

# uSight

## The new UV-VIS-NIR Micro-Spectroscopy Solution

**uSight** is the state of the art micro-spectroscopy system that integrates UV-VIS-NIR Spectroscopy with the high precision of a research grade upright optical microscope. The uSight series developed by TechnoSpex provides the complete set up for laboratories and industries that demands high performance, ease of use, and yet remaining cost effective for micro-spectroscopy applications.

### uSight-2000

The **uSight-2000** micro-spectrophotometer empowers an upright microscope with UV-VIS-NIR spectroscopy functionalities. This provides users the capability to carry out transmission, reflectance, absorbance, fluorescence and photoluminescence measurement at high spatial resolution down to  $<1\mu\text{m}$  measuring spot. On top of the UV-VIS-NIR spectroscopy, users can also carry out other imaging modalities such as fluorescence, DIC, polarization, dark field and bright field imaging.

- ✓ **Affordable and compact design**
- ✓ **Measurement spot  $<1.0\ \mu\text{m}$**
- ✓ **High measurement spot accuracy with *patent-pending* technique**
- ✓ **Compatible with existing Upright Microscope \***

*\* most models from major brands such as Nikon, Leica, Olympus and Zeiss.*

uSight-2000 Micro-Spectrometer	
Spectral Range	200 -1100 nm
Spectral Resolution (fixed)	Default @ 1.5 nm; option of 1 nm, 2.5 nm and 5 nm
Spatial Resolution	Down to $<1.0\ \mu\text{m}$ with 100X objective
Detector	2048 pixels CCD, 16 Bits
Integration time	1.2 ms - 600 sec
Dynamic Range	3,300 (SNR 300:1)
Non-linearity	$<0.1\%$
Stray Noise	$<0.1\%$
Alignment Spot	Red LED
Mapping	Optional



*uSight-2000 mounted on a Nikon Ci-L Microscope*

## uSight-X

The **uSight-X** is a compact laser-based micro-spectroscopy system that offers users the flexibility to connect, via optical fibre cable, to different range of spectrometer from compact spectrometer to research grade spectrograph externally. The uSight-X is suitable for Laser-Induced Fluorescence, Photoluminescence and Raman Spectroscopy. It integrates with most major brands microscope, empowering them with micro-spectroscopy measurement functions without affecting the existing microscope imaging performance. Users are also able to carry other imaging modalities such as fluorescence, DIC, polarization, dark-field and bright-field imaging with the uSight-X system.



- ✓ **Compact and affordable**
- ✓ **Laser spot size down to <math><1.0\ \mu\text{m}</math>**
- ✓ **User controllable laser power**
- ✓ **Polarization add on option**
- ✓ **Available in 532nm, 633nm, 785nm**
- ✓ **Suitable for Raman, Photoluminescence and Fluorescence**

*uSight-X-785nm with external detector mounted on Nikon Ci-L microscope*

uSight-X Micro-Spectrometer			
Laser	532 nm	633 nm	785 nm
Laser Type	Single Mode Frequency-Stabilized		
Laser Power	70 mW	70 mW	100 mW
Laser FWHM Bandwidth	~100 MHz	~150 MHz	~105 MHz
I/O Control	Shutter ON/OFF and modulation		
Power Supply	5 Vdc		
Dimensions	Length x Width x Height (cm) 30 x 29 x 8.5		



*uSight-X with laser safety enclosure*

**Contact us for free sample evaluation today!**