

Abstracts

A New Compact Band-Pass Filter Employing Three Parallel-Coupled Lines

R. Schwindt and C. Nguyen. "A New Compact Band-Pass Filter Employing Three Parallel-Coupled Lines." 1994 MTT-S International Microwave Symposium Digest 94.1 (1994 Vol. 1 [MWSYM]): 245-247.

A newly-developed miniaturized band-pass filter with sharp cutoff employing three parallel-coupled lines is reported. The filter input and output feed lines are collinear, which can be used as an advantage. The chain-matrix parameters for the new band-pass filter are derived and used in predicting the filter performance. A spectral-domain analysis is also performed on three parallel-coupled microstrip lines and suspended striplines constituting the filter. The new filter with pass-band centered at 3GHz has been designed using microstrip line, achieving less than 0.5-dB insertion loss, and measured and calculated results agree well.

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