Abstracts

Suspended Coupled Slotline Using Double Layer Dielectric (Short Papers)

R.N. Simons. "Suspended Coupled Slotline Using Double Layer Dielectric (Short Papers)." 1981 Transactions on Microwave Theory and Techniques 29.2 (Feb. 1981 [T-MTT]): 162-165.

This paper presents a rigorous analysis of coupled slotline a) on a double-layer dielectric substrate, and b) sandwiched between two dielectric substrates. The dielectric substrates are of arbitrary thickness and permittivity and the structure is assumed to be suspended inside a conducting enclosure of arbitrary dimensions. The odd- and even-mode dispersion and characteristics impedance, along with the effect of shielding on these, are illustrated. These structures should find extensive applications in the fabrication of MIC components, such as directional couplers, phase shifters, and mixers.

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