

Improved hazardous metal testing efficiency in microscopic areas with high sensitivity and high speed measurements

The EA6000VX enables control of hazardous substances over entire surfaces and measurement of microscopic points at a specified area. These tasks cannot be done by conventional instruments.

High sensitivity XRF Analyzer

EA6000VX

with hazardous element high speed mapping and measuring function



World class speed

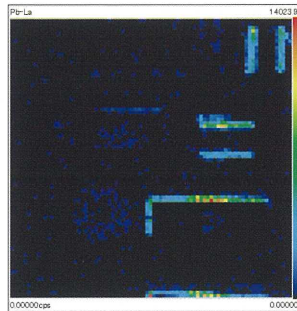
High speed mapping measurements

Rapidly obtains two dimensional element mapping images with its high-speed stage and greatly improved sensitivity of microscopic areas. Reinforces mapping of Pb on circuit boards and is equipped with a special Pb mapping filter. Eutectic solder can be detected after several minutes of mapping.

High resolution image

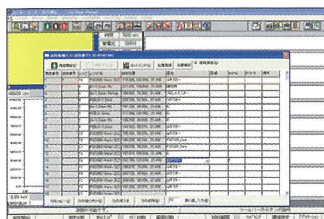


Two minute mapping image of Pb



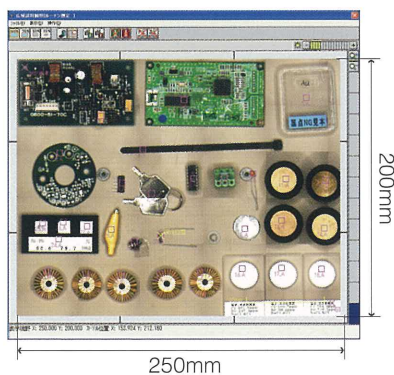
Continuous multi-point measurements

Up to 500 points can be set and continuously measured as with an auto-sampler. Measuring large samples exhibits tremendous throughput.



Multi-point continuous measurements

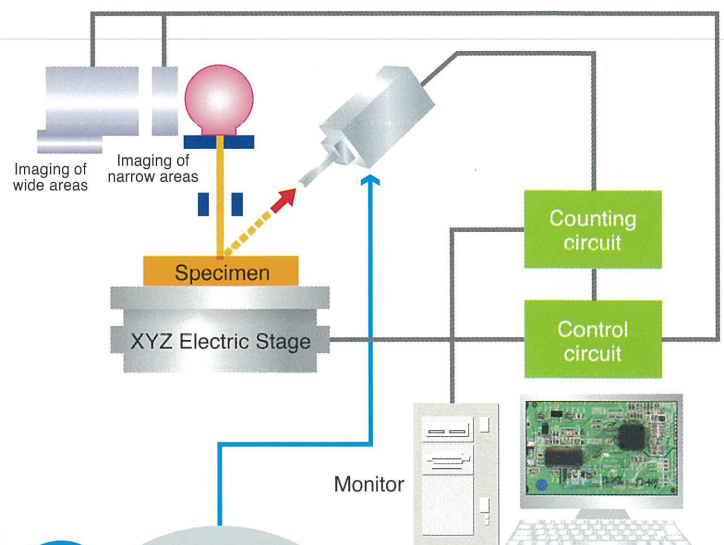
Labar savings by setting up to 500 points for auto continuous measuring



Microscopic area coating thickness measurements

The EA6000VX is capable of coating thickness measurements typical of the SFT series including coating thickness measurement of ultra-thin Au films. Analysis of hazardous substances such as Pb in plating can be measured simultaneously with coating thickness measurements.

Instrument Configuration



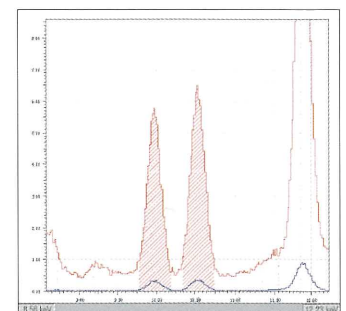
Superior environmental analysis



High Sensitivity

Equipped with a detector that does not need liquid nitrogen. A general-purpose bench top with a Vortex, the world's best high count rate detector.

Great strides in high sensitivity realized by "optimized complete X-ray optic system", high count rate detector, and large areas. Remarkably improved sensitivity of 1mm beam, realizing 10 times the sensitivity of conventional instruments

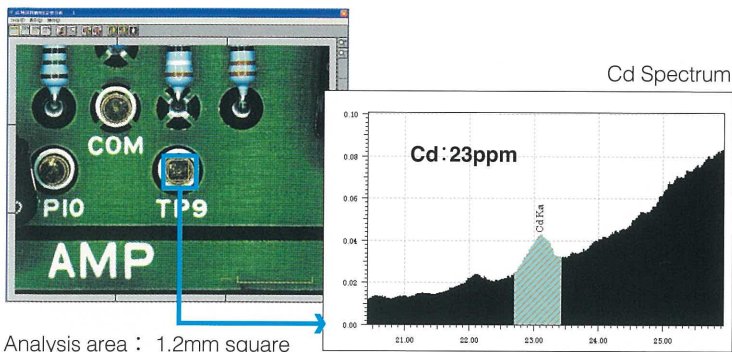


Blue line: conventional 1mm beam. Red line: EA6000VX 1.2mm square beam. Sample: Pb and Hg (100ppm) in polyethelene.

