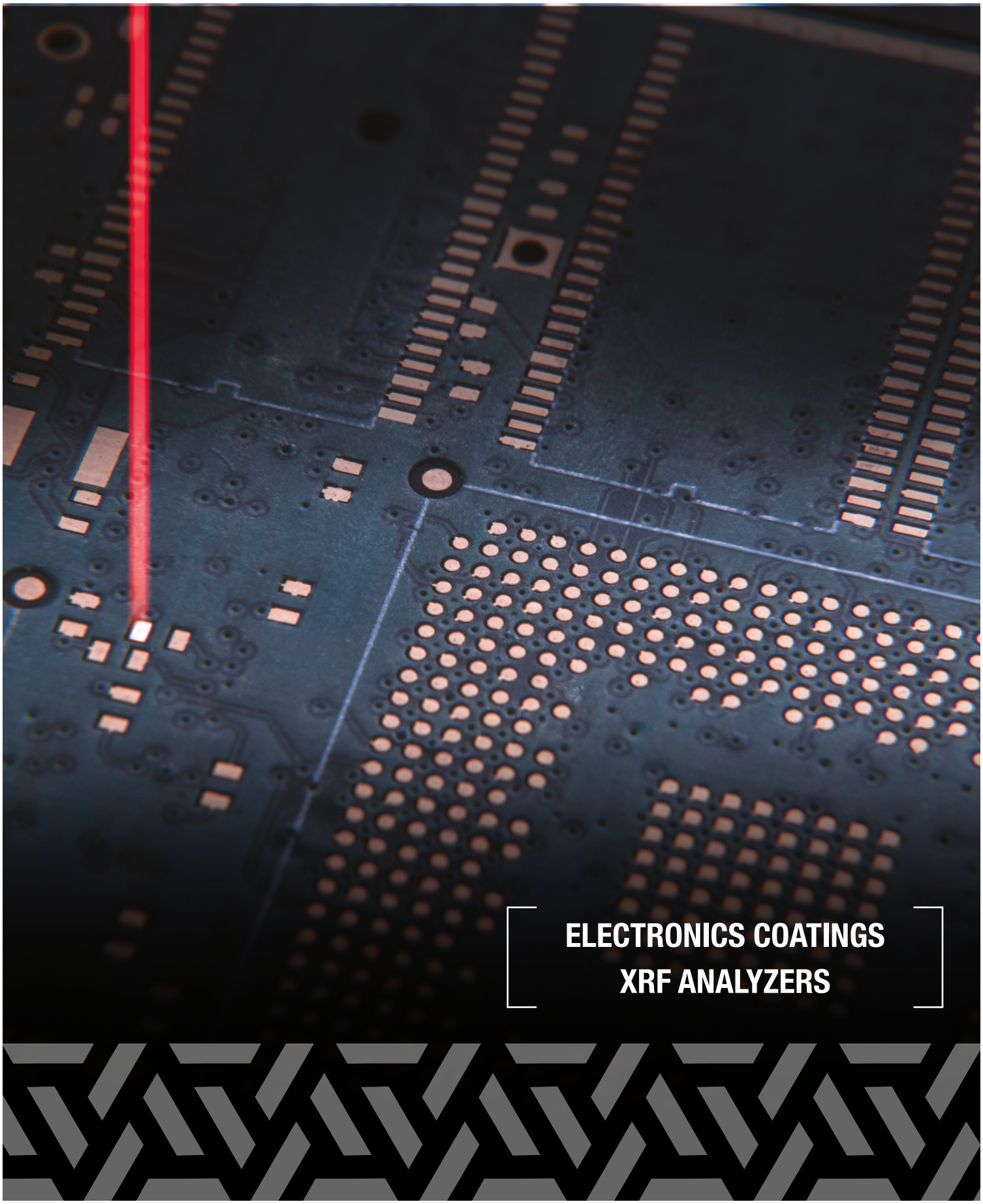
HITACHI
Inspire the Next

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.

