Abstracts

Design of Microwave Oscillators and Filters Using Transmission-Mode Dielectric Resonators Coupled to Microstrip Lines

A. Podcameni and L.F.M. Conrado. "Design of Microwave Oscillators and Filters Using Transmission-Mode Dielectric Resonators Coupled to Microstrip Lines." 1985 Transactions on Microwave Theory and Techniques 33.12 (Dec. 1985 [T-MTT] (1985 Symposium Issue)): 1329-1332.

A more detailed model for the transmission-mode dielectric resonator coupled between microstrip lines is given. Novel design approaches for parallel feedback oscillators and bandpass filters are discussed. For oscillators, the design mainly takes into account zero phase shift loop considerations, as in the classical low-frequency approach. Oscillators of this type may offer low phase noise. For filters, the spatial separation between dielectric resonators favors multipole designs. Using the same microstrip layout, different shapes and bandwidths may be obtained by simple tuning.

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