

EddyCus® TF map 2530SR – Sheet Resistance Imaging Device

P_T_2530SR_22



Highlights

- ▶ Contact-free imaging
- ▶ High speed (10,000 points in 5 min)
- ▶ Repeatable and accurate
- ▶ High resolution (9 to 90,000 points)
- ▶ Mapping of encapsulated layers
- ▶ Homogeneity and defect imaging

Applications

- ▶ Semiconductors
- ▶ Photovoltaics
- ▶ Touch panel sensors
- ▶ Displays and lighting
- ▶ Batteries, capacitors, fuel cells
- ▶ De-icing and heating
- ▶ Smart-glass and LowE
- ▶ WLP, PLP, PCB
- ▶ Packaging materials
- ▶ Antistatic

Processes

- ▶ Deposition (PVD, CVD, ALD, plating)
- ▶ Layer and material modification (implantation, doping, annealing)
- ▶ Layer removal (CMP, etching, scribing)

Materials

- ▶ Semiconductors (Si, SiC, GaAs ...)
- ▶ Metals
- ▶ Graphene, CNT, graphite
- ▶ Conductive oxides and nitrides
- ▶ Mesh and nanowire films
- ▶ Conductive inks, polymers (PEDOT)
- ▶ Other conductive films

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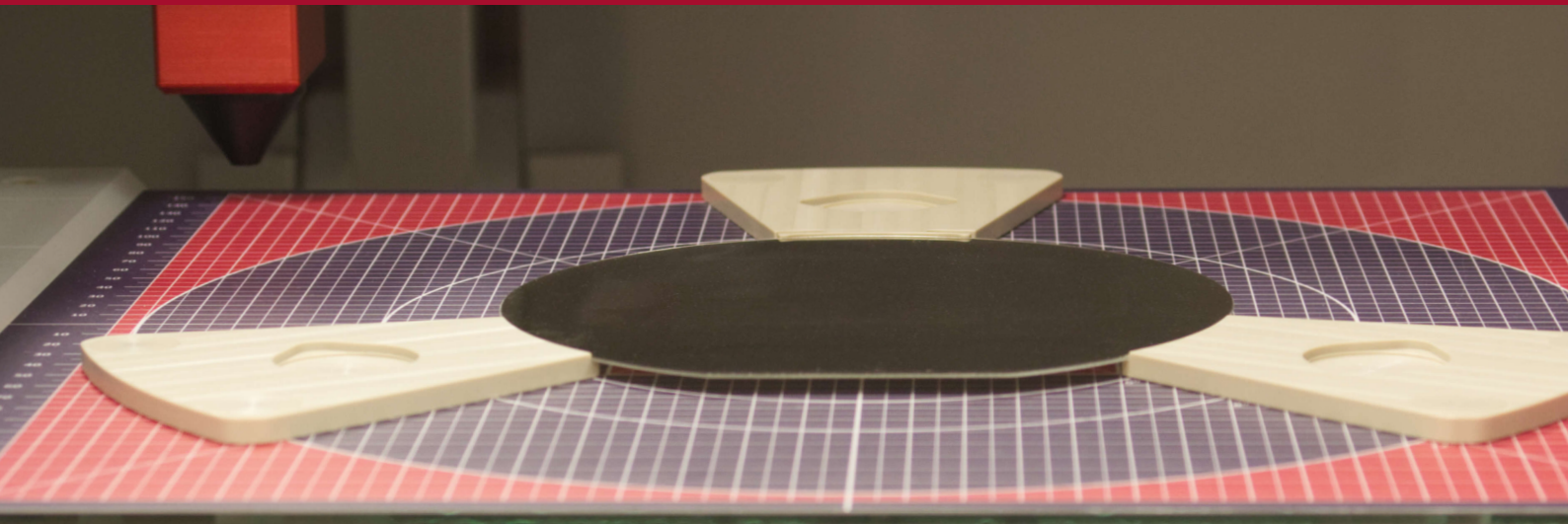
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www.suragus.com/calculator
www.suragus.com/EddyCusMap2530

Engineered and Made in Germany 





Measurement technology	Non-contact eddy current sensor
Substrates	Wafer, glass, foils etc.
Max. scanning area	12 inch / 300 mm x 300 mm (larger upon request)
Edge effect correction / exclusion	2 – 10 mm (depending on size, measurement range and requirements)
Max. sample thickness / sensor gap	3 / 5 / 10 / 25 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 (X and Y)	1 / 2.5 / 5 / 10 / 25 mm (other upon request)
Measurement points per time (square shaped samples)	100 measurement points in 0.5 minutes 10,000 measurement points in 5 minutes
Scanning time	8 inch / 200 mm x 200 mm in 1 to 10 minutes (1 – 10 mm pitch) 12 inch / 300 mm x 300 mm in 2 to 6 minutes (2.5 – 25 mm pitch)
Device dimensions (w/h/d) / weight	31.5" x 19.1" x 33.5" / 799 x 486 x 850 mm / 90 kg

	VLSR	LSR	MSR	HSR	VHSR
	6 decades are measurable by one sensor, but with slightly affected accuracy				
Range [Ohm/sq]	0.0001 – 0.1	0.1 – 10	0.1 – 100	10 – 2000	1,000 – 200,000
Accuracy / Bias		± 1%		± 1 – 3%	± 3 – 5%
Repeatability (2σ)		< 0.5%		< 1%	< 0.5%

VLSR – Very Low Sheet Resistance , LSR – Low Sheet Resistance , MSR – Medium Sheet Resistance , HSR – High Sheet Resistance , VHSR – Very High 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)

