Abstracts

Design Considerations of Superconductive Input Multiplexers for Satellite Applications

R.R. Mansour, S. Ye, V. Dokas, B. Jolley, G. Thomson, W.-C. Tang and C.M. Kudsia. "Design Considerations of Superconductive Input Multiplexers for Satellite Applications." 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)): 1213-1228.

This paper describes the evolution and development of low power superconductive filters and multiplexers for satellite applications under the HTSSE-II program. Experimental results and tradeoffs are presented for thin film and dielectric loaded HTS multiplexer configurations, leading to the development and implementation of a fully integrated four-channel C-band HTS input multiplexer. Measured data shows performance comparable to conventional technology and promise of large reduction in mass and volume of such equipment. The multiplexer is scheduled to fly as part of the HTSSE-II package on the ARGOS satellite in 1996.

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