

## Features & benefits

### Ultrashort pulses

As low as 300ps durations

### High peak power

Exceeding 6kW per pulse

### Variety of frequency options

Free running to 40kHz  
Fixed frequency to 4kHz  
Triggerable to 2kHz

### Excellent beam quality

Gaussian, TEM00,  $M^2 \leq 1.3$   
(355nm and horizontal 266nm)

### Efficient, air cooled

Typically dissipates <10W from laser head and consumes <20W

### Long UV life

High reliability pump diode, specialty UV optics, and sealed package contribute to lifetimes expected to exceed 5k hours (consult factory for details)

### Licensed Technology

Exclusive license on Passively Q-switched picosecond microchip laser: US Patent 5394413

## Optional features

**Photodiode output for synchronization**

**Manual controls for CDRH compliance**

## 266nm passively Q-switched lasers: 40kHz, fixed frequency, triggered versions

For generating high peak power ultraviolet pulses of a few hundred picoseconds, microchip lasers are economical, compact, and reliable. Microjoule 266 nm UV pulses are generated from the harmonic conversion of the emissions from a passively Q-switched Nd:YAG microchip engine. The SNU series are proposed with 2 different packages to allow better flexibility and are designed for high average power, either from pulse energies as high as 2µJ or from free running repetition rates up to 40kHz; the SFU series allow users to select up to three fixed frequencies, set at the factory, from 10Hz to 4kHz; the STU series enable the user to trigger the laser on demand, varying the period from 100ms to 500µs, pulse to pulse.



### Ultra Violet 266nm SxU lasers (typical values) – package A

Model	SNU-02P
wavelength (nm)	266
Peak Power (kW)	1.4
Average Power (mW)	5
Repetition rate (kHz)	7
Pulse width (ps)	400
Energy/Pulse (µJ)	0.7

### Ultra Violet 266nm SxU lasers (typical values) – package B

Model	SNU-02E	SNU-20F	SNU-40F	SFU-01E	STU-01E
Pulse Width (ps)	400	400	400	300	300
Energy/Pulse (µJ)	2.5	0.8	0.35	1.2	1.2
Peak Power (kW)	6	2	0.9	4	4
Repetition rate (kHz)	6	21	40	0.01-4	0.01-2
Average Power (mW)	13	16	14	≤4.8	≤2.4

## Applications

- Laser-induced fluorescence (LIF)
- Micro dissection
- Organic compound marking and micromachining
- Biohazard detection
- Time resolved fluorescence
- Laser Induced Breakdown Spectroscopy (LIBS)
- Semiconductor inspection