Abstracts

Quasi-dual-mode resonators

R.R. Mansour, Shen Ye, S.F. Peik, V. Dokas and B. Fitzpatrick. "Quasi-dual-mode resonators." 2000 Transactions on Microwave Theory and Techniques 48.12 (Dec. 2000 [T-MTT] (Special Issue on 2000 International Microwave Symposium)): 2476-2481.

This paper discusses the concept of using two single-mode resonators to construct a quasi-dual-mode resonator that has all the features of traditional dual-mode resonators. Two novel filter structures are presented in this paper that employ this concept; one employs planar-type resonators and the other employs dielectric resonators. A new configuration for a single-mode dielectric resonator is also proposed in this paper, The use of such a type of resonator makes it possible to construct dielectric-resonator filters that are much smaller in size than conventional TE/sub 01/ single-mode resonators. Measured results are presented for four filters along with theoretical results to verify the novel concepts proposed in this paper.

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