

Abstracts

A Rigorous Study of Microstrip Crossovers and Their Possible Improvements

T.-S. Horng. "A Rigorous Study of Microstrip Crossovers and Their Possible Improvements." 1994 Transactions on Microwave Theory and Techniques 42.9 (Sep. 1994, Part II [T-MTT]): 1802-1806.

A theoretical study of microstrip crossovers is presented. For an air-bridge interconnect in a crossover configuration, the equivalent circuit examined exhibits low-pass filter characteristics. To reduce the return loss in the passband, insertion of discrete shunt capacitors is proposed and investigated. These shunt capacitors are treated as linear lumped elements and connected by via-holes of rectangular cross section. It is emphasized that air-bridges, via-holes and lumped elements used in this particular application are all rigorously included in a full-wave spectral-domain analysis.

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