Abstracts

A dual-plane comb-line filter having plural attenuation poles

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In this paper, a dual-plane comb-line filter having plural attenuation poles is proposed. We investigate the filtering characteristics from both experiments and numerical simulations by means of the finite-difference time-domain method. It is shown that this filter has attenuation poles just above, as well as below the passband and that intersections between the curves of input susceptance of the even and odd modes agree with the attenuation-pole frequencies. Furthermore, it is demonstrated that, by changing the position of the metal pin, which connects two resonators, we can change the input susceptance of the odd mode alone and, hence, regulate the attenuation-pole frequencies.

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