

Abstracts

The Behavior of the Electromagnetic Field at Edges of Media with Finite Conductivity (Short Papers)

J. Geisel, K.-H. Muth and W. Heinrich. "The Behavior of the Electromagnetic Field at Edges of Media with Finite Conductivity (Short Papers)." 1992 Transactions on Microwave Theory and Techniques 40.1 (Jan. 1992 [T-MTT]): 158-161.

The principal behavior of both electric and magnetic fields at the edges of media with finite conductivity is investigated. We find that, as in the case of ideal conductors, the normal electric field shows a singularity at the edge. The magnetic field components, however, remain bounded if the permeabilities of the neighboring media do not differ. Detailed results on typical geometries are given.

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