

# Abstracts

## X-Band Integrated Circuit Mixer with Reactively Terminated Image (Jul. 1968 [T-MTT])

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K.M. Johnson. "X-Band Integrated Circuit Mixer with Reactively Terminated Image (Jul. 1968 [T-MTT])." 1968 *Transactions on Microwave Theory and Techniques* 16.7 (Jul. 1968 [T-MTT] (Special Issue on Microwave Integrated Circuits)): 388-397.

An X-band mixer using GaAs Schottky barrier diodes with a thin-film 500-MHz IF preamplifier was developed using hybrid microwave integrated circuit techniques. The balanced mixer had filters to provide a short circuit at the image frequency. The entire mixer preamplifier occupied an area of only 0.38 square inches and had a noise figure of 6.7 dB which corresponded quite closely to the theoretical noise figure considering all losses. The thin-film IF amplifier alone had a 2.2-dB noise figure and the mixer IF amplifier coupling network had a loss of 0.4 dB.

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