

XRF Spectrometer

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XRF-Spectrometer LXRF-A10 is a microprocessor controlled high-count throughput unit with low detection limits for wide range of elements. Provision of multi-elemental analysis with detection limits upto 1 ppm. Built-in movable platform for easy location of testing point. High resolution detector improves analysis accuracy. Equipped with safety features of optical tube shielding with no X-ray radiation and high voltage emergency locking.

Features:

- Detection limit $\leq$ 1 ppm
- Measureable elements $\leq$ S to U
- Elemental content $\leq$ 1 ppm to 99 %
- Movable sample platform for easy detection of testing point
- Built-in electric cooling Si-PIN detector
- Safety features - optical tube shielding with no X-ray radiation and high voltage emergency locking

Applications:

Used in detection of plating thickness of metals, concentration of plating solution , RoHS detection and analysis, full-element analysis and electro plating industries

Specifications:

Model no.	LD-LXRF-A10
Weight	45 kg
Stability	0.001
Dimensions	550 x 410 x 320 mm
Temperature	15 ~ 30 °C
Power supply	AC 220 V $\pm$ 5 V
Repeatability	0.001
Detection limit	1 ppm
Elemental content	1 ppm to 99 %
Measureable elements	S to U

Handheld XRF Spectrometer LD-LXRF-B10 (XRF stands for X-ray fluorescence) comes in special three level military-protection-box, which is compression free, moisture-proof and shockproof for convenient handling and for on field analysis. Rechargeable lithium battery 9000 mAh, sustainable work up to 12 hours. The core parts are Miniature X-ray tube, Fast-SDD detector, digital signal processor and micro multichannel intelligent analysis module. Designed with 5 inch HD screen with clear display, 360° rotation and multi-points operation. No need for sample preparation, direct measurement and analysis of the surface of goods that need to tested.

Features:

- Energy dispersive X-ray fluorescence analytical Method
- Simultaneous analysis of 40 elements using single detector
- Digital multi-channel technology with SPI data transmission
- Designed with 5 inch HD screen with clear display, 360° rotation, multi-points operation
- Quick measurement and accurate testing of the samples for a long time by its test block
- Rechargeable lithium battery 9000 mAh, sustainable work up to 12 hours
- Integrated design of seal type with waterproof and dustproof function
- Built in memory battery continue replace the battery power
- Ergonomic, lightweight, handheld design, easy to carry, safe for transportation
- Large data storage through ultra-high frequency memory and mass storage space

Applications:

Handheld XRF Spectrometer is used for the exploration of elemental composition from magnesium (Mg) to uranium (U), from parts per million to 100%. Used across scientific centres, Research labs for quality testing of materials through measurement of elements present.

Specifications:

Model no.	LD-LXRF-B10
Range	Simultaneous detector
Weight	1.7 kg
Detector	SDD detector, Simultaneous analysis 40 elements
Power Supply	Rechargeable lithium battery, standard is 9000 mAh, sustainable work up to 12 hours
Camera system	Built-in 500 W pixels high definition camera, to observe testing position at any time
Display screen	Brand new 5 inch transfective LCD touch screen, the resolution is 1080×720

Built-in system	GPS, WIFI, Bluetooth
Detection limit	Minimum detection limits at 1 to 500 ppm
Analytical Method	Energy dispersive X-ray fluorescence analytical Method
Data transmission	Digital multi-channel technology, SPI data transmission, quick analysis, the high count rate; waterproof mini USB, and can be connected with a desktop computer
Excitation source	50 kV/200 uA- silver target end window integrated miniature X ray tube and high voltage power supply
Relative Humidity	≤ 90%
Elements Measuring	Atomic number from 12 to 92 [elements from magnesium (Mg) to uranium (U)] can be measured
The detection time	1 to 60 seconds (a second report results)
Ambient temperature	-20 to 50°C
Detector resolution	Minimum can reach 128 eV
Dimension (L×W×H)	244 × 90 × 330 mm
Collimator and filter	Collimator diameters are 4.0 mm and 2.0 mm, 6 kinds of filters with automatic switching functions
Content measurement range	ppm to 100%
Warning-Signalling System	Green light means power on, red flushing means testing and yellow flushing means the problems
Detection Objective Solid, liquid, powder	Detection Objective Solid, liquid, powder

