



iEDX-100A

RoHS / Hazardous Materials Analyzer

X-ray tube

- ◆ Rh Target, 50kVp 1mA

Detection System

- ◆ Si-Pin Diode (Peltier System), (Option : SDD)

Energy Resolution

- ◆ Si-Pin Diode : 149eV FWHM at Mn K α
(Option : SDD : 125eV FWHM at Mn K α)

Collimator

- ◆ 1, 3, 5mm Auto Change

Detection Element

- ◆ Al(13) - U(92)

Sample Type

- ◆ Solid / Liquid / Powder

Size of the sample chamber

- ◆ 310mm X 284mm X 100mm (W x D x H)

Key Features

- ◆ RoHS + Halogen Free simultaneous measurement, Antimony(Sb), Tin(Sn), Sulfur (S) can be screening
- ◆ Qualitative and Quantitative analysis with co-exist elements

Camera Magnification

- ◆ 40~80 x

Safety

- ◆ 3 point interlock

Type of Report

- ◆ Excel, PDF
- ◆ Custom form

Key Benefits

- ◆ Sample pre-treatment is not required non-destructive inspection
- ◆ Simultaneous multi-element analysis. (Solids, Liquids, Powder)
- ◆ High sensitive and High Precision
- ◆ Remote Support by Online
- ◆ Option : 10ch, 12ch Auto Sampler

Application

- ◆ Product screening international environmental regulations (RoHS, WEEE, ELV compliant)
- ◆ Hazardous material(Cr, Br, Cd, Hg, Pb, Cl, Sb, Sn, S) Screening equipment
- ◆ Hazardous substances checks that are contained in the toy's accessories, precious metals.
- ◆ Recycling, Analysis of the lubricating oil & environmental pollutants.
- ◆ Research and education for elemental component analysis.
- ◆ Battery, Electronic, Automobile, Precious metal, Injection, Plating, Packaging, etc.



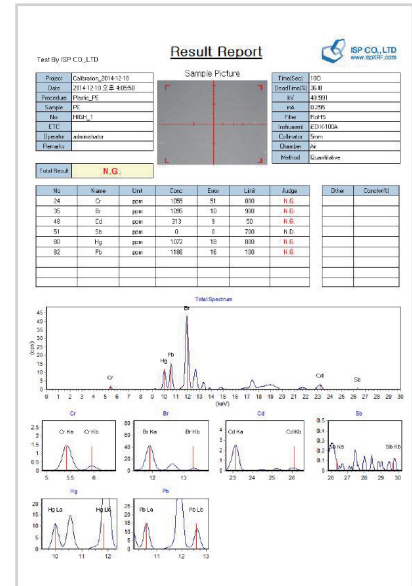
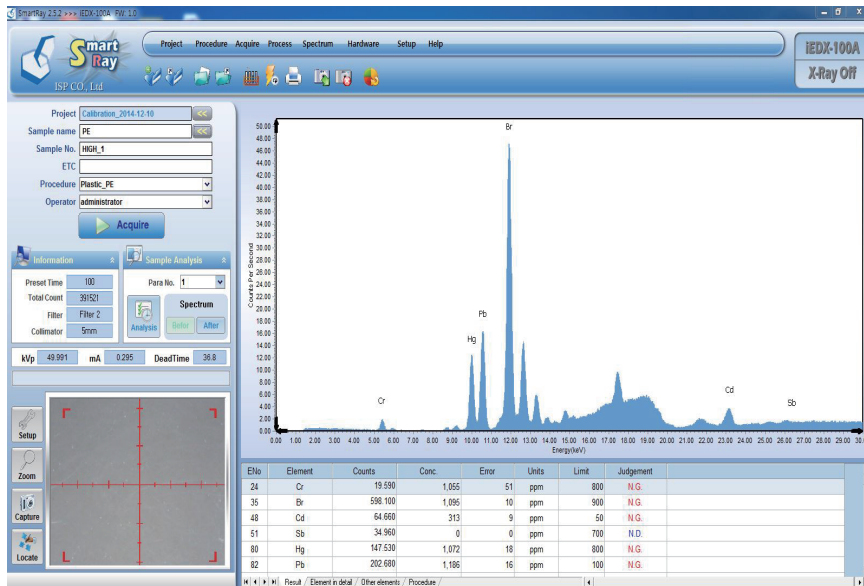
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RoHS Analysis Software SmartRay



