

Abstracts

Microwave superconductivity

*R.R. Mansour. "Microwave superconductivity." 2002 *Transactions on Microwave Theory and Techniques* 50.3 (Mar. 2002 [T-MTT] (50th Anniversary Issue)): 750-759.*

This paper provides an overview of the microwave applications of high-temperature superconductor (HTS) technology. The main characteristics of HTS materials are outlined, highlighting the differences between superconductors and normal conductors. This paper presents recent progress in the development of HTS filters, multiplexers, cryogenic receivers, delay lines, and antennas. A brief summary of cryocooler technology and cryopackaging requirements is presented. The benefits of using HTS technology in wireless and satellite systems are also discussed. The intent of this paper is to provide perspective to newcomers in the field and to empower the potential end-users with current status and performance capabilities of HTS microwave devices.

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