

## EddyCus® TF map 5050SR – Sheet Resistance Imaging Device

P\_T\_5050SR\_21



### Highlights

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

### Device Series

- ▶ Sheet resistance (Ohm/sq)
- ▶ Metal layer thickness (nm,  $\mu\text{m}$ )
- ▶ Metal substrate thickness ( $\mu\text{m}$ )
- ▶ Anisotropy
- ▶ Defects
- ▶ Integrity assessment

### Applications

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

### Materials

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

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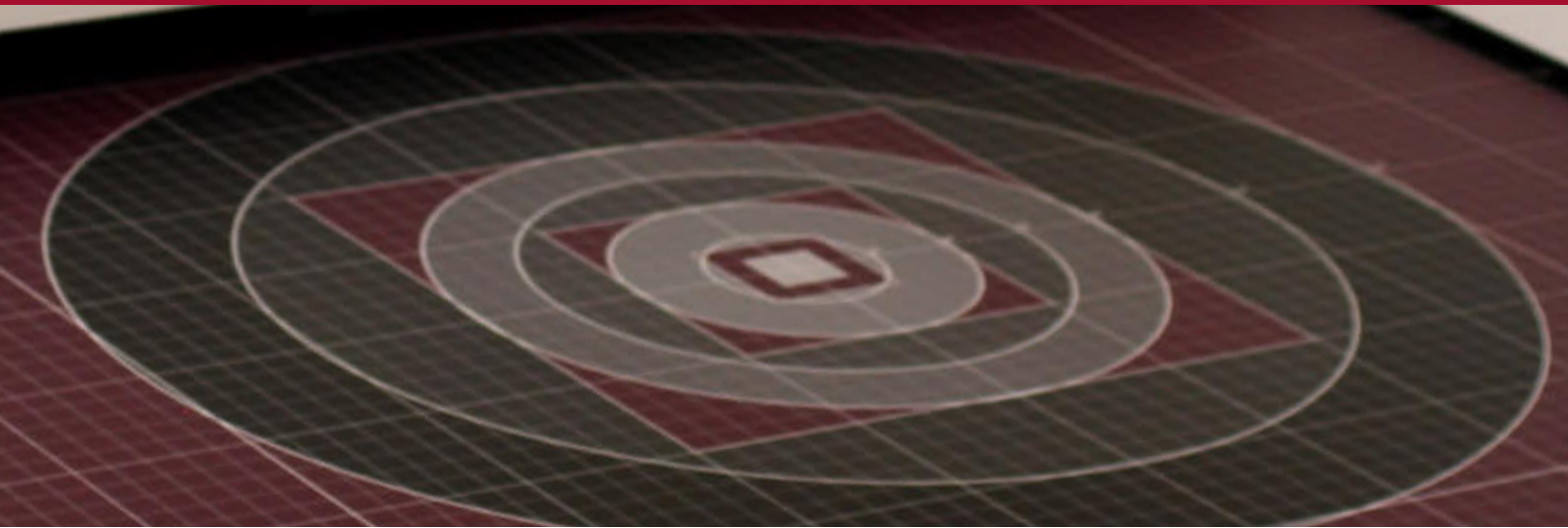
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Made and Engineered in Germany 





Measurement technology	Non-contact eddy current sensor
Substrates	2 / 4 / 6 / 8 / 12 inch wafer
Max. scanning area	20 inch / 508 mm x 508 mm (larger upon request)
Edge effect correction / exclusion	2 – 10 mm (depending on size, range, setup and requirements)
Max. sample thickness / sensor gap	3 / 5 / 10 / 25 mm (defined by the thickest sample)
Scanning pitch	1 / 2 / 5 / 10 mm (other upon request)
Measurement points per time (square shaped samples)	10,000 measurement points in 3 minutes 1,000,000 measurement points in 30 minutes
Scanning time	8 inch / 200 mm x 200 mm in 0.6 to 6 minutes (1 – 10mm pitch) 12 inch / 300 mm x 300 mm in 0.9 to 9 minutes (1 – 10mm pitch)
Device dimensions (w/h/d) / weight	46.5" x 11.4" x 35.4" / 1,180 mm x 290 mm x 900 mm / 120 kg
Further available features	Metal thickness imaging, anisotropy and sheet resistance sensor

	VLSR	LSR	MSR
	6 decades are measurable by one sensor, but with slightly affected accuracy		
Range [Ohm/sq]	0.0001 – 0.1	0.01 – 10	0.1 – 100
Accuracy / Bias	± 1%	± 1 – 2%	± 1 – 3%
Repeatability (2σ)	< 0.5%		< 1%

VLSR – Very Low Sheet Resistance , LSR – Low Sheet Resistance , MSR – Medium Sheet Resistance

## Device Control and Software

- ▶ Pre-defined measurement and product recipes (sizes, pitches, thresholds)
- ▶ Line scan, histogram and area analysis
- ▶ Black and colored image coding
- ▶ Csv & pdf export
- ▶ SPC summary and export
- ▶ 3 user levels
- ▶ Material database for parameter conversion
- ▶ Edge effect compensation
- ▶ Storage and import of data
- ▶ Export of data sets (e.g. to EddyEva, MS Excel, Origin)