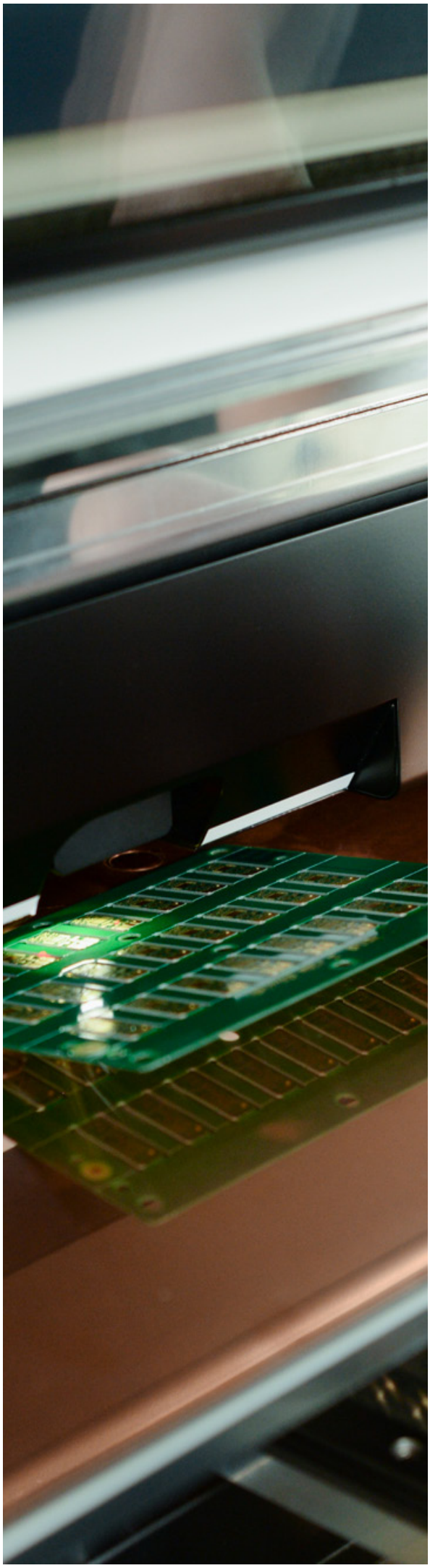
We manufacture high precision accurate and reliable analyzers for meeting quality requirements and ensuring industry specifications are met. Given the critical role of electronics in demanding markets – automotive, aerospace, communications and consumer devices – reliability and accuracy in production 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 100 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 facility to reconfigure for new application, 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 provide high quality while also 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

