

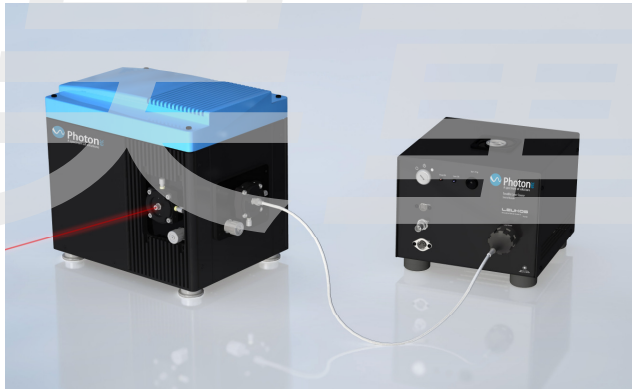
## Tunable Laser Source

Based on Photon etc.'s filtering technology, our Tunable Laser Source allows a fast wavelength selection from stable and powerful Leukos-SM-20-OEM supercontinuum sources. The available spectral range is from VIS to NIR and the FWHM can be as low as 0.3 nm. A large tuning range and a highly precise (up to 0.05 nm) and accurate (up to 0.1 nm) wavelength are routinely achieved.

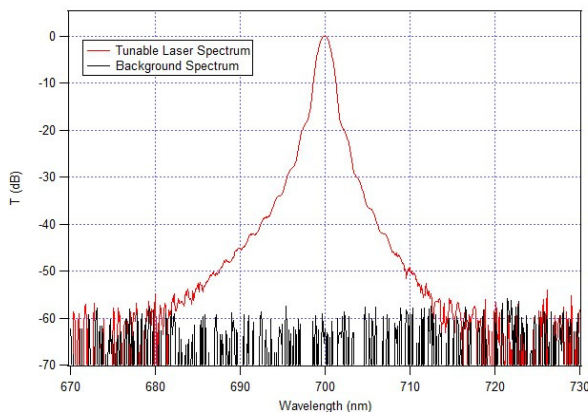
Photon etc.'s technology and design make it an ideal tool for works in instrumentation labs as well as on telescopes. New developments in supercontinuum white laser technology allow the full visible or NIR wavelength range to be covered by a single source at an affordable price. Output power can reach up to 100  $\mu\text{W}/\text{nm}$ .

Custom Tunable Laser Sources are also possible with other Leukos supercontinuum lasers, such as SP-20-OEM or SP-8-OEM

Example of Tunable Laser Source with a Leukos-SM-20-OEM



Example of Measured Line Profile of a Photon etc.'s Tunable Laser Source



## Advantages

- ✓ Large tuning range
- ✓ Fast wavelength tuning
- ✓ High power available with narrow bandwidth
- ✓ Durability and ergonomic designs
- ✓ USB connection with intuitive graphical user interface

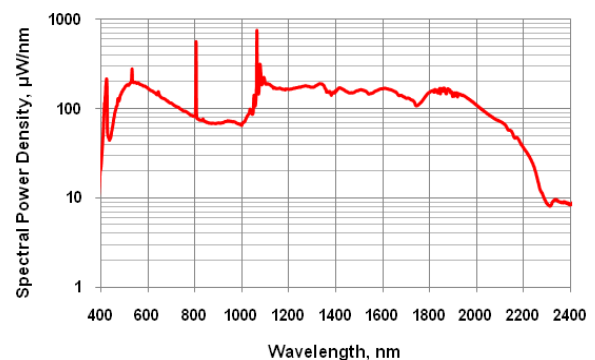
## Applications

- ✓ Instrument calibration
- ✓ Solar cell testing
- ✓ Optical component analysis
- ✓ FRET analysis
- ✓ Photoluminescence

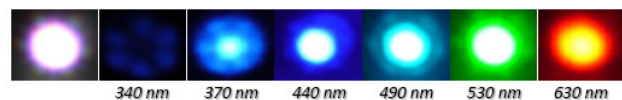
## Supercontinuum Source

The Tunable Laser Source is based on Leukos SM-20-OEM supercontinuum source. His spectral range covers 400 nm to 2.3  $\mu\text{m}$  for a spectral power density over 10  $\mu\text{W}/\text{nm}$ . The average power is over 60 mW and very stable with a variation smaller than 2%.

Typical Spectrum of Leukos-SM-20-OEM



Spatially Single-mode Output from UV to NIR of Leukos-SM-20-OEM



## Technical Specs

A long lifetime is assured since the filter itself is made of glass. This technology requires a collimated input beam with minimum divergence to assure the best attenuation after the sample.

Custom possibilities	
Available spectral window	370 - 2300 nm
Available bandwidths (FWHM)	From 0.3 nm to 4 nm depending on wavelength
Tuning range	From 400 nm to 1000 nm (VIS) or 1.0 to 2.5 $\mu$ m (NIR)
Wavelength absolute accuracy	0.1 nm (for FWHM = 0.3 nm)
Wavelength relative resolution	0.05 nm (FWHM = 0.3 nm)
Operating temperature	10 to 40°C
Storage temperature	5 to 50°C
Software	PHySpec included or basic functions available with ActiveX drivers
Computer connection	USB 2.0 (compatible 1.1)
Power supply	100 - 240 V , 50 - 60 Hz

## Standard Product

Product Name	Tuning Range (nm)	Approx. Bandwidth (nm)
TLS VIS-1	400 - 1000	1
TLS VIS-1 + CALIBRATION	400 - 1000	1
TLS VIS-2	400 - 1000	2
TLS VIS-2 + CALIBRATION	400 - 1000	2
TLS 850	715 - 1000	0.4
TLS SWIR	1000 - 2300	4

Accessories
Output Connector FC
Output Connector SMA
Output Connector SC

Whether you need standard or custom products, our scientists and engineers will work to create a Tunable Laser Source that meets your specifications. Photon etc.'s main products include Hyperspectral Imaging Systems, Tunable Laser Sources, Bandpass Filters, Notch Filters, and Multiband Filters.