

EddyCus® TF map 2525SR — Sheet Resistance Imaging Device

P T 2525SR 2



Highlights

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

Device Series

- ► Metal thickness (nm, µm)
- ► Sheet resistance (Ohm/sq)
- ► Emissivity
- ► Conductivity / resistivity (mOhm cm)
- ► Electrical anisotropy (%)
- ▶ Weight (g/m²) and drying status (%)
- ► Permeability (H/m) Beta

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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

Engineered and Made in Germany







Measurement technology	Non-contact eddy current sensor	
Substrates	Foils, glass, wafer, etc.	
Max. scanning area	10 inch / 254 mm x 254 mm (larger upon request)	
Edge effect correction / exclusion	2 – 10 mm (depending on size, range, setup and requirements)	
Max. sample thickness / sensor gap	3/5/10/15 mm (defined by the thickest sample)	
Thickness measurement of metal films (e.g. aluminum, copper)	2 nm – 2 mm (in accordance with sheet resistance)	
Scanning pitch	1/2/5/10 mm (other upon request)	
Measurement points per time (square shaped samples)	100 measurement points in 0.5 minutes 10,000 measurement points in 3 minutes	
Scanning time	4 inch / 100 mm x 100 mm in 0.5 to 3 minutes (1 – 10mm pitch) 8 inch / 200 mm x 200 mm in 1.5 to 15 minutes (1 – 10mm pitch)	
Device dimensions (w/h/d) / weight	23.6" x 9.05" x 31.5" / 549 mm x 236 mm x 786(836) mm / 27 kg	

	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)



