

Highlights

- ▶ Electrical integrity imaging
- ▶ High resolution imaging (25 to 1,000,000 points)
- ▶ Defect imaging
- ▶ Mapping of encapsulated layers

Parameters

- ▶ Sheet resistance (Ohm/sq)
- ▶ Metal layer thickness (nm, μm)
- ▶ Metal substrate thickness (μm)
- ▶ Anisotropy
- ▶ Defects detection
- ▶ Integrity assessment

Applications

- ▶ Architectural glass (LowE)
- ▶ Touch screens and flat monitors
- ▶ OLED and LED applications
- ▶ Smart-glass applications
- ▶ Photovoltaics
- ▶ Semiconductors
- ▶ De-icing and heating applications
- ▶ Batteries and fuel cells
- ▶ Packaging materials

Materials

- ▶ Metal films and meshes
- ▶ Conductive oxides
- ▶ Nanowire films
- ▶ Graphite
- ▶ Printed films
- ▶ Conductive polymers (PEDOT:PSS)
- ▶ Other conductive films and materials

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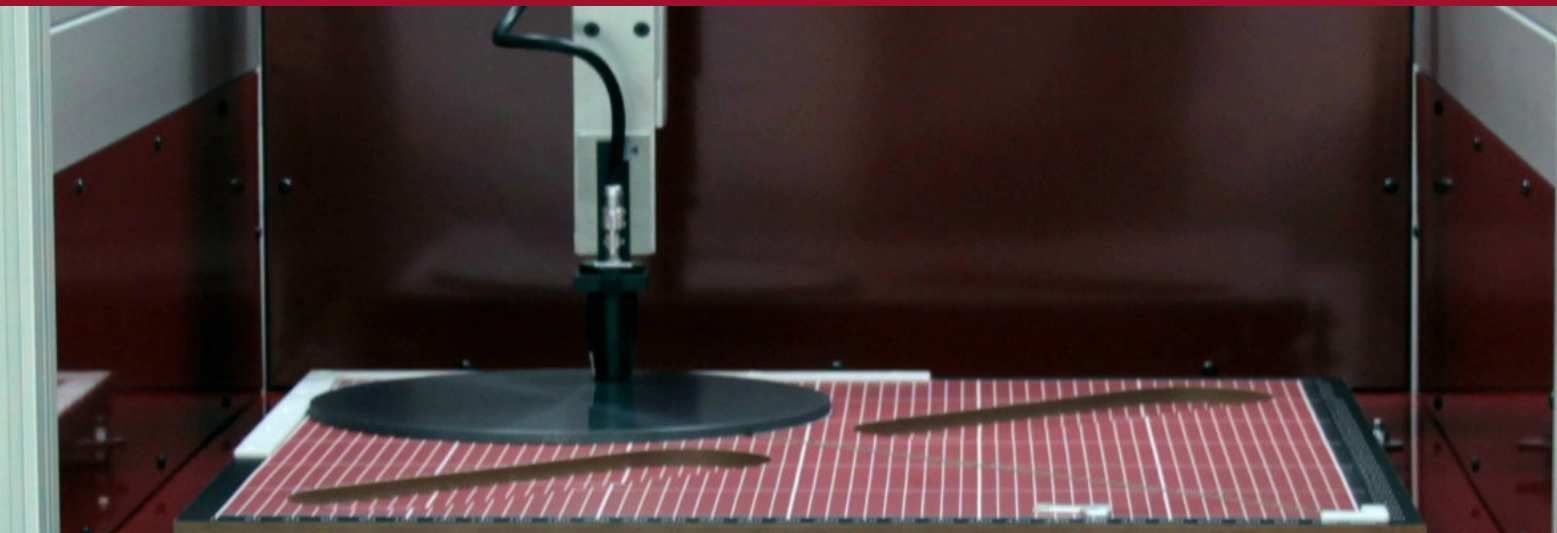
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www.suragus.com
www.sheet-resistance-testing.com
www.suragus.com/FAQ
www.suragus.com/EddyCusMap6060

Made and Engineered in Germany

Innovation Award by
Free State of Saxony 2013
1st Place





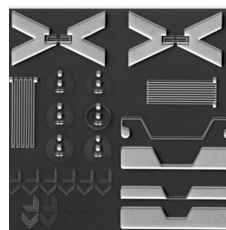
Measurement technology	Non-contact eddy current sensor
Parts geometry	Flat, slightly curved
Max. Scanning area	600 x 600 x 150 mm
Edge effect correction / exclusion	2 - 5 mm edge exclusion for standard sizes
Max. Sample thickness / sensor gap	150 mm
Sheet resistance range and accuracy	0.005 - 50 Ohm/sq 0.01- 65 MS/m (70- 0.016 $\mu\text{Ohm}^*\text{m}$)
Thickness measurement of metal films (e.g. aluminum, copper)	2 nm - 2 mm (in accordance with sheet resistance)
Min. Pitch	0.1 mm
Mode	Contact and non-contact
Speed	400 mm per second (time 1 to 30 minutes)
Device dimension (w/l/h) / weight	1,200 x 1,700 x 1,350 mm
Available features	Metal thickness imaging

Device Control and Software

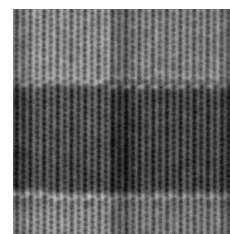
- ▶ Control via touch panel
- ▶ Easy setup of scanning parameters
- ▶ Pre-defined measurement recipes
- ▶ Storage and import of data
- ▶ Export of data sets (eg. to EddyEva, MS Excel, Origin)

Advanced Analysis Software EddyEva

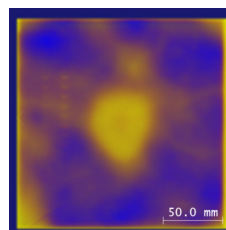
- ▶ 2D and 3D data evaluation
- ▶ Dynamic GUI design
- ▶ Advanced impedance analysis
- ▶ Allowing various data views
- ▶ Standard and smart evaluation algorithms
- ▶ Defect / effect size determination
- ▶ Determination of evaluation recipes
- ▶ Saving and applying existing recipes
- ▶ Loading and reanalyzing data sets
- ▶ Anomaly detection



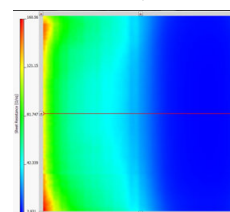
Printed Test Structures



Copper Mesh on CFRP Covered by Paint



SiC Composition / Resistivity Variation



Deposition Gradient of Capacitor Foil