Abstracts

Characteristics of Microstrip Directional Couplers on Anisotropic Substrates (Short Papers)

N.G. Alexopoulos and S.A. Maas. "Characteristics of Microstrip Directional Couplers on Anisotropic Substrates (Short Papers)." 1982 Transactions on Microwave Theory and Techniques 30.8 (Aug. 1982 [T-MTT]): 1267-1270.

The properties of directional couplers fabricated on anisotropic substrates are examined on a quasistatic basis. Three substrate materials are considered sapphire, Epsilam (a ceramic-filled polytetrafluoroethylene dielectric), and boron nitride. VSWR, directivity, and coupling are presented for several representative 10-dB coupler designs, as well as variations in these parameters with crystal axis offsets. It is demonstrated that high directivity can he achieved by making use of the substrate anisotropy in conjunction with a top cover to equalize even- and odd-mode phase velocities.

❑ Return to main document.