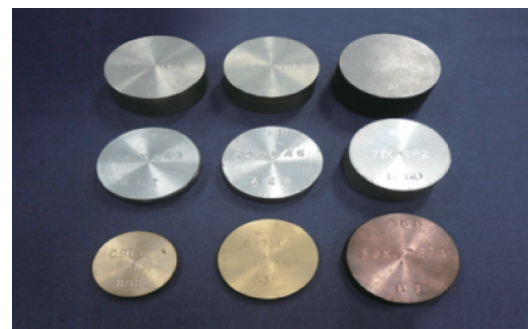
Report results of sample measurement

(Program Registration No : 2009-01-199-004565)

- ◆ RoHS / WEEE / ELV Test
- ◆ Automatic correction function (Bulk Sample Thickness, Matrix Effect)
- ◆ Simple calibration using Wizard
- ◆ Cr, Pb, Hg, Br, Cd, Cl, As, Sb Qualitative / Quantitative analysis with co-exist element
- ◆ Systematic management using DB
- ◆ PDF, EXCEL save function



〈Plastic Standard〉



〈Metal Standard〉

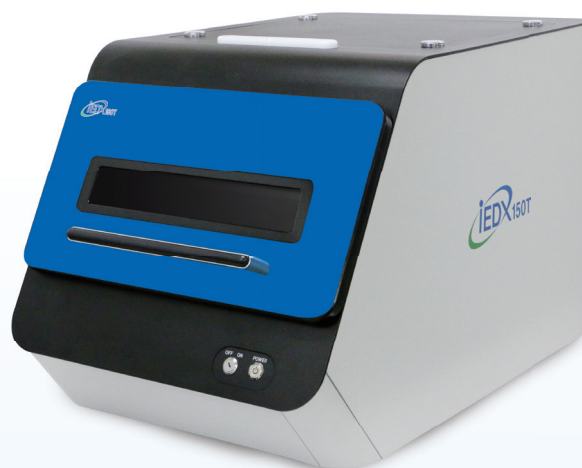


〈Sample Cup and Mylar Film〉



〈Auto Sampler〉





iEDX-150T

Type : sp10, sp30, sp40, mp30, mp40
Coating/Plating Thickness Analyzer



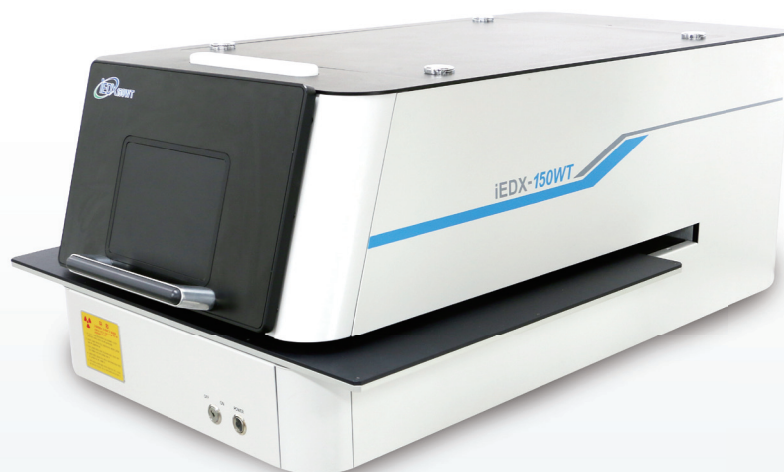
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X-ray tube	♦ Mo/Rh/W/Ag Target(Optional), 50kVp, 1mA
Detection System	♦ Si-Pin Diode, (Option : Proportional Counter, SDD)
Energy Resolution	♦ Si-Pin Diode : 149eV FWHM at Mn K α Option < P C : 800eV FWHM at Mn K α SDD : 125eV FWHM at Mn K α
Collimator	♦ 0.3 Collimator (Option : 0.05, 0.1, 0.2, 0.5, 1mm) Manual / Auto Changing Stage
Detection Element	♦ Al(13) - U(92)
Sample Type	♦ Solid / Liquid / Powder, Multi-Layer
Size of the sample chamber	♦ 390mm X 410mm X 100mm (W x D x H) ♦ Auto / Manual Stage Mode
Key Features	♦ Plating thickness measurement : General, Rh, Pd, Au, Ag, Sn, Ni ♦ Film thickness measurement of multilayer thin films.(up to 5 Layer)
Camera Magnification	♦ 40~80 x
Safety	♦ 3 point interlock
Type of Report	♦ Excel, PDF / output ♦ Custom form ♦ Film thickness measurement of multilayer thin films. (up to 5 Layer)
Key Benefits	♦ Convenient stage control ♦ Multi-point measurement possible ♦ RoHS Screening(Optional) ♦ Remote Support by Online
