

Microwave Active Filters Based on Coupled Negative Resistance Method

C.-Y. Chang and T. Itoh. "Microwave Active Filters Based on Coupled Negative Resistance Method." 1990 Transactions on Microwave Theory and Techniques 38.12 (Dec. 1990 [T-MTT] (1990 Symposium Issue)): 1879-1884.

A new coupled negative resistance method to build a microwave active band-pass filter is introduced. Based on this method, four microstrip line end-coupled filters are built. Two are fixed-frequency one-pole and two-pole filters, and two are tunable one-pole and two-pole filters. In order to broaden the bandwidth of the end-coupled filter a modified end-coupled structure is proposed. Using the modified structure, an active filter with a bandwidth up to 7.5% is built. All of the filters show significant passband performance improvement.

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