Abstracts

The Effect of Fringing Fields on the Resistance of a Conducting Film

S.M. Schwarzbek and S.T. Ruggiero. "The Effect of Fringing Fields on the Resistance of a Conducting Film." 1986 Transactions on Microwave Theory and Techniques 34.9 (Sep. 1986 [T-MTT]): 977-981.

We have calculated the effect of fringing fields on the measured resistance of a conducting film between two circular disks, using two complementary approaches, for a wide range of disk separations. The problem is cast as the numerical solution of a dual integral equation and a straightforward relaxation procedure for the isomorphic problem of the fringing effects on the capacitance of a circular disk between two grounded planes. These results also represent the solution for the capacitance in the high dielectric limit for two disks separated by a dielectric medium.

❑ Return to main document.