Abstracts

Electromagnetic Boundary Value Problem in the Presence of a Partly Lossy Dielectric: Considerations About the Uniqueness of the Solution (Short Papers)

This paper deals with the uniqueness of the solution of a boundary value problem defined by specifying the tangential components of the electric field over the closed regular boundary (or the tangential components of the magnetic field over the boundary, or the former components over part of the boundary and the latter components over the rest of the boundary) of a limited region containing a linear dielectric material not lossy everywhere. In particular, the uniqueness of the solution is proved in the case where the dielectric is everywhere linear, homogeneous, and lossless, except for a subregion where the dielectric is lossy, linear but not necessarily homogeneous.

❑ Return to main document.