Application	♦ Product screening international environmental regulations (RoHS, WEEE, ELV compliant) ♦ Hazardous material(Cr, Br, Cd, Hg, Pb, Cl, Sb, Sn, S) Screening equipment ♦ Plating analysis automobile parts, Electronic circuit board (PCB), Such as a capacitor ♦ Analysis of single-layer, Multi-layer, Alloy plating ♦ Thickness with Composition Ratio can be measure on time in alloy plating



iEDX-150WT

Type : sp10, sp30, sp40, mp30, mp40
Coating Thickness Analyzer / Large scale PCB



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X-ray tube	♦ Mo/Rh/W/Ag Target(Optional), 50kVp, 1mA
Detection System	♦ Si-Pin Diode, (Option : Proportional Counter, SDD)
Energy Resolution	♦ Si-Pin Diode : 149eV FWHM at Mn K α Option < P C : 800eV FWHM at Mn K α SDD : 125eV FWHM at Mn K α
Collimator	♦ 0.3 Collimator (Option : 0.05, 0.1, 0.2, 0.5, 1mm) Manual / Auto Changing Stage
Detection Element	♦ Al(13) - U(92)
Sample Type	♦ Multi-Layer, Wide PCB
Size of the sample chamber	♦ 300mm X 282mm X 45mm (W x D x H) ♦ Auto / Manual Stage Mode
Key Features	♦ Plating thickness measurement : General, Rh, Pd, Au, Ag, Sn, Ni ♦ Film thickness measurement of multilayer thin films.(up to 5 Layer)
Camera Magnification	♦ 40~80 x
Safety	♦ 3 point interlock
Type of Report	♦ Excel, PDF / output ♦ Custom form
Key Benefits	♦ Film thickness measurement of multilayer thin films. (up to 5 Layer) ♦ Convenient stage control ♦ Multi-point measurement possible ♦ RoHS Screening(Optional) ♦ Remote Support by Online
Application	♦ Product screening international environmental regulations (RoHS, WEEE, ELV compliant) ♦ Hazardous material(Cr, Br, Cd, Hg, Pb, Cl, Sb, Sn, S) Screening equipment ♦ Plating analysis automobile parts, Electronic circuit board (PCB), Such as a capacitor ♦ Analysis of single-layer, Multi-layer, Alloy plating ♦ Thickness with Composition Ratio can be measure on time in alloy plating



iEDX-1 50 μ T

High Performance Coating Thickness Analyzer

X-ray tube

- ◆ Mo/Rh/W/Ag Target(Optional), 50kVp, 1mA

Detection System

- ◆ SDD (Silicon Drift Detector)

