Abstracts

Full-wave analysis of coupling between combline resonators and its application to combline filters with canonical configurations

M. El Sabbagh, K.A. Zaki, Hui-Wen Yao and Ming Yu. "Full-wave analysis of coupling between combline resonators and its application to combline filters with canonical configurations." 2001 Transactions on Microwave Theory and Techniques 49.12 (Dec. 2001 [T-MTT] (Special Issue on 2001 International Microwave Symposium)): 2384-2393.

Resonant frequencies and coupling coefficient between two combline cavities, in the presence of other cavities, are obtained accurately using the mode-matching technique. The effect of iris dimensions and position on the electric and magnetic coupling is rigorously investigated. The corresponding data for two isolated cavities are included for comparison. The adjacent and nonadjacent couplings are rigorously investigated for different configurations of three coupled cavities. A four-pole slot-coupled elliptic combline filter is designed.

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