

## SL-Pico : Pico-second Supercontinuum Laser

*Powerful pico-second pulsed laser source with precision software controls*

SL-Pico is pico-second supercontinuum lasers and designed to meet the diverse and dynamic needs of cutting-edge research and industrial applications. This supercontinuum white light lasers is highly regarded for wide wavelength range and cost-effectiveness.

SL-Pico offers a spectral range from 410 to 2400 nm, has high power, is very stable, and capable of delivering power up to 20 W. The SL-Pico's SL series shows relatively high power in the SWIR region. The SL-Pico's SLM series is a mode-locked fiber laser with a fixed repetition rate and stable and uniform power spectrum in visible range, and the SL-Pico's SLMV series has a tunable repetition rate in MHz, ensuring compatibility with a wide range of devices. Integrating a tunable bandpass filter such as FWS poly improves the laser's versatility, enabling tunable broadband laser output. This capability is important for a variety of applications, including fluorescence microscopy, TCSPC, hyperspectral imaging, machine vision, semiconductor inspection, sensor development, and more.



Wide broadband spectral range

### SL-Pico Model

Model	Supercontinuum output power		Repetition Rate	Output pulse width (ps)	Spectral Range (nm)
	Visible	Total			
SL10	100 mW	1 W	5 MHz	< 300 ps	450 - 2400 nm
SLM10	250 mW	1 W	10 MHz	< 50 ps	410 - 2400 nm
SLM20	500 mW	2 W	20 MHz	< 50 ps	410 - 2400 nm
SLM40	1 W	4 W	40 MHz	< 50 ps	410 - 2400 nm
SLM35V	1 W	3.5 W	0.01 to 40 MHz	< 50 ps	410 - 2400 nm
SL80V	1 W	8 W	0.01 to 200 MHz	< 300 ps	430 - 2400 nm
SLM70	2 W	7 W	80 MHz	< 50 ps	410 - 2400 nm

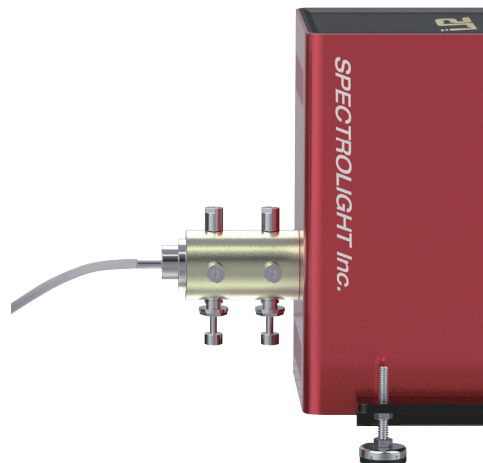
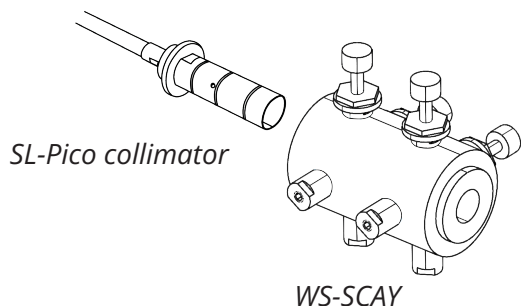
\* SL-Pico model name meaning

(Example: SLM35V)

- V stands for adjustable repetition rate adjustable
- Total output power : 35 means 3.5 W
- Notify if it is Modelock version

## Supercontinuum Laser – SL-Pico

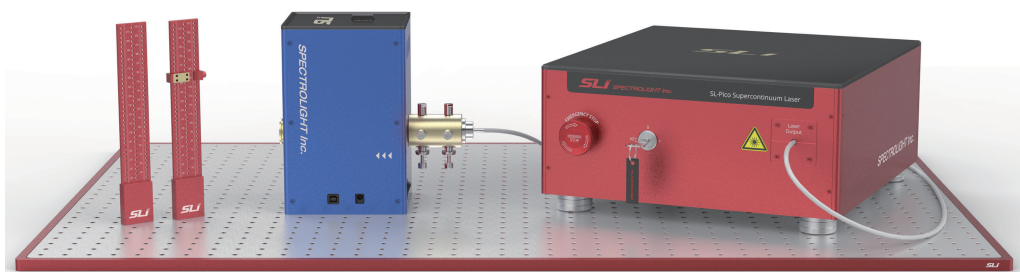
The SL-Pico can be applied to various applications requiring high power and repetition rates, such as low-noise OCT, fluorescence microscopy, nanophotonics, semiconductor inspection, ultra-high-resolution imaging capabilities, and other applications.