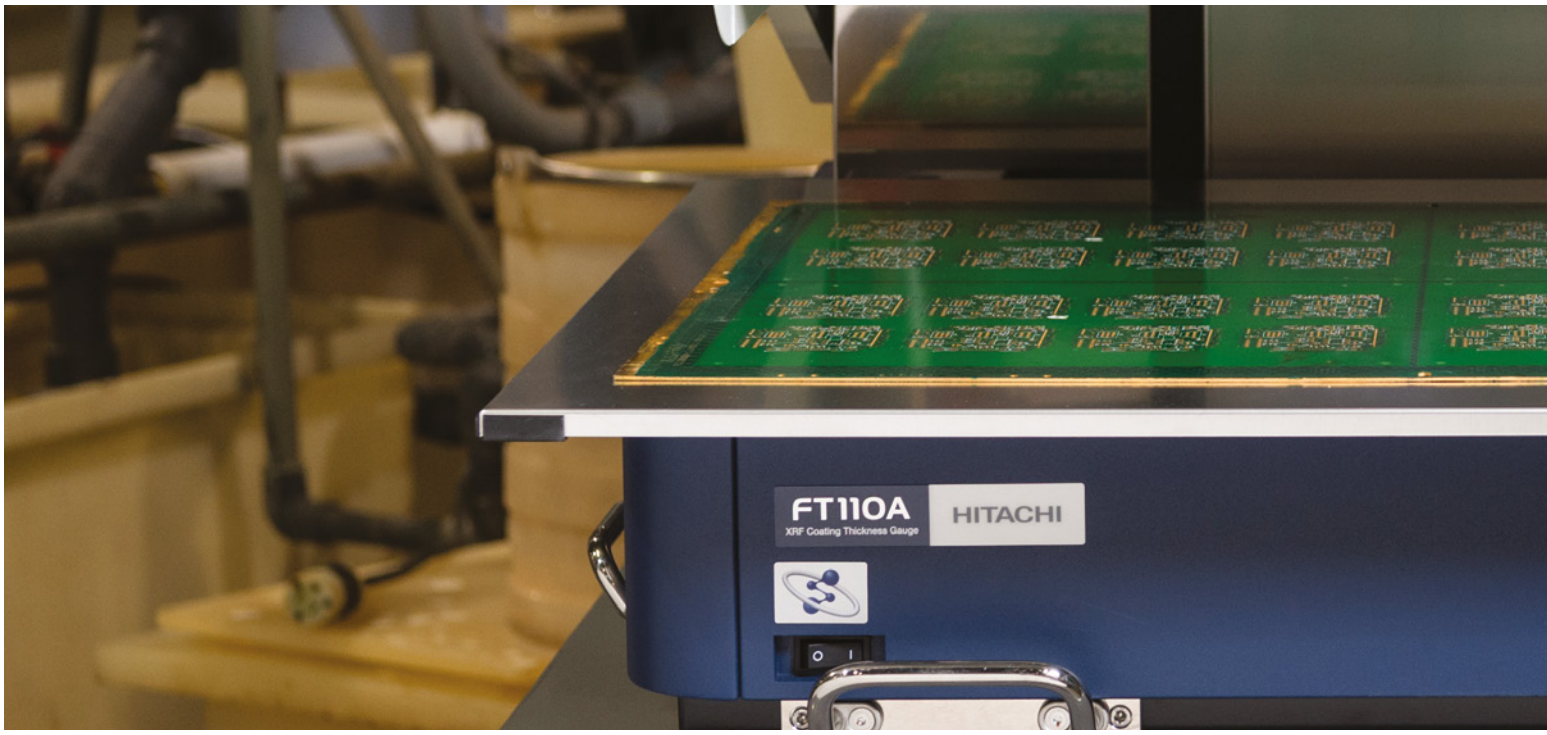
Hitachi products offer low cost of ownership. Built to exacting standards, these instruments are made for maximum uptime to keep up with production.

### 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:**

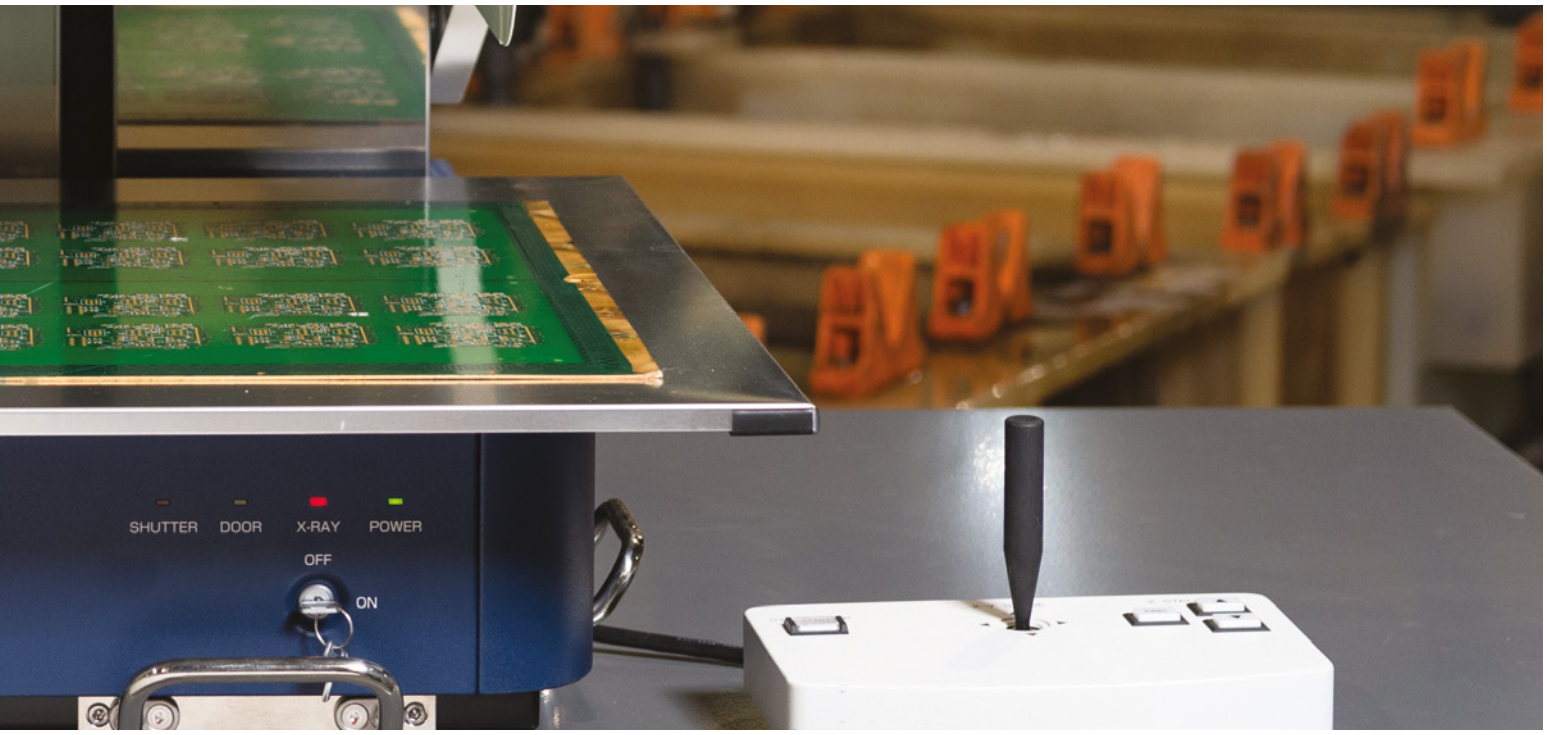
- Polycapillary optics and a high sensitivity SDD detector.
- Measurement of features smaller than 50 µm.
- Superior performance to meet the challenge of semiconductor wafer technology.
- Fast results and simplicity of use to increase productivity.
- A large door and stage to speed up sample presentation.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

