Abstracts

The Effect of Neighboring Conductors on the Currents and Fields in Plane Parallel Transmission Lines

M.E. Hellman and I. Palocz. "The Effect of Neighboring Conductors on the Currents and Fields in Plane Parallel Transmission Lines." 1969 Transactions on Microwave Theory and Techniques 17.5 (May 1969 [T-MTT]): 254-259.

In this paper the current distribution is calculated for a microstrip line in the presence of a neighboring strip. The electric field is calculated and the characteristic impedance of the slotted microstrip line is determined. A graph of characteristic impedance is given for odd and even excitations. The calculations are carried out by setting up a singular integral equation which is solved using a finite integral transform. This method has the advantage that the calculations can be generalized in a straightforward manner for the multislotted line.

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