Abstracts

Commensurate-Line, Microstrip, Band-Pass Filters

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The commensurate-line, microstrip bandpass filter is a practical topology which yields realizable impedance values for wide-bandwidth filters. Kuroda's network transformations are used to synthesize bandwidth-dependent structures. The distribution of the grounded stub impedances, which is also bandwidth dependent, is discussed in detail for the 40-160% range. The realization of tee-junctions and the method used to ground the stubs are key to this topology. Test results for N=11 filters show excellent correlation between test and simulated data. Sensitivity, phase and temperature stability, rejection of second harmonic and microstrip models are also discussed.

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