

FT160

HITACHI
Inspire the Next[®]

1 nanometer can be the difference



COATINGS

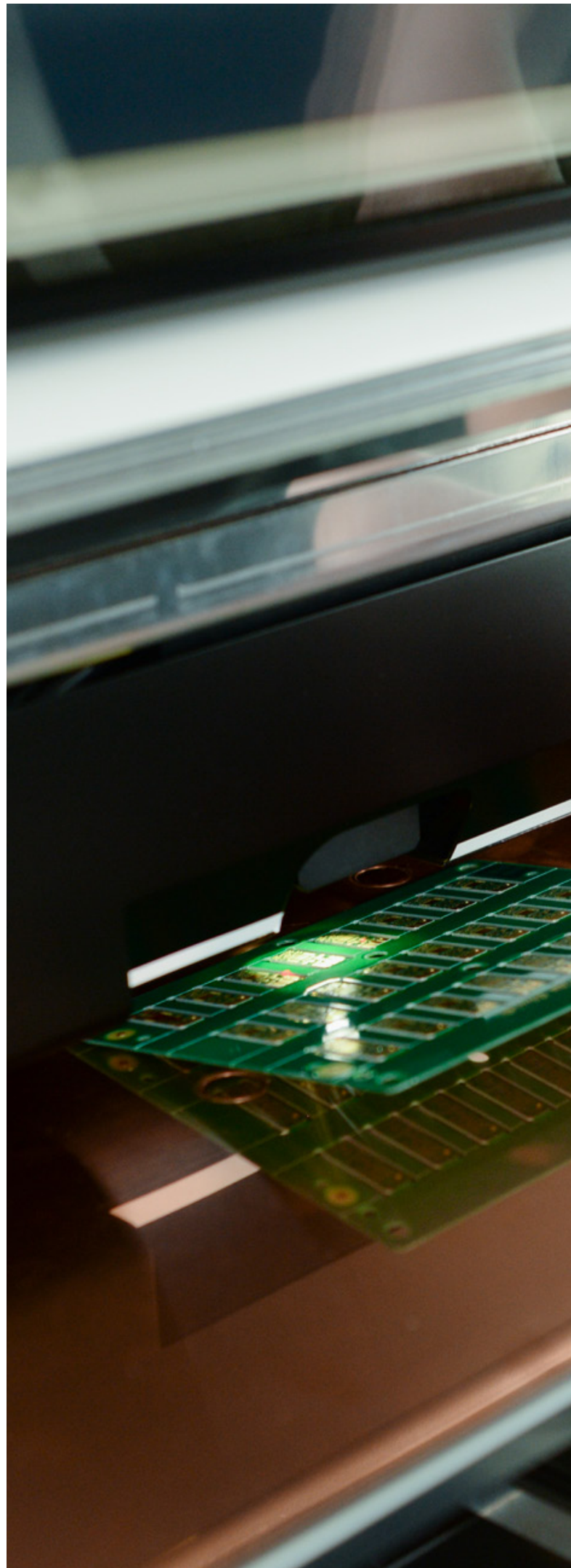
The FT160 – Precise coatings analysis down to nanometers

Designed to address the challenge of ultra-thin coatings, such as those found in today's shrinking electronic components, the FT160 produces fast, accurate and repeatable results, increasing productivity and reducing costs of out-of-specification coatings on PCBs, semiconductors and micro connectors, etc.

Simple to use, the equipment integrates easily with your QA/QC process, alerting you to issues before they become a crisis.

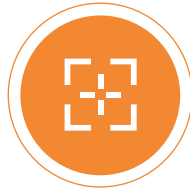
The high throughput offered by the FT160 is possible because of the polycapillary optic and high-precision leading edge X-ray fluorescence detector inside. A large sample table, wide opening door and substantial observation window make it easy to load parts of varying size and to focus on measurement spots. Newly designed controller software enables enhanced and precise testing and results conveniently captured in a database for export.

