

Abstracts

Dual-Mode Canonical Waveguide Filters (Dec. 1977 [T-MTT])

A.E. Williams and A.E. Atia. "Dual-Mode Canonical Waveguide Filters (Dec. 1977 [T-MTT])." 1977 Transactions on Microwave Theory and Techniques 25.12 (Dec. 1977 [T-MTT] (1977 Symposium Issue)): 1021-1026.

This paper introduces a new form of dual-mode narrow-bandpass waveguide cavity filter. The filters, which can be constructed from either dual mode circular or square waveguide cavities, can realize the optimum transfer functions (including the exact elliptic function response). One of the unique features of these filters is that all the intercavity coupling irises may take the form of circular holes rather than long narrow slots. Several alternative input-output configurations are described. Experimental results on several filters indicate excellent agreement with theory.

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