



# Passively Q-Switched Laser System

## QSLN Series

Data Sheet



### Overview

The QSLN UV series is a family of ultraviolet diode pumped solid state (DPSS) passively Q-switched lasers and deliver up to 50mW average power. The QSLN series features a compact design, long operating lifetime, easy operation, and FDA-compliant system with driver. The laser series is commonly used in UV curing, micro-electronics, CD carving, laser medical treatment, scientific experiment, and many other applications.

### Features

- Ultraviolet wavelength range
- Q-switched operating mode
- Pulse energy up to 7uJ
- Ultra-compact design
- FDA compliant

### Applications

- UV curing
- Micro-electronics
- CD carving
- Laser medical treatment
- Scientific experiment

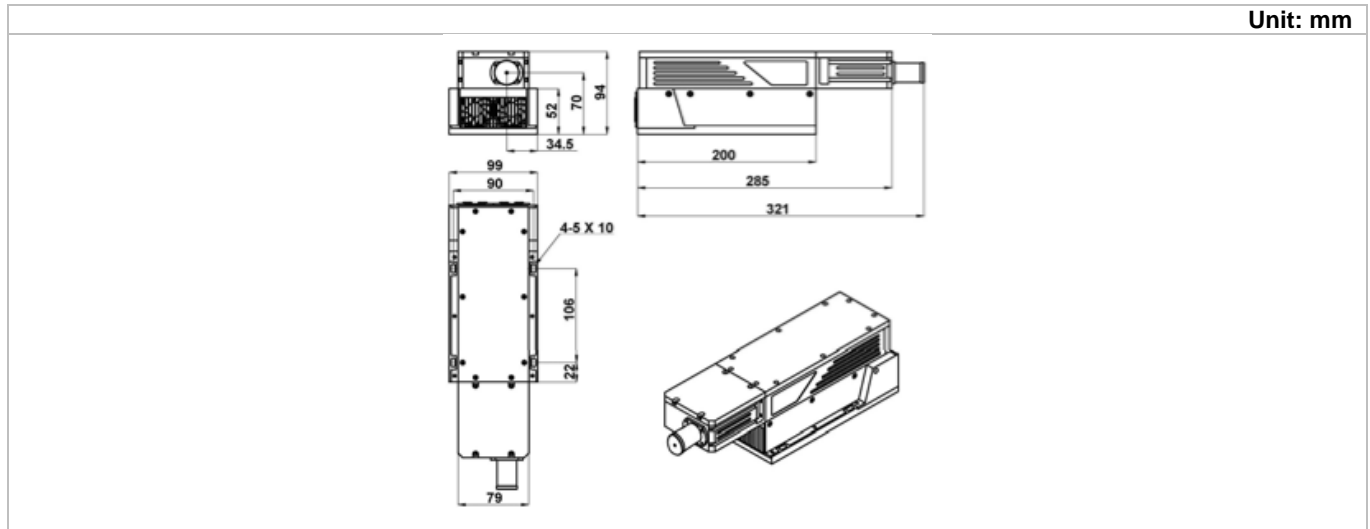
257-343 nm Specifications

Parameter		QSLN257	QSLN343
Wavelength		257±1 nm	343±1 nm
Operating mode		Frequency conversion of Q-switched pulsed laser	
Max average power		~3mW, ~5mW, ~10mW, ~15mW	~10mW, ~20mW, ~30mW, ~40mW, ~50mW
Single pulse energy		~1uJ, ~2uJ, ~3uJ, ~4uJ	0.1-7uJ
Pulse duration		~5 ns	~7 ns
Peak power		0.02-0.8kW	0.01-1kW
Repetition rate	Internal Fixed	-	-
	External trigger	-	-
	QCW	Between 2kHz-5kHz	Between 4kHz-8kHz
Ave power stability (over 4 hours)		<5%, <3%	<5%, <3%
Transverse mode		Near TEM <sub>00</sub>	
M <sup>2</sup> factor		<2.0	
Beam diameter at aperture		Elliptical (4:1), Beam spot 0.5*2mm	
Polarization ratio		>50:1	
Warm-up time		<5min	
Operating temperature		10-35°C	
Warranty		10 months	

Remarks:

