Abstracts

Mode Conversion and Leaky-Wave Excitation at Open-End Coupled-Microstrip Discontinuities (Sep. 1995, Part I [T-MTT])

J.L. Cina and L. Carin. "Mode Conversion and Leaky-Wave Excitation at Open-End Coupled-Microstrip Discontinuities (Sep. 1995, Part I [T-MTT])." 1995 Transactions on Microwave Theory and Techniques 43.9 (Sep. 1995, Part I [T-MTT]): 2066-2072.

The method of moments (MoM) is used to study mode conversion and leaky-wave excitation at an asymmetric coupled-microstrip discontinuity. The results show that significant mode conversion can occur at such discontinuities and that dominant leaky-wave modes can be excited strongly. Numerical issues with regard to the MoM analysis of such discontinuities are addressed as well, and for some examples it is shown that inclusion of a complete-domain basis function for the leaky mode improves numerical stability dramatically.

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