

RAMAN TRACE CHEMICAL IMAGING SYSTEM

Key Features

- ▶ Innovative high resolution **Raman hyperspectral imaging system** for chemical identification.
- ▶ Lightweight, compact form factor ideal for **close proximal detection** or **inline process monitoring** applications
- ▶ Raman area imaging enhances **small particle detectability** by eliminating spectral dilution
- ▶ Line excitation laser design provides a new level of speed & performance with **increased selectivity & sensitivity**
- ▶ Unique patented HTVS™ design maximizes spectral information while achieving **low limits of detection**
- ▶ User may develop or upload **spectral libraries** for applications like threat assessment and drug detection
- ▶ Integrated color camera records an **RGB image** of the scanned area with Raman **chemical image overlay**
- ▶ Active **high speed scanning** over a 6 x 12 mm area with standard collection optics configuration

Compact Fixed Mount Spectrograph



Applications

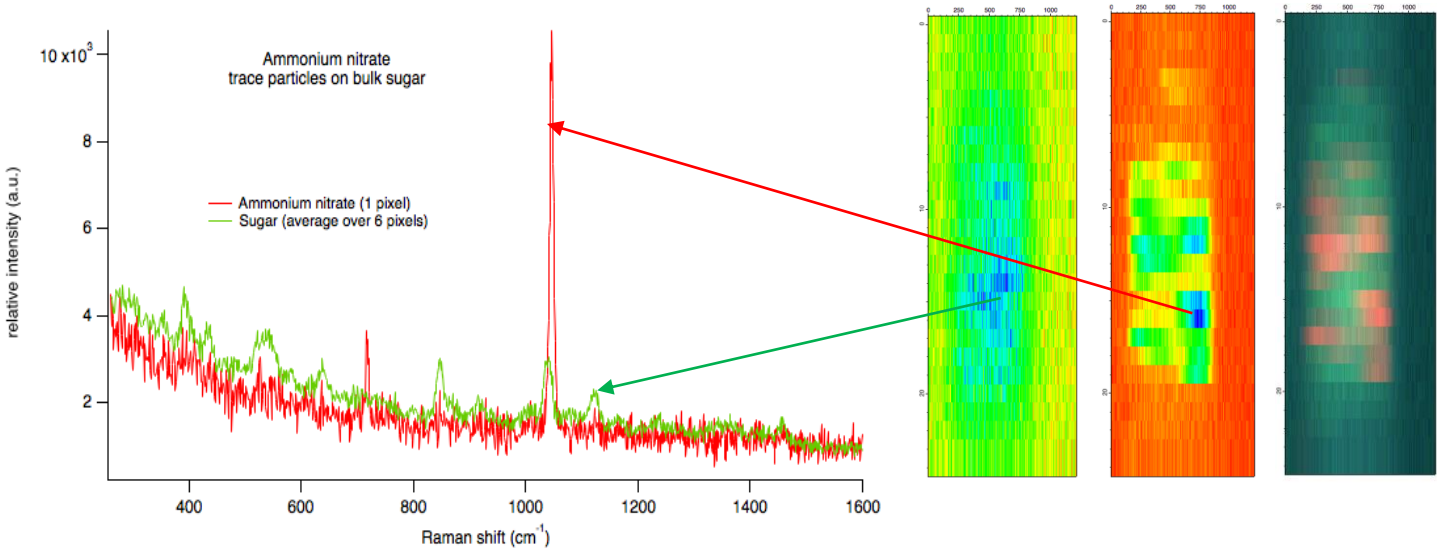
- ▶ **Threat Assessment:** Detect trace explosives & precursors in a fingerprint.
- ▶ **Narcotics Detection:** Rapid screening at traffic stops or illicit drug manufacturing sites
- ▶ **Material ID:** APIs, raw materials, manufacturing, waste streams
- ▶ **Biomedical Optics:** Dermatological screening

Preliminary Specifications

Detection Method	Raman Spectral Imaging
Spectral Range	200 - 2200 cm^{-1} Raman shift (785 nm excitation wavelength)
Spectral Resolution	2-3 cm^{-1} spectral linewidth (FWHM)
Detection Capabilities	Drugs and precursors, IED constituents, TICs, TIMs, CWAs, etc.
Working Distance	Close proximal (2 cm) in standard configuration – other options available
Dimensions & Weight	212 x 150 x 96 mm (8.4 x 5.9 x 3.8 inches); ~2 kg
User interface	Onboard computer for acquisition and analysis or remote, ethernet, wifi, HDMI
Power	DC input power with external AC connector 120/240V

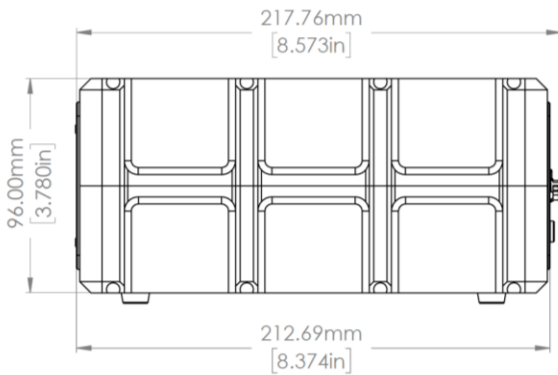


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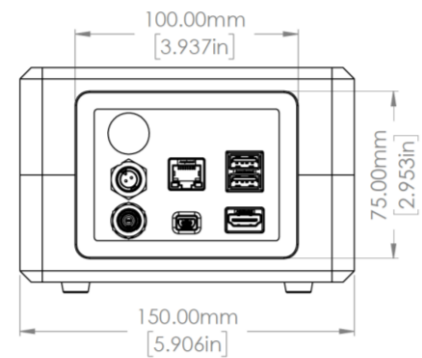


Mechanical Dimensions

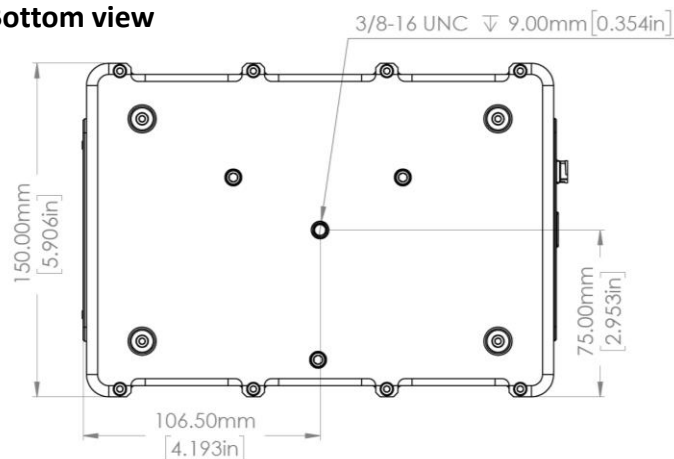
Side view



Back view



Bottom view



Front view