Energy Resolution

- ◆ 125eV FWHM at Mn K α

Collimator

- ◆ Poly capillary optics (50~100 μ m)

Detection Element

- ◆ Al(13) - U(92)

Sample Type

- ◆ Solid / Liquid / Powder, Multi-Layer

Size of the sample chamber

- ◆ 390mm X 410mm X 100mm (W x D x H)

Key Features

- ◆ Auto / Manual Stage Mode
- ◆ Plating thickness measurement general, Rh, Pd, Au, Ag, Sn, Ni
- ◆ Film thickness measurement of multilayer thin films. (up to 5 Layer)

Camera Magnification

- ◆ 40~80 x

Safety

- ◆ 3 point interlock

Type of Report

- ◆ Excel, PDF / output
- ◆ Custom form

Key Benefits

- ◆ **Micro focused measuring point(<70 μ m) using capillary optics**
- ◆ Film thickness measurement of multilayer thin films. (up to 5 Layer)
- ◆ Convenient stage control
- ◆ Multi-point measurement possible
- ◆ Remote Support by on line

Application

- ◆ Plating thickness measurement special, ENEPIG, Pd-Ni, Rh etc.
- ◆ Plating analysis automobil parts, Electronic circuit board (PCB), Such as a capacitor
- ◆ Analysis of single-layer, Multi-layer, Alloy plating
- ◆ Thickness with Composition Ratio can be measure on time in alloy plating



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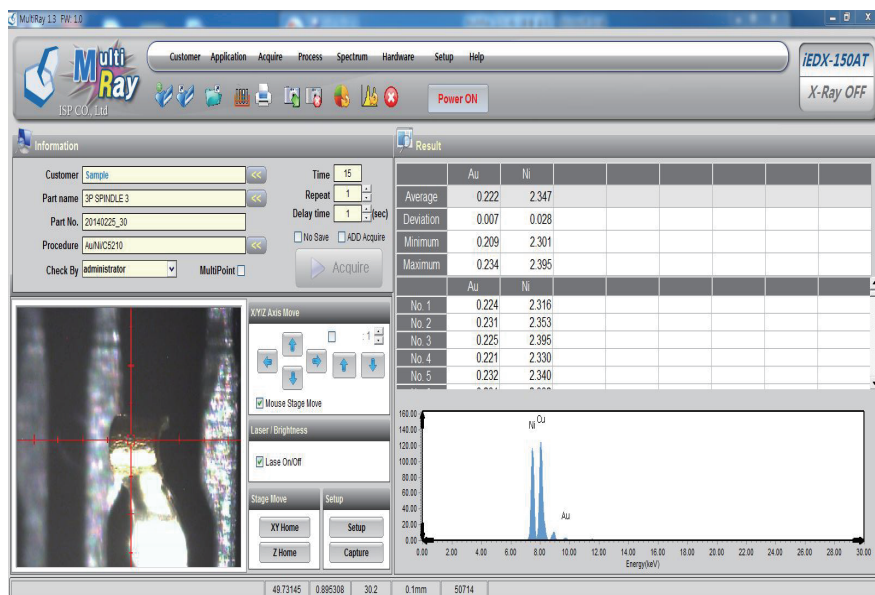
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Coating Thickness Analysis Software

MultiRay



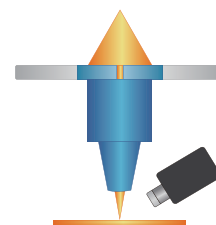
Result Report			
Project	Sample	Date	2014-02-25 08:55:23
Sample Name	SP-SPINDLE 3	Procedure	Au/Ni/C5210
Sample No.	20140225_30	Operator	administrator
Remarks		Company	ISP CO., LTD.

