

# Abstracts

## Integrated Circulator Design for Parametric Amplifier Application

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C.E. Barnes. "Integrated Circulator Design for Parametric Amplifier Application." 1964 PTGMMT International Symposium Program and Digest 64.1 (1964 [MWSYM]): 170-175.

A paper accepted for presentation at the 1964 International Solid State Circuits Conference describes a two-stage, L-band parametric amplifier with a gain of  $19 \pm 0.25$  db over a 20% band, and a 1.5 db noise figure in the 15% band of interest. The achievement of maximum performance in a parametric amplifier of this type depends critically upon the characteristics of the associated circulators. It is felt that a discussion of the techniques used in the design of the circulator package for this amplifier might prove helpful to other designers in the field.

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