



# QE *Pro* Raman+ Spectrometers



## High Sensitivity Raman for Low Limits of Detection

QE *Pro* Raman+ spectrometers provide low limits of detection for trace level materials identification in setups using 532 nm, 638 nm, 785 nm or 830 nm Raman excitation lasers. Optical advancements have unlocked 3x sensitivity improvement and expanded spectral coverage compared with previous QE *Pro* Raman spectrometers. The ability to distinguish sharp peaks from weak Raman spectral signatures makes QE *Pro* Raman+ ideal for analysis of pharma ingredients, identification of chemicals, and detection of illicit drugs and pesticides.



## At a Glance

**Raman shift:** configuration-dependent

**Excitation wavelength:** 532 nm, 638 nm, 785 nm or 830 nm

**Optical resolution:** 12  $\text{cm}^{-1}$ -23  $\text{cm}^{-1}$   
(configuration-dependent)

**Signal-to-noise ratio:** 1000:1  
(single acquisition)

**Dynamic range:** ~85,000:1

**Integration time:** 8 ms-3600 s

**Input fiber connector:** SMA 905

**Communication:** USB 2.0, 480 Mbps  
(USB 1.1 compatible); RS-232 (5-wire)

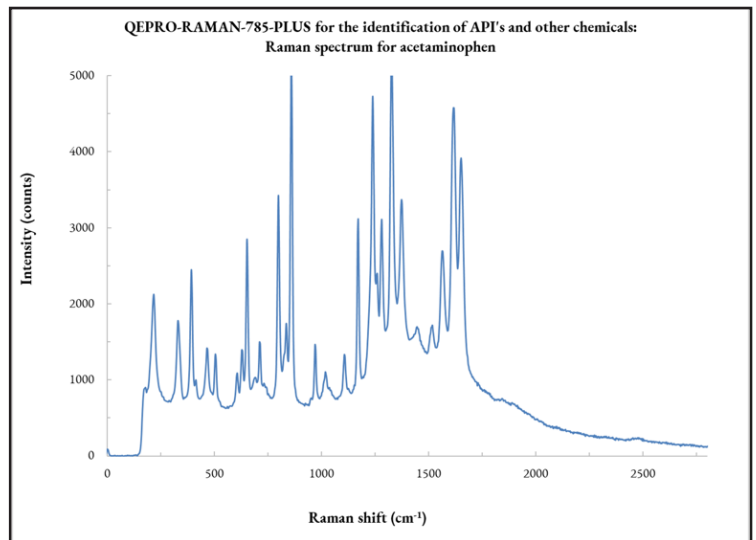
**Dimensions:** 182 mm x 110 mm x 47 mm;  
7.17 in. x 4.33 in. x 1.85 in.

**Weight:** 1.15 kg (2.6 lb.); power supply,  
0.45 kg (1 lb.)

## QE Pro Raman+ Setups

The QE Pro Raman+ can be used with Raman lasers, probes, SERS substrates and sample holders as a complete system.

- Detect weaker, elusive Raman signatures
- 3x sensitivity improvement enables faster measurements
- Low noise electronics and detector cooling push limits of detection even lower



*Customizable Raman systems can be scaled to manage in-process measurements of samples including pharmaceutical ingredients.*

## Example Applications

QE Pro Raman+ is an excellent choice for challenging applications across research and industry:

- Materials analysis of chemicals, pharmaceuticals, and food and beverages
- Trace level detection of illicit drugs and explosives
- QA/QC for industrial process monitoring
- Pesticide detection with surface enhanced Raman spectroscopy (SERS)