Abstracts

Dielectric combline resonators and filters (Dec. 1998, Part II [T-MTT])

Chi Wang, K.A. Zaki, A.E. Atia and T.G. Dolan. "Dielectric combline resonators and filters (Dec. 1998, Part II [T-MTT])." 1998 Transactions on Microwave Theory and Techniques 46.12 (Dec. 1998, Part II [T-MTT] (1998 Symposium Issue)): 2501-2506.

The dielectric combline resonator combines the merits of the metallic combline and dielectric loaded resonator. By replacing the inner conductor of the conventional combline resonator by a high E, dielectric rod, higher unloaded Q can be expected. Resonant frequency, unloaded Q, and coupling coefficient of the resonator are obtained by a rigorous mode-matching method. An eight-pole elliptic-function dielectric combline resonator filter was designed and tested. Measured frequency responses verify the theory.

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