	Au	Ni
Average	0.222	2.347
Deviation	0.007	0.028
Minimum	0.209	2.301
Maximum	0.234	2.395

1	0.224	2.316
2	0.221	2.353
3	0.225	2.395
4	0.221	2.330
5	0.232	2.340
6	0.231	2.332
7	0.219	2.386
8	0.225	2.347
9	0.217	2.384
10	0.216	2.393
11	0.218	2.314
12	0.229	2.334
13	0.220	2.325
14	0.210	2.301
15	0.222	2.351
16	0.228	2.339
17	0.224	2.373
18	0.226	2.381
19	0.222	2.367
20	0.219	2.369
21	0.221	2.335
22	0.223	2.348
23	0.228	2.312
24	0.214	2.338
25	0.223	2.353
26	0.214	2.377
27	0.234	2.391
28	0.209	2.330
29	0.210	2.315
30	0.218	2.335

Report results of measurement plating thickness

- Multi-layer thickness analysis
- Simple plating layer define
- Convenient parameters setup
- Fundamental Parameters method, calibration curve method, absorption method support
- Define the concentration with elements on alloy layer
- PDF, EXCEL save function



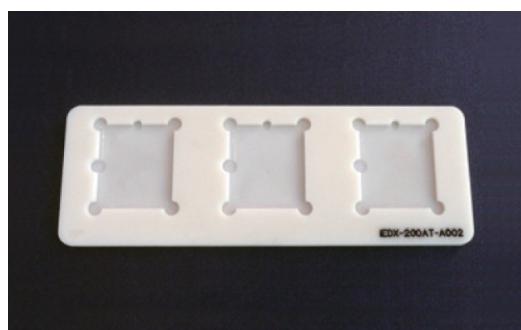
Capillary Optics Bundle
Typical Range : 50~100 μ m



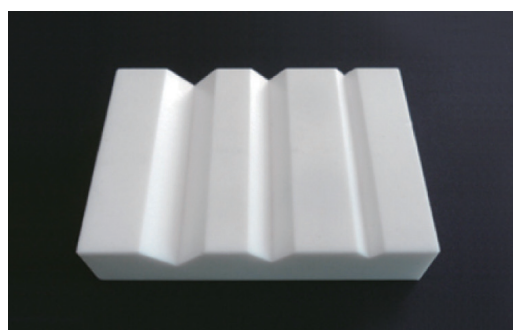
〈Thickness Standard〉



〈Polycapillary & Monicapillary Optics〉



〈Coating thickness standard block〉



〈Coating thickness sample block〉





- ◆ Measure copper coating or plating thickness of the top layer on PCB by EN14571 standard with micro resistance method

iTG-B10

Copper Thickness Gauge

Measurement Method		4 Probe micro Resistance
Sample		Copper layer on PCB
Thickness Range	RANGE 1	0.1~10 μ m
	RANGE 2	10~120 μ m
Accuracy		$\pm 1\%$ with reference to standards
Measuring Time		1 sec/point
Display Size		8 inch
Battery		Ion battery recharge
Memory capacity		Unlimited
Export of Results		Wireless printer, Excel, E-mail
Operating System		Android 4.4
Communication System		Bluetooth

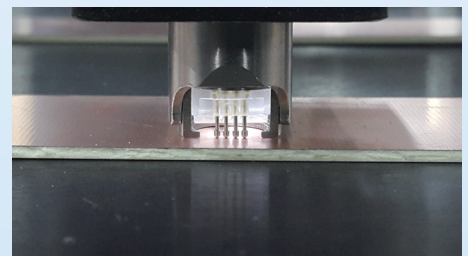
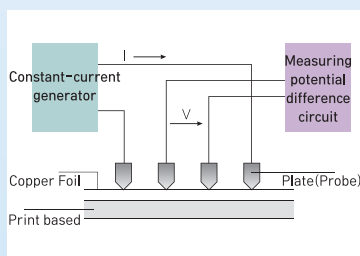


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- ◆ 4 Probe micro resistance method is most effective way of accurate and precise measurement for copper layer on PCB

