Abstracts

Planar Triangular Resonators with Magnetic Walls

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This paper gives the field patterns in triangular planar resonators having no variation of the fields along the substrate thickness. The TM fields in such resonators with magnetic boundary conditions are obtained by duality from the TE modes with electric boundaries. The theoretical description includes the cutoff numbers of the first few modes. The radiation Q factor of fundamental microstrip resonators of this type was found experimentally to be higher than that associated with conventional disk resonators. The performance of a microstrip circulator using a triangular resonator is also described.

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