



TO BE A WORLD-LEADING ANALYTICAL TESTING SOLUTIONS PROVIDER!

pectroscopy Chromatography Mass Spectrom





Rapid | Accurate | Non-destructive

The ISO 9001:2008 international quality certification system is adopted by our company Public Stock Code: 300165

Archeor 1

A new generation the leader of handheld XRF

EXPLORER 7000 Handheld ore analyzer

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Website:www.skyray-instrument.com E-mail:sales@skyray-instrumeng.com Test data in this manual, if not noted, is our company's test data.

All information in this manual is for reference only, which is subject to any change without notice.

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115 countries®ions are using Skyray Instrument up to now

www.skyray-instrument.com





Handheld ore analyzer

With 20 years experience of X-ray fluorescence spectrometer research and development, Skyray Instrument's new generation XRF handheld ore analyzer — EXPLORER 7000 is bringing a revolution in analytical field. EXPLORER 7000 introduces newer digital multi-channel technology, lower detection limits, better stability, and wider applied range; it has comparable performance with bench top; its small and convertible size makes the works of geological ore prospecting, multi elemental detection ,exploration analysis, refining slag more simply and easier.



>> Application advantage of Geology and mineral resources

Personalized customization work mode

 Selections of various Ore – sample – models and free to add unlimited – number – models, the work model can be customized by customer's demand.

The accurate definition of mining boundary

- The built-in GPS function helps to receive signals from satellite anytime at anywhere, and can record the measurements of altitude, latitude and longitude during anytime of testing period, which determine the geographic location information of sampling points, and save as test reports automatically.
- It can draw the ore distribution pictures by obtained coordinate analytical data, screen large area range rapidly and grasp the lode mine accurately, then define the mining boundary, in order to prior to find rich mining area to improve the production efficiency.
- A built in Bluetooth function, which can recognize the key mining areas on site when the instrument collocates with a Bluetooth printer.

Discover the mines' full- value

- HD camera function, observes the detected vein and point position more intuitive, manages and controls the process of mining exploitation better, detects the grade of ore at any time.
- During ore dressing, the quick and accurate analysis of raw ore, concentrate and tailings, provides the value judgment basis for the determination of ore grade, mineral trade, processing and recycling.

Environmental monitoring

To monitor and detect the heavy metals in the soil around the mines, to evaluate mine repair environments, in order to maximize the monitoring the surrounding environment of good mines.



Personalized customization work mode
The accurate definition of mining boundary





Discover the mines' full- value Environmental monitoring

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A new generation, the leader of handheld XRF EXPLORER 7000 Handheld ore analyzer



Easier Operating







- Light weight, small size, ergonomic handle design, equipped with a special instrument case, which is easier to grasp and more convenient to use in the field.
- 5 inch high-definition screen with 360 degree rotation, supports multiple-points-operating, provide clear display at any lights.
- Integrated design of Seal type, gives benefits of waterproof and dustproof, helps the instruments can be used continuously in any harsh environments.
- No need for sample preparation, directly measures and analyses the surface of goods. its handheld benefit helps the instrument achieve a quick measurement and its test block provides a long time accurate testing.

Better Performance

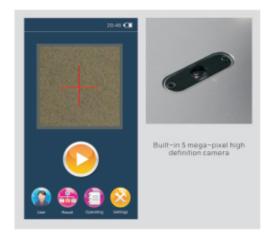


- Rapid nondestructive detection and quick measurement by aiming, report results within one second. The performance is comparable to the bench-top's performance and detection result is fast and accurate.
- Simultaneous detection of Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Ga, Ge, Zr, Nb, Mo, Ru, Rh, Pd, Ag, In, Sn, Sb, Hf, Ta, W, Re, Pt, Au, Pb, Bi, Mg, Al, Si, P, S, and can add more elements for customer's needs.
- Instrument can run without helium by the ultra near optical path design, and can detector the light elements from the beginning of Mg that fully meets the needs of specific users.

Stronger Battery

- Large lithium battery at 27000mAh could be as a selected configuration; the battery duration working time is up to three days, and it equips with communicator / car charger to ensure supply enough power.
- A Built-in memory battery can continue supply power when replacing the battery.

