

Abstracts

High performance D-band (118 GHz) monolithic low noise amplifier

M. Nishimoto, M. Sholley, H. Wang, R. Lai, M. Barsky, D. Streit, Y. Chung, M. Aust, B. Osgood, R. Raja, C. Gage, T. Gaier and K. Lee. "High performance D-band (118 GHz) monolithic low noise amplifier." 1999 Radio Frequency Integrated Circuits (RFIC) Symposium 99. (1999 [RFIC]): 99-102.

This paper presents the results of 118 GHz amplifier designs with state of art low noise performance using 0.1-/spl mu/m pseudomorphic InGaAs/InAlAs/InP HEMT technology. A single ended fixtured 118 GHz LNA demonstrated 3.8-4.5 dB NF with an associated gain of greater than 14.5 dB from 112.5 to 119.5 GHz. A on-wafer balanced LNA with gain of 12 dB, return loss of 9 dB from 110 to 130 GHz was also demonstrated.

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