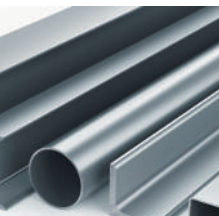
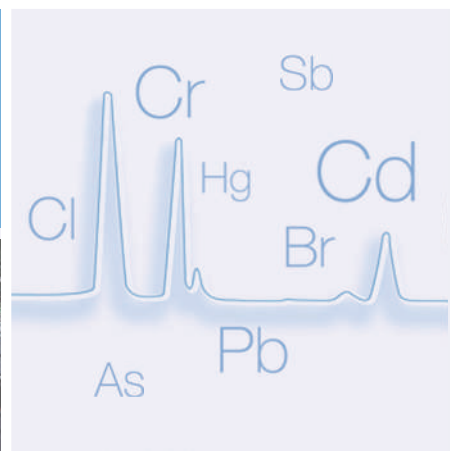
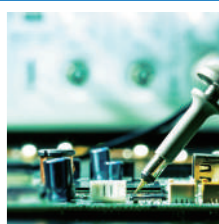


MESA-50

X-ray Fluorescence Analyzer



Your new business partner for
RoHS, Halogen free, ELV applications



Touch and

HORIBA has been selling our XGT-WR series of EDXRF analyzers worldwide for many years to provide screening measurements of samples containing hazardous elements such as Pb, Cd, Cr, Hg, Br for RoHS, ELV, and Cl for halogen-free applications.

XGT systems are used daily throughout the world.

HORIBA has now developed the MESA-50 EDXRF analyzer, based on our vast experience with customer requirements and knowledge. MESA-50 provides user friendly operation and excellent performance. MESA-50 includes three analysis diameters, suitable for every sample, from thin cables and electronic parts to bulk samples.

The unique combination of SDD (Silicon Drift Detector) and DPP (Digital Pulse Processor) changes the landscape of EDXRF analysis. HORIBA's MESA-50 supports ecological procurement; it contributes not only to EU RoHS and ELV compliance testing, but also regulatory work for many other countries.



Outstanding 5S Technology



1. Speedy

- **SDD (Silicon Drift Detector) drastically reduces measurement times, and provides increased sensitivity, for true high throughput analysis.**

2. Small

- **Portable, small footprint and light weight**
- **Internal battery power supply**

3. Simple

- **Reduces routine maintenance work (LN₂ free operation)**
- **No need for vacuum pumps**
- **Intuitive simple measurement process for all material types**

4. Smart

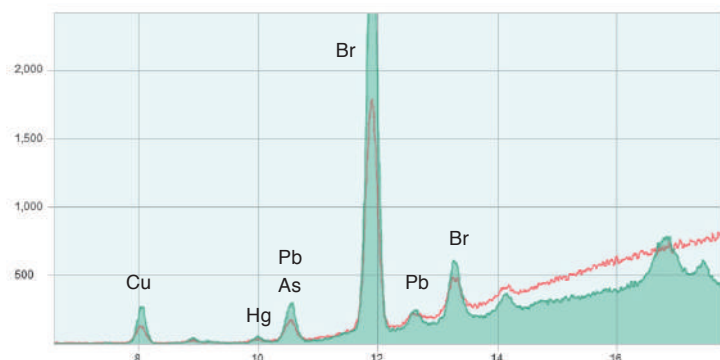
- **Automatic measurement termination**
- **English/Japanese/Chinese user interfaces**

5. Safe

- **No worry about X-ray leakage**

Feel! MESA-50

MESA-50 optics



MESA-50 with SDD can:

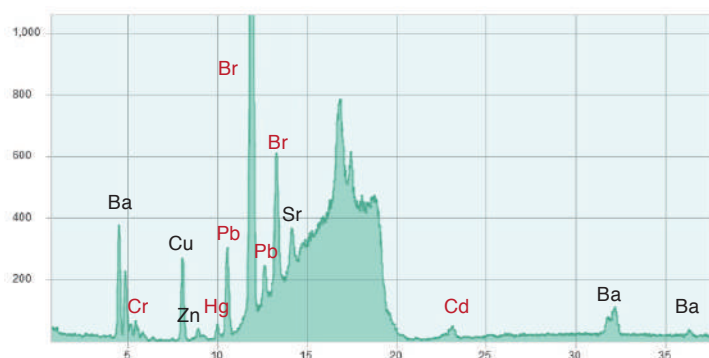
- 1) Increase spectrum intensity and resolution
- 2) Decrease background

Compact optical design makes MESA-50 a portable instrument. The small X-ray generator with low power consumption permits the battery powered mode.