## 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.




## POWERFUL XRF FOR LARGER SAMPLES: FT110A

Designed to accommodate large samples, this advanced XRF analyzer is easy to use and provides fast and accurate results.

**The FT110A has:**

- Optional dual camera for wide angle viewing and easier feature pin-pointing.
- Automated sample focusing for increased throughput and ease of use.
- Simultaneous testing of up to four layers, plus the substrate.
- Minimal training requirements.
- Fast and accurate results.

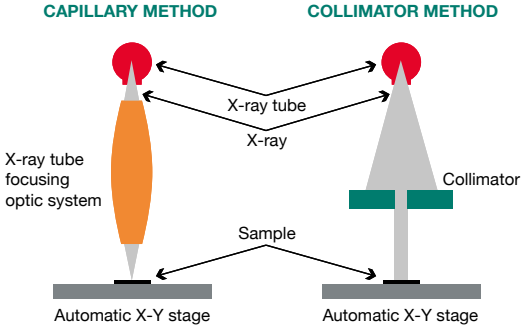
## ADVANCED TECHNOLOGY OPTIONS

**Polycapillary optics:**

- Powerful focusing optic ideal for measuring features smaller than 50 µm.
- Optimised throughput for high precision analysis of nanometre-scale coatings.
- Future-proof 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 cofidently measure features of varying sizes.



# Our Gauges Range

These simple handheld and bench-top gauges use eddy current or micro resistance technology to measure coating thickness on contact. They are ideal for measuring copper on PCBs with copper thickness for surface mount or thru-hole technology..

## CMI760 SERIES

**Measures surface copper and thru-hole copper in a single unit.**

Key Features:

- Dual technology – eddy current and microresistance.
- Surface and thru-hole probes.
- Active statistical display.
- Optional foot switch.


