

RedWave Technology's ProtectIR vs. HazmatID Elite



The most advanced FTIR in the past 10 years for powder/liquid identification.

Field-portable Fourier transform infrared attenuated total reflection (FTIR / ATR) technology has been commercially available since the early 2000's. Over the past two decades, it has evolved into the form of smaller, lighter, more rugged devices designed specifically for emergency responders.

The ProtectIR from RedWave Technology is the latest innovation in this development. While offering expected features such as a durable, hand-held form factor and complete IR spectral range, the ProtectIR goes much further with the latest advancements in algorithms, on-board library size, information management, etc. for the benefit of its operators. A brief comparison of the ProtectIR and its leading competitor is presented to the right to help readers decide on which device is the best fit for their agencies.

When designing the ProtectIR, RedWave Technology was not satisfied with using outdated, aging hardware and software approaches. Rather, we pushed the envelope to equip operators with the latest cutting-edge advancements. The on-board ThreatAssist database is a massive compilation of numerous chemical sources comprising more than 32 physical and chemical properties for over 40,000 products. And the companion Team Leader app connects the ProtectIR directly to a secure, cloud-based server for ready access to Reachback support and device information management.

The spectral analysis and mixture deconvolution algorithms are state-of-the art and provide reliable product identifications in the most complex samples encountered in the field. Indeed, the spectral library is enhanced for today's emerging threats such as Fourth Generation "Novichok"

Feature	ProtectIR	HazmatID Elite	Advantage
Battery Life	6 hours	4 hours	ProtectIR
On-Board Library	22,000 Spectra	10,000 Spectra	ProtectIR
Automated Mixture Analysis	Yes, with Advanced Spectral Matching and Ambient Background Compensation	Yes, but Legacy Approach	ProtectIR
On-Board Chemical Database	ThreatAssist for All Library Spectra and NIOSH for Select Library Spectra included	NIOSH for Select Library Spectra	ProtectIR
Remote Wireless Command Connectivity	WiFi and Bluetooth On-Board, Cloud-Based ThreatAssist Command App for Android and iOS is included with original purchase	RF On-Board, PC-based Command Software is Optional for Additional Expense	ProtectIR
24/7/365 Reachback Support	Yes, Expert Access within 7 - 15 Minutes	Yes, but Access to Help is Inconsistent	ProtectIR

agents, fentanyl and its analogs, novel street drug cutting agents like Xylazine, and much more. Even the user experience with the ProtectIR is superior to its counterparts with a high-contrast view, readily available preview mode, and simplified device feedback and results screens.

All these design choices were strategically made to expedite incident mitigation and critical communications with Incident Command in the field. Emergency response agencies have many choices of chemical detection and identification solutions. When considering all the factors contributing to which one is best, the ProtectIR from RedWave Technology becomes an easy choice.