

RAMAN TRACE CHEMICAL DETECTION SYSTEM

Key Features

- ▣ Innovative high resolution handheld **Raman hyperspectral imaging system** for chemical ID
- ▣ Lightweight, compact form factor ideal for **close proximal** detection scenarios
- ▣ Raman area imaging enhances **small particle detectability** by eliminating spectral dilution
- ▣ Line excitation laser provides a new level of speed & performance with **increased selectivity & sensitivity**
- ▣ Unique patented HTVS™ design maximizes spectral information while achieving low **limits of detection**
- ▣ Onboard and user-uploadable **explosive / hazmat / drug 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 a single click

Compact Handheld System



Applications

- ▣ **Threat Assessment:** Detect trace explosives & precursors in a fingerprint
- ▣ **Narcotics Detection:** Rapid screening - traffic stops / drug manufacturing sites
- ▣ **Material ID:** APIs, raw materials, manufacturing, waste streams

Preliminary Specifications

Detection Method	Raman Hyperspectral 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)
Dimensions & Weight	9 x 5.5 x 4" (L x W x H) with 6.5" handle; 2.3 kg
User interface	5" capacitive touch screen display with onboard computer and spectral libraries
Power	AC power or rechargeable battery pack