Designing/Development/Manufacturing/Sale/Service

Skyray Skyray Instrument

Application Advantages for RoHS

- Equipped with newest SDD (minimum resolution＜139eV), it achieves more precise testing to trace hazardous elements.
- Equipped with HD camera, it supports more accurate positioning, achieving precise testing to tiny articles, such as pins.
- Newly software provides more effective algorithm and more functions, increasing testing precision of hazardous elements.
- Helium-charging system (Optional) greatly expands testing precision to halogen, especially Cl elements.

Performance index

Measuring range	Mg to U
Processor and RAM	CUP: 667MHz RAM:256M Maximum expanded storage: 32G Standard configuration: 2G , for storage of large amounts of data
Analytical range	ppm～99.99%
Testing time	3-30 seconds
GPS、WIFI	Built-in GPS & WIFI system
Battery	Chargeable lithium battery, with capacity of 7800mAh, continuously providing 8 working hours ; Equip with wide voltage (110V-220V) general adapter
Testing object	Solid, liquid , powder
Detector	25mm², SDD
Detector resolution	Minimum resolution:139eV
Excitation source	Target: Ag High voltage: 5-40kv Tube current: 1-100 μA
Collimator and filter	Collimator kinds: 2 (4.0 mm and 2.0mm diameter) Filter types: 6 Automatic switch: YES
Video system	CMOS HD camera
Screen	Semi-transmission & semi-reflection LCD touch screen, resolution 640*480
Detection limit	Detection limit: ppm level
Safety	Self-contained password administration
Testing window	Φ12mm
Gas charging system	Optional Helium charging system
Operational environment	Humidity ≤90% Temperature: -20℃~+50℃
Size	234×306×82mm(L×H×W)
Weight	Net weight:1.6kg Battery : 0.3kg

Rapid | Accurate | Non-destructive

Genius 3000 XRF

Handheld Hazardous Elements Analyzer

Skyray

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Genius 3000 XRF

Handheld Hazardous Elements Analyzer

RoHS WEEE CPSIA

handheld instrument. It can directly test on the surface of the analytes and the results are satisfying to customers.

2、Testing toys

Because of various kinds of toys, it is impossible for repeated sampling in labs. Now this handheld analyzer is applied for on-site testing. Thus it greatly reduces the production cycle.

3、Testing package materials

Because of the large sizes and large amounts of printing ink, it is impossible for rapid & comprehensive testing with desktops. Now these problems can be solved by handheld analyzer.

Performance Advantage

Perfect performance as desktop

Small power integral end-window miniature X-ray tube, large dimensional beryllium window Silicon Drift Detector (SDD, the best detector in the world), and miniature digital signal multi-channel processor, greatly reduce the testing time and testing deviation, and improve the testing precision, requiring similar performance as the desktop.

Detection of light elements

Helium-charging system (optional) greatly expands measurable range (analyze elements from Mg), satisfying the requirements of customers for light elements detection.

HD camera for convenient observation

Observation of testing position at any time.

Direct testing

directly analyze on the surface of the analytes, without needing of preparing samples.

Simple deviation calibration

Built-in intensify calibration method ensures simple deviation calibration caused by different geometry shapes and inhomogeneous structure density.

Professional software for easy operation

It is equipped with professional hazardous elements analysis software. Combining FP with EC software, it is easy for operation and acquiring wider application fields.

Faster data transmission

Built-in system, HD touch screen (resolution 640*480), digital multi-channel technology, and SPI data transmission technology, effectively accelerate the data transmission and improves the counting ability.

Multiple safety protection, ‹

Automatically shut-down of X-ray light tube within 2 seconds with no sample in testing; the radiation level is far lower than the international safety standard; compliment away test safety cover.

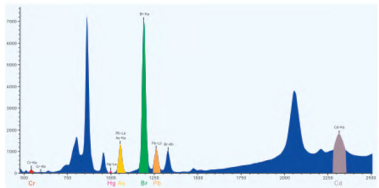
Simultaneously testing elements

test tens of elements. Under common mineral mode, it can detect the elements such as S, K, Ca, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Rb, Sr, Zr, Nb, Mo, Ag, Cd, In, Sn, Sb, Hf, Ta, Re, W, Au, Hg, Pb, Bi, Cs. And it can detect more elements according to the customers' requirements.

Application fields

- For RoHS & hazardous elements testing
- For on-site testing of electronic components and parts
- For on-site random testing of various kinds of toys, stationeries, children's products, and gifts
- For packing material testing and verifying
- For various kinds of batteries hazardous substance testing and verifying
- For hazardous elements testing in cloth, shoes material etc
- For hazardous elements testing in electroplate liquids
- For hazardous elements testing in jewelry, ornaments etc

EC681K Testing Result



Content Unit	ppm	EC681K					
Number	Working Curve	As	Br	Cd	Cr	Hg	Pb
1	PE	30.5568	775.628	140.4	24.194	103.15	100.973
2	PE	30.4782	770.526	140.08	24.764	100.52	99.2205
3	PE	31.5777	766.347	135.44	24.294	98.674	102.973
4	PE	29.9576	769.997	136.38	25.216	100.2	100.845
5	PE	30.3706	769.872	133.74	24.216	101.08	102.973
6	PE	30.6149	771.922	134.2	23.975	100.79	103.976
7	PE	30.391	771.009	135.32	24.5	100.99	101.487
8	PE	30.3195	768.284	136.61	25.167	99.502	99.5987
9	PE	30.6208	769.656	135.56	24.196	103.65	97.705
10	PE	30.8942	768.275	133.53	24.699	98.026	103.761
True value		29.1	770	137	23.7	98	100
Average value		30.5781	770.152	136.13	24.522	100.66	101.351
Standard Deviation S_x		0.40532	2.363	2.2759	0.4059	1.6701	1.9819
Triple S_x Value		1.21595	7.08901	6.8276	1.2178	5.0104	5.94569
Range Rge		1.62	9.28	6.87	1.24	5.62	6.27
Relative Standard Deviation		1.33%	0.31%	1.67%	1.66%	1.66%	1.96%
Testing Deviation ε (%)		5.08%	0.02%	-0.64%	3.47%	2.71%	1.35%