

Abstracts

On the Dispersion in TLM and FDTD (Short Papers)

M. Krumpholz and P. Russer. "On the Dispersion in TLM and FDTD (Short Papers)." 1994 Transactions on Microwave Theory and Techniques 42.7 (Jul. 1994, Part I [T-MTT]): 1275-1279.

The dispersion relations of a two-dimensional TLM mesh and a three-dimensional TLM mesh with condensed symmetric nodes are calculated. For the calculation of the TLM dispersion relations, we use a generalized method which can be applied to any TLM node described by square scattering and propagation matrices of equal dimension. Introducing the FDTD Hilbert space representation, it is shown that the method is closely related to the method of calculating FDTD dispersion relations.

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