

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, μm)
- Metal substrate thickness (μm)
- Anisotropy
- ▶ Defects
- ▶ Integrity assessment

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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

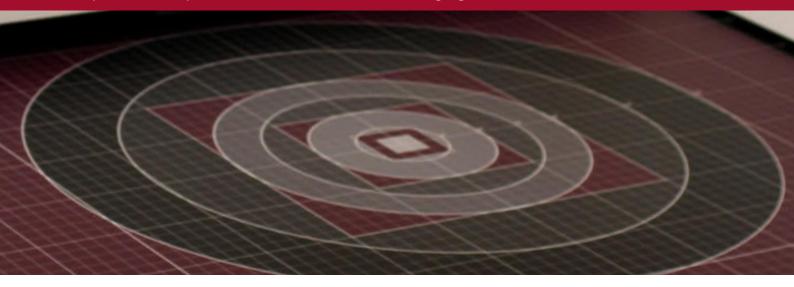
- ► Metal films and meshes
- ▶ Conductive oxides
- ▶ Nanowire films
- ▶ Graphene, CNT, Graphite
- ▶ Printed films
- ► Conductive polymers (PEDOT:PSS)
- ▶ Other conductive films and materials

Made and Engineered in Germany





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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%

 ${\sf VLSR-Very\ Low\ Sheet\ Resistance\ ,\ LSR-Low\ Sheet\ Resistance\ ,\ MSR-Medium\ Sheet\ Resistance}$

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)

