

IONSCAN800™

EXPLOSIVE & NARCOTIC TRACE DETECTOR

High-Resolution IMS Technology
 Dual-Mode Simultaneous Detection
 Sub-3-Second Analysis



KEY CAPABILITIES

- Non-radioactive IMS — no licensing required
- Dual-mode: explosives + narcotics simultaneously
- Picogram-level sensitivity, ≥99% detection rate
- Auto calibration, self-cleaning, self-diagnosis
- 5.6" touchscreen, <3kg, 8h+ battery
- GPS positioning & remote monitoring

<3s

ANALYSIS

pg

SENSITIVITY

≥99%

DETECTION

≤1%

FALSE ALARM

<3kg

WEIGHT

8h+

BATTERY

**EVERY TRACE TELLS A STORY.
 EVERY DETECTION PREVENTS A THREAT.**

Laboratory-level performance in a portable, rugged design.

The Contraband Challenge

Contraband smuggling is one of the most persistent threats facing correctional and law enforcement institutions. Criminal networks constantly adapt — concealing synthetic drugs and weapon components in clothing fibres, mail, and liquid formulations.

Exposure to fentanyl, SPICE, or nitazenes can lead to severe medical emergencies. Maintaining control demands detection technology that evolves as rapidly as the threats.

The IONSCAN800 Solution

A globally certified trace detector combining non-radioactive IMS with continuously updated threat libraries for fast, precise identification.

"Detect and deter threats before they spread — built on precision, reliability, and trust."

KEY ADVANTAGES

- **Precision:** Picogram-level sensitivity
- **Non-Radioactive:** Licence-free, global deploy
- **Dual-Mode:** Explosives + narcotics simultaneously
- **Low False Alarms:** ≤1% false positive rate
- **Intelligent:** Auto calibration, self-cleaning
- **Fast:** Under 3 seconds per sample



FIELD OPERATOR TRACE SAMPLING

APPLICATION AREAS

PRISON & CORRECTIONAL

Entry screening, mail checks, cell inspections, portable deployment, central monitoring.

LAW ENFORCEMENT

Suspect screening, forensic verification, incident response, fentanyl safety.

BORDER & CUSTOMS

Customs inspection, air cargo screening, maritime checks, passenger screening.

CRITICAL INFRASTRUCTURE

Government buildings, power plants, transport hubs, event venues, VIP protection.

AIRPORT & AVIATION

Passenger checkpoints, luggage inspection, air cargo compliance, restricted areas.



PREPARING DEVICE FOR FIELD ANALYSIS

FAST FACTS

- **Easy Operation:** 5.6" colour touchscreen, minimal training required
- **SPICE Detection:** Continuously updated synthetic drug libraries
- **Data Storage:** 1,000,000+ records with GPS timestamp logging
- **Connected:** Remote monitoring, real-time data export capability

HOW IT WORKS

Simple. Fast. Reliable. From sample to result in six clear steps:

01 SAMPLE

The operator wipes the suspect surface with a disposable test swab to collect trace particles from baggage, clothing, vehicle interiors, or hands.

02 OPEN COVER

Remove the inlet cover on the IONSCAN800 device to expose the sample port, preparing for swab insertion into the analysis chamber.

03 INSERT

Place the swab directly into the IONSCAN800 analysis port. The device automatically detects the sample and begins IMS processing.

04 ANALYZE

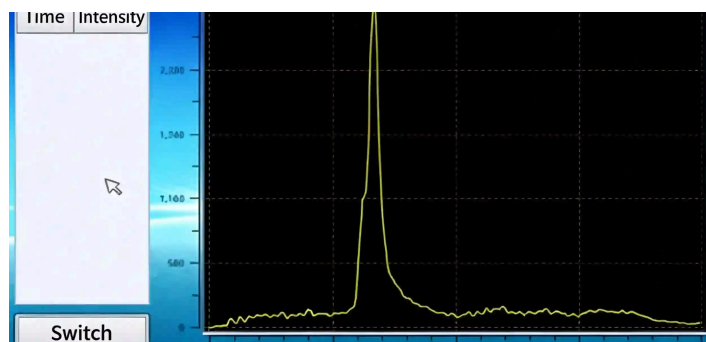
High-resolution IMS technology separates and identifies ions within seconds. The real-time spectrum displays on the touchscreen during processing.

05 RESULT

The touchscreen displays clear results with the detected substance name and concentration level, allowing immediate operational action.

06 MANAGE

Access Live Detect, Status, Settings, and Advanced functions. Print detailed reports, export data, or review full detection history.



REAL-TIME IMS SPECTRUM ANALYSIS DISPLAY

TECHNICAL ADVANTAGES

EASY-TO-USE INTERFACE

The 5.6-inch intuitive colour touchscreen requires minimal training for quick operator onboarding. The graphical interface is ideal for high-turnover security environments where operators need immediate proficiency.

INTELLIGENT SELF-MAINTENANCE

Automatic internal calibration adapts to environmental temperature and humidity changes. The self-cleaning function activates after overload detection, and automatic fault diagnosis provides real-time warning codes.

SINGLE-USE SWABS

Cost-effective, hygienic disposable swabs provide efficient particle pick-up while maintaining accuracy. Manual swabbing or contactless wand sampling extends reach for bags, mail, and confined spaces.

CONTINUOUS LIBRARY UPDATES

The open database architecture allows adding new threats as they emerge. Sample library upgrades are deployed in real time to match the constantly evolving landscape of synthetic drugs and homemade explosives.

HIGH SAMPLE THROUGHPUT

The system processes samples in under 3 seconds with automatic clear-down, supporting efficient screening in busy operational settings with tight security schedules.

CONNECTED & SMART

Built-in GPS positioning tracks device location in real time. Remote status monitoring, result viewing, and fault diagnosis through secure network connectivity. Data export in Excel, PDF, and CSV formats.



INTUITIVE MAIN MENU INTERFACE

TECHNICAL SPECIFICATIONS

DETECTION CAPABILITY

Technology	High-resolution Ion Mobility Spectrometry (IMS)
Ionisation Source	Non-radioactive, license-free, long-lifetime design
Operating Mode	Dual positive/negative ion mode, simultaneous detection
Explosives Library	RDX, TNT, PETN, NG, HMX, AN, C4, Semtex, and more
Narcotics Library	Cocaine, heroin, THC, meth, ketamine, fentanyl, SPICE, MDMA, LSD
Database	Open database, expandable and updateable in real time

SYSTEM PERFORMANCE

Sensitivity	Picogram (pg) level
Analysis Time	<3 seconds
Startup Time	<90 seconds
Detection Rate	≥99%
False Alarm Rate	≤1%
Sampling Method	Trace particle adsorption, swab wiping
Alarm Display	Sound, light, on-screen ID with concentration
Self-Maintenance	Auto cleaning, auto diagnosis, auto calibration

PHYSICAL & ENVIRONMENTAL

Dimensions	290(L) x 170(W) x 137(H) mm
Weight	≤3kg (without power adapter)
Display	5.6-inch color TFT touchscreen
Operating Temperature	-20°C to +60°C
Operating Humidity	Up to 99% RH (non-condensing)
Battery Life	≥8 hours continuous, ≥40 hours standby
Data Storage	≥1,000,000 records with retrieval and export
Connectivity	Ethernet, USB, Wi-Fi, Bluetooth

CERTIFICATIONS

ISO 9001 Quality Management	ISO 14001 Environmental	ISO 45001 Occupational Health
CE EU Safety & EMC	FCC US Federal	RoHS Hazardous Substances