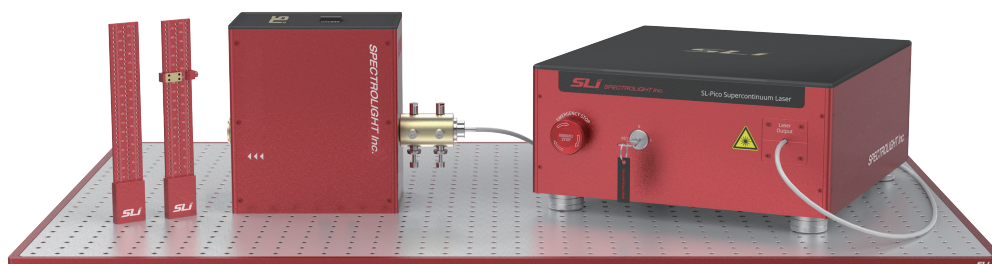
- Powerful Supercontinuum Laser Source
- Easy connection and alignment using the WS-SCAY accessory.
- Fully compatible with the Flexible Wavelength Selector.

### Application Idea

\* Adding our FWS(Flexible Wavelength Selector) result in a tunable laser source.



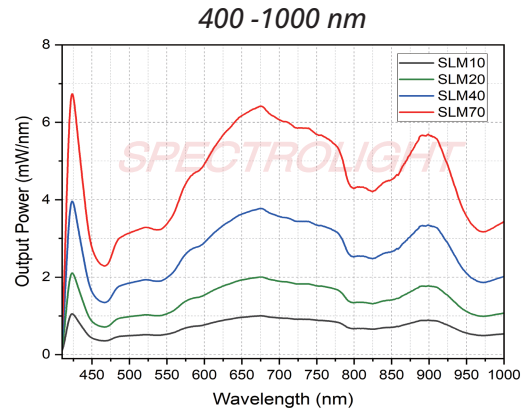
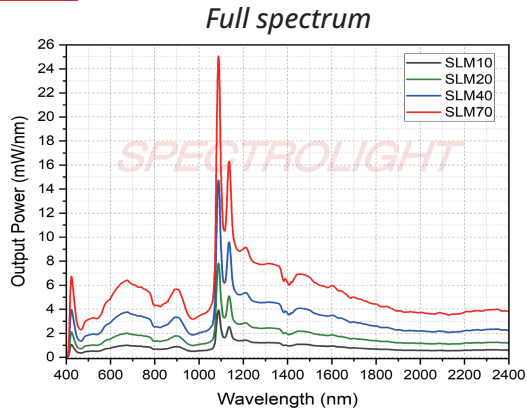
Tunable Laser using FWS-Poly-BLUE(Fixed FWHM 10 or 20 nm)



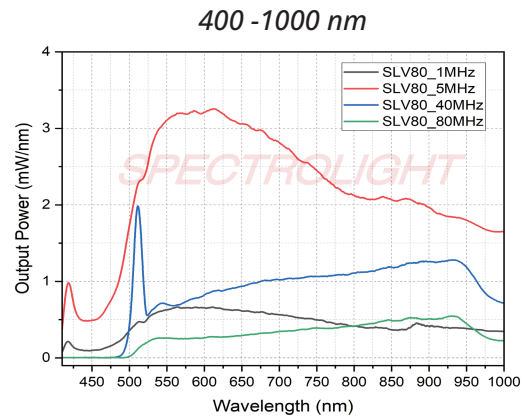
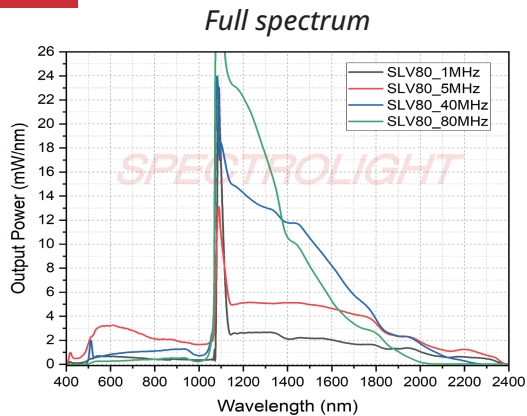
Tunable Laser using FWS-Poly-RED(Adjustable FWHM 2 - 15 nm)

