Abstracts

A C-Band Superconductive Input Multiplexer for Communication Satellites

R.R. Mansour, V. Dokas, G. Thomson, W.-C. Tang and C.M. Kudsia. "A C-Band Superconductive Input Multiplexer for Communication Satellites." 1994 Transactions on Microwave Theory and Techniques 42.12 (Dec. 1994, Part II [T-MTT] (1994 Symposium Issue)): 2472-2479.

The paper demonstrates the feasibility of building a fully integrated C-band 4-channel superconductive multiplexer employing 8-pole hybrid dielectric/HTS thin film filters. Experimental results are presented for 4-pole and 8-pole externally-equalized superconductive filters having 1% bandwidth. The measured data for the integrated multiplexer clearly indicates that C-band superconductive multiplexer are approaching the performance requirements of typical satellite systems and have the potential of large reduction in mass and volume over conventional technologies. The critical design considerations of such type of superconductive multiplexer are discussed.

❑ Return to main document.