Abstracts

Design Parameters of Inhomogeneous Asymmetric Coupled Transmission Lines (Short Papers)

N.A. El-Deeb, E.A.F. Abdallah and M.B. Saleh. "Design Parameters of Inhomogeneous Asymmetric Coupled Transmission Lines (Short Papers)." 1983 Transactions on Microwave Theory and Techniques 31.7 (Jul. 1983 [T-MTT]): 592-596.

The parameters of asymmetric coupled lines in an inhomogeneous medium (mode numbers and mode impedances) are derived in terms of self and mutual static capacitances of the system in the filled and empty structures. These capacitances are computed by using the network analog method. The effect of dispersion is accounted for by introducing an approximate dispersion model. A set of design curves for different geometric configurations are presented which can help in the design of couplers and filters. The obtained numerical results, taking into consideration the dispersion effect, were found to be in a good agreement with the only available published data.

❑ Return to main document.