# Abstracts

## High Performance Q-Band 0.15µm InGaAs HEMT MMIC LNA

*K.H.G. