Efficient Testing Solutions





# Non-Contact Sheet Resistance Mapper DATA SHEET - EddyCus® TF map 2020SR

The EddyCus® TF map 2020SR is a fast non-contact sheet resistance mapping system for conductive thin films, and also for layer thickness mapping of metal films. Typical applications are the quality assurance of TCOs, metals films, graphene, CNT and metal nano wires or grids. The system is highly beneficial for the quality assessment of deposition, annealing, and doping processes. The EddyCus® TF map 2020SR allows a quick mapping of samples sizes up to 8 inches. The measured values are immediately displayed in the easy to handle software. Its compact graphical user interface and its various easy to use analysis functions enable to obtain a

quick overview as well as to run a fast and evaluation analysis of the measured results within one step. Additionally, the mapping module allows a freehand selection of areas in order to analyze the sheet resistance in certain areas of interest. These mappings can also be well analyzed by histogram evaluation. Furthermore, the software supports statistical analysis, or color coding for analyzing local defects, and it provides data export functions. The EddyCus® TF map 2020SR is an accurate mapping system valuable for many applications dedicated to cater the needs of R&D centers, quality assurance departments and research institutes

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Testing of conductive layers.





# DATA SHEET EddyCus<sup>®</sup> TF map 2020SR – Sheet Resistance Mapping



### EddyCus<sup>®</sup> TF map 2020SR

Non-contact eddy current sensor Ultrasonic sensor

8 inch / 200 x 200 mm<sup>2</sup> (larger on request)

2 / 5 / 10 mm (other on request) (defined by the thickest sample)

0.001 – 10 Ohm/sq < 2% accuracy 10 – 100 Ohm/sq < 3% accuracy 100 – 1,000 Ohm/sq < 5% accuracy

100 x 100 mm<sup>2</sup> less than 3 minutes 200 x 100 mm<sup>2</sup> less than 5 minutes

1 nm – 500 µm (in accordance with sheet resistance range)

0.025 – 2.5 mm

498 x 212 x 656 mm

22.5 kg

Anisotropy sensor / optical transmission sensors

## THIN FILM CHARACTERIZATION

Sheet resistance & metal thickness measurement

Scanning time @ 1mm measurement pitch

Thickness mapping of metal films (e.g. copper)

Substrate thickness measurement

Max. scanning area

(defines distances)

Scanning pitch

Weight

Device size (w/h/d)

Available features

Max. sample thickness

Sheet resistance range

#### **Characterization Mode**

- Non-contact sheet resistance mapping of conductive thin films [Ohm/sq]
- Non-destructive layer thickness mapping of metal films [nm, μm]

### Benefits

- + Sheet resistance mapping of encapsulated layers
- + Quick sheet resistance measurement of small sample sizes up to 8 inches

## SOFTWARE & HANDLING

#### Sheet Resistance Analyzer 2.0

- Very easy to use software
- Instant graphical display of measurement and mapping
- Freehand marking of mappings for a detailed analysis

Nove Hame	Scan Setup Scan Typ Scan Dimension Pitch II Pitch Y	Rectangle - 100x100mm - 1.0mm - 1.0mm -	Measurement Setup Configuration File EddyCountTr wap 402605R Semple Nome TCOMK1264 Disconnect	Minament  Tanan  System Rady  No Sanpia	Actual Reading Sheet Resistance 6.337 Ω/sq	Commands Get Reference Stop Scan Save Scan
Scan Results ran 1: TCOMK1294	Sum 2: TCDMK45	9A Star 3: TCOMK	642A	146.0	**	
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