Abstracts

Nonreciprocal Dispersion Characteristics of a Planar Helix on Magnetized Ferrite Slabs

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A structure comprising a pair unidirectionally conducting (UC) screens a pair of parallel magnetized ferrite slabs is considered. The screens are conducting in different direction, thus constituting a plamar helix. The nonreciprocal dispersion characteristics of the structure are studied. The slow-wave properties of the structure coupled with the fact that the guided waves on it are, in general, elliptically polarized results in relatively large differential phase shifts per unit length. Possible use of the structure as a phase shifter in planar configuration is indicated.

❑ Return to main document.