Abstracts

Experimental verification of waveguide-mode resonant transmission filters

S. Tibuleac, P.P. Young, R. Magnusson and T.R. Holzheimer. "Experimental verification of waveguide-mode resonant transmission filters." 1999 Microwave and Guided Wave Letters 9.1 (Jan. 1999 [MGWL]): 19-21.

A guided-mode resonance transmission filter is demonstrated experimentally. A five-layer fiberglass/air structure with a waveguide-grating in the center layer is designed, fabricated, and tested. A close match between theoretical and experimental spectral characteristics is found over the spectral range of 4-20 GHz. Guided-mode resonance transmission peaks occur at frequency locations which are in excellent agreement with theoretical predictions.

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