

Abstracts

A 14-GHz High-Power Filter

A.E. Atia. "A 14-GHz High-Power Filter." 1979 MTT-S International Microwave Symposium Digest 79.1 (1979 [MWSYM]): 261-261.

A new design of a 14-GHz narrowband bandpass low-loss high-power waveguide filter is described. The design incorporates circular waveguide dual TE/sub 113/ mode Invar cavities for thermal stability and copper thick irises for dissipated heat removal. Experimental results on the filter are presented which show excellent electrical performance under high-power conditions (up to 400 watts). Under higher-power conditions, the temperature rise of the new design is an order of magnitude less than that for a similar all-Invar filter.

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