Abstracts

A magnetic current formulation for modelling discrete components using the FDTD method

R. Gillard, K. Moustadir, F. Le Bolzer and J. Citerne. "A magnetic current formulation for modelling discrete components using the FDTD method." 1997 MTT-S International Microwave Symposium Digest 1. (1997 Vol. I [MWSYM]): 71-74.

A new formulation is proposed to simulate discrete components using the FDTD method. It uses the equivalence principle to replace the volume occupied by a component with its equivalent circuit. The actual size of the component can so be taken into account without performing any microscopic modelling. The parasitic elements traditionally associated with lumped representations are also suppressed.

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