Abstracts

The Equivalent Circuit of the Asymmetrical Series Gap in Microstrip and Suspended Substrate Lines (Short Papers)

N.H.L. Koster and R.H. Jansen. "The Equivalent Circuit of the Asymmetrical Series Gap in Microstrip and Suspended Substrate Lines (Short Papers)." 1982 Transactions on Microwave Theory and Techniques 30.8 (Aug. 1982 [T-MTT]): 1273-1279.

The microwave properties of the series gap in microstrip and suspended substrate lines with unequal widths of the involved lines are described by means of suitable equivalent circuit data. These data have been computed using a rigorous three-dimensional spectral domain hybrid-mode approach developed by Jansen for the numerical characterization of the frequency-dependent scattering parameters of a wide class of strip and slot discontinuities. The results presented extend considerably the range of published gap data. In particular, they show that the stray-susceptances in the equivalent pi-network of the asymmetric series gap exhibit an inductive behavior for the case of tight coupling.

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