Abstracts

Elliptic Filter Rigorous Design and Modelling Applying the Finite Element Method

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This paper describes a new dual mode coupling technique with permits to replace classical dielectric resonators, coupling and tuning screws commonly used in dual mode filters, by slotted dielectric resonators. The theoretical analysis is performed applying the three dimensional finite element method. For the first time, a synthesis method is developed to design rigorously a four and a eight pole dual mode slotted dielectric resonators filter. The theoretical responses show good agreement with the experimental ones.

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