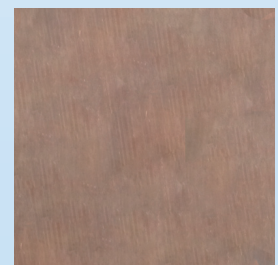
Standard Sample



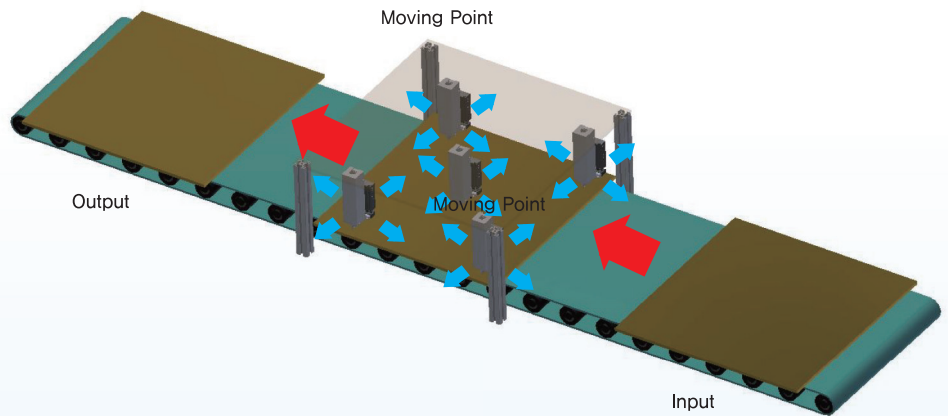
<5um Sample>



<11.5um Sample>



<31.7um Sample>



iTG-C10

In Line Copper Thickness Gauge

Measurement Method	4 Probe micro Resistance
Sample	Copper layer on PCB
Thickness Range	0.1~10 μ m
	10~120 μ m
Accuracy	$\pm$ 1% with reference to standards
Number of Measuring point	Up to 20 point
Report	Excel, PDF
Operating System	Window 7 or more
Interface	USB 2.0



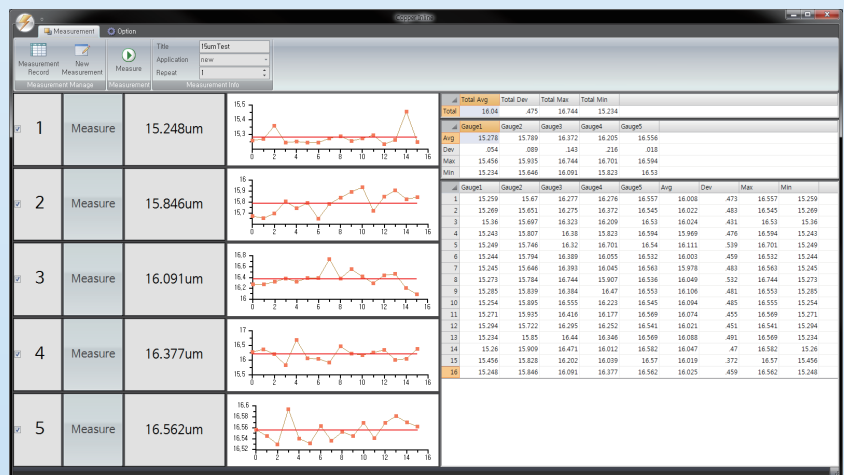
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User Interface



Reel to Reel

In-line Plating Thickness Gauge



X-ray tube

- ◆ Mo/Rh/W/Ag Target(Optional), 50kVp, 1mA

Detection System

- ◆ SDD (Silicon Drift Detector)
- ◆ P.C(Proportional Counter)

Collimator

- ◆ Poly capillary optics

Detection Element

- ◆ Al(13) - U(92)

Key Features

- ◆ Auto / Manual Stage Mode
- ◆ Plating thickness measurement general, Rh, Pd, Au, Ag, Sn, Ni
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