

Abstracts

A generalized approach to wide-band S-parameter extraction from FD-TD simulations applicable to evanescent modes in inhomogeneous guides

W.K. Gwarek and M. Celuch-Marcysiak. "A generalized approach to wide-band S-parameter extraction from FD-TD simulations applicable to evanescent modes in inhomogeneous guides." 2001 MTT-S International Microwave Symposium Digest 01.2 (2001 Vol. II [MWSYM]): 885-888 vol.2.

In this paper we introduce a new method of S-parameter extraction from time domain electromagnetic simulations. The method can be effectively applied to wideband analyses in a multi-mode environment including evanescent modes. We show that the new method must be based on a proper choice of the definition of the S-matrix, and we discuss somewhat unusual properties of such matrices for evanescent modes.

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