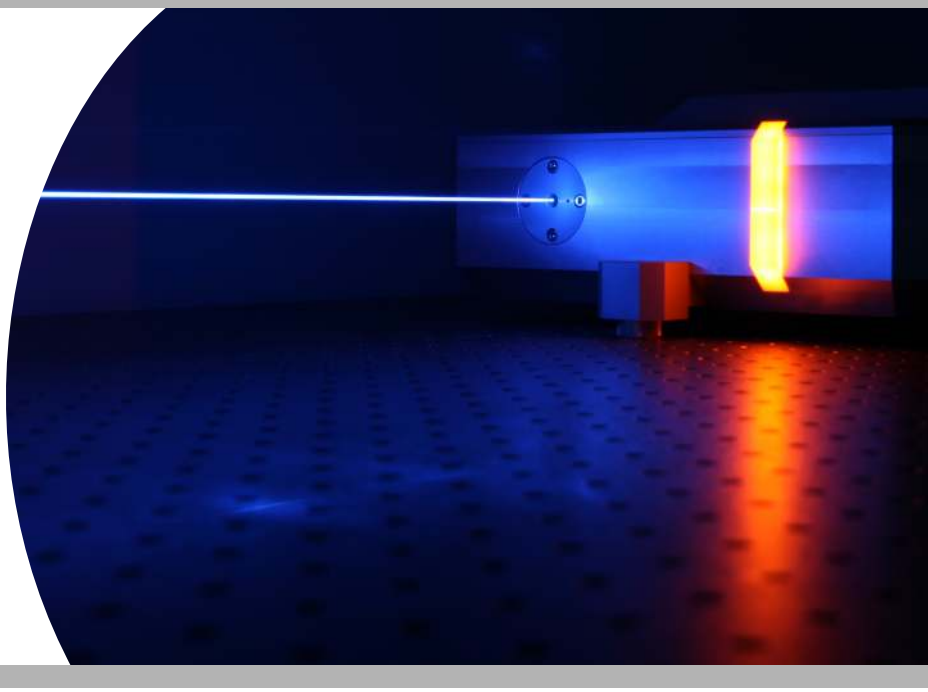
Xiton Photonics



# SLM 355

Single longitudinal mode
$TEM_{00}$ beam profile
Q-switched solid-state laser
Wavelength 355 nm

## General description

The SLM 355 is a single-frequency all-solid-state laser system for applications in the UV such as optical metrology, calibration of spectrometers and holographic applications. The spectral bandwidth of less than 60 MHz is near its theoretical Fourier limit.

The laser provides short output pulses with a duration of 10 - 12 ns in a diffraction-limited beam with $M^2 < 1.3$ at repetition rates between 1 and 15 kHz. The average output power is more than 2 W at 355 nm with ultra-stable pulse traces and a high coherence length of more than 2.5 m not presentable with conventional lasers.

Due to a cw single-frequency seed the consecutive laser pulses remain in phase to allow stable interference patterns, e.g. for exposing directly lithographic films. In addition the 2 W average output power promise short exposure times for a high throughput.
This combination out of short 355 nm wavelength, 2 W average output power and single frequency emission is a unique feature combination for a solid state laser.

## Product specifications

| | |
|---|---|
| Model | SLM 355 |
| Wavelength | 355 nm |
| Average power | 2 W |
| Pulse duration (typ) | 10-12 ns |
| Energy per pulse | 200 µJ |
| Repetition rate | 1-15 kHz |
| $M^2$ | < 1.3 |
| Spectral bandwidth | < 60 MHz |
| Coherence length | > 2.5 m |

* Data at 10 kHz pulse repetition rate.
Specifications are subject to change without notice due to product improvement.

