



For Immediate Release

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Datest Brings an Underused PCB Testing Tool Into the Spotlight at SMTA International 2026



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Some PCB failures practically introduce themselves. Others make engineers spend hours staring at a board wondering,

“Okay... now what?” At SMTA International 2026, Datest Senior Test Engineer Matt B. Turpin will take a closer look at one testing methodology that may deserve a little more attention: Nodal Impedance Testing.

Matt’s presentation, “Flying Probe Nodal Impedance Testing: History, Implementation, Use and Results,” will examine the theory, history, implementation and practical use of Nodal Impedance Testing on modern multilayer printed circuit assemblies, including its role in both production testing and troubleshooting.

The problem? Nodal Impedance Testing is available on modern flying probe systems, but it remains relatively unknown and rarely used. The opportunity? When implemented properly, it can help engineers identify conditions that traditional testing may not immediately explain. And sometimes those unexplained failures get interesting.

During the presentation, Matt will explore how changes in impedance and capacitance can point engineers toward issues including incorrect components, open solder connections, component orientation problems, damaged I/O pins and other board-level conditions.

Because sometimes a board passes one test, fails the next, and gives you absolutely no explanation.

Nodal Impedance Testing helps get closer to the question that actually matters: Why?

For complex PCBs, Nodal Impedance Testing can help engineers narrow down faults faster, reduce troubleshooting time and, in some cases, recover boards that may otherwise be written off as unrepairable.

It’s not the answer for every board, but when used in the right application, it can help move the conversation from “it failed” to “here’s what failed.”

Matt will present on Tuesday, October 27, from 2:30–3:00 PM in Room 48 at SMTA International 2026.



About Datest

Based in Fremont, California, Datest has been a trusted partner in the electronics industry since 1984. With a commitment to speed and flexibility, Datest offers a comprehensive suite of advanced testing, engineering, inspection, and failure analysis services designed to meet each client's unique needs. Datest proudly serves contract manufacturers (CMs), EMS providers, and OEMs, delivering advanced PCBA testing and inspection services focused on quality and reliability. As an ISO 9001:2015 and AS9100D-certified company, Datest is dedicated to helping you achieve success with solutions you can depend on.

For more information, **visit www.datest.com**