Abstracts

A Magnetostatic Forward Volume Wave Directional Coupler with a Guiding Slot Structure

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A new configuration of a magnetostatic forward volume wave (MSFVW) directional coupler has been proposed. It should be noticed that a slot line structure is adopted. The propagation of MSFVW along the structure has been confirmed experimentally except around the lower limit of MSFVW band. A directional coupler with adjacent guiding slots has been fabricated on an epitaxial yttrium iron garnet (YIG) grown on a gadolinium gallium garnet (GGG) substrate. A nearly 100 % power transfer from one slot line to the other has been demonstrated. The directivity was measured to be above 20 dB except around the lower frequency limit.

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