Abstracts

Q- and E-Band Cryogenically-Coolable Amplifiers Using AlInAs/GaInAs/InP HEMT's

M.W. Pospieszalski, W.J. Lakatosh, L.D. Nguyen, M. Lui, T. Liu, M. Le, M.A. Thompson and M.J. Delaney. "Q- and E-Band Cryogenically-Coolable Amplifiers Using AlInAs/GaInAs/InP HEMT's." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1121-1124.

Design, construction and performance of several cryogenically-coolable millimeter-wave amplifiers for radio astronomy applications, using AlInAs/GaInAs/InP HEMT's, are presented. The examples include a 40-50 GHz amplifier with an average noise temperature of about 15 K and a 60-80 GHz amplifier yielding a laboratory receiver noise temperature of 37 K at 60 GHz and 50 K at 75 GHz.

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