Abstracts

A Generalized Method for the Distinction of 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 the Distinction of Radiation and Surface-Wave Losses in Microstrip Discontinuities." 1990 MTT-S International Microwave Symposium Digest 90.3 (1990 Vol. III [MWSYM]): 1055-1058.

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 the entire microstrip discontinuities is a result of a full-wave moment method solution. It is found that above a certain frequency, the surface-wave loss becomes more important than the radiation loss. A self-consistency check of the results based on power conservation is also presented.

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