## CMI511 SERIES

**Measures thru-hole copper thickness with temperature compensation.**

Key Features:

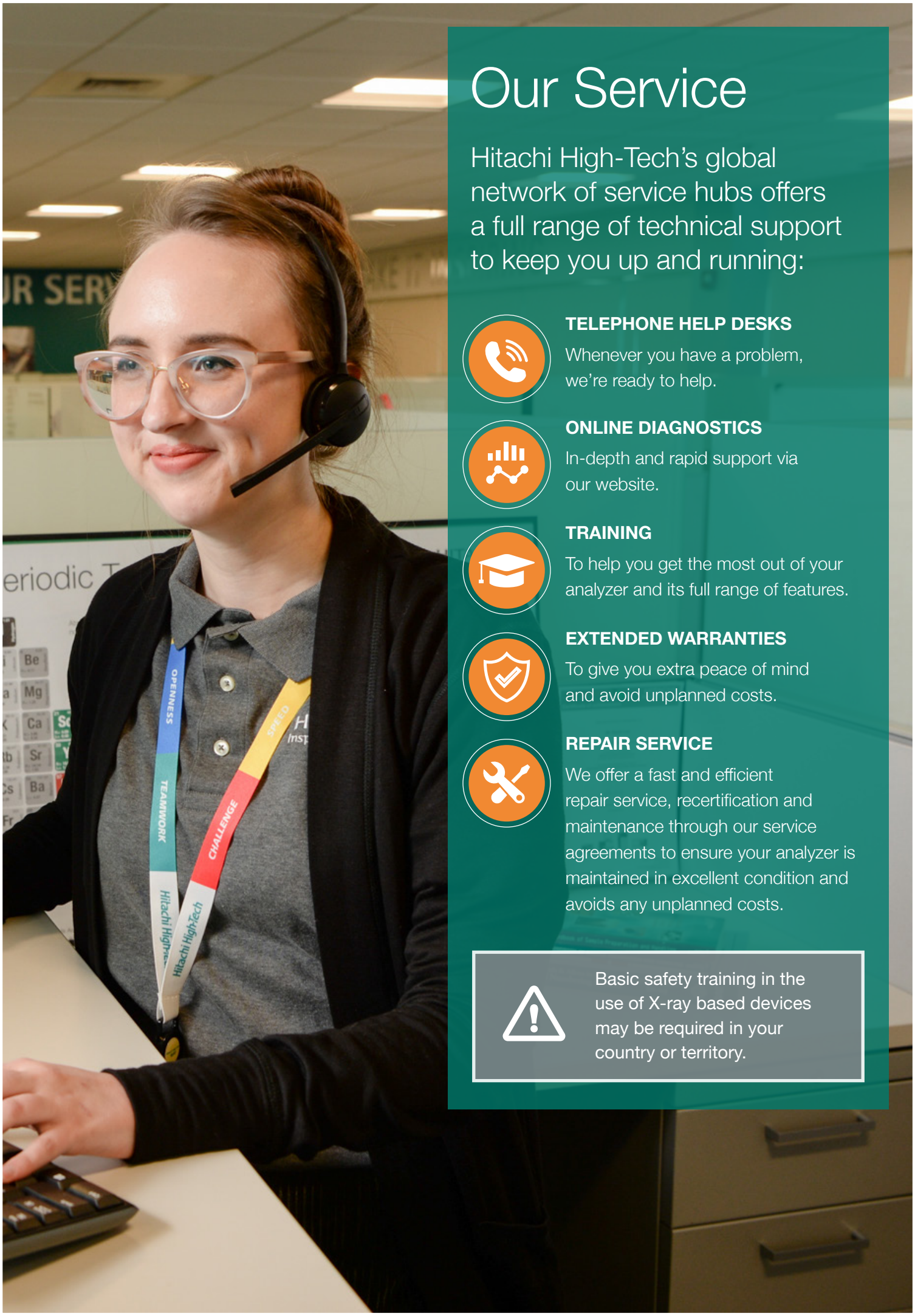
- With temperature compensation you get accuracy right out of the bath.
- Measure before or after etching.
- Factory calibration.


## CMI165 SERIES

**For temperature compensated surface measurement and trace copper thickness.**

Key Features:

- Durable design.
- Proprietary SRP-T1 replaceable probe tip.
- Illuminating probe tip for easy positioning.




# 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?

**MEET THE FT160**

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

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

**MORE INFORMATION**

Find out more about our electronics coatings XRF analyzers, visit 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 thermal resistance.

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

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**Hitachi High-Tech Analytical Science**



**Part number: 10017351**

Science for a better tomorrow