Abstracts

Classes of Sub-Miniature Microwave Printed Circuit Filters with Arbitrary Passband and Stopband Widths

B.J. Minnis. "Classes of Sub-Miniature Microwave Printed Circuit Filters with Arbitrary Passband and Stopband Widths." 1982 Transactions on Microwave Theory and Techniques 30.11 (Nov. 1982 [T-MTT]): 1893-1900.

Four new classes of microwave bandpass filters are defined herein. They are realized in triplate stripline and are exceedingly small devices as a result of using transmission line elements which are a quarter-wavelength well above the frequency of the passband. Each filter corresponds to a bandpass S-plane prototype which is derived using exact synthesis procedures from a specification of transmission zero locations. Passband and stopband widths may be independently specified and an extremely high degree of selectivity can be achieved when necessary. The slope of a filter skirt can he chosen to be such that 60 dB of attenuation is reached at a frequency < 3 percent from the comer of the passband.

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