

Abstracts

The Effect of Complex Modes at Finline Discontinuities

A.S. Omar and K.F. Schunemann. "The Effect of Complex Modes at Finline Discontinuities." 1986 Transactions on Microwave Theory and Techniques 34.12 (Dec. 1986 [T-MTT] (1986 Symposium Issue)): 1508-1514.

The effect of ignoring complex modes on the solution of finline discontinuity problems is investigated. It is shown that the modal energy distribution at both sides of the discontinuity may be greatly affected by overlooking complex modes, even if they are not strongly excited. It is also shown that disregarding only one mode of a pair of complex modes, while taking the other into account, results in a contradiction to the principle of complex power continuity across the discontinuity plane. Comparison to measured data is also given to justify the validity of the numerical results.

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