Abstracts

Millimeter-wave waveguide-bandwidth cryogenically-coolable InP HEMT amplifiers

M.W. Pospieszalski, W.J. Lakatosh, E. Wollack, L.D. Nguyen, Minh Le, M. Lui and Takyiu Liu. "Millimeter-wave waveguide-bandwidth cryogenically-coolable InP HEMT amplifiers." 1997 MTT-S International Microwave Symposium Digest 3. (1997 Vol. III [MWSYM]): 1285-1288.

The design, construction and performance of 65-90 GHz and 75-110 GHz low-noise cryogenically-coolable amplifiers are presented. A comparison between modeled and measured performance is shown. A laboratory receiver exhibiting an average noise of 50 K across 65-90 GHz and 70 K across 75-110 GHz is described. These are the widest band and lowest noise HEMT receivers ever reported at these frequencies.

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