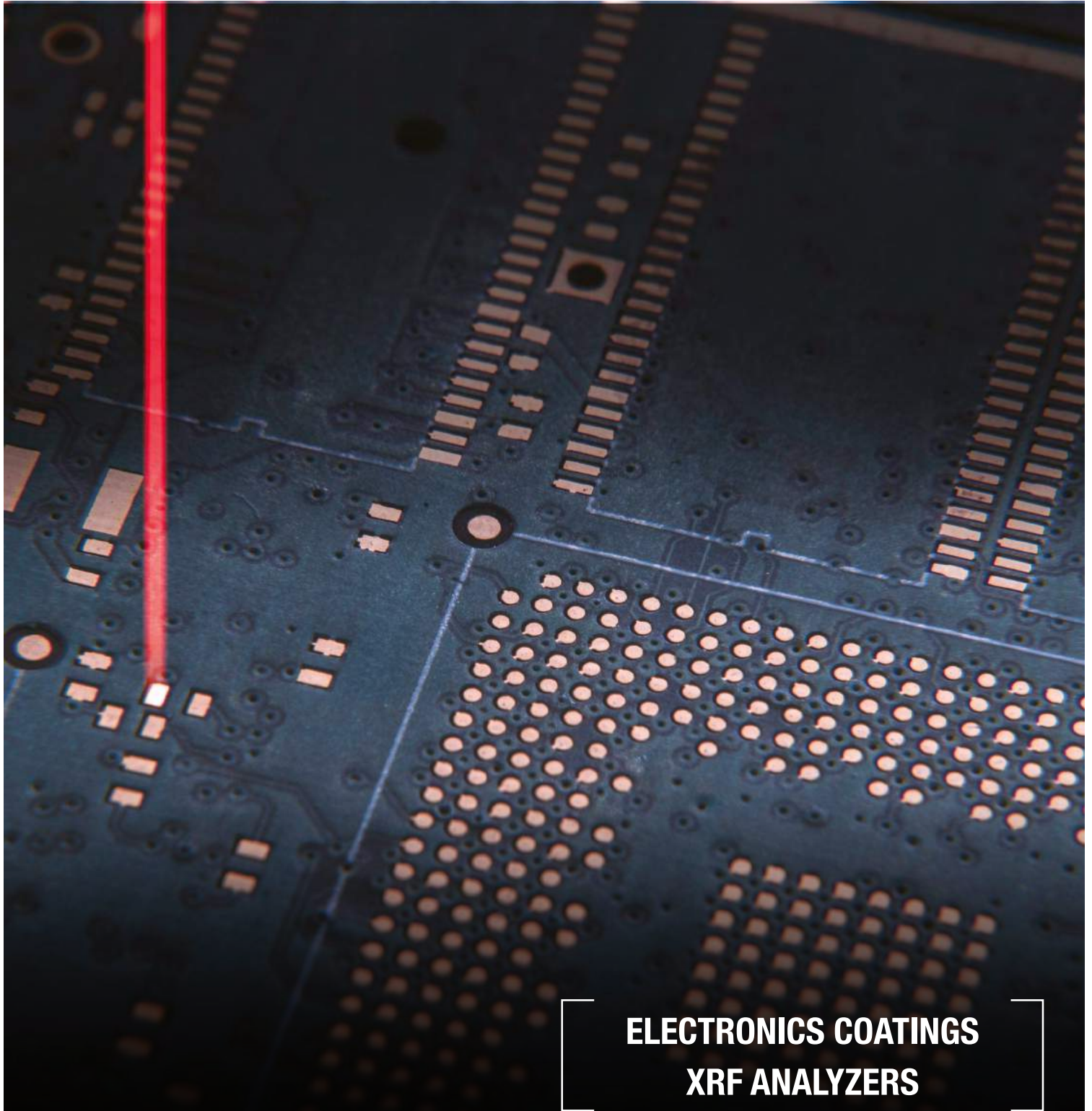


1 nanometer can be the difference



**ELECTRONICS COATINGS**  
**XRF ANALYZERS**



# 1 nanometer can be the difference

Drawing on our 45 years' experience of providing coatings analysis solutions to a range of industries, our products provide accurate and reliable measurements, whatever your operations and whatever the challenge.

We manufacture high precision accurate and reliable analyzers for meeting quality requirements and ensuring industry specifications are met. Given the critical role of electronics in demanding markets – automotive, aerospace, communications and consumer devices – reliability and accuracy in production and quality control are paramount for safety. Our coatings range is ideal for the high end electronics and semiconductor wafer industry measuring nanometer scale coatings on features smaller than 50 micron.

