

Metamaterial Slabs Coupling

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Abstract

Metamaterial slab coupling to another metamaterial slab or to a dielectric slab has been studied, taking into consideration regular trigonometric modes as well as hyperbolic modes. The first TM even mode has been given special attention since it exhibits interesting filtering properties. The coupling coefficient frequency variation of the structures has been investigated. It has been found that, for a given frequency, the thinner the width of the slabs, or the lower their permittivity, the higher the coupling between them.