Abstracts

Design of Low-Pass Elliptic Filters by Means of Cascaded Microstrip Rectangular Elements

F. Giannini, M. Salerno and R. Sorrentino. "Design of Low-Pass Elliptic Filters by Means of Cascaded Microstrip Rectangular Elements." 1982 Transactions on Microwave Theory and Techniques 30.9 (Sep. 1982 [T-MTT] (Special Issue on Microwave Filters)): 1348-1353.

A new method for synthesizing nonredundant low-pass elliptic filters in a microstrip configuration is presented. The realization consists of the cascade connection of proper rectangular elements, each one corresponding to four reactive elements of the lumped-constant prototype. This allows an effective control of parasitic and unwanted reactance which results in the possibility of realizing higher order filters with cutoff frequencies up to X-band. Fifth- and seventh-order filters were fabricated on alumina substrates showing very good performance, particularly in the passband.

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