

- PRESS RELEASE -
CST and Optenni demonstrate
MIMO antenna optimization tools

Darmstadt, Germany and Espoo, Finland, October 2, 2013, CST - Computer Simulation Technology AG (CST) and Optenni Ltd (Optenni) are collaborating to provide engineers with design tools for MIMO antenna optimization. These tools for multiport matching will be demonstrated at European Microwave Week (EuMW) 2013, booth #103, and in a free webinar on October 24.

Multiple input, multiple output (MIMO) antennas are a fundamental part of many next-generation communication standards, promising high data rates and good reliability in multipath environments. Miniaturization and antenna diversity mean that designing efficient MIMO antenna systems can be difficult. For this reason, CST and Optenni are working to improve the design flow for MIMO systems and make it easier for engineers to optimize their MIMO designs.

Multiport matching in Optenni Lab 2.0

Matching circuits are a useful tool for improving the efficiency of antennas. The best MIMO matching circuit is not simply the one that provides the best impedance match, but which balances this against losses in the circuit and parasitic coupling between the MIMO antennas. The latest release of Optenni Lab, the matching circuit synthesis tool from Optenni, provides a straightforward design flow for multiport antenna design. The engineer need only enter the operation frequency ranges of the antennas and the desired number of matching components on each of the matching circuits. Optenni Lab then proposes multiple optimized matching circuit combinations suitable for the system at hand. Optenni staff will be demonstrating and discussing this workflow at EuMW as part of the CST booth presentation program. The presentation will be held at 14:30, Wednesday 9th October at the CST stand, #103.

CST webinar on MIMO antenna simulation

The electromagnetic simulation tools in CST STUDIO SUITE® can be used alongside Optenni Lab to design and characterize MIMO antenna systems. Antennas can be modeled not only in isolation but also in a realistic environment, with full farfield properties calculated. This is especially useful for antennas in close proximity to the body. Built-in post-processing methods allow MIMO-relevant quantities such as envelope correlation, diversity gain and multiplexing efficiency to be calculated automatically.

To demonstrate the specialized features available for MIMO analysis, CST is offering a free webinar to be held at 17:00 (CET), October 24th. This webinar will also showcase the two-way link between CST MICROWAVE STUDIO® and Optenni Lab, allowing the simulated antenna impedance data to be exported into Optenni Lab for matching circuit generation. For more information and to register, please see <http://www.cst.com/webinar/13-10-24/>

About CST

CST develops and markets high performance software for the simulation of electromagnetic fields in all frequency bands. Its success is based on the implementation of leading edge technology in a user-friendly interface. CST's customers are market leaders in industries as diverse as Telecommunications, Defense, Automotive, Electronics, and Medical Equipment. Today CST employs 210 sales, development, and support personnel, and enjoys a leading position in the high frequency 3D EM simulation market.

CST STUDIO SUITE is the culmination of many years of research and development into the most accurate and efficient computational solutions for electromagnetic designs. From static to optical, and from the nanoscale to the electrically large, CST STUDIO SUITE includes tools for the design, simulation and optimization of a wide range of devices. Analysis is not limited to pure EM, but can also include thermal and mechanical effects and circuit simulation. CST STUDIO SUITE can offer considerable product to market advantages such as shorter development cycles, virtual prototyping before physical trials, and optimization instead of experimentation.

Further information about CST is available on the web at www.cst.com.

About Optenni Ltd

Optenni Ltd develops and markets the easy-to-use Optenni Lab matching circuit generation and antenna analysis software. Optenni Lab features e.g. fast fully automatic matching circuit generation and optimization, simultaneous multiport matching and antenna bandwidth estimation routines. Optenni Lab includes many unique innovative features such as bandwidth potential and electromagnetic isolation calculations that are not found in any other software. Optenni Lab speeds up the antenna design process and helps to design antennas with optimal total performance.

Further information is available at www.optenni.com.

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