

Abstracts

Ferrite Resonance Isolators Using Tapered DC Magnetic Fields

*F.S. Chen. "Ferrite Resonance Isolators Using Tapered DC Magnetic Fields." 1962
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Tapered dc magnetic fields can be used to broad-band ferrite resonance isolators of the rectangular waveguide type. In this work a ferrite slab of narrow resonance line width was employed in order to keep the ratio of reverse-to-forward attenuation large while the bandwidth of the isolator was broadened by means of an appropriately tapered magnetic field. A ratio of reverse-to-forward attenuation of more than 60 has been obtained experimentally over a 38 per cent frequency range at X band, and further improvement of these figures seems possible.

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