Abstracts

Modeling and optimization of parallel line edge mode microstrip isolators

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This paper presents analysis and measurements of a new type of ferrite edge mode isolator. The new configuration includes a broadband termination at the path of the backward propagation. The new approach results in a nonreciprocal behavior that can be observed even without a lossy material. An insertion loss of 1.7 dB and isolation of 23 dB can be achieved using the new structure. Parametric study with particular emphasis on geometrical effects of the new structure is presented. Supporting experimental data is also presented to confirm the predicted performance of the new structure.

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