

Abstracts

A Parallel Coupled Microstrip Filter Design Procedure

R.A. Dell-Imagine. "A Parallel Coupled Microstrip Filter Design Procedure." 1970 G-MTT International Microwave Symposium Digest of Technical Papers 70.1 (1970 [MWSYM]): 29-32.

The increased use of microstrip transmission line for miniaturized printed microwave circuits has created a demand for a compact filter structure compatible with microstrip. The parallel coupled filter circuits developed by Cohn are very compact, but his design procedure does not apply to microstrip which has different even and odd mode velocities. This paper develops the theoretical analysis to compensate Cohn's procedure for even and odd mode velocity differences and develops design curves which permit the determination of the circuit geometry from the parameter K/Z_0 . The results only apply to filters with 50 Ω impedance on 99.5% alumina substrates, but they can easily be generalized to other impedances.

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