

## CMI511®

## Plated thru-hole copper thickness with temperature compensation

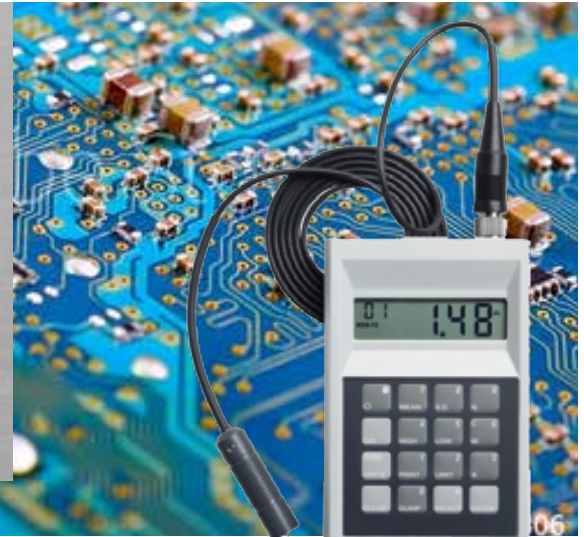
### Find out more

These gauges are a great complement to our XRF coatings analysers. To place your order contact [contact@hitachi-hightech-as.com](mailto:contact@hitachi-hightech-as.com)

### MORE INFORMATION

To find out more about the CMI511® or our range of PCB gauges, visit

[www.hitachi-hightech.com/hha](http://www.hitachi-hightech.com/hha)



## RAPIDLY MEASURE PLATED THRU-HOLE COPPER THICKNESS PRIOR TO, AND AFTER ETCHING

The CMI511® has an exclusive temperature compensation feature for in-process thickness measurement to reduce scrap and costly rework. Its automatic temperature correction makes it highly accurate even for measurement on boards that have just been lifted from the plating tank. This gauge is an ideal choice for:

- | PCB manufacturing and assembly.
- | Thru-hole copper thickness.

The CMI511® does not require standards because it factory calibrated ensuring its performance is always highly accurate. It is ideal for double-sided and multilayer boards, even plated with tin and tin/lead. The CMI511® provides instantaneous measurements, and is so easy to use that no operator training is necessary.

Our CMI511® comes complete with a carry case that features a plastic window which allows use of the gauge even without removal from the case.

## CMI511® THICKNESS GAUGE WITH 3 DIGIT LCD DISPLAY

- | Automatic unit conversion (mil/ $\mu$ m).
- | Programmed drift compensation.
- | PCB parameters (high/low) limits.

### KEY FEATURES:

- | Simple to use.
- | Temperature compensation for accuracy right out of the bath.
- | Multi-layer measurement.
- | Factory calibration.
- | Battery operated.
- | Multi-layer measurement.

TEMPERATURE  
COMPENSATION

## SPECIFICATIONS

- | Minimum hole size: 35 mils (899  $\mu\text{m}$ ).
- | Keypad: 16 function/10 numeric.
- | LCD Display: 1/2" (12.7 mm).
- | Resolution: 0.01 mils (.25  $\mu\text{m}$ ).
- | Accuracy: mil:  $\pm .01$  at  $< 1$ ,  $\pm 5\%$  at  $> 1$ .  
 $\mu\text{m}$ :  $\pm .25$  at  $< 25$ ,  $\pm 5\%$  at  $> 25$ .
- | Memory capacity: 20 measurements.
- | Statistical display: Number of readings, standard deviation, average, Cpk, high/low.
- | Battery: 9V dry cell (50 hrs.) included.
- | Weight: 9 ozs (255 g).
- | Dimensions: 3 1/8" (W) x 1 3/16" (D) x 5 7/8" (H).  
79 mm (W) x 30 mm (D) x 149 mm (H).

## PCB GAUGE COMPARISON CHART

We offer multiple choices for a PCB gauge within the PCB industry to provide you with the best and most cost-effective solution available for your application needs. Please reference the comparison chart below or contact us at [contact@hitachi-hightech-as.com](mailto:contact@hitachi-hightech-as.com) for our expert advice.

	CMI95M	CMI165	CMI511	CMI563	CMI760
Technique	Microresistance	Microresistance	Eddy	Microresistance	Microresistance
Copper Foil	●	●		●	●
Copper Laminate	●	●		●	●
Copper – Surface		●		●	●
Copper – Fine Line		●		●	●
Copper Thru-hole			●		Optional
Temperature Compensation		●	●		ETP Probe
Replacement Probe Tip		●		●	SRP-4 Probe
Unit Selection	oz or $\mu\text{m}$	mil or $\mu\text{m}$	mil or $\mu\text{m}$	mil or $\mu\text{m}$	mil or $\mu\text{m}$
<b>Copper Thickness Range</b>					
$\mu\text{m}$	8 indicator lights: 5 – 140	Electroless: 0.25 – 12.7 Electroplated: 2 – 254	2 – 102	Electroless: 0.25 – 12.7 Electroplated: 0.25-152	Surface: 0.25 – 254 Thru-hole: 1 – 102
mil		Electroless: 0.01 – 0.5 Electroplated: 0.1 – 10	0.08 – 4.0	Electroless: 0.01 – 0.5 Electroplated: 0.01 – 6	Surface: 0.01 – 10 Thru-hole: 0.08 – 4

## OUR SERVICE

Our global network of service hubs offer a full range of technical support to keep you up and running. We are A2LA certified\* for coating thickness calibrations and standards which ensures that your CMI511® will be compliant at audit to ISO 17025.



\*A2LA accreditation is applicable to work performed by Hitachi High-Tech Analytical Science America, Inc.

If you'd like to learn more about the CMI511® gauge visit [www.hitachi-hightech.com/hha](http://www.hitachi-hightech.com/hha) or email one of our experts at [contact@hitachi-hightech-as.com](mailto:contact@hitachi-hightech-as.com) to book a demo.

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