Abstracts

Even- and Odd-Mode Impedances of Coupled Elliptic Arc Strips (Short Papers)

B.N. Das and K.V.S.V.R. Prasad. "Even- and Odd-Mode Impedances of Coupled Elliptic Arc Strips (Short Papers)." 1984 Transactions on Microwave Theory and Techniques 32.11 (Nov. 1984 [T-MTT]): 1475-1479.

A derivation of the expression for even- and odd-mode impedances of coupled elliptic arc strips between grounded, confocal elliptic cylinders, and above a grounded elliptic cylinder, symmetrically located with the minor axis, is presented. The analysis is based on TEM-mode approximation. Green's function formulation is used to obtain variational expressions for the even-and odd-mode capacitances for the more general case of different dielectrics on the two sides of the coupled strips. Numerical results are presented for coupled elliptic and circular cylindrical arc strips. It is also shown that the formulation can be used to find the effect of environmental changes on an otherwise planar structure.

❑ Return to main document.