Standard Accessories:

Accessories No.: Accessories Name
 ^^^01::Universal charger and car charger
 ^^^02::4G SD memory card and card reader
 ^^^03::Two lithium battery and charger
 ^^^04::PDA accessories
 ^^^05::Radiation shield

The Labodam XRF-Spectrometer LD-LXRF-A11 is designed for non-destructive elemental analysis of precious metals in jewellery and other sample materials. Using X-ray fluorescence technology, the instrument identifies elements through their characteristic secondary X-ray emissions and determines their concentration from the measured fluorescence intensity.

Features:

- Non-destructive X-ray fluorescence analysis for rapid elemental identification and quantification
- Supports analysis of more than 60 elements from potassium (K) to uranium (U)
- Si PIN semiconductor detector provides elemental X-ray detection
- Single sample chamber simplifies sample placement and measurement
- Integrated X-ray tube, amplifier circuit, and high- and low-voltage power supplies
- Non-Vacuum chamber supports the X-ray measurement system
- Element concentrations are determined through calibrated X-ray fluorescence intensity
- Designed for precious-metal analysis, including platinum, palladium, rhodium, gold, iridium, and other alloying elements

Applications:

Suitable for elemental analysis of precious-metal jewellery, metal alloys, powders, solids, and liquids in jewellery manufacturing, precious-metal testing, quality control, material analysis, laboratories, and research applications.

Specifications:

Model no.	LD-LXRF-A11
Weight	20 kg
Power Supply	AC 110/220 V
X-Ray Source	X-Ray Tube
Measurement Time	60–300s
Measurement Range	1 ppm–99.99%
Measuring Objects	Powder, Solid and Liquid
Relative Humidity	≤70%
Measurement Precision	0.05% (>96%)
Ambient Temperature Range	15–30°C
Analytical Range of Elements	More than 60 elements, K to U

The X-ray Fluorescence of Energy Dispersive Spectrometers are made for quick and accurate elemental analysis of liquid, powder, and solid materials. It offers high-sensitivity elemental analysis for a variety of laboratory and industrial applications because to its sophisticated SDD detector, clever analytical software, and adaptable sample-handling setups.

Features:

- 20-position sample capacity
- Automatic multi-sample testing
- Advanced safety protection
- User-friendly analysis software
- Wide elemental range: F-U
- Solid and liquid sample analysis
- Intelligent sample recognition
- Vacuum & helium analysis modes

Applications:

Suitable for elemental analysis in metals, minerals, petroleum, chemicals, cement, environmental samples, and other industrial materials, including quality control, material identification, and composition testing.

Specifications:

Model no.	LD-LXRF-A12
Weight	85 kg
Detector	SDD
Power Supply	AC 220V ±5V
Tube Current	0-1000 µA
Tube Voltage	5-50 kV
Sample Chamber	Φ340 × 64 mm
Detection Limit	≤0.2 ppm*
Analytical Range	ppm – 99.99%
Sample Positions	20 sample chambers + single chamber (optional), controlled by PLC
Excitation Source	Tube voltage 5~50kV, tube current 0~1000µA
Temperature Range	15-30°C
Testing Atmosphere	Atmospheric / Vacuum / Helium
Analytical Accuracy	<0.05% RSD*

Instrument Dimensions	646 × 578 × 388 mm
High Voltage Generator	Imported Spellman High Voltage
Elemental Analysis Range	F – U
Matrix Effect Correction	Mutually independent matrix effect correction model
Detector Energy Resolution	≤129 eV