Green: MESA-50 $\phi 1.2\text{mm}$

Red: Previous model XGT-1000WR $\phi 1.2\text{mm}$

Better performance with special filters



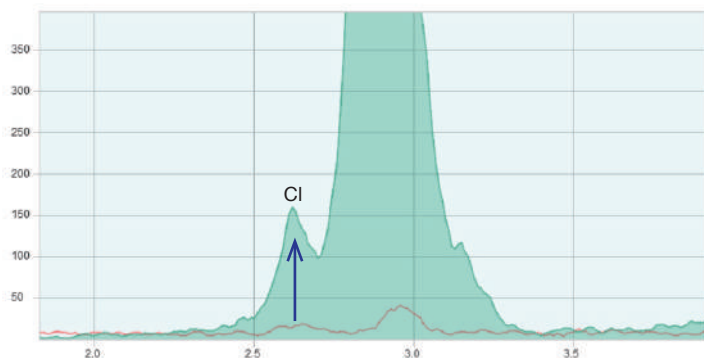
4 filters are included; a unique filter allows seven hazardous elements to be detected simultaneously including Pb, Cd, Hg, Cr, Br, Sb and As.

Green: MESA-50 $\phi 1.2\text{mm}$

The X-ray tube target material is optimized for high sensitivity Cl analysis. The MESA-50 doesn't require a vacuum pump for Cl measurement.

Green: MESA-50 $\phi 1.2\text{mm}$

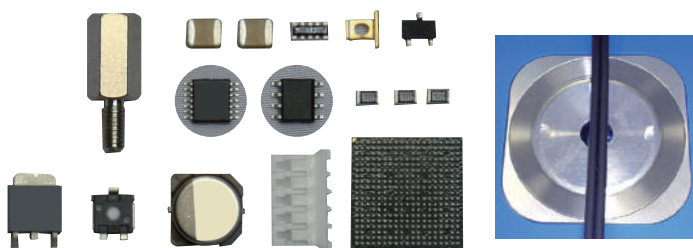
Red: Previous model XGT-1700WR $\phi 1.2\text{mm}$



3 size collimators

$\phi 1.2\text{ mm}$, 3 mm , 7 mm
(Automatic switching)

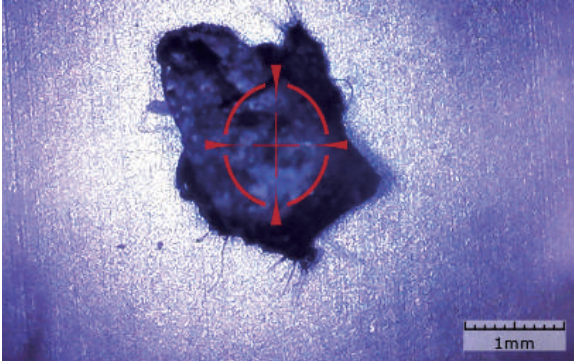
Operator can select the most suitable collimator size. The precise analysis area is displayed on the optical image. The small 1.2 mm beam means that operators can simply analyze individual cables, without needing to line up multiple cables to cover the X-ray beam area.



Simple operation, excellent support tools

1. Position the sample

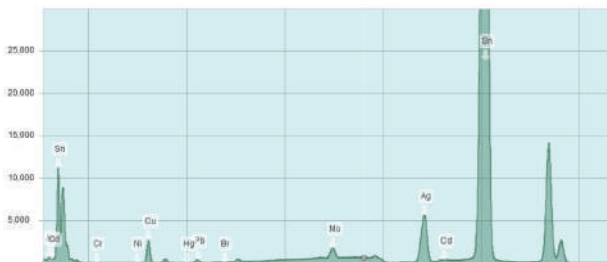
The clear optical image from the CCD camera allows easy positioning of the sample. The visualized measurement point is shown on the CCD image.



3. Display of spectrum and calculation result

Automatic display of quantitative results (concentration & 3 sigma) after measurement.

