CMI563®

For surface copper measurement

Oxford Instruments' CMI563 product was designed specifically for copper foil on rigid, flexible, single and double-sided, or multi-layer PCB boards

The **CMI**563 employs the micro resistance test method technology, providing the most effective and efficient way of achieving accurate, precise measurement of surface copper thickness, including copper-clad laminate, electroless, and electrolytic copper. Featuring the market's most advanced test technology, copper plating on the opposing side of the printed circuit board will not interfere with precise, reliable readings, regardless of laminate thickness.

The innovative **CMI**563 gauge includes the SRP-4 Probe engineered with user replaceable probe tips. These tip replacements are more convenient and less expensive as compared to probe replacement. The **CMI**563 is user selectable for electroless and electrodeposited copper types, and even fine line trace measurements, no user calibration required. NIST-traceable check standards are available in a variety of thicknesses. This quality instrument is backed by warranty and Oxford Instruments' world-class customer service.

SRP-4 Probe

The tethered SRP-4 probe features a rugged, reliable cable for field applications. Additionally, the SRP-4's small footprint is convenient and user-friendly.

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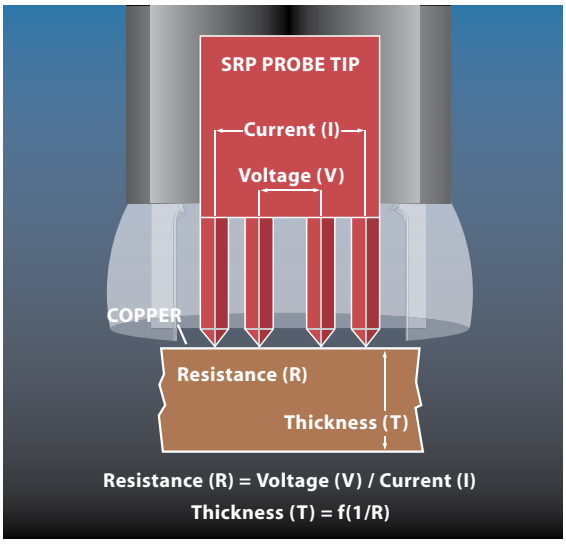
Micro resistance technology

The micro resistance test method technology uses four contact points to generate an electrical signal from the surface copper. The SRP-4 probe consists of four pins encased securely in a patented design which delivers high precision with a small footprint and minimal surface marking. The see-through material allows view of the pins for easy placement on small traces. The pins are a high-durability alloy to resist breakage and wear. When placed on the surface copper sample, a constant current is passed between the outer pins, and voltage drop is measured between the inner pins. Using Ohm's Law, voltage is converted to resistance and thickness is computed as a function of resistance. The micro resistance method delivers highly accurate copper thickness measurement for copper plating applications



User replaceable probe tips (patent 7,148,712)

The SRP-4 features user-replaceable probe tips. A broken probe tip can be quickly and easily replaced on site, minimising downtime. These replacement probe tips are a far more economical alternative to replacing the entire probe. One replacement probe tip comes standard with the CMI563. Additional probe tips are available in packages of three.

Specifications:

Accuracy: ±1% (±0.1 µm) with reference to standards

Precision: Electroless Copper: 0.2 % standard deviation typical Electrodeposited Copper: 0.5% standard deviation typical

Resolution: 0.01 mils > 1 mil, 0.001 mils < 1 mil, 0.1µm > 10 µm, 0.01 µm < 10 µm, 0.001 µm < 1 µm

Thickness Range:

Electroless Copper: 10 µin–500 µin (0.25 µm–12.7 µm),

Electrodeposited Copper: 0.1mil to 6 mil (152 um),

Fine Line Measure: trace width 8 mil to 250 mil (203 um–6350 um)

Memory Capacity: 13,500 readings

Dimensions: 5 7/8" (L) x 3 1/8" (W) x 1 3/16" (D) (14.9 x 7.94 x 3.02 cm)

Weight: 9 oz (0.26 kg) including battery

Units: Automatic conversion between imperial and metric with a keystroke

Battery: 9V Alkaline

Battery Life: 65 continuous hours

Interface: RS-232 serial port output with adjustable baud rate, for a printer or PC download

Display: Four-digit LCD display, two-digit memory location, 1/2" (1.27cm) character height

Statistical Display: Number of readings, standard deviation, mean, high, low

visit **www.oxford-instruments.com** for more information or email Industrial@oxinst.com

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