Abstracts

A modified Chebyshev bandpass filter with attenuation poles in the stopband

Jeong-Soo Lim and Dong Chul Park. "A modified Chebyshev bandpass filter with attenuation poles in the stopband." 1997 Transactions on Microwave Theory and Techniques 45.6 (Jun. 1997 [T-MTT]): 898-904.

This paper describes a design method of a modified Chebyshev bandpass filter with attenuation poles in the stopband. The insertion of attenuation poles into resonators in the authors' bandpass-filter design is accomplished by connecting a lumped inductor or capacitor in series with a shunt-type coaxial transmission-line resonator. The inserted poles which are distributed over the stopband can be chosen such that the insertion loss of the filter has equiripple characteristic and maximum attenuation in the stopband with the given number of attenuation poles. The modified Chebyshev bandpass filter designed by this method can be effectively used in diplexer design.

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