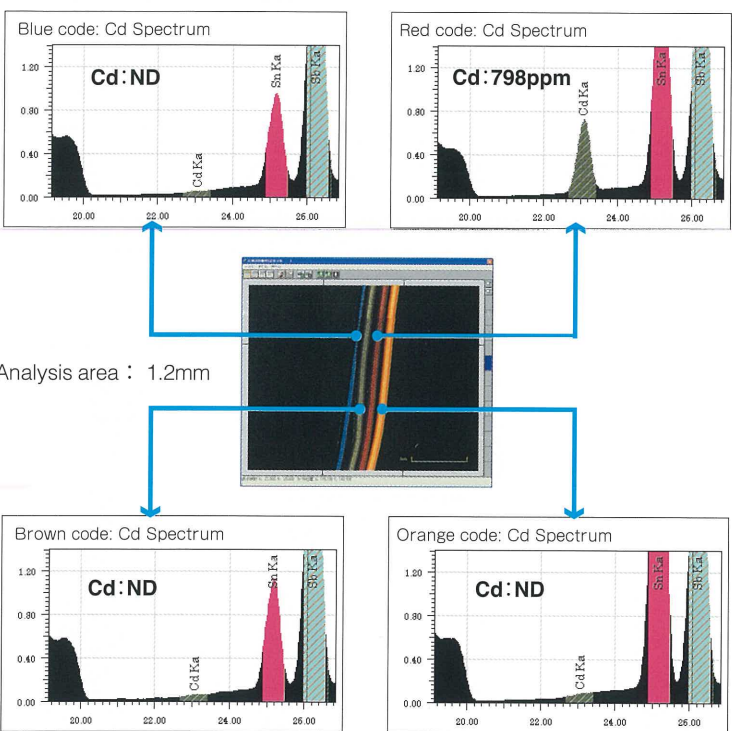
Example of RoHS analysis

In a sample that combines multiple substances, measuring can be done by using a micro X-ray beam aimed at a specific spot.

Example of Cd analysis in a Cu alloy

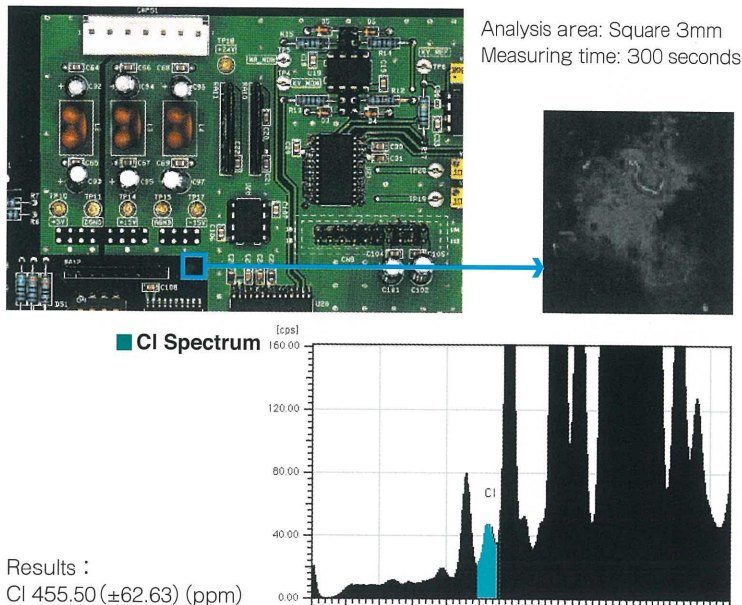


Cd analysis of harness material



Measure Cl concentration in PCB Assemblies

To meet halogen-free needs, high sensitivity in microscopic areas is realized in measuring Cl and Br. Since the irradiation method is top-down, pinpoint measurement positioning is possible even on boards that have uneven surfaces.



Specification

Elements	Atomic nos. 12 (Mg) to 92 (U) *Atomic nos. when using helium purge 11 (Na) to 92 (I)
Sample state	Solid / Powder / Liquid
X-ray source	Air-cooled X-ray tube (W target) Voltage: 15kV, 30kV, 40kV, 50kV Current: 20 to 1000uA
X-ray direction	Top-down Irradiation
Detection	Vortex Si semiconductor detector (No liquid nitrogen required)
Analysis area (beam size)	Square 0.2mm, 0.5mm, 1.2mm, 3mm Electric switching
Sample Observation	High resolution CCD camera, 2 system
Chamber	580 (W) x 450 (D) X 150 (H) mm, Both point analysis and mapping for entire 250 (X) X 200 (Y) mm
Filter	6 mode electric switching
Controller	Desktop PC and 19" LCD monitor
Options	Helium purge, Joystick controller, Signal tower, Dual monitor, Standard Samples for Hazardous Substances Printer, Precision control software.
Mapping functions	Align with sample image, Area integrated spectral display, Quantitative integrated function
Qualitative functions	Spectrum measurement, Auto-ID, Comparison display
Quantitative functions	Bulk CAL, Bulk FP, Film CAL, Film FP
Data Process	Microsoft® Excel, Microsoft® Word
Safety functions	Door interlock, Crash protection, Instrument self-diagnosis
Power requirements (Electric box included)	AC100V to 240V ±10%, 750VA max.

High speed measurement of trace metals in micro-areas

Rapid measurement of trace metals and thin films in microscopic areas.

	Cd, Pb, Cr in brass	Pb in Sn	Cd, Pb, Hg, Br, Cr, in plastic
□3mm	80sec	40sec	70sec
□1.2mm	150sec	40sec	80sec

The detection lower limit of Cd is 30ppm and the other elements is 200ppm