Abstracts

On the Power Handling Capability of High Temperature Superconductive Filters

R.R. Mansour, B. Jolley, S. Ye, F.S. Thomson and V. Dokas. "On the Power Handling Capability of High Temperature Superconductive Filters." 1996 Transactions on Microwave Theory and Techniques 44.7 (Jul. 1996, Part II [T-MTT] (Special Issue on the Microwave and Millimeter Wave Applications of High Temperature Superconductivity)): 1322-1338.

This paper presents high power test results for high temperature superconductor (HTS) filters having six different configurations. The results demonstrate the possibility of realizing narrow band HTS filters that are capable of handling 30-50 W at 77 K. The paper also introduces a procedure for comparing the power handling capability of HTS filters with different RF characteristics. Issues related to thermal design of high power HTS filters are discussed in detail.

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