Abstracts

Hybrid resonator microstrip line electrically tunable filter

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A novel hybrid resonator microstrip line electrically tunable filter is presented in this paper. The tunable filter has mixed combline resonators and a hairpin like resonator. With this mixed resonator filter, transmission zeros can be obtained on each side of the passband. This elliptic function filter response is achieved without any nonadjacent coupling. Parascan/sup TM/ dielectric material varactors are then used at the end of each resonator, so that the filter passband is electrically tunable. A 4-pole design example is provided. The transmission zeros are clearly shown in both simulation and measurement.

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