Abstracts

Comparison of the efficiency of electromagnetic solvers in the time- and frequency-domain for the accurate modeling of planar circuits and MEMS

L. Pierantoni, M. Farina, T. Rozzi, F. Coccetti, W. Dressel and P. Russer. "Comparison of the efficiency of electromagnetic solvers in the time- and frequency-domain for the accurate modeling of planar circuits and MEMS." 2002 MTT-S International Microwave Symposium Digest 02.2 (2002 Vol. II [MWSYM]): 891-894 vol.2.

In this contribution we present an accurate investigation of three different techniques for the modeling of complex planar circuits. The EM analysis is performed by means of different electromagnetic full-wave solvers in the time-domain and in the frequency-domain. The first one is the transmission line matrix (TLM) method. In the second one the TLM method is combined with the integral equation (IE) method. The latter is based on the generalized transverse resonance diffraction (GTRD). In order to test the methods we model different structures and compare the calculated S-parameters to measured results, with good agreement.

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