Abstracts

In-Line Waveguide Selective Linear Phase Filters

J.D. Rhodes and M.Z. Ismail. "In-Line Waveguide Selective Linear Phase Filters." 1974 Transactions on Microwave Theory and Techniques 22.1 (Jan. 1974 [T-MTT]): 1-5.

A procedure is described whereby narrow-band waveguide selective linear phase filters may be designed from a low-pass prototype linear phase network. The structure is comprised of a cascade connection of basic sections, each containing a direct-coupled cavity together with a dual-mode resonator. Each dual-mode resonator takes the form of a square guide mounted on the broad wall of the main rectangular guide and coupled to this guide by a small aperture. Explicit formulas for the susceptance of the coupling apertures and electrical lengths of the cavities are given in terms of the low-pass prototype.

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