

Abstracts

Characteristic Impedance of the Slab Line with an Anisotropic Dielectric (Short Papers)

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The characteristic impedance of the slab line with a circular conductor having an anisotropic dielectric is presented by using the affine and conformal transformations. Moreover, a simpler approximate formula of the impedance expressed in term of ϵ_{\parallel} , ϵ_{\perp} , r , and h is also presented, where ϵ_{\parallel} , ϵ_{\perp} , r , and h , are the principal axes-relative dielectric constants of the anisotropic dielectric, the inner conductor radius, and the half length between ground planes, respectively.

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