## Typical Output Power Spectrum of SL-Pico

### SLM Series



### SLV Series



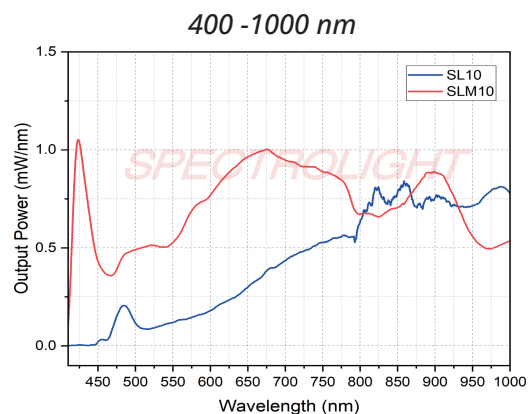
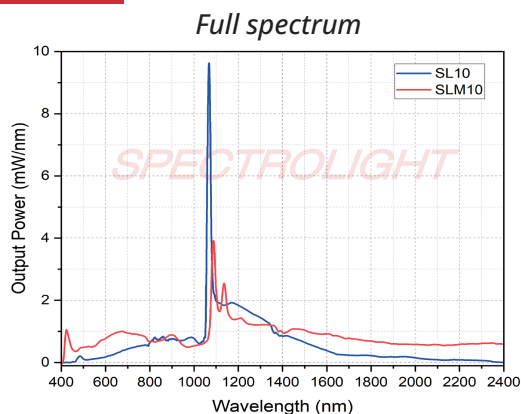
\* SL-Pico has a modelocked version. The spectral shape of the SLM modelock model group is relatively stable. Adjustable repetition rate products are also available in the SLM series. (Example: SLM35V)

### [SLV80]

*If you need high visible light power, 5 MHz and more than 70 % power would be suggested.*

*If you need high pulse energy, 1 MHz and more than 80 % power would be suggested.*

### SL10 vs. SLM10



## Full Specifications

		SL10	SLM10	SLM20	SLM40	SLM35V	SL80V	SLM70
Output Power	Visible	100 mW	250 mW	500 mW	1 W	1 W	1 W	2 W
	Total	1 W	1 W	2 W	4 W	3.5 W	8 W	7 W
Repetition Rate		5 MHz	10 MHz	20 MHz	40 MHz	0.01 to 40 MHz adjustable	0.01 to 200 MHz adjustable	80 MHz
Output pulse width		< 300 ps	< 50 ps	< 50 ps	< 50 ps	< 50 ps	< 300 ps	< 50 ps
Spectral range		450 - 2400 nm	410 - 2400 nm	410 - 2400 nm	410 - 2400 nm	410 - 2400 nm	430 - 2400 nm	410 - 2400 nm
Power stability		< 1 %						
Sync(trigger) Output		NIM Output 0 - (-1) V, TTL Output 0 - 3.3 V						
Beam diameter and quality		~ 2 mm@633 nm; M2<1.1						
Beam divergence (half angle)		< 1 mrad						
State of polarization		Unpolarized						
Length of output fiber		1.5 m						
Software		SL-Pico Ver 1						
Dimension (L x W x H, mm)		340 x 370 x 150	437 x 423 x 170					
Weight (Kg)		15	18.4					
Input power		AC 100 - 240 V, 50/60 Hz						
Data interface		USB 2.0						