

## CMI563®

Advanced surface copper measurement on single, double-sided, or multi-layer PCB

### Find out more

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

### MORE INFORMATION

To find out more about the CMI563® or our range of PCB gauges, visit

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



## MICRORESISTANCE TECHNOLOGY FOR ACCURATE MEASUREMENT OF SURFACE COPPER

The CMI563® provides advanced technology for accurate measurement on copper plating and it ensures that the opposite side of the PCB will not interfere with readings, regardless of laminate thickness. Our CMI563® makes it simple to obtain precise surface copper measurement on laminate, electroless, or electrolytic copper. This gauge is ideally suited for:

- | PCB manufacturing and assembly.
- | Copper surface thickness.

Our CMI563® provides superior performance for copper foil measurement on flexible or rigid, single, double-sided, or multi-layer boards.

### SRP-4 PROBE

Included standard with the CMI563® gauge is a tethered SRP-4 probe with user-replaceable tips. This patented probe design consists of four pins securely encased for durability. Its see-through casing allows for easy placement. The tethered cable is ideal for field applications, and it has a small footprint for convenience.

## MICRORESISTANCE TECHNOLOGY

Microresistance makes the CMI563® highly accurate for electroless and electrodeposited copper applications, and even works on fine trace measurements. It uses four-point contact to generate an electrical signal. A current is passed between the outer pins, and voltage drop is measured between the inner pins of the sample.

### KEY FEATURES:

- | Advanced microresistance technology.
- | Factory calibrated.
- | Highly accurate copper thickness measurement.

**ADVANCED  
MICRORESISTANCE  
TECHNOLOGY**

## SRP-4 USER REPLACABLE PROBE TIPS (PATENT 7,148,712)

- Easily replace a broken probe tip.
- Optional NIST-traceable check standards to match a variety of thickness ranges.
- One replacement probe standard, additional probe tips available (packages of 3).

### SPECIFICATIONS

- Accuracy:**  $\pm 1\%$  ( $\pm 0.1 \mu\text{m}$ ).
- Precision:** Electroless Cu: 0.2% typical.  
Electrodeposited Cu: 0.5% typical.
- Resolution:** mil: 0.01 at  $> 1$ , 0.001 at  $< 1$ .  
 $\mu\text{m}$ : 0.1 at  $> 10$ , 0.01 at  $< 10$ , 0.001 at  $< 1$ .
- Fine Line Measure:** Trace width 8 to 250 mil (203–6350  $\mu\text{m}$ ).
- Dimensions:** in: 5 7/8 (L) x 3 1/8 (W) x 1 3/16 (D).  
cm: 14.9 (L) x 7.94 (W) x 3.02 (D).
- Memory Capacity:** 13,500 readings.
- Weight:** 9 oz (0.26 kg).
- Battery:** 9V Alkaline (65 hrs.).
- LCD Display:** Four-digit, two-digit memory, 1/2" (1.27 cm) character height.
- Statistical Display:** Readings, standard deviation, mean, high/low.

### PCB & COPPER 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.com](mailto:contact@hitachi-hightech.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 $\mu\text{m}$
Copper Thickness Range					
$\mu\text{m}$	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 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 CMI563® 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 CMI563® gauge visit [www.hitachi-hightech.com/hha](http://www.hitachi-hightech.com/hha) or email one of our experts at [contact@hitachi-hightech.com](mailto:contact@hitachi-hightech.com) to book a demo.

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