Spectrum



Result

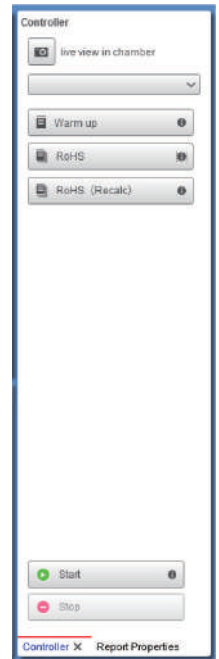
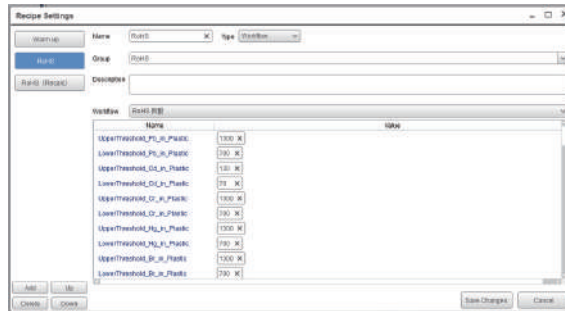
Quantified: 9/20/15 3:59:58 PM

Focused Elements	Concentration	Three Sigma	Judgment	Analysis method
Pb	1194.7 ppm	57.5 ppm	Border	FPM
Cd	948.9 ppm	126.8 ppm	NG	FPM
Cr	158.3 ppm	267.6 ppm	OK	FPM
Hg	4.1 ppm	47.2 ppm	OK	FPM
Br	3.8 ppm	14.5 ppm	OK	FPM

Other Elements	Concentration	Three Sigma	Judgment	Analysis method
Sn	94.6332 wt%	0.0578 wt%	---	FPM
Ag	3.5874 wt%	0.0286 wt%	---	FPM
Cu	0.9126 wt%	0.0150 wt%	---	FPM
Mo	0.3395 wt%	0.0104 wt%	---	FPM
I	0.2754 wt%	0.0390 wt%	---	FPM
Fe	0.0193 wt%	0.0111 wt%	---	FPM
IE	0.0027 wt%	0.0053 wt%	---	FPM
As	0.0008 wt%	0.0016 wt%	---	FPM

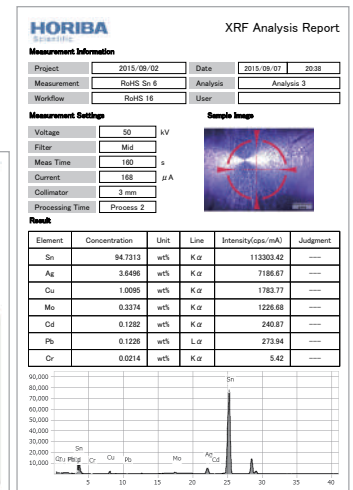
2. Click the measurement button

One click starts the measurement for RoHS. Software selects suitable measurement condition and parameter every matrix automatically. Operator does not need to set conditions each time, and no filter switching is necessary, thus minimizing possible operator error. Customized measurement buttons (recipe) can be created, with original settings.



4. Results & report format

Measurement report can be saved in Excel®, Word, or PDF format. If internal administration values are registered, OK/NG (No Good)/Border judgments (results vs threshold values) are performed.



Portable! Small size and battery system



Less than One Cubic Foot!

