

EddyCus[®] lab 2020MT – Metal Thickness Tester

P_2020MT_23



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*

Materials

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

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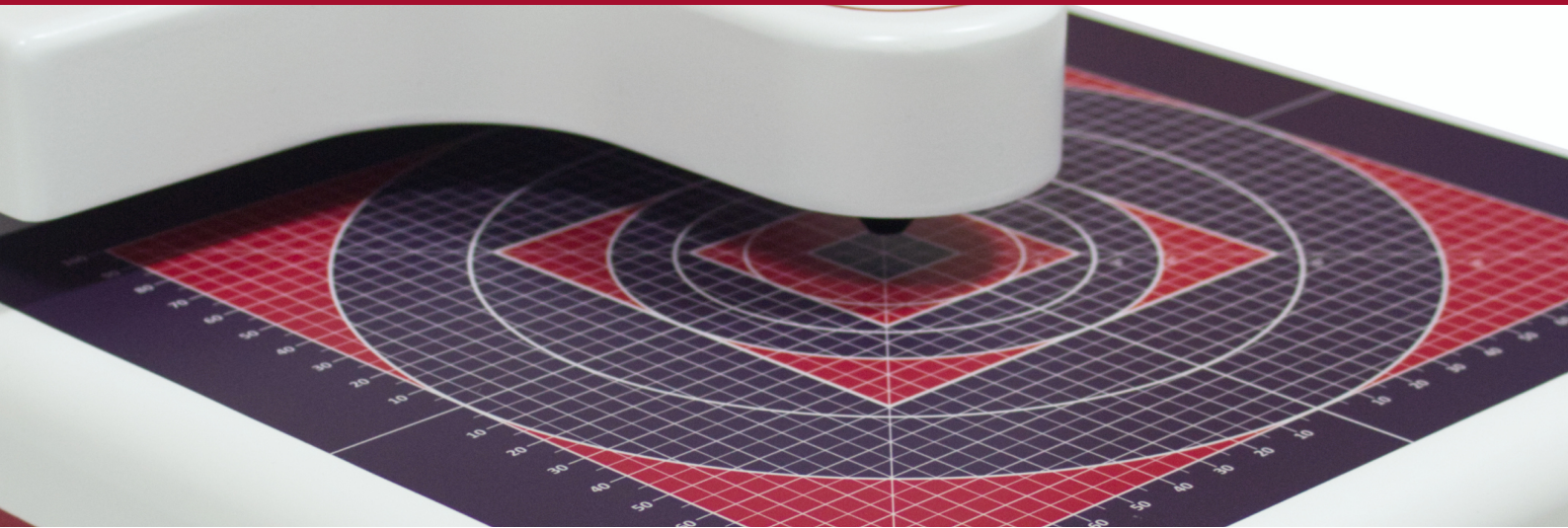
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Engineered and Made in Germany 





Measurement technology	Non-contact eddy current sensor
Substrates	Foil, glass, wafer, etc.
Substrate area	8 inch / 204 mm x 204 mm (open on three sides)
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	11.4" x 5.5" x 17.5" / 290 mm x 140 mm x 445 mm / 10 kg
Further available features / other tool configurations	Sheet resistance measurement / conductivity / resistivity / electrical anisotropy / permeability (beta)

Device Control and Software

The software interface includes several key components:

- Main Display:** Shows the current thickness measurement as **2.11 μm**. It includes a 'Measuring' status indicator, 'TempOk' and 'CalOk' buttons, and a 'Unit Standard' checkbox.
- Mapping Window:** A 6x6 grid used for spatial mapping of measurements. Values are displayed in scientific notation (e.g., 2.12e-6). Instructions indicate that left mouse clicks move the selection, and right mouse clicks overwrite cell values.
- Data Tracker:** A table listing measurement series. The 'Series Name' is 'Coating T'. The table includes columns for 'Id', 'Time', and 'Coating...'.

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