

When faced with unknown chemicals in the field, rapid, accurate identification is critical. With Thermo Scientific TruDefender analyzers, chemical battalions, hazmat teams and other first responders obtain the reliable identification they need to protect themselves, mitigate the scene and safely execute their mission.

## Thermo Scientific TruDefender FTX and TruDefender FTXi

Handheld FTIR for Chemical Identification



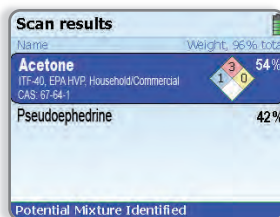
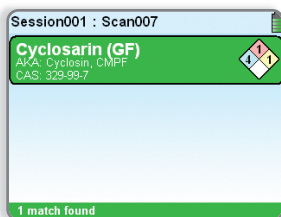
Thermo Scientific™ TruDefender™ analyzers are rugged, handheld FTIR systems for rapid identification of unknown chemicals including toxic industrial chemicals, explosives, narcotics, and precursors. They bring the power of FTIR directly into the hazard zone, enabling the responder to analyze—and act—faster than ever before.

Lightweight and easy to use, TruDefender FTX analyzers include a variable-pressure anvil for easier sampling and decontamination. The self-contained anvil mechanism prevents chemical entrapment which could contaminate operators or subsequent samples. The anvil rotates to provide clear visibility and to ensure easy sampling when faced with limited dexterity.

The TruDefender FTXi instrument adds to the core functionality by providing a direct link to incident command or reach-back support through embedded mobile phone technology.

### Key Benefits:

- **Fast, accurate identification.** Returns results in seconds, even for complex mixtures.
- **Embedded mobile phone technology.** Send results via e-mail or SMS text directly from the hotzone with the TruDefender FTXi model.
- **Easy to use.** Intuitive, menu-driven interface for fast training and proficiency.
- **Improved sampling.** Large sampling surface and fully rotational anvil for easy sample placement.
- **Built for field use.** Smallest, lightest military-rugged FTIR spectrometer on the market. Certified to MIL-STD 810G for ruggedness.
- **Easy to clean.** Contoured edges and self-contained anvil mechanism ensure easy decontamination.
- **Worry-free maintenance.** Requires no scheduled maintenance, calibration, warm up or mirror alignment.



Clear analysis results require no user interpretation.



### Designed for Decon

The TruDefender FTX instrument is easily cleaned by submerging in decon solution, or using standard cleaning tools—no disassembly required.

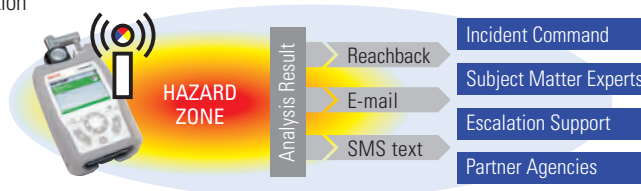


### Flexible Sampling

The reversible sampling accessory provides environmental protection for volatile liquids and enables easy sampling of prills.

### Integrated Mobile Phone Technology

With the TruDefender FTXi instrument, users can send comprehensive analysis results, including chemical name, CAS number and spectra, directly from a hazard zone to incident command or Thermo Scientific reachback support. This wireless capability reduces communication challenges and transcription errors, ensuring the incident commander has the information needed to appropriately respond to a threat as quickly as possible.



## Thermo Scientific TruDefender FTX and TruDefender FTXi

Specifications	TruDefender FTX	TruDefender FTXi
<b>Weight</b>	3.12 lb (1.41kg)	3.6 lb (1.63kg)
<b>Size</b>	8.9 x 4.5 x 2.1 in (22.61 x 11.43 x 5.33cm)	8.9 x 4.5 x 2.39 in (22.61 x 11.43 x 6.07cm)
<b>Spectral Range</b>	4,000cm <sup>-1</sup> to 650cm <sup>-1</sup>	
<b>Spectral Resolution</b>	4cm <sup>-1</sup>	
<b>Collection Optics</b>	Solid Diamond Crystal ATR	
<b>Operating Frequency</b>	n/a	Quad band GSM - 850, 900, 1800, 1900MHz
<b>Survivability</b>	Independently tested for MIL-STD-810G and IP67 certification	
<b>Data Export Formats</b>	SPC file (for use in standard spectroscopic software), text file, or JPEG report	SPC file, text file or JPEG report; downloadable or send via SMS text, e-mail or direct to reachback
<b>Battery</b>	Removable and rechargeable lithium ion battery or 123a (e.g. SureFire™) batteries; >4 hours operation	
<b>External Power Supply</b>	Wall plug transformer 100-240 VAC 50/60 Hz	
<b>Operating Temperature</b>	-4 °F to 104 °F (-20 °C to +40 °C)	
<b>Languages (Optional)</b>	English, Chinese, German, Russian and Arabic (English Library)	

Complete MIL-STD-810G test results available upon request.

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