

Abstracts

A contribution to the modeling of longitudinally periodic waveguides by the help of the TLM method

M. Walter, O. Pertz and A. Beyer. "A contribution to the modeling of longitudinally periodic waveguides by the help of the TLM method." 2000 Transactions on Microwave Theory and Techniques 48.9 (Sep. 2000 [T-MTT] (Mini-Special Issue on Research Reported at the 8th Topical Meeting on Electrical Performance of Electronic Packaging (EPEP) 1999)): 1574-1576.

To efficiently simulate longitudinally periodic waveguide, the Floquet's theorem is implemented to modify the transmission-line matrix (TLM) algorithm. In the literature, similar algorithms are presented for the finite-difference time-domain method and fundamental problems are addressed. The aim of this paper is to explain and solve these problems and misunderstandings and to extend the approach to the TLM method. Simulation results show the validity of the technique proposed.

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