

Abstracts

Analysis and design of grooved circular waveguide dual-mode filters

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This paper presents a novel type of circular waveguide dual-mode filter with grooves for coupling orthogonal resonant modes and correcting resonant frequency. The presented dual-mode filter is suitable for realizing high performance without tuning elements in Ka-band and above because of the simple structure. A Ka-band elliptic function type dual-mode filter has been designed by accurate and fast full-wave analysis performed using mode-matching techniques.

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