

L3X-87MDS



NexGenX Quick & Accurate Raman
Evidence Identification System
for customizable applications

Our Instant Material & Drug Identification handheld unit L3X-87MDS is robust and reliable portable spectrometer designed for many years of service. The system combines ease of use with maximum safety and provide results within seconds. Our system yields highly reliable and accurate results, giving you more confidence in your measurements.

- Instrument for verification compliant with USFDA 21CFR
- Defense & security
- Instant identification of illicit and hazardous substances in solid, powder, liquid and gel forms
- Offers you the flexibility to customize instruments and accessories for your precise analysis anywhere and anytime
- Handheld analyzer and instant verification of materials in the pharmaceuticals industry
- True single hand operation
- Small and light-weight battery operated Raman spectrometers
- Quick and reliable results
- Reliable and precise identification of materials in just seconds
- ORS (Orbital Raster Scan) technology for accurate, reproducible and reliable results
- Non-destructive and versatile
- Multiple sampling attachments for any type of analysis
- Rugged and robust: Ruggedized aluminum case with IP 67
- Military, Federal & Commercial Standards No. 751, MIL-F-21840, MIL-T-43548, MIL-STD-129, MIL-STD-130, MIL-STD-105, MIL-STD-595, MIL-PRF-32143A, MIL-STD-810 and other applicable specifications as required by contract.
- Our rugged NexGenX L3X-87MDS is designed and meets the MIL-STD-810G Method 501.5, 502.5, 512.5, 514.6 and 516.6, and other Military Specifications such as MIL-STD-883D, MIL-STD-105, MIL-STD-130, ISO, UL and other applicable standards and specifications.
- Commercial specification and standards such as ISO 9000 series as applicable to the products.
- **NOTE:** NexGenX L3X-87MDS Quick & Accurate Raman Evidence Identification System is protected under several patents and trademarks. The system may be subject to US export and Licensing requirements for certain countries and iL3 Vision will inform customers at the time of submitting quotation in response to the inquiries accordingly.

NexGenX L3X-87MDS – Identification and verification of materials made fast and easy

Handheld L3X-87MDS devices make identification and verification of materials fast, easy, and reliable – for everyone.

L3X-87MDS devices are available in flexible packages allowing you to select customized kits depending on your industry's precise requirements. The robust design of the L3X-87MDS platform meets the specifications of MIL-STD-810 making Mira devices an ideal tool for use even in harsh environments.

Flexible: Customize L3X-87MDS to suit your unique needs



- Customize the Flex system with only the attachments you need
- Customizable reports
- Customizable operating procedures
- Wide variety of sampling options

Evaluation Type

- Material verification with Pass/Fail results (L3X-87MDS Flex)
- Material identification based on spectral library searching (NexGenX MDS Flex)
- Multi-component identification with Mixture Matching (NexGenX MDS Flex)

Results you can trust: Decisions made with confidence



- Discriminatory algorithms
- Customizable model building
- Clear results

Barcode Scanning (L3X-87MDS Flex)

- Barcode scan automatically selects operating procedure and populates:
 - Lot
 - Batch
 - Container

Simple to use: Straightforward guided workflow



- Foolproof operation with controlled user interface
- Automatic report generation
- Seamless transition between samples



Smart Accuire (NexGenX MDS)

- The L3X-87MDS intuitive operation requires no instruction: Turn it on, put it on the sample, touch the screen, and get a result – that's it!

Fast: Results in seconds



- Increase throughput
- Move quickly from sample to sample
- Complete analysis in seconds

Smart Sampling attachments for a wide range applications and enhanced user safety

Unique flexibility meets your needs

With a uniquely comprehensive set of smart sampling attachments available, customize your L3X-87MDS Flex package to verify the contents of any container.



Point-and-shoot Attachments

Three optional Point-and-shoot Attachments are available for the L3X-87MDS Flex packages. The SWD is used for direct contact or thin bags while the LWD and XLWD are for thicker containers such as glass bottles or thick sight glass in a process line.



Right Angle Attachment

Use the Right Angle Attachment to lay L3X-87MDS on the sample for hands free precise data collection.

Contact Ball Probe

Verify materials by simply immersing the Contact Ball Probe into a liquid or powder.



Standoff Attachment

Identify substances from a distance with the Standoff Attachment, e.g., by standing in a door way and scanning a container from across the room.



Tablet Holder

A spring-loaded mechanism holds large and small tablets for final formulation analysis.



Vial Holder

The vial holder attachment permits the user an easy, convenient way to measure liquid samples, or even powdered samples that are stored in vials.

Universal Attachment

Identify powders and liquids in plastic bags or through bottles using the Universal Attachment.

Calibrate/Verify Accessory (CVA)

Available for the L3X-87MDS Flex only, the CVA consists of an ASTM Raman shift standard and a NIST-traceable verification sample following: USP/EP guidance.

NexGenX Quick & Accurate Raman Evidence L3X-87MDS



True single-handed operation

Superior usability

L3X-87MDS handheld devices are hard to beat when it comes to convenience. Due to their small size (just 13.0 x 8.5 x 4.0 cm), they fit into your pocket and enable true single-handed operation.

L3X-87MDS FLEX Packages – Ready to conquer any application

L3X-87MDS Flex Packages are adaptable for many different applications and industries.

L3X-87MDS Flex Applications	L3X-87MDS Flex Industries
• Raw material verification	• Pharmaceuticals
• Narcotics ID	• Defense, safety, security and forensics
• Blend uniformity	• Art and archeology
• Chemical analysis	• Cosmetics
• Counterfeiting	• Food integrity (food safety)
• Conservation	• Gems and minerals
• Defect analysis	• Medical
• Explosives	• Nanotech
• Gemology	• Nutraceuticals
• Hazardous chemicals	• Petroleum and petrochem
• Polymers and plastics	• Plastics and polymers
• Toxic industrial chemicals (TICs)	• Research laboratories
• Toxic industrial materials (TIMs)	• Surface Enhanced Raman Scattering (SERS)
• SERS applications	• Teaching and education



Technical Data: NexGenX L3X-87MDS

NexGenX L3X-87MDS	
Laser (excitation wavelength)	785 nm ± 0.5 nm
Laser Output Power	100 mW, 50 mW at sample, 5 adjustable laser powers down to 10 mW
Collection Optics	5 mm working distance; 0.04 spot size, 2.5 mm raster size
Collection Techniques	Orbital Raster Scan (ORS™) to average over the sample
Exposure	Automatic modes (100 ms minimum)
Battery	2 AA Batteries, Lithium ion, >4 hours operation
Weight	0.705 kg
Size	88.2 × 126.5 × 45.3 mm
Operating Temperature	-20 °C to +50 °C (continuous)
Ruggedization	MILSPEC 810G, IP67 Certified
Display	High visibility, glove compatible, color touch screen
Security Log in	PIN Code - See Instructions
Measurement Accessories	Comprehensive set of Smart Attachments
Laser Class	Class 3B
Compliance	CE certification