## Spectrometer

**The Handheld XRF Analyzer** is a most practical elemental analysis solution for many industries and types of material. This handheld XRF analysis guns have boosted productivity and profits for many businesses all over the globe. For the analysis of minerals, all metals, metal alloys, RoHS, restricted materials, heavy metals, plastics and all elements from Mg to U.





**RAFIQ & SONS**, 1st Floor , 358 - F/2 Johar Town , Lahore - PAKISTAN Tell: 042 35304549, Cell/Whats App: 0331 4495218 E/m: rafiq \_ son @ yahoo .com This X-ray fluorescence spectrometer research and development, our latest generation of handheld XRF ore analyzers -- EXPLORER is bringing about a revolution in the field of mineral ore analysis. EXPLORER 7000 introduces advanced digital multichannel technology that provides lower limits of detection with better stability and a wider range of applications. The unique Explorer series of XRF provides for the first time a truly comparable performance with hi end bench top instruments, while its ultra compact and light weight design ensures that multi element analysis of geological ore prospecting, exploration analysis and slag refining, are both simpler for the user and provide better accuracy.



Light weight, small size, ergonomic handle design and equipped with a purpose designed instrument case which is easier to hold and more convenient for use in the field Employs a high contrast 5 inch high-definition color screen, providing a clear display at all light levels. The screen has 360, The Integrated seal design is waterproof and dustproof ensuring that the instrument can be used continuously in any location includingharsh environments.

No need for sample preparation, Explorer directly measures and analyses the front surface of any material or object. The handheld design ensures simple operation and fast measure times. Accuracy and concentration can be monitored at any time using the test sample provided with the instrument.

## PERFORMANCE AND TECHNICAL DATA

- Elements Measuring Range Atomic number from 12 to 92 [elements from Mg (Mg) to uranium (U)]
- Simultaneous detector of elements, Simultaneously analyse 40 elements
- Microcomputer system Customized computer system, CPU: 1GHz, Memory: 1G, extended stored maximum 32G, standard 8G for mass storage data
- The content range ppm $\sim$ 99. 99% according to sample
- The detection time -60 seconds (one second report of results)
- ✤ A built-in system GPS, WIFI, Bluetooth

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- Power Supply Rechargeable lithium battery. Standard is 9000mAh providing a sustainable use of up to 12 hours. An optional high power
- super battery is also available providing 27000mAh. A wide voltage range universal adaptor 110V ~ 220V is included.
- Detection Objective Solid, liquid, powder
- Detector SDD detector or Fast-SDD detector (optional)
- Detector resolution Minimum can 128eV
- The excitation source 50KV/200uA- silver target end window integrated miniature X-ray tube and high voltage power supply
- Collimator and filter Collimator diameters are 4.0mm , 2.0mm and 1.0mm, Plus 6 programmable filters with automatic switching
- Video system 500W pixel high resolution camera
- Display screen New technology 5 inch semi-reflecting and semi-transmitting LCD touch screen. 1080X720 pixels
- LOD 1 500 ppm depending on sample.
- Safety
- Multiple safety protection ensuring that with no test under way there is no radiation present. Radiation levels when the
- instrument is used correctly is significantly below international safety standards. Automatic X-Ray tube turn off included.
- Standard radiation shields are provided along with a thickened alloy instrument safety screen.
- Data transmission Unique digital multi-channel technology and SPI data transmission ensures quick analysis with high count rates. Includes
- waterproof mini USB allowing connectivity to a desktop computer
- Operating ambient humidity ≤90%
- Operating environmental
- temperature -20°C $\sim$ +50°C
- Instrument dimension 244mm(Length)x 90mm(Width)x 330mm(Height)
- Instrument weight 1. 7Kg
- Specialty Special edition analytical software for mineral ores plus intuitive one key measurement
- Intelligent warning
- signalsIndicator system A green light means power on, a red light flashing means test under way and a yellow flashing light means possible errors.
- Accessories
- Military grade safety cover provides a three system protection for impact or compression, plus waterproofing and shock
- absorption. A universal mains and car charger, Plus a 4G SD memory card and card reader.
- Two lithium batteries, one battery charger, PDA accessories and radiation shield. Optional accessories

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