PURDUE INNOVATES | Office of Technology Commercialization

Causal Multi-Oscillator Impedance Fitting Tool

This new measurement method provides a more accurate, cost-effective, and easier way to measure broadband impedance by reducing the test domain size and lowering simulation costs.

Currently, measuring broadband impedance has been limited to single-oscillators which may not even make the impedance available. Using a single-oscillator is also almost always inaccurate. It is also measured through theoretical models but these are all approximated and not exact. Impedance can be measure by experiments as well. This method is expensive and challenging. There is a need for an easier, cheaper, and more accurate way to measure impedance.

Researchers at Purdue University have developed a new method for measuring broadband impedance. Their method reduces the domain size of the test. This also helps bring down the overall cost of the simulations to measure the impedance. The lower cost allows for more testing to measure the broadband impedance. This new method is also more accurate than any of the current methods available. This method is easier, cheaper, and more accurate than any of the current available methods.

Advantages:

-Reduce domain size

-Cheaper

-More accurate

Potential Applications:

-Oscillators

-Broadband impedance

TRL: 3

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Category

Semiconductors/Devices & Components

Materials Science & Nanotechnology/Materials

Testing & Characterization Tools

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Intellectual Property:

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