

EddyCus® TF map 2525RM – Resistivity Imaging Device

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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

- ► Wafer resistivity imaging
- ▶ Ingot and boule resistivity imaging
- ► Sputter target composition imaging
- ► Purity assessment
- ► Electrical discharge machining
- ► Material sorting (map: homogeneity assessment)
- ► Melting, casting, sintering
- ▶ Defect imaging and integrity assessment

Materials

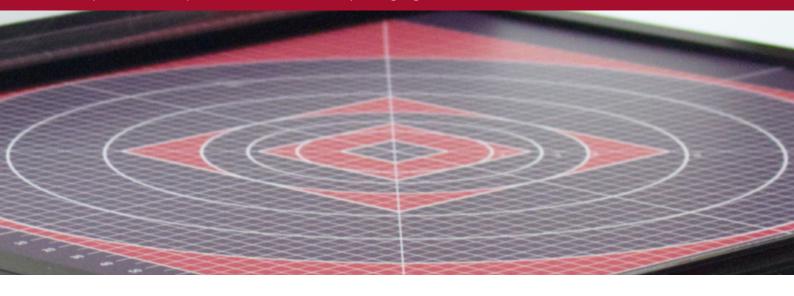
- Semiconductors
 - ► Si (mono, poly)
 - ► SiC, SiSiC
 - GaAs
- ▶ GaN
- Alloys
- Metals
- ► Graphite
- ► Graphene
- ► Compounds
- Composites

Engineered and Made in Germany





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Measurement technology	High frequency eddy current sensor
Materials	Wafer, boules, pucks, plates, thin film
Max. scanning area	10 inch / 250 mm x 250 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)
Resistivity range accuracy can be optimized within a customer specified range	0.002 – 0.1 mOhm cm 0.1 – 100 mOhm cm 100 – 1,000 mOhm cm
Sheet resistance range accuracy can be optimized within a customer specified range	Low 0.0001 – 10 Ohm / sq; 2 – 5 % accuracy Standard 0.001 – 100 Ohm / sq; 2 – 5 % accuracy
Scanning pitch	1 / 2 / 5 / 10 mm (other upon request)
Measurement points per time (square shaped samples)	100 measurement points in 5 minutes 10,000 measurement points in 5 minutes
Scanning time	4 inch / 100 mm x 100 mm in 0.5 to 5 minutes (1 $-$ 10 mm pitch) 8 inch / 200 mm x 200 mm in 1.5 to 15 minutes (1 $-$ 10 mm 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
Further available features	Metal thickness imaging, anisotropy and sheet resistance sensor

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)

