

Abstracts

Design of Evanescent-Mode Waveguide Diplexers

C.K. Mok. "Design of Evanescent-Mode Waveguide Diplexers." 1973 *Transactions on Microwave Theory and Techniques* 21.1 (Jan. 1973 [T-MTT]): 43-48.

A novel design procedure for diplexers built in waveguides below cutoff is presented. The design permits the integral construction of a diplexer--the whole unit is built in a single waveguide, thereby dispensing with the T junction and connecting flanges--if coaxial termination is used at the common junction. The design utilizes foreshortened bandpass filters, and is valid for bandwidths of up to a few percent. Simple expressions on calculating the connecting lengths are arrived at. A satellite telemetry diplexer designed using the derived expressions yields results which are in agreement with computed values.

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