

Abstracts

A Low-Cost Multiple-Channel 12-GHz Receiver for Satellite Television Broadcasting

C.O. Risch, J.P. Singh, F.J. Rosenbaum and R.O. Gregory. "A Low-Cost Multiple-Channel 12-GHz Receiver for Satellite Television Broadcasting." 1975 Transactions on Microwave Theory and Techniques 23.4 (Apr. 1975 [T-MTT] (Special Issue on Microwave Communications)): 348-353.

The design of a low-cost FM-microwave satellite-ground-station receiver is described. It is capable of accepting 12 contiguous color-television equivalent-bandwidth channels in the 11.72-12.2-GHz band using a wide-band FM format and frequency division multiplexing (FDM) of the channels. Each channel has 36 MHz of usable bandwidth with a 4-MHz guard band and provides a CATV compatible output. The overall system specifications are first discussed. Then consideration is given to the design, fabrication, and evaluation of the different subsystems in the receiver.

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