

## EddyCus® TF map 2530 C2C – Automated Sheet Resistance Tester

P\_T\_2530C2C\_20



### Highlights

- ▶ Contact-free (process wafer monitoring)
- ▶ Fast (line scan with 300 points in 1 s)
- ▶ Repeatable and accurate
- ▶ High resolution (5 to 10,000) points
- ▶ Automated wafer handling
- ▶ Customized setups

### Parameters

- ▶ Sheet resistance (Ohm/sq)
- ▶ Metal layer thickness (nm,  $\mu\text{m}$ )
- ▶ Conductivity / resistivity (mOhm cm)
- ▶ Total thickness variation ( $\mu\text{m}$ )
- ▶ Permeability (H/m)
- ▶ Defect and integrity assessment

### Applications

- ▶ Wafer characterization
- ▶ Implantation
- ▶ Doping
- ▶ Annealing / Tempering
- ▶ Deposition (PVD, CVD, plating ...)
- ▶ Etching
- ▶ Polishing
- ▶ (De)-oxidation
- ▶ Defect imaging
- ▶ Final inspection

### Materials

- ▶ Semiconductors
  - ▶ Si
  - ▶ SiC
  - ▶ GaAs
  - ▶ GaN
  - ▶ ...
- ▶ Metal films
  - ▶ Al
  - ▶ Au
  - ▶ Ti
  - ▶ ...
- ▶ Other conductive films and materials

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Engineered and Made in Germany 





|                                                              |                                                                                                                        |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Measurement technology                                       | Non-contact eddy current sensor,<br>Capacitive or confocal sensor for TTV                                              |
| Substrates                                                   | 6 / 8 inch wafer                                                                                                       |
| Cassettes                                                    | 1                                                                                                                      |
| Edge effect correction / exclusion                           | 2 – 10 mm (depending on size, range, setup and requirements)                                                           |
| Sheet resistance range                                       | 0.0001 – 100 Ohm/sq    < 1 – 3 % accuracy<br>100 – 100,000 Ohm/sq    < 1 – 5 % accuracy<br>(6 decades with one sensor) |
| Total thickness measurement                                  | 10 – 100,000 µm (optional)                                                                                             |
| Thickness measurement of metal films (e.g. Aluminum, Copper) | 2 nm – 2 mm (in accordance with sheet resistance)                                                                      |
| Measurement patterns (line scan, mapping)                    | Pitch 1 / 2 / 5 / 10 / 20 / 50 mm<br>Points 9 / 17 / 49 / 81 / 99 / 169 / 625 / .... / 10,000                          |
| Measurement time                                             | Line scans in less then 1 second<br>Multi point: 0.1 to 1 second per point                                             |
| Safety variants                                              | System protected by safety laser scanners<br>Closed system                                                             |
| Device dimensions (w/d/h)                                    | 785 mm x 1,170 mm x 666 mm / 30.91" x 46.06" x 26.22"                                                                  |
| Available features                                           | Resistivity, metal thickness, total thickness variation sensor                                                         |

Software and Handling – Sheet Resistance Analyzer 2.0