# Maximum accuracy for a miniaturized future

The XRF analyzer you choose can mean the difference between success or failure in your business. You want to invest in technology that is effective today as well as future-proofed for tomorrow's operations. Our XRF range offers a long-term solution to address the challenge of achieving consistent and accurate coatings in miniaturized electronics.

By combining high-performance and reliability, Hitachi High-Tech can help simplify the most complex of operations. Always looking to improve your productivity, we've designed sophisticated technology that's simple to use. We offer highly flexible options:

- | Multiple sample chamber and stage configurations for easy access to accommodate samples of various shapes and sizes.
- | Programmable automation to free up operators' time.
- | Data handling including exports that can be integrated into a quality management system or customer reports.
- | Calibrations beyond coatings analysis including RoHS screening and plating bath analysis.

# Perfect for your business



## **FUTURE PROOFED**

Advanced technology and the ability to reconfigure for new applications, mean that our analyzers are the right long-term investment to make sure you are always properly equipped.



## **RELIABLE HIGH PERFORMANCE**

When nanometers can be the difference between success and failure, precision and reliability are of central importance. Our solutions ensure high quality products while minimizing waste and downtime.



## **LEADING-EDGE TECHNOLOGY**

Our products are built for the needs of tomorrow, including high-end polycapillary optics and advanced detector technology for easy analysis of nanometer scale coatings.



## **LOW COST OF OWNERSHIP**

Hitachi products offer low cost of ownership. Built to exacting standards, these instruments are made for maximum uptime to keep up with production.



## **SIMPLE TO USE**

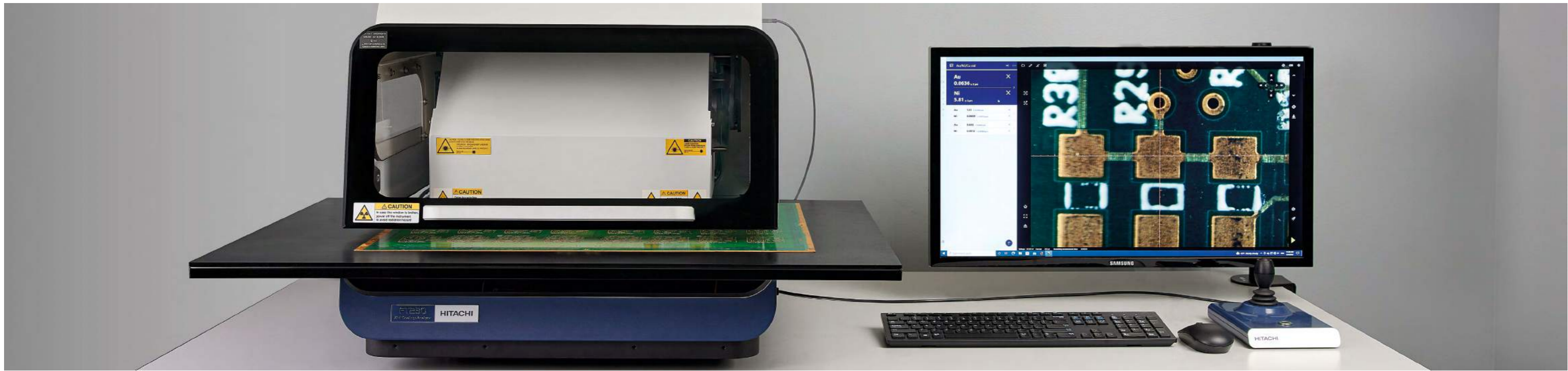
Our analyzers are easy to use and require minimal user training, meaning you can focus resources on critical tasks. Using intuitive screen menus and programmable, automatic sample testing, you'll find simplicity and efficiency reduces costs of man power and human error.



## **ONGOING SUPPORT**

Our ongoing support service is an important part of what we do. We offer time-critical, affordable support solutions to avoid delays in production and unnecessary downtime.





### MICROSPOT ANALYSIS FOR MINIATURIZED ELECTRONICS: FT160

Designed for microspot and ultra-thin coatings analysis, this future-proofed instrument meets the challenges of the increasingly miniaturized world of electronics.

#### The FT160 offers:

- | Polycapillary optics and a high sensitivity SDD detector.
- | Measurement of features smaller than 50 µm.
- | Superior performance to meet the challenge of semiconductor wafer technology.
- | Fast results and simplicity of use to increase productivity.
- | A large door and stage to speed up sample presentation.
- | A large sample observation window to enable test monitoring.



