Abstracts

A Generalized Method for Distinguishing Between Radiation and Surface-Wave Losses in Microstrip Discontinuities

T.-S. Horng, S.-C. Wu, H.-Y. Yang and N.G. Alexopoulos. "A Generalized Method for Distinguishing Between Radiation and Surface-Wave Losses in Microstrip Discontinuities." 1990 Transactions on Microwave Theory and Techniques 38.12 (Dec. 1990 [T-MTT] (1990 Symposium Issue)): 1800-1807.

A generalized method for calculating both radiation and surface-wave losses is developed for microstrip discontinuities. The losses are determined by a rigorous Poynting vector analysis where the current distribution over all the microstrip discontinuities is a result of a full-wave moment method solution. A self-consistency check of the results based on power conservation is performed to confirm the numerical results. It is found that above a certain frequency, the surface-wave loss becomes more important than the radiation loss.

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