

Abstracts

Group and Phase Velocities in the TLM-Symmetrical-Condensed Node Mesh

J.A. Morente, G. Gimenez, J.A. Porti and M. Khalladi. "Group and Phase Velocities in the TLM-Symmetrical-Condensed Node Mesh." 1994 *Transactions on Microwave Theory and Techniques* 42.3 (Mar. 1994 [T-MTT]): 514-517.

This paper presents the analytical expressions of group and phase velocities as a function of frequency in the TLM-symmetrical-condensed node mesh for the three fundamental directions. The direction [1, 1, 1] happens to be more dispersive than the directions [1, 1, 0] and [1, 0, 0], giving the TLM-symmetrical-condensed formulation dispersion characteristics similar to those of the FD-TD algorithm with a Courant number of $1/\sqrt{3}$.

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