

# FT150

Where every mil or micron counts

**HITACHI**  
Inspire the Next



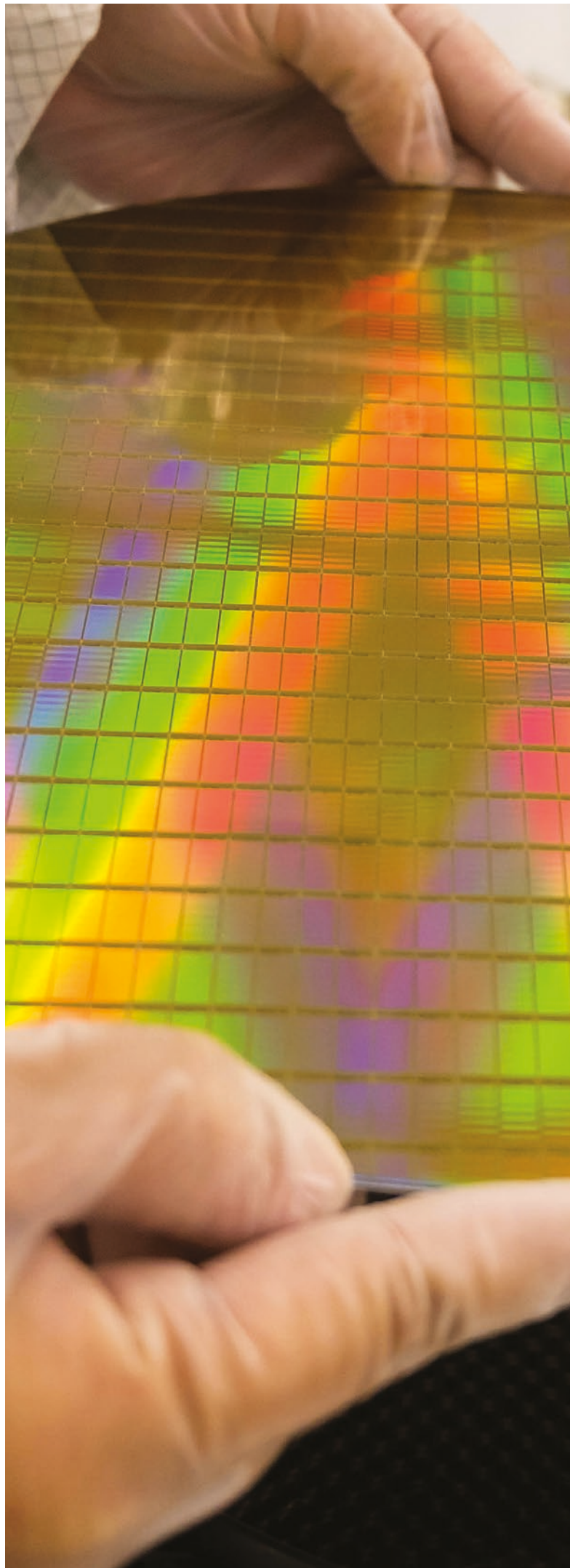
COATINGS

# The FT150 – Precise coatings analysis down to nanometers

Designed to address the challenge of ultra-thin coatings, such as found in today's shrinking electronic components, the FT150 produces fast, accurate and repeatable results, increasing productivity and reducing costs of inaccurate coatings on PCBs, semi-conductors 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.

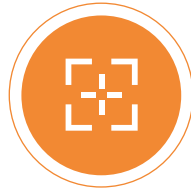
The high throughput offered by the FT150 is possible because of the polycapillary optic and high-precision leading edge Vortex® X-ray fluorescence detector inside. A large sample table, wide opening door and substantial observation window make it easy to load items of varying size and to focus on measurement 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. Little touches, like the use of an LED light source, mean less machine maintenance and bulbs last 10 times longer.





# The perfect analyser 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 100  $\mu\text{m}$ .



## SPEED

The new, high intensity X-ray beam, and the improved SDD detector inside the FT150, help double the instrument's throughput compared to conventional devices.