Preview of samples and selection of measurement points is made clearer and easier thanks to the new high definition sample observation camera and improved lighting.





The perfect analyzer for today's electronics manufacturers



PRECISION ANALYSIS

The precision of the positioning stage and polycapillary X-ray optic mean you can measure nm-scale coatings on features smaller than 50 μm .



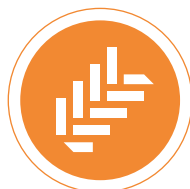
SPEED

The new, high intensity polycapillary optic and improved SDD detector inside the FT160 help double the instrument's throughput compared to conventional devices.



VERSATILITY

Loading and removing parts is easy, thanks to the large door, while a big sample table accommodates components in a wide range of shapes and sizes.



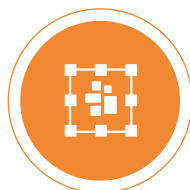
DURABILITY

The robust chassis has been designed and tested for a long life in a challenging production or laboratory environment.



SAFETY

A large sample observation window enables operators to view the analysis process while the door remains locked during analysis.



COMPLIANCE

Measurement methods meet standards ISO 3497, ASTM B568 and DIN 50987.

Powerful XRF for advanced electronics

The powerful features in the FT160 make it the ideal choice for labs with a busy workload, where accuracy, versatility and efficiency are essential to maintain workflow.

Features

High intensity, focused X-ray beam – At the core of the instrument is a polycapillary optic that creates a 30 µm beam for minute semiconductor patterns and ultra small components.

High sensitivity SDD detector – This high performance unit ensures repeatable measurements to boost productivity.

Large chamber door – Easy to load and unload boards, wafers and components, the FT160 accommodates a variety of parts.

HD camera and multi-modal lighting – The resolution of the sample observation camera – with 16x digital zoom – combined with improved lighting makes semiconductor surfaces clear and sharp for pinpoint positioning.

Easy-to-use controller software – Simply select the plating and measurement points on screen then run the analysis.

Determine the thickness and composition of coatings containing elements from aluminium (13) to uranium (92).

Options

Three chamber configurations for your parts:

- FT160 – Standard configuration with flexibility to measure components and boards.
- FT160S – Compact footprint for small parts, with the same performance as the larger configurations.
- FT160L – Larger sample table for PCBs up to 600 x 600 mm.

Choice of tungsten (W) or molybdenum (Mo) X-ray tube anode to optimize performance for your applications.

Image processing software – The instrument can be taught to find measurement locations automatically, based on shape and pattern.

Wafer holder stage – For easy handling of wafers ranging from 4" to 12".

For over 45 years, Hitachi High-Tech has pioneered the use of X-ray fluorescence technology and has developed a full range of analytical instruments.

Our Service

Hitachi High-Tech's global network of service hubs offers a full range of technical support to keep you up and running:



TELEPHONE HELP DESKS

Whenever you have a problem, we're ready to help.



ONLINE DIAGNOSTICS

In-depth and rapid support via our website.



TRAINING

To help you get the most out of your analyzer and its full range of features.



EXTENDED WARRANTIES

To give you extra peace of mind and avoid unplanned costs.



REPAIR SERVICE

We offer a fast and efficient repair service, recertification and maintenance through our service agreements to ensure your analyzer is maintained in excellent condition and avoids any unplanned costs.



Basic safety training in the use of X-ray based devices may be required in your country or territory.



What next?

Contact one of our experts today at contact@hitachi-hightech.com to arrange a demo.

MORE INFORMATION

Learn more about the FT160 at hhtas.net/ft160-ar-app

Download the augmented reality app to explore how the FT160 can benefit your business using your phone or tablet.



Other products

We have been providing industrial analysis products for the coatings market for over 45 years.

- **RoHS Screening:** dedicated solutions for RoHS contaminants including phthalates.
- **Handheld XRF:** for portable coatings analysis of parts too large or heavy to fit in a benchtop system.
- **Electromagnetic gauges:** for rapid thickness measurement of PCB copper for surface mount and thru-hole technology.

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