Abstracts

Ferrite filled reflector mode converter for axially corrugated waveguides

A.J. Viitanen and T.M. Uusitupa. "Ferrite filled reflector mode converter for axially corrugated waveguides." 2002 MTT-S International Microwave Symposium Digest 02.3 (2002 Vol. III [MWSYM]): 1997-2000 vol.3.

The mode transformation effect is considered for axially tuned corrugated waveguides. Recently, this effect for transmitted fields was introduced by using a certain kind of material which couples the propagating fields. In this paper, a reflector type mode converter based on ferrite material is proposed. The properties of ferrite can be changed by using a static magnetic field, which allows the possibility for tuning to obtain an optimal mode transformation in reflection. The properties of transverse fields in reflection are considered.

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