Abstracts

Applications of high-temperature-superconducting filters and cryoelectronics for satellite communication

E.R. Soares, J.D. Fuller, P.J. Morozick and R.L. Alvarez. "Applications of high-temperature-superconducting filters and cryoelectronics for satellite communication." 2000 Transactions on Microwave Theory and Techniques 48.7 (Jul. 2000, Part II [T-MTT] (Special Issue on Microwave and Communication Applications at Low Temperature)): 1190-1198.

Filtering of the signals from satellites in ground-based satellite-communication receivers using high-temperature superconducting filters will be discussed in this paper, including the use of cryogenically cooled low-noise amplifiers and cooled RF switches. In addition to the RF circuits, a detailed discussion of the needed support, such as cryocoolers and Dewar, will be held. Uses for the system will be discussed and a demonstration described.

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