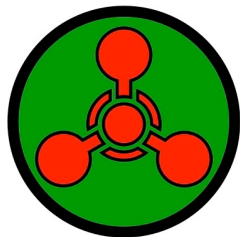


# Photon Systems **STANDOFF 200** Analyzer



## One Instrument To Detect Them All

Being first on the scene means dealing with unknowns. Other existing real time detectors are incapable of identifying biowarfare agents. Only the **STANDOFF 200** is capable of detecting trace chemical, explosives **and** biowarfare agents on surfaces, in real time, with no reagents or consumables.



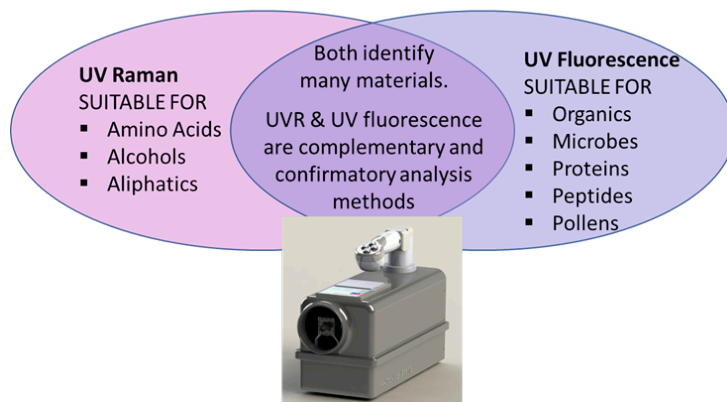
## Standoff Safety

Most sensors require touching or handling unknown hazardous materials. For greater safety, the **STANDOFF 200** standoff detection capabilities enable detection at up to 5 meter standoff distances, even in bright sunlight. Now, you can safely identify a substance on a surface without getting near it.

## Two Orthogonal Detection Techniques

Many detectors suffer from poor sensitivity and/or incorrect identification due to the use of only one detection technique. The **STANDOFF 200** is the only standoff handheld detector to utilize both deep UV Raman and fluorescence. This enables unsurpassed sensitivity and specificity for detecting a wide range of chemicals, explosives and biological agents. NASA/JPL is using this same technology on Mars to detect organic compounds with SHERLOC detector on the Mars 2020 probe.

1 to 5 m standoff detection in real-time



## **STANDOFF 200 Analyzer**

Integrated Deep UV Raman and  
Fluorescence Analyzer for Standoff  
Detection of  
Chem, Bio, & Explosives

### **Features**

- Single handed operation:** 4-button plus trigger control
- Warm-up:** < 10s from cold start, 3 s from standby mode
- Built-in-test:** full functional test of all components on startup
- Spectral Calibration:** Auto-calibrated on analyzer startup
- Two Coaxial Context Cameras:** 75° wide angle image, 20mm micro image around laser spot
- Autofocused Standoff:** 0.6 m to 5+ m
- Materials Detected:** Chemical, Biological and Explosives
- CBE Libraries:** Built in unclassified library +SD card libraries
- Standoff Distance:** 0.5 m to 5+ m in full daylight conditions
- Spectral Range:** **Raman:** 250  $\text{cm}^{-1}$  to 4000 $\text{cm}^{-1}$   
**Fluorescence:** 270nm to 320nm
- Context Info with Spectral Data:** Date/time stamps, GPS, azimuth, distance and two contextual photos
- Power Supply:** User replaceable 24 V LiPO battery pack (UN/DOT 38.3 rated) or 24 V wall adapter
- Communication:** WiFi/Bluetooth (to Android/ATAK/MFK), plus Wired USB 3.0
- Weight:** <12 pounds
- Dimensions:** 7" W x 11" H x 16" L
- Battery Lifetime:** >20 hrs in standby, >300 full data sets
- Display:** Color 1920x1080, 5.9" LCD
- Ambient:** -40 °C to +60 °C, 0-90% humidity, -1 km to +20 km
- Shock/Vib:** TBD
- Ingress Protection:** IP67
- Robot compatible:** ¼ -20 camera thread or dove-tail mount
- Maintenance:** > 1 year with window clear of debris



### **Standoff Handheld Chem Bio & Explosives Analyzer**

The **STANDOFF 200** Analyzer is the first and only fully integrated real-time deep UV Raman and fluorescence analyzer instrument, providing complementary and confirmatory testing in a single handheld device.

Identify a wide range of unknown chemical, biological, and explosive materials on surfaces at standoff distances of 1 to 5 m, in the field, in real time, and in full daylight conditions in a single, hand-held instrument. The Photon Systems **STANDOFF 200** analyzer employs two complementary optical methods, deep UV Raman and fluorescence spectroscopy, without any optical interference from ambient light or due to Raman and fluorescence spectral overlap.

The **STANDOFF 200** is a fully self-contained hand-held point-and-shoot analyzer with ATAK and MFK compatibility which contains a deep UV laser and control electronics, auto-calibrating spectrometer, autofocus telescope for targets from 0.6 to 5+ m, single handed control, wide and narrow field of view context images, and embedded computer with on-board data processing and CBE library and display showing context information and target identification.