Abstracts

An Accurate Calculation of Uniform Microstrip Transmission Lines

H.E. Stinehelfer, Sr.. "An Accurate Calculation of Uniform Microstrip Transmission Lines." 1968 Transactions on Microwave Theory and Techniques 16.7 (Jul. 1968 [T-MTT] (Special Issue on Microwave Integrated Circuits)): 439-444.

An analytical program for calculating the field distribution about a microstrip transmission line bounded by a shielding wall is used to calculate the impedance, velocity, and attenuation parameters. The program input parameters are the dimensions of the strip and shielding wall and the relative dielectric constant of the substrate material. The field distribution about the strip is integrated to find the charge density on the strip and walls with and without the dielectric substrate. From these two calculations, the relative velocity and impedance can be calculated.

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