Abstracts

A New Frequency-Domain TLM Algorithm Using a Decoupled Symmetrical Condensed Node

J. Huang, R. Vahldieck and H. Jin. "A New Frequency-Domain TLM Algorithm Using a Decoupled Symmetrical Condensed Node." 1994 MTT-S International Microwave Symposium Digest 94.3 (1994 Vol. III [MWSYM]): 1535-1538.

This paper describes a new algorithm for the frequency-domain TLM (FDTLM) method. The conventional 12-port symmetrical condensed node (SCN) utilized in the past to construct the FDTLM algorithm is decoupled into a pair of independent 6-port nodes. Based upon the properties of decoupled nodes, a new decoupled algorithm for the entire FDTLM network is derived. As a result of this, the memory space requirements of the FDTLM is reduced significantly and the savings in CPU-time is more than 50 percent.

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