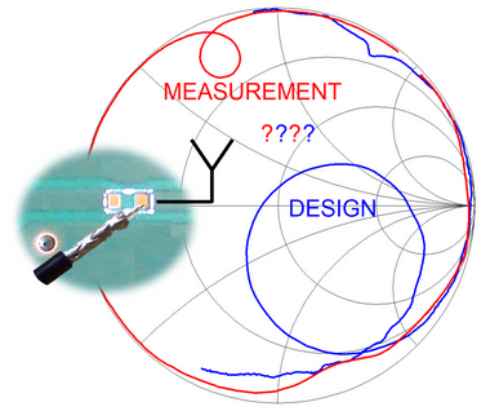
Phase-accurate on-board S-parameter measurements using pigtails up to 8.5 GHz



Abstract

Join our workshop to explore the intricacies of antenna impedance measurements on PCBs. Influences like board ground shape and enclosures affect antenna impedance and the design of matching circuits, necessitating unique circuits for each application. What is generally needed is phase-accurate measurements at specific board locations. Commonly used traditional methods suffice below 2.5 GHz, but their accuracy wanes above 4 GHz. We introduce an innovative calibration kit and pigtail-based measurement approach, allowing precise on-board impedance measurements up to 8.5 GHz. Your application might be UWB, 6 GHz WLAN or mobile communication high bands – this workshop certainly brings you new ideas!

Speakers

Dr. Jaakko Juntunen has extensive experience spanning 25 years in the RF EDA industry, where he has held diverse technical and commercial roles. In the past decade at Optenni Ltd., he concentrated on electrically small antennas and developed techniques and computational methods to optimize their performance. Responding to the challenges presented by emerging commercial wireless applications at frequencies above 4 GHz, particularly the accurate measurement of antenna responses on printed circuit boards, he established Dicaliant Ltd. in 2023. This venture aims to commercialize his innovations focused on the accurate calibration of pigtails for on-board measurements.

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