Abstracts

EM-based multidimensional parameterized modeling of general passive planar components

T. Dhaene, J. De Geest and D. De Zutter. "EM-based multidimensional parameterized modeling of general passive planar components." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 1745-1748 vol.3.

A new adaptive algorithm is presented for building multidimensional parameterized analytical models for general passive planar components. The component models are based on multiple full-wave electromagnetic (EM) simulations. The modeling accuracy level is chosen by the user. Models can be generated for arbitrary geometries and substrates, and they can be easily implemented and used in commercial circuit simulators. The adaptive model generation process is an up-front time investment and requires multiple EM simulations. The model extraction provides EM-accuracy and generality at traditional circuit simulation speed.

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