Abstracts

Design of highly selective microstrip bandpass filters with a single pair of attenuation poles at finite frequencies

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This paper presents the design of a class of highly selective microstrip bandpass filters that consist of microstrip open-loop resonators that exhibit a single pair of attenuation poles at finite frequencies. A practical design technique for this class of filters is introduced, including tables and formulas for accurate and fast filter synthesis. Two design examples of a six-pole filter with a fractional bandwidth of 7.331% at 955 MHz and an eight-pole filter with a fractional bandwidth of 10.359% at 985 MHz are described. Theoretical and experimental results are presented. The compact size and the excellent performance of this class of filters have been demonstrated.

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