Abstracts

A Spectral-Domain Analysis of Periodically Nonuniform Microstrip Lines

F.J. Glandorf and I. Wolff. "A Spectral-Domain Analysis of Periodically Nonuniform Microstrip Lines." 1987 Transactions on Microwave Theory and Techniques 35.3 (Mar. 1987 [T-MTT]): 336-343.

Periodically nonuniform microstrip lines are analyzed on the basis of a numerical field calculation. Floquet's theorem is used to express all field quantities in terms of their spatial harmonics, so that the problem can be treated similarly to the uniform microstrip line. The boundary-value problem for the microstrip line in an enclosure is formulated in a rigorous way and then solved using Galerkin's method in the Fourier-transform domain. Numerical and experimental results are presented for a sinusoidal and a zigzag-shaped microstrip line.

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