

Abstracts

FDTD Analysis of an Active Antenna (Sep. 1994 [MGWL])

V.A. Thomas, K.-M. Ling, M.E. Jones, B. Toland, J. Lin and T. Itoh. "FDTD Analysis of an Active Antenna (Sep. 1994 [MGWL])." 1994 Microwave and Guided Wave Letters 4.9 (Sep. 1994 [MGWL]): 296-298.

Coupled FDTD-SPICE simulations are performed for an active antenna problem. The results are comparable to previously published results using FDTD in conjunction with special integration techniques for the nonlinear elements. Some differences occur, and better agreement with experiment is observed for our newer approach. The main advantages are that all of the SPICE device models are directly available for FDTD modeling and the efficient SPICE integration schemes can be used directly. No user intervention is required for either the device models or the integration schemes.

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