

Discover Isim

The Thunder Optics' Raman Probe Microscope



Thunder Optics

— Science and knowledge for all —

www.thunderoptics.fr

Thunder Optics is proud to introduce Isim, our Raman probe microscope, a pinnacle of innovation and expertise. This revolutionary probe has been designed to optimize collection efficiency for microstructured materials. With an international patent pending, this unique solution replaces the entire structure of a traditional Raman microscope, making it compact, highly efficient, and cost-effective. This breakthrough revolutionizes Raman microscopy.

FEATURES AND BENEFITS

- **Maximum Collection Efficiency:** With laser excitation focused on a microscopic spot, the Raman signal is collected and collimated on an SMA connector to be directed to a spectrometer.
- **Precision:** A light source illuminates the sample for precise targeting of the spot of interest.
- **Compact and Efficient:** By replacing the whole Raman microscope structure, our probe offers a highly efficient and compact solution.
- **Cost-Effective:** This innovative design reduces costs while maintaining high performance.
- **Stability and Robustness:** Due to the small size of the analyzed spot, the RPM must be installed on a robust, heavy-duty XYZ stand. We highly recommend using the Thunder Optics U Stand.

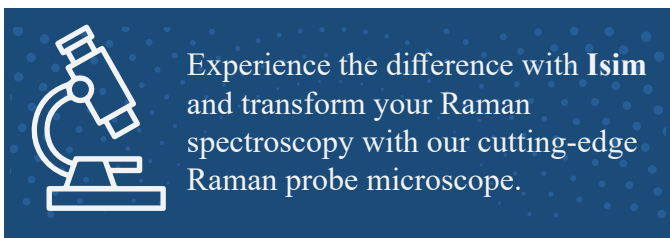


VERSATILITY AND OPTIONS

- **Flexible Objectives:** The unit is highly versatile and comes with a 20X objective in standard configuration. Options for 40X, 50X, and 80X are also available.
- **Excitation:** Both 532 nm and 785 nm excitation versions capture both the fingerprint and stretch bands of the Raman spectrum.
- **Adaptable Design:** The RPM probe features a flexible design that allows for optimizing collection efficiency for both homogeneous and microstructured materials.

WHY CHOOSE THUNDER OPTICS?

- **Patented Innovation:** Unique solution with an international patent pending.
- **Revolutionary Design:** Compact and efficient, replacing the entire structure of a Raman microscope.
- **Cost-Effective:** Innovative design that reduces costs while maintaining high performance.
- **Reliability:** Recommended installation on Thunder Optics' U Stand for maximum stability.



SPECIFICATIONS

Standards Wavelengths (nm)	532 / 785		
Excitation fiber	200 micron, 0.22 NA, multimode fiber with SMA termination.		
Collection fiber	600 micron, 0.22 NA, multimode fiber with SMA termination.		
Cut-on (cm-1)	130		
Optics	Infinity Corrected		
Optical Tube	100mm EFL Tube Lens		
Objectives M Plan S-APO	5X	20X	
Working distance (mm)	14.8	13.0	
Numerical Aperture	0.15	0.40	50X
Camera thread	C Mount (other are available on request)		3.0
Illumination (Watt)	12 White LEDs, total 12 Watt		0.75
Operating Temperature (°c)	3 to 50		
Storage Temperature (°c)	-10 to 70		
Humidity % (non condensing)	0-80		
Dimension (mm x mm x mm)	123 x 146 x 58		
Weight (gr)	1020		
Stand (not included)	U Stand (Thunder Optics)		