### ADVANCED FEATURES FOR HIGH-VOLUME TESTING

Designed to simplify and accelerate testing of components and assemblies, the FT230 makes it easier to measure more parts in less time. Let your XRF make decisions for you.

#### The FT230 offers:

- | Find My Part™ smart recognition for quicker start-up times.
- | Automated sample focusing for increased throughput and ease of use.
- | Optional second, wide-view camera for easier feature locating.
- | Flexible connectivity for sending results to SCADA, QMS, MES and ERP systems, and diagnostics to Hitachi.
- | A large-area, high-resolution SDD for high precision on thinner and more complex coatings.



### FLEXIBLE FIT FOR SAMPLES OF ANY SHAPE: X-STRATA920

Designed to analyze samples of a wide variety of shapes and sizes, the X-Strata920 measures hundreds of applications, including PCB surface finishes, connector coatings and more.

#### The X-Strata920 offers:

- | A high resolution SDD option providing complex coatings analysis.
- | Four configurations to fit samples of any shape.
- | A slotted chamber for small or long and skinny samples.
- | An optional mini-well chamber for taller parts.
- | An optional motorized, programmable stage which auto-measures multiple samples in various locations on a single PCB.
- | Optimized calibrations with traceable standards to ensure complete accuracy.



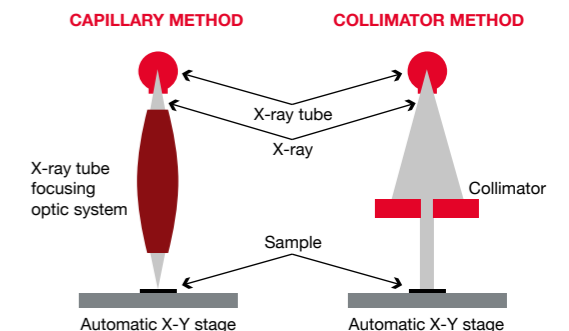
### ADVANCED TECHNOLOGY OPTIONS

#### Polycapillary optics:

- | Powerful focusing optic ideal for measuring features smaller than 50 µm.
- | Optimised throughput for high precision analysis of nanometer-scale coatings.
- | Future-proofed design for shrinking components.

#### Collimator

- | Multiple size options available for a single instrument to achieve the best precision for every feature.
- | Round or rectangular shapes to best match your parts.
- | Flexible configurations to confidently measure features of varying sizes.



## DEDICATED XRF ANALYSIS FOR ROHS

Ideal for RoHS testing in high-volume production environments, the EA1000 series is compliant with current directives and allows you to update criteria as new legislation emerges.

### The EA1000 series offers:

- | Analysis of a wide range of elements, including RoHS and halogens.
- | Ability to accommodate a range of sample sizes, from large components to thin wires.
- | Fast analysis time with ability to measure up to 12 samples at a time.
- | Advanced software for differentiating between Hg and Zn and enhanced halogen analysis.



## NEXTA STA: COMPLETE QUANTITATIVE THERMAL ANALYSIS

The NEXTA STA delivers TGA and DSC measurements within a single analyzer, including material stability up to 1500°C, decomposition temperature under inert and oxidative environments, melting temperature and specific heat measurement.

### The NEXTA STA offers:

- | World class baseline, ultimate accuracy and precision allowing measuring trace amounts of material.
- | Superior heating technology that meets the most advanced applications of TGA.
- | World class baseline performance, achieving a baseline drift of less than 10 µg.
- | Easy to use with automated features, intuitive software and intuitive report creation meaning your team can get up to speed quickly.



## CONTACT GAUGES: SIMPLE COATING THICKNESS MEASUREMENT

Our range of handheld and bench-top gauges use eddy current or micro-resistance technology to measure coating thickness on contact and are ideal for measuring copper on PCBs.

### Choose between:

- | **CMI760 Series** for measuring surface copper and thru-hole copper in a single unit.
- | **CMI511 Series** for measuring thru-hole copper thickness with temperature compensation.
- | **CMI165 Series** for temperature-compensated surface measurement and trace copper thickness.



# 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

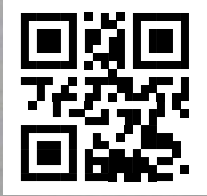
We offer a fast and efficient repair service, recertification and maintenance through our service agreements to ensure your analyzer is maintained in excellent condition and avoids any unplanned costs.



