

Data Sheet- EddyCus® TF 4040 Series

P_T_4040_11



Highlights

- ▶ Contact-free and real time
- ▶ Accurate single-point measurement
- ▶ Characterization of multilayer systems on request
- ▶ Manual mapping of sheet resistance guided by an easy-to-handle software

Parameters

- ▶ Sheet resistance (Ohm/sq)
- ▶ Metal layer thickness (nm, μm)
- ▶ Metal substrate thickness (μm)
- ▶ Anisotropy
- ▶ Defects
- ▶ Integrity assessment

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

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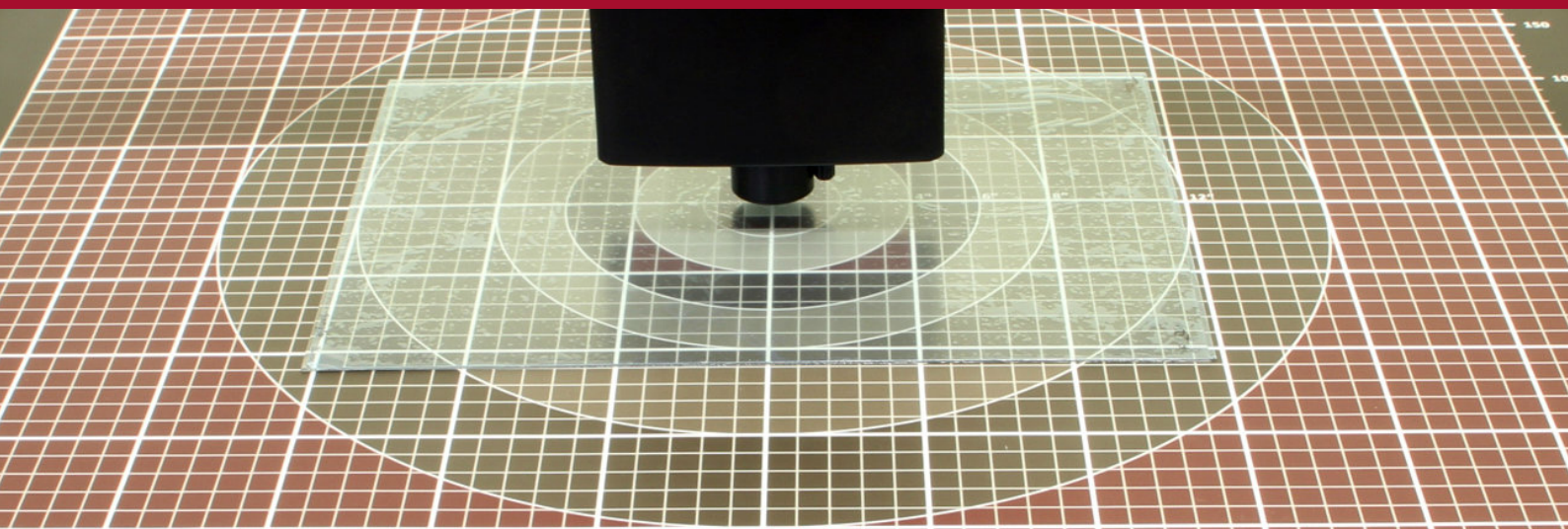
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Made and Engineered in Germany

Innovation Award by
Free State of Saxony 2013
1st Place





Sheet resistance measurement technology	Non-contact eddy current sensor
Substrates	e.g. foils, glass, wafer, etc.
Substrate area	29.5 x 25.6 inch/ 750 x 650 mm (for 400 x 400 mm samples)
Max. sample thickness/ sensor gap	1 / 2 / 5 / 10 / 25 mm (defined by the thickest sample)
Sheet resistance range accuracy can be optimized over sheet resistance decade within a customer specified range	Low 0.0001 - 10 Ohm / sq; 1 to 5 % accuracy Standard 0.01 - 1,000 Ohm / sq; 1 to 5 % accuracy High 10 - 100,000 Ohm / sq; 2 to 7 % accuracy
Thickness measurement of thin films (e.g. copper)	2 nm - 2 mm (in accordance with sheet resistance)
Device dimension (w/h/d) / weight	30 x 12 x 26 inch / 760 x 310 x 660 mm / 20 kg
Available features	Sheet resistance measurement Metal thickness tester Anisotropy sensor Optical transparency

Software and Handling - EddyCus® TF lab Control

EddyCus® TF lab Control

Status: Measuring TempOk CalOk

Configuration:

- Measurement Type: Sheet Resistance
- Sample Size: 200 mm
- Sample Thickness: 0 to 2 mm
- Measurement Range: 1 to 1000 Ω/sq
- Selected Set: 200x0.1

Data Tracker:

Id	Time	Series N.	Value	Unit
☐	1 09:49:29	Sample 1	296.4	Ω/sq
☐	2 09:50:22	Sample 2	442.9	Ω/sq
☐	3 09:51:25	Sample 3	542.2	Ω/sq
☐	4 09:52:17	Sample 4	741.8	Ω/sq
☒	5 09:53:03	Sample 5	133.4	Ω/sq

Real Time Measurement:

Sheet Resistance

325,3 Ω/sq

Mapping:

	1	2	3	4	5
1	325.3	306.7	293.3	263.5	250.9
2	307.6	307.1	294.4	263.9	253.4
3	295.9	293.4	293.3	263.4	254.2
4	264.6	263.8	262.8	265.2	254.7
5	254.3	253.8	254.1	254.2	254.4