Abstracts

Design of Comb-Line Band-Pass Filters (Correspondence)

R.M. Kurzrok. "Design of Comb-Line Band-Pass Filters (Correspondence)." 1966 Transactions on Microwave Theory and Techniques 14.7 (Jul. 1966 [T-MTT]): 351-353.

Comb-line band-pass filters are filters using direct-coupled quarter-wave TEM resonators with adjacent resonators having the same open- and short-circuit reference planes. This is in the contrast to interdigital band-pass filters where adjacent resonators alternate the open- and short-circuit reference planes. Comb-line band-pass filters can be realized using either strip (rectangular center conductors) or transmission line resonators. When partitions are employed between adjacent resonators, the comb-line filter structure evolves into a coaxial filter structure. Consequently, comb-line and coaxial nomenclature will be used interchangeably herein. In this correspondence, the published design procedure for comb-line band-pass filters will be related to existing narrow-band filter theory. Certain aspects of the evolution of comb-line structures into coaxial structures will aslo be disscussed.

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