## Applications

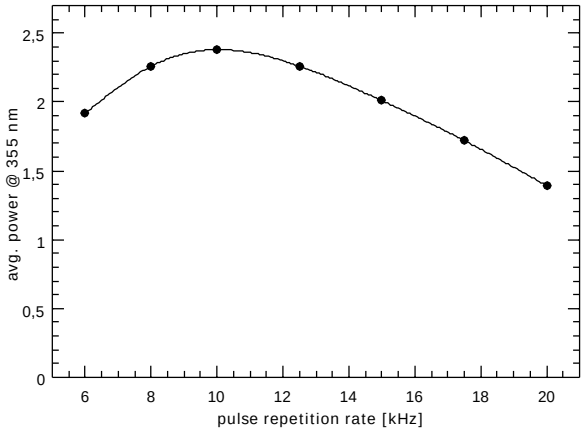
Interferometry
Raman spectroscopy
Holography
Spectrometer calibration
Metrology
Lithography

## Optional

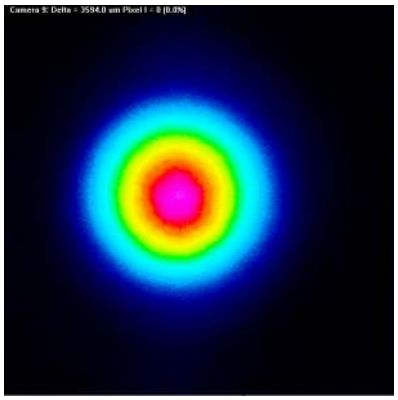
Graphical user interface
LabVIEW libraries
CDRH complience shutter

# SLM 355

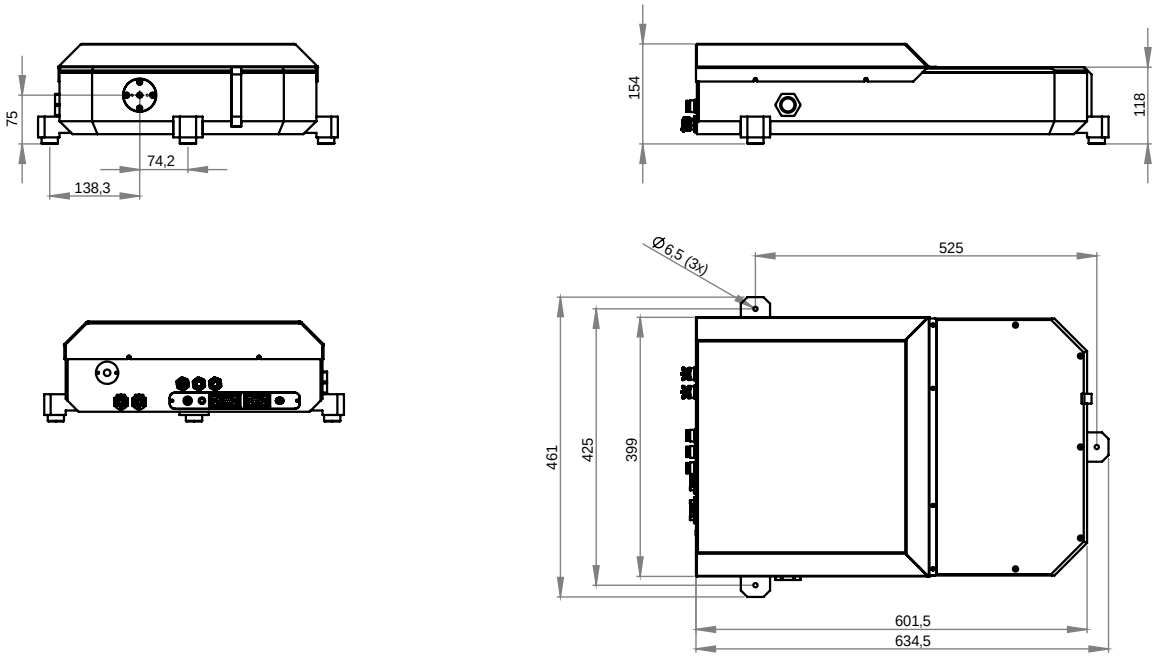
## Typical performance




## Typical beam profile



## Dimensions laser head




## System dimensions (L x W x H), weight

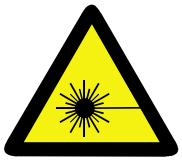
| | | |
|---|---|---|
| Laser head | 635 x 461 x 154 mm³ | 46 kg |
| Power supply (including chiller) | 600 x 600 x 600 mm³ | 78 kg |

## Electrical characteristics

| | |
|---|---|
| Operating voltage | 85-264 VAC |
| Frequency | 47-63 Hz |
| Power consumption | 650 W typ |

Visible and/or invisible laser radiation. Avoid eye or skin exposure to direct or scattered radiation.

Class 4 laser (IEC 60825-1)



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