Abstracts

On the Relationship Between TLM and Finite-Difference Methods for Maxwell's Equations (Comments)

W.K. Gwarek. "On the Relationship Between TLM and Finite-Difference Methods for Maxwell's Equations (Comments)." 1987 Transactions on Microwave Theory and Techniques 35.9 (Sep. 1987 [T-MTT]): 872-873.

In the above paper, Mr. Johns compares the finite-difference time-domain (FD-TD) and transmission-line matrix (TLM) methods and concludes that: In the three-dimensional TLM method operated in the above way, there are three field quantities available at each shunt and series node, This, for example, allows the boundary description for TLM to be twice as fine as for finite differences. In two dimensions, If boundaries are described only at nodes as in finite differences, the incident pulses need only be at alternate nodes at any instant. Thus, an average of two stores for link lines, not four, is required at each node.

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