Higher Configuration



- Four core parts which are Miniature X-ray tube, Fast-SDD detector (the world's best detector), digital signal processor and micro multichannel intelligent analysis module, can achieve the accuracy as good as bench-top's.
- Large data storage is by ultra-high frequency memory and mass storage space. Our new independent research and development Digital multi-channel technology ensure effective mining spectral counts per second is up to 500K cps.
- Collimation filter system, its combination can reach to the limit of 12 groups, to meet the testing requirements of different customers.
- A built-in 500W pixels high definition camera, can observe sample's testing position at any time that makes the measurement more accurate.

Safer Protection



- Intelligent tricolor early warning system: 360 degrees without dead angle display by LED three – color lamp led design. Instrument status tells by different colors, Green light means power on, red flushing means testing, and yellow flushing means fault of equipment.
- Triple safety protection function:
 a:Automatic induction, instrument does not work without sample, no leakage radiation.
 b:Thicken preventing testing wall can effectively prevent the scattering.
 c:Safety protection cover can prevent the surrounding light
- Security linkage locking device protects your security; it can guard the final checkpoint if the software is unable to control the instrument turn off.

More intelligent software

 EXPLORER 7000 ore analyzer is equipped with professional application software, specifically for ore industry; the feature is intelligent, high sensitivity, fast testing time, and easy operation.

matrix scattering.

- Brand new knowledge ware is one key operation with dual mode design (user mode and expert mode). User mode uses for recognizing categories of sample by one key operation; Expert mode uses for increasing the elements and increasing the specific in-depth analysis of the operation curve.
- Internal intensity correction method can correct deviation caused by uneven sample of different geometrics, densities and structures.

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Performance technical data

Energy dispersive X ray fluorescence analytical Method lements Measuring

Atomic number from 12 to 92 [elements from magnesium (Mg) to uranium (U)] can be measured

Simultaneous detector Simultaneous analyze 40 elements

Customized system; CPU: 1G; system memory: 1G; extended stored maximum support 32G; standard 4G for mass storage data

1 ~ 60 seconds (one second report results) The detection time

A built-in system GPS, WIFI, Bluetooth

he content range

etector resolution

Rechargeable lithium battery, standard is 9000mAh, sustainable work up to 12 hours; optional is 27000mAh superbattery with Power Supply wide voltage 110V ~ 220V universal adapter for recharging power supply

SDD detector or Fast-SDD detector (optional)

Solid, liquid, powder

Minimum can reach 128eV

50KV/200uA- silver target end window integrated miniature X-ray tube and high voltage power supply he excitation source

collimator diameters are 4.0mm and 2.0mm, 6 kinds of filters with automatic switching functions ollimator and filter

500W pixel high resolution camera

Brand new 5 inch semi-reflecting and semi-transmitting LCD touch screen, its resolution is 1080*720.

The minimum detection limits at 1 ~ 500 ppm

Multiple safety protection, no tests, no radiation, radiation levels at work are far below the international safety standards, and has no sample telemetry, automatic -turn -off X-Ray tube function. Standard radiation shields, thickened instrument's

Special edition of ore's analytical software, and intellectualized one-key-testing.

invenience of application No need to select curves, intellectualized one- key-selecting will select the best matching curve

Digital multi-channel technology, SPI data transmission, quick analysis, the high count rate; waterproof mini USB, and Data transmission can be connected with a desktop computer

Operating environmenta -20°C ~ +50°C

244mm (Length) x 90mm (Width) x 330mm (Height)

telligent warning Green light means power on, red flushing means testing and yellow flushing means the errors ignalsIndicator syste

Three-military-protection-box is compression, waterproof and shock absorption. Universal charger and car charger, 4G SD memory card and card reader

Two lithium battery and charger, PDA accessories, radiation shield. Optional accessories: the large battery, seat type test support, Bluetooth printer, mill, manual pressure machine, and different meshes of sieves

Exclusive accessories



Military grade high strength protective box, has good moisture-proof shockproof pressure three functions, an emergency situation can be used as a rescue tool

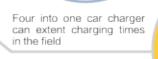


A horseshoe shaped battery:

battery capacity at 27000mAh,

data by portable Bluetooth printers

To achieve on-site printing





Optional portable support or seat type support provide more choices for customers