Abstracts

New Design Equations for a Class of Microwave Filters (Correspondence)

E.G. Cristal. "New Design Equations for a Class of Microwave Filters (Correspondence)." 1971 Transactions on Microwave Theory and Techniques 19.5 (May 1971 [T-MTT]): 486-490.

New approximate design equations for a class of microwave bandpass filters are presented. The filters are 1) dual forms of half-wave parallel-coupled resonator filters, 2) one form of interdigital filter, and 3) dual forms of direct-coupled stub filters. The advantages derived from using the new equations are 1) exact realization of the specified design bandwidth and 2) improved pass-band voltage standing-wave ratio (VSWR) response in the vicinity of band edge. Experiments data are presented for a trial filter design having 7 resonators, 40-percent bandwidth, and passband VSWR of 1.2.

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