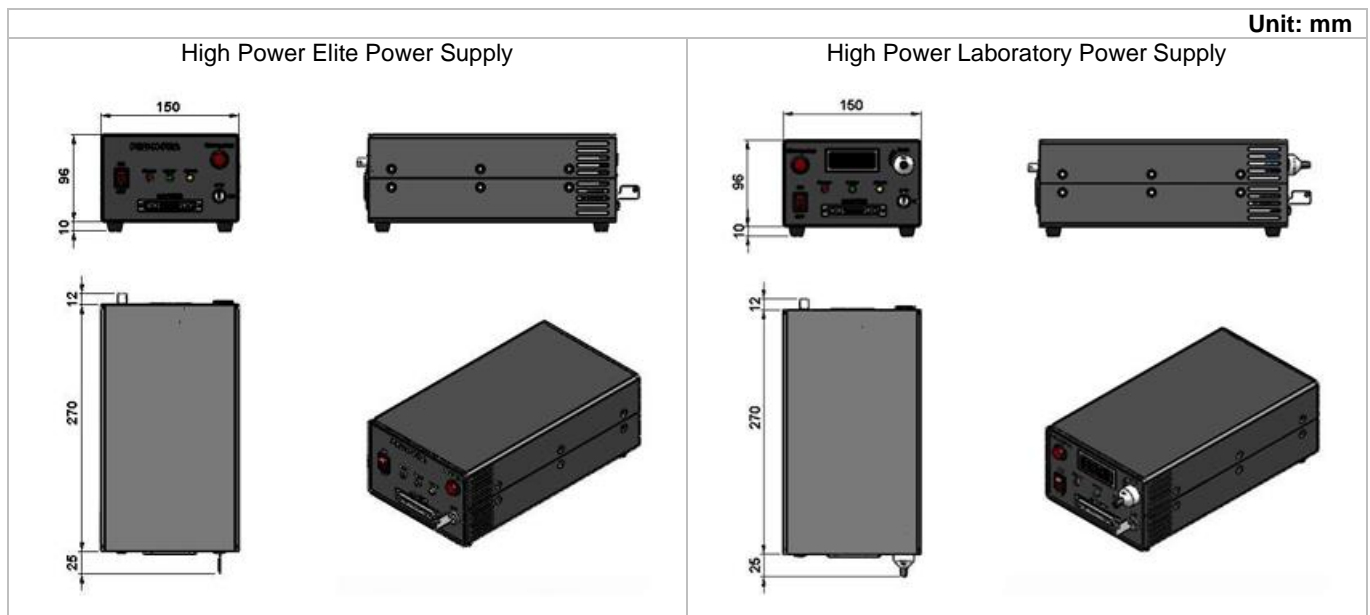
- Due to the Walk-off effect of Nonlinear crystals, the beam quality of the 257nm UV laser is not as good as that of the 1064/532nm laser.
- Specifications of the Q-switched pulsed laser is based on the laser pulsed at the specified repetition rate. If the laser is run at a different repetition rate, the output characteristics may change.
- Average power (mW) = Single pulse energy (µJ) \* Rep. rate (kHz)
- Peak Power (W) = Single Pulse Energy (µJ) / Pulse Duration (µs)
- Specifications are subject to change without notice.

QSLN Series Laser Head Dimensions



Parameter	QSLN Series
Dimensions	321(L)×99(W) ×94(H) mm <sup>3</sup>
Weight	3.215 kg
Beam height from base plate	70 mm
Beam exit (from side)	34.5 mm

QSLN Series Power Supply Dimensions



Parameter	High Power Elite Power Supply	High Power Laboratory Power Supply
Dimensions	307(L) ×150(W) ×106(H) mm <sup>3</sup>	307(L) ×150(W) ×106(H) mm <sup>3</sup>
Weight	2.9 kg	2.9 kg
Input voltage	90-264VAC	90-264VAC
Feature	Standard	Adjustable power

**Ordering Information**

For more information, please contact Lasermate directly at [sales@lasermate.com](mailto:sales@lasermate.com).

Part Number Configuration QSLN[1][2][3][4][5]					
QSLN = Laser Model Series	[1] = Wavelength	[2] = Average Power or Pulse Energy	[3] = Power Supply	[4] = Power Stability	[5] = Repetition Rate
	257= 257nm 343= 343nm	3= 3mW 5= 5mW 10= 10mW ... 50= 50mW 1J= 1uJ 2J= 2uJ 3J= 3uJ 4J= 4uJ ... 7J=7uJ	H=High Power Elite Power Supply M=High Power Laboratory Power Supply	A= <5% E= <3%	U= QCW

Note: The above specifications are subject to change without notice.