

## New MMIC's for Tuners in Multichannel Video Distribution Systems Using Optical Fiber Networks

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*T. Nakagawa, T. Hirota, T. Ohira, M. Aikawa, K.-I. Suto and E. Yoneda. "New MMIC's for Tuners in Multichannel Video Distribution Systems Using Optical Fiber Networks." 1995 Transactions on Microwave Theory and Techniques 43.7 (Jul. 1995, Part II [T-MTT] (Special Issue on Emerging Commercial and Consumer Circuits, Systems, and Their Applications)): 1686-1691.*

New MMIC's have been developed for an ultra-broadband FM video tuner in a multi-channel video distribution system using optical fiber networks. The MMIC's provide both frequency synthesis and up-conversion. They are integrated on two GaAs MMIC chips and one Si LSI chip. The chips are mounted in a flat package to form a tunable block-up converter. By combining the MMIC's with currently available consumer product type components, a low cost FM video tuner with a 2 GHz tuning bandwidth was achieved in hardware. Successful tuning performance is obtained over the whole tuning frequency range.

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