

Abstracts

A 20 GHz Peltier-Cooled Low Noise HEMT Amplifier

M. Iwakuni, M. Niori, T. Saito, T. Hamabe, H. Kurihara, K. Jyoshin and M. Mikuni. "A 20 GHz Peltier-Cooled Low Noise HEMT Amplifier." 1985 MTT-S International Microwave Symposium Digest 85.1 (1985 [MWSYM]): 551-553.

A 20 GHz band 135 K (NF=1.66dB) low-noise HEMT amplifier with 38 dB gain has been developed. This was achieved by extremely low-loss input circuits, accurate device characterization method with a strip line tuner and a compact cooling system. The amplifier is cooled to -55°C by a Peltier-cooling unit which consumes only 60 watts.

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