Abstracts

Impedance of an Elliptic Conductor Arbitrarily Located Between Ground Planes Filled with Two Dielectric Media (Short Papers)

K.V.S. Rao and B.N. Das. "Impedance of an Elliptic Conductor Arbitrarily Located Between Ground Planes Filled with Two Dielectric Media (Short Papers)." 1985 Transactions on Microwave Theory and Techniques 33.6 (Jun. 1985 [T-MTT]): 550-554.

This paper presents a method of determining the characteristic impedance of an ellipse arbitrarily located between parallel conducting planes when the region between the planes is filled with two different dielectric media. The same generalized formulation is then extended to the case when one of the ground planes is moved to infinity. The impedance data for various locations of the dielectric interface with respect to the conductor of elliptic and circular cross sections are presented. The results of some of the special cases are compared with those available in the literature.

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