Abstracts

A Super Low-Noise Ion-Implanted Planar GaAs MESFET MMIC Amplifier

T. Sawai, M. Nishida, T. Hirai, K. Honda, T. Yamaguchi, S. Murai and Y. Harada. "A Super Low-Noise Ion-Implanted Planar GaAs MESFET MMIC Amplifier." 1996 MTT-S International Microwave Symposium Digest 96.2 (1996 Vol. II [MWSYM]): 811-814.

In order to develop an ultra-compact and super low-noise MMIC amplifier for the receiving system of PHS the input and output impedance of an ion-implanted planar GaAs MESFET were successfully reduced while maintaining its high-gain and low-noise characteristics. The MMIC had a noise figure of 1 dB and a gain of 13.5 dB 3 V, 20 mA and 1.9 GHz in an ultra-compact plastic package. The fabricated switch and LNA module employing this MMIC has achieved the low-noise property of less than 3 dB.

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