Abstracts

Novel 2-D photonic bandgap structure for microstrip lines

V. Radisic, Y. Qian, R. Coccioli and T. Itoh. "Novel 2-D photonic bandgap structure for microstrip lines." 1998 Microwave and Guided Wave Letters 8.2 (Feb. 1998 [MGWL]): 69-71.

A new two-dimensional (2-D) photonic bandgap (PBG) structure for microstrip lines is proposed, in which a periodic 2-D pattern consisting of circles is etched in the ground plane of microstrip line. No drilling through the substrate is required. Three PBG circuits were fabricated with different circle radii to determine the optimum dimensions, as well as a PBG circuit with the compensated right-angle microstrip bend. Measurements show that deep and wide stopbands can be achieved using this method.

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