Abstracts

Characterization of a 90° Microstrip Bend with Arbitrary Miter via the Time-Domain Finite Difference Method

J. Moore and H. Ling. "Characterization of a 90° Microstrip Bend with Arbitrary Miter via the Time-Domain Finite Difference Method." 1990 Transactions on Microwave Theory and Techniques 38.4 (Apr. 1990 [T-MTT]): 405-410.

A 90° microstrip bend with an arbitrary miter is characterized using the finite difference time-domain (FDTD) method. To simplify computations, the microstrip structure is enclosed by four electric walls; thus radiation effects are neglected. Time histories generated by FDTD are Fourier-transformed to yield broad-band S parameters of the microstrip bend. A miter is introduced to improve the transmission characteristics of the bend, and an optimal miter length is found such that the reflection from the microstrip bend over a broad frequency range is minimized.

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