## VERSATILITY

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



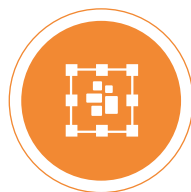
## DURABILITY

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.

# The latest evolution in XRF technology

The powerful features in the FT150 make it the ideal choice for labs with a busy workload, but where accuracy, versatility and efficiency are essential to maintain workflow...



## Features

High intensity X-ray – At the core of the instrument is a new polycapillary optic system with a 30 µm beam suited to minute semiconductor patterns and ultra small components.

Vortex® SDD detector – This high performance unit doubles the count rate, ensuring repeatable measurements to boost productivity.

Large sample door – Easy to load and unload, the FT150 also has a capacious sample chamber to accommodate a variety of sample forms.

HD camera – The improved resolution of the sample observation camera – with 16x digital zoom – makes semiconductor surfaces clear and accurate to minimise distortion and the need for repeat tests.

New controller software – Simply identify the best measurement points on screen then run analysis.

Determine the thickness of coatings from aluminium (11) all the way through to uranium (92).

## Options

Three optimized configurations for your application:

FT150 – For samples up to 400 x 300 x 100 mm – ideal for micro connectors and lead frames.

FT150h – Optimised for high-energy elements such as Pd, Sn and Ag.

FT150L – Larger sample table for PCBs up to 600 x 600 mm.

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

Wafer holder stage – For easy loading of delicate semiconductor components.

For over 40 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 analyser 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 analyser is maintained in excellent condition and avoids any unplanned costs.



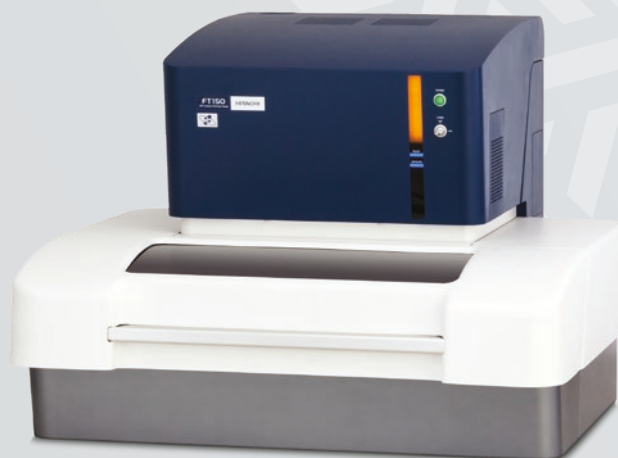
Basic safety training in the use of X-ray based devices may be required in your country or territory.

# What next?

Contact one of our experts today at [contact@hitachi-hightech-as.com](mailto:contact@hitachi-hightech-as.com) to arrange a demo.

## MORE INFORMATION

To find out more about the FT150 coating thickness gauge visit [www.hitachi-hightech.com/hha](http://www.hitachi-hightech.com/hha)



## Other products

With over 40 years' experience developing XRF analysers, we offer a range of related products:

- | **FT110A** helps a wide range of industries with accurate, rapid analysis of multi-layer coatings and bulk materials, increasing productivity and reducing costs from scrap or rework.
- | **X-STRATA920 microspot XRF analyser** measures coating thickness of single and multi-layer coatings, including alloy layers. Designed for research labs, quality control or process control programmes, the X-Strata accommodates long, tall, small and skinny samples.
- | **MAXXI 6** with superior resolution of SDD technology, powerful software, and an over-sized and slotted chamber, measures up to 4 layers of coatings, plus the substrate, in the most challenging applications.
- | **X-MET8000 handheld analysers**, used by thousands of businesses to deliver simple, rapid and non-destructive analysis for alloy, scrap metal sorting and metal grade screening using precision XRF technology.
- | **Contact Gauges**, comparatively inexpensive, these provide a light-weight, uncomplicated solution to copper coatings measurement.
- | **Vulcan handheld analysers**, with LIBS laser technology, identify metal alloys in just one second, making it one of the fastest analysers in the world. This hugely benefits businesses processing high volumes of metal.

Browse our full range of products online at [www.hitachi-hightech.com/hha](http://www.hitachi-hightech.com/hha)

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 Science for a better tomorrow