

More than 100 years ago, the “4-point-probe method” became the standard for precision resistivity measurements. BUT:

*Every 4-point measurement projects the resistivity tensor of the specimen onto a single resistance value.*

*4-point measurements are limited by the exact determination of specimen geometry.*

*Measurement results change when contacts drift.*

**Tensormeter solves this challenge by measuring the Resistivity Tensor, which makes measurements resilient against geometry changes and provides greater precision.**

- Tensormeter replaces all standard devices for electrical characterization measurements (e.g. Lock-in amplifier, SMU, DMM)
- Tensormeter overcomes the limitations of conventional 4-point measurements by simultaneously measuring all Resistivity Tensor components ( $R_x$ ,  $R_y$ ,  $R_H$ ) in one run
- Tensormeter makes complex sample preparation unnecessary (e.g. lithographic structuring)
- Tensormeter allows for easy connectivity to many different measurement setups (e.g. probe stations, cryostats, vacuum systems)
- Tensormeter saves measuring time and enhances sample throughput

**Tensormeter is set to replace existing devices today and become the new standard for resistance measurements tomorrow.**

One Device and One Measurement Is All You Need

DC and AC measurements

8 digits continuous dynamic range

Ultra-low noise, high precision and stability

Nano-Ohms to Giga-Ohms

Integrated switching matrix

Harmonic distortion measurements

Ratiometric measurements

Succeeds SMU and Lock-In amplifiers

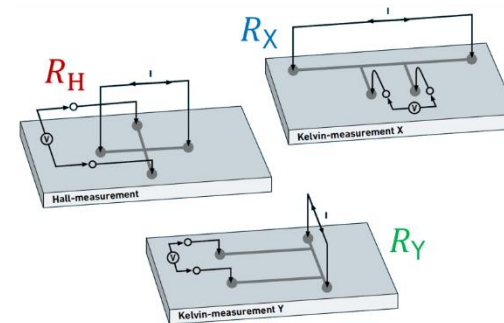
High-Tech Electronic Materials R&D

Study subtle effects like anisotropies of resistivity or anomalous Hall resistivity with high precision and lowest noise: semiconductors, magnetic materials, flexible electronics, spintronics, memories.

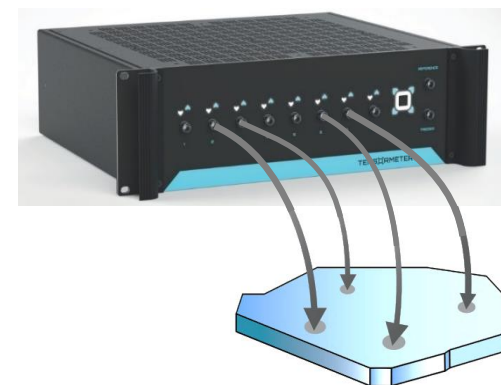
Improved Wafer and Device Testing

Speed up quality testing of wafers and devices: Tensormeter provides 2-times faster measurements compared to conventional testing at the same precision and contact count.

Conventional 4-point-probe measurements require several layouts and sophisticated sample preparation:



**Tensormeter measurements require only one device and one sample layout for complete characterization:**



- ✓ one simple 4-wire measurement
- ✓ no lithographic sample structuring
- ✓ complete Tensor measurement
- ✓ easy integration in your set-up
- ✓ replaces all standard devices