Abstracts

Picosecond Pulse Propagation in Coplanar Waveguide Forward Directional Couplers (Short Papers)

P. Singkornrat and J.A. Buck. "Picosecond Pulse Propagation in Coplanar Waveguide Forward Directional Couplers (Short Papers)." 1991 Transactions on Microwave Theory and Techniques 39.6 (Jun. 1991 [T-MTT]): 1025-1028.

The spectral domain method is used to calculate the frequency-dependent even- and odd-mode effective dielectric constants of symmetric coplanar waveguide forward directional couplers. Comparisons are made with symmetric microstrip forward couplers on the same substrate that have the same line spacing and access port characteristic impedance. Results indicate that certain coplanar designs will have lower loss and greater bandwidth than the microstrip devices. Picosecond pulse propagation in both structures is studied using the calculated dispersion data.

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