

EddyCus® TF lab 4040MT – Metal Thickness Tester

P_T_4040MT_21



Highlights

- ▶ Contact-free and realtime
- ▶ Accurate single-point measurement
- ▶ Manual mapping guided by easy-to-handle software
- ▶ Measurement of encapsulated layers
- ▶ Characterization of multilayer materials upon request

Applications

- ▶ Semiconductor industry
- ▶ Electronic industry
- ▶ Metallization in photovoltaics
- ▶ Batteries, fuel cells, capacitors
- ▶ Boards and panels (PCB, WLP, PLP)
- ▶ Mirrors and lenses
- ▶ Barrier films
- ▶ EMC/EMI Shielding
- ▶ Heating and de-icing films
- ▶ Medical applications

Device Series

- ▶ Metal thickness (nm, μm)
- ▶ Sheet resistance (Ohm/sq)
- ▶ Emissivity
- ▶ Conductivity / resistivity (mOhm cm)
- ▶ Electrical anisotropy (%)
- ▶ Weight (g/m^2) and drying status (%)
- ▶ Permeability (H/m) Beta
- ▶ Transmittance, reflectance, haze

Materials

- ▶ Metal films
- ▶ Metal meshes
- ▶ Metal substrates
- ▶ Alloy films
- ▶ Alloy substrates

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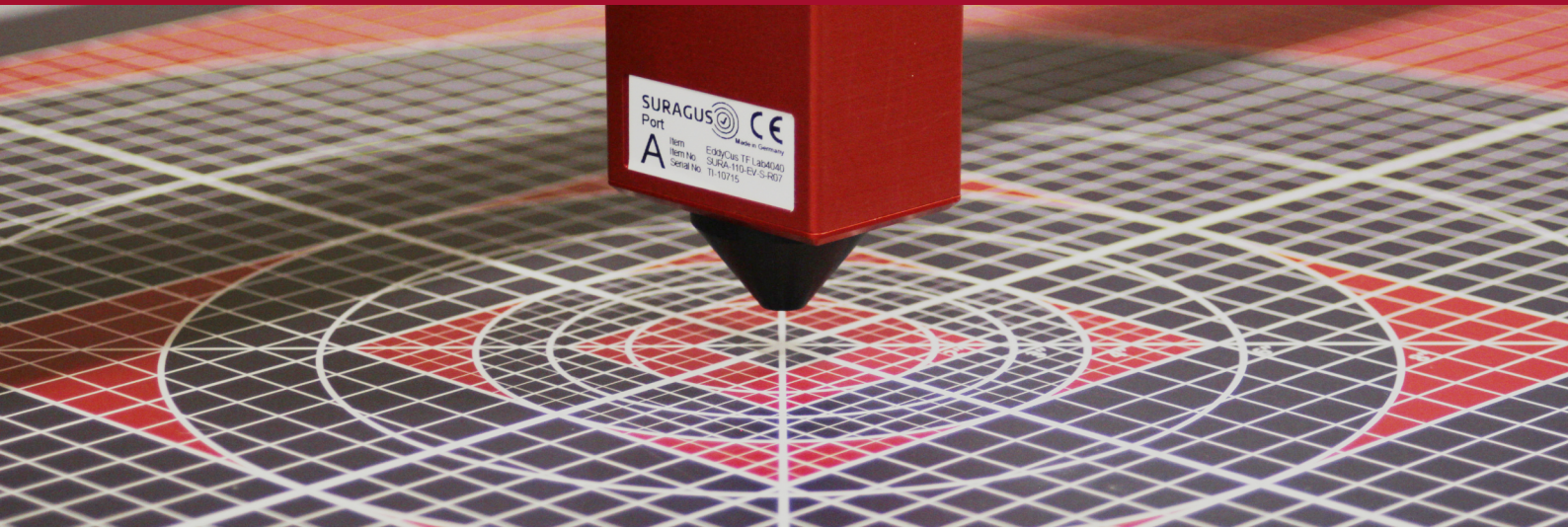
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www.suragus.com/calculator
www.suragus.com/EddyCusLab4040

Engineered and Made in Germany 





Measurement technology	Non-contact eddy current sensor
Substrates	Foil, glass, wafer, etc.
Substrate area	29.5" x 25.6" / 750 mm x 650 mm (for 400 mm x 400 mm samples)
Max. sample thickness/ sensor gap	3 / 5 / 10 / 25 mm (defined by the thickest sample)
Metal thickness range	Low 1 – 10 nm; 2 – 5 % accuracy
Accuracies depend on the selected setup and the type / conductivity of the metal (e.g. copper, aluminum, silver)	Standard 10 – 1,000 nm; 1 – 3 % accuracy High 1 – 100 μm; 0.5 – 3 % accuracy
Metal thickness calibration	Direct thickness calibration / sheet resistance conversion
Device dimensions (w/h/d) / weight	30" x 12" x 26" / 760 mm x 310 mm x 660 mm / 20 kg
Further available features / other tool configurations	Sheet resistance measurement / conductivity / resistivity / emissivity / permeability (<i>beta</i>) / electrical anisotropy / optical transmittance / optical reflectance / haze

Device Control and Software

Thickness
2.11 μm

Mapping

	1	2	3	4	5	6
1	2.12e-6	2.11e-6	2.12e-6	2.11e-6	2.11e-6	2.11e-6
2	2.10e-6	2.10e-6	2.10e-6	2.10e-6	2.10e-6	2.10e-6
3	2.11e-6	2.11e-6	2.12e-6	2.11e-6	2.11e-6	2.15e-6
4	2.13e-6	2.11e-6	2.10e-6	2.11e-6	2.11e-6	2.11e-6
5	2.11e-6	2.11e-6	2.12e-6	2.11e-6		
6						

Data Tracker

Id	Time	Thickness
1	1:33:06	2.11e-06
2	1:33:10	2.13e-06
3	1:33:14	2.12e-06
4	1:33:18	2.11e-06
5	1:33:23	2.11e-06
6	1:33:27	2.13e-06
7	1:33:31	2.11e-06
8	1:33:35	2.13e-06
9	1:33:40	2.10e-06
10	1:33:44	2.11e-06
11	1:33:48	2.13e-06
12	1:33:52	2.12e-06
13	1:33:57	2.11e-06
14	1:34:01	2.13e-06
15	1:34:05	2.10e-06