

Abstracts

An Environmentalized Low-Noise Parametric Amplifier (1977 [MWSYM])

E.C. Niehenke. "An Environmentalized Low-Noise Parametric Amplifier (1977 [MWSYM])." 1977 MTT-S International Microwave Symposium Digest 77.1 (1977 [MWSYM]): 472-475.

A 14 oz, low noise, X-band parametric amplifier has been developed for an airborne environment (-55° to +71°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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