

CMI165®

Copper Thickness Measurement with Temperature Compensation

Oxford Instruments CMI165 provides unique temperature compensated Copper thickness measurements in an ergonomic hand-held device

Measurements on Copper are affected by the temperature of the sample. The CMI165 accounts for temperature in the measurement of thickness ensuring accurate in-process inspection results regardless of Copper temperature. This versatile, portable gauge equipped with protective case, has a rugged and durable design that allows it to be taken into the harshest environments.

- Measure hot or cold Cu on PCBs
- Reduce waste by eliminating the need for coupons
- Measure foil or laminated Cu thickness in μm , mils or oz
- Sort Cu by weight at incoming inspection, before drilling, shearing or plating
- Quantify Cu thickness after etching or planarizing
- Verify Cu plating thickness on PCB surfaces



OXFORD
INSTRUMENTS

The Business of Science®

Proprietary SRP-T1 measurement probe

- SRP-T1 Replaceable Probe Tip – no recalibration necessary
- Spare SRP-T1 ensures no factory downtime
- Illuminated probe tip for easy positioning on copper traces



User Interface available in both English and Simplified Chinese



Specifications:

- Copper thickness is measured using 4-point probe electrical resistance method and conforms to standard EN 14571.
- Thickness measurement ranges
 - Copper Electroless: (0.25-12.7) μm , (0.01-0.5) mils
 - Copper Electrodeposited: (2.0-254) μm , (0.1-10) mils
- High repeatability and reliability: $\sigma \approx 0.08 \mu\text{m}$ at 20 μm (0.003 mils at 0.79 mils)
- Statistical analysis includes data recording, average, standard deviation and high-low reporting
- Measurement units in μm , mils or oz
- User interface in English or Simplified Chinese
- Measure etched traces as thin as 204 μm (8mils) without line width standards
- Store 9,690 measurements (with optional date and time stamp)
- USB 2.0 high-speed data transfer interfaced with Microsoft Excel™
- Factory calibrated and certified
- Customizable for other applications
- Static or continuous mode measurement
- Powered by regular AA batteries

Oxford Instruments Industrial Analysis

For more information please email:
industrial@oxinst.com

North America

Scotts Valley, CA
Tel: +1 831 439 9729

UK

High Wycombe
Tel: +44 (0) 1494 442255

China

Shanghai
Tel: +86 21 6132 9688

Finland

Espoo
Tel: +358 9 329 411

Germany

Udem
Tel: +49 (0) 2825 93 83 -0

Latin America

Concord MA
Tel: +1 978 369 9933 Ext. 220

Singapore

Tel: +65 6337 6848

visit www.oxford-instruments.com for more information

www.oxford-instruments.com

This publication is the copyright of Oxford Instruments plc and provides outline information only, which (unless agreed by the company in writing) may not be used, applied or reproduced for any purpose or form part of any order or contract or regarded as the representation relating to the products or services concerned. Oxford Instruments' policy is one of continued improvement. The company reserves the right to alter, without notice the specification, design or conditions of supply of any product or service. Oxford Instruments acknowledges all trademarks and registrations. © Oxford Instruments plc, 2010. All rights reserved. Part no: OIIA/074/A/0210



The Business of Science®