Size: 208(W) x 294(L) x 205(H) mm
Weight: 12 kg

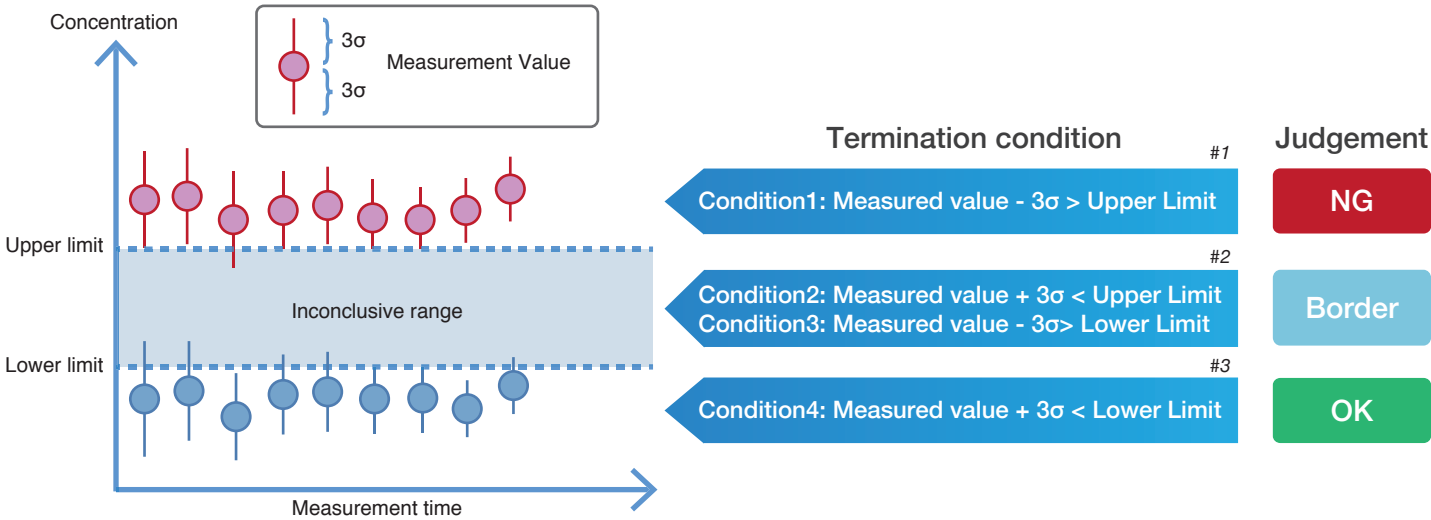
Battery System

MESA-50 has its internal battery, whose life is up to 6 hours.



Option: Lightweight carrying case (Example)

Automatic judgement and measurement termination



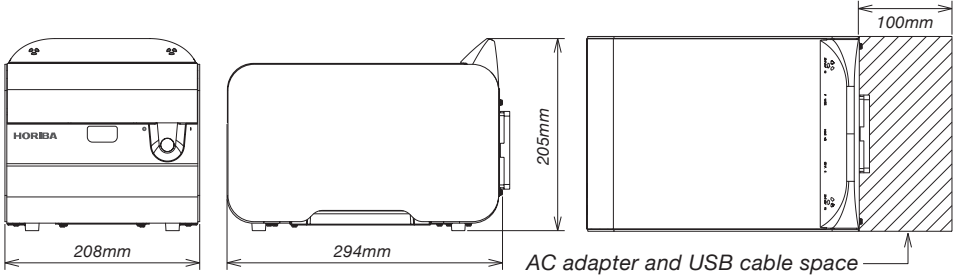
- #1. At the time when at least one of focused element is satisfied with condition1 for two times in a row.
- #2. At the time when at least one of focused element is satisfied with condition2 and all focused elements are satisfied with condition3 for two times in a row.
- #3. At the time when all focused elements are satisfied with condition4 for two times in a row.

MESA-50 specification

Basic items	Principle	Energy dispersive X-ray fluorescence spectrometry
	Target application	RoHS, ELV, Halogen-Free
	Measurement elements	13Al - 92U
	Sample types	Solid, Liquid, Powder
X-ray generator	X-ray tube	Max 50kV, 0.2mA
	X-ray analysis diameter	1.2mm, 3mm, 7mm (Automatic switching)
	X-ray primary filter	4 types (Automatic switching)
Detector	Type	SDD (Silicon Drift Detector)
	Signal processor	DPP (Digital Pulse Processor)
Sample chamber	Atmosphere	Air
	Sample imaging	CCD camera
Utility	Operation	PC (Windows®8.1)
	Power supply	AC adapter (100-240V, 50/60Hz), battery
Software	Analysis function	Multilayer Film FPM (Optional)

* Windows and Excel are registered trademarks or trademarks of Microsoft Corporation in the United States and other countries.

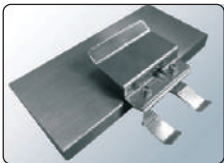
Dimensional outline



Installation example



Options & Consumables



Cable fixing jig



Disposable cell



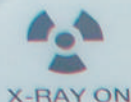
Cell window



Transmission X-ray film



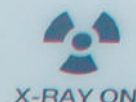
Cell frame



POWER

CHARGE

ERROR



Dedicated analyzers for WEEE/RoHS

MESA-50K

X-RAY FLUORESCENCE ANALYZER



New!
Big Chamber



Chamber size:
460(W) × 360(D) × 150(H) mm

XGT-5200WR

X-RAY ANALYTICAL MICROSCOPE



Chamber size:
350(W) × 400(D) × 40(H) mm



The HORIBA Group adopts IMS (Integrated Management System) which integrates Quality Management System ISO9001, Environmental Management System ISO14001, and Occupational Health and Safety Management System OHSAS18001. We have now integrated Business Continuity Management System ISO22301 in order to provide our products and services in a stable manner, even in emergencies.



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