Abstracts

A Wiener-Hopf-Type Analysis of Microstrips Printed on Uniaxial Substrates: Effects of the Substrate Thickness

G.A. Kyriacou and J.N. Sahalos. "A Wiener-Hopf-Type Analysis of Microstrips Printed on Uniaxial Substrates: Effects of the Substrate Thickness." 1995 Transactions on Microwave Theory and Techniques 43.8 (Aug. 1995 [T-MTT]): 1967-1977.

A Wiener-Hopf-type analysis of the canonical problem of a TEM wave obliquely incident at the edge of the truncated upper conductor of a parallel plate waveguide loaded with a uniaxial anisotropic dielectric is presented. A numerical integration scheme as well as a thin substrate approximation for the reflection coefficient is given. The influence of the dielectric anisotropy and the slab thickness on the reelection coefficient and the edge admittance are investigated. Numerical results show the importance of the dielectric anisotropy and the expected effects in microstrip applications.

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