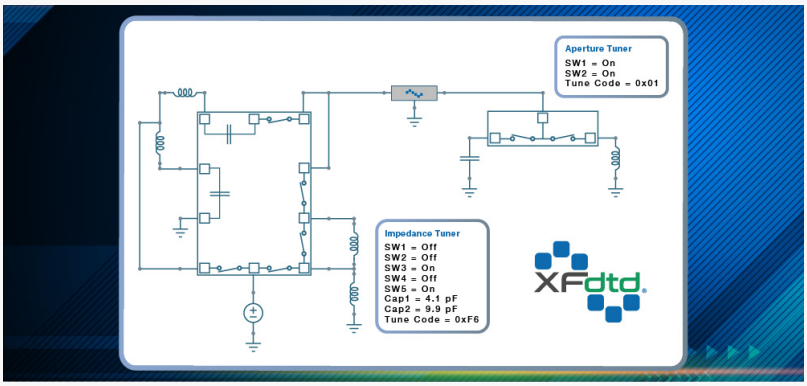
Remcom Announces Schematic Optimization for Matching Network Design in XFdtd EM Simulation Software

XFdtd, now fully featured with schematic optimization, offers a comprehensive solution for all phases of antenna design.

Remcom Electromagnetic Simulation Software



XFdtd offers a comprehensive solution for all phases of antenna design.

STATE COLLEGE, PA, USA, June 19, 2024 /EINPresswire.com/ -- Remcom announces schematic optimization in the latest release of XFdtd® 3D Electromagnetic Simulation Software, substantially expediting the process of determining an optimal solution for matching network designs. The release also adds tune codes to support impedance and aperture tuner applications. These enhancements expand XFdtd's toolset for analyzing matching and corporate feed networks, providing a robust solution for all phases of an antenna design workflow.

The optimization capability in XFdtd's schematic editor calculates and reveals the ideal component property values and operating modes that fulfill user-defined matching network design goals, including system efficiency for antennas. The variables in a goal definition may be configured in innumerable combinations to arrive at peak performance. In contrast to manually solving using the tuning slider bars in the schematic editor's analysis workbench, optimization eliminates a potentially overwhelming task for very complex systems containing multiple switches and capacitors by providing a software-generated solution.

The release also includes subcircuit analysis in the schematic editor and the ability to retrieve tune codes based on desired switch states. As switch states are manipulated, XFdtd updates the corresponding tune code. Alternatively, a known tune code may be entered and the software will adjust the switch states accordingly for that particular tune code. This autofill functionality eliminates the need to transcribe data from external tables, thereby removing a point of error when determining how a particular state corresponds to a given value.

> Components like impedance tuners complicate the path to arrive at the antenna's optimal settings. The schematic editor eases these challenges by eliminating time-consuming and manual effort."
>
> *Jeff Barney, XFdtd product manager*

Jeff Barney, XFdtd product manager, said, "The cornerstone of the XFdtd roadmap is to support engineers designing increasingly complex devices with as many efficiencies as possible. Sophisticated components like impedance tuners enable devices to operate in multiple bands, but they also complicate the path to arrive at the antenna's optimal settings. The schematic editor eases these challenges by eliminating time-consuming and manual effort."

For more information on the latest release of XFdtd, please visit Remcom's website. XFdtd users without an active Remcom Professional Support contract can upgrade to the latest version by contacting sales.

About Remcom: For 30 years, Remcom has provided innovative electromagnetic simulation and wireless propagation software for commercial users and U.S. government sponsors. Our innovative software tools, combined with exceptional support, have enabled the world's most advanced engineering teams to deliver their devices to market by simplifying EM analysis for a wide variety of applications. Remcom is committed to its customers' unique needs, offering flexible licensing options for installations of all sizes as well as custom-engineered solutions.

Stefanie Lucas
Remcom
+1 814-861-1299
email us here
Visit us on social media:
Facebook
X
LinkedIn
YouTube