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

# What next?

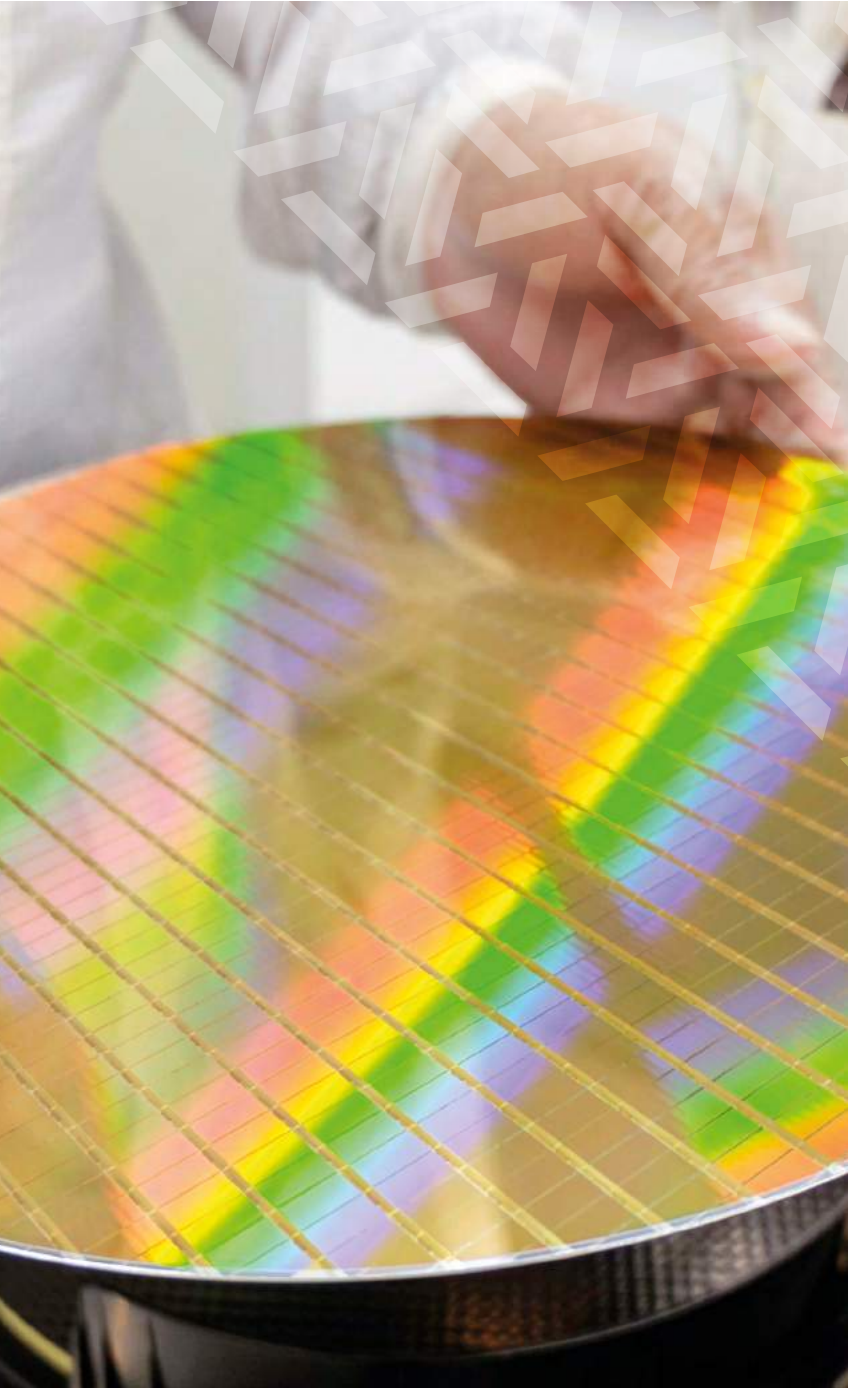
To learn more about the FT230  
visit [hhtas.net/ft230](http://hhtas.net/ft230)



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

## MORE INFORMATION

Find out more about our  
electronics coatings XRF analyzers,  
visit [hhtas.net/electronics](http://hhtas.net/electronics).



# Additional applications

**RoHS Screening** - dedicated solutions for RoHS contaminants including phthalates.

- XRF for RoHS, coatings and elemental mapping.
- Phthalates screening by thermal desorption.

**Thermal Analysis** - sensitive materials analysis including material temperature stability and thermal expansion.

- DSC, STA, TMA and DMA analysis.
- Optional Real View technology to watch the material behaviour on screen.

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