

## Higher Order Mode Interaction in Nonreciprocal Periodic Structures

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This paper is an extension of previous work on nonreciprocal periodic structures where only dominant mode interaction was considered. Higher order mode interaction is taken into account by using multimode wave matrix analysis. Numerical results for the propagation coefficient characteristics are given for a specific example of a twin-slab ferrite-loaded rectangular waveguide, periodically loaded with thin metallic diaphragms. These characteristics show similar trends to those observed in a previous experimental investigation.

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