

# Abstracts

## An Environmentalized Low-Noise Parametric Amplifier (Dec. 1977 [T-MTT])

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*E.C. Niehenke. "An Environmentalized Low-Noise Parametric Amplifier (Dec. 1977 [T-MTT])." 1977 Transactions on Microwave Theory and Techniques 25.12 (Dec. 1977 [T-MTT] (1977 Symposium Issue)): 992-994.*

A 14-oz low-noise, X-band parametric amplifier has been developed for an airborne environment (-55 to +71/slp deg/C). This unit exhibits a 1.8-dB noise figure at 10 GHz and, at 18-dB peak gain, a 3-dB single-tuned bandwidth of 230 MHz that is electronically tunable over 700 MHz. A 1-dB gain compression occurs at -27-dBm input power. Performance is achieved through use of unique upper sideband terminated circuitry and a new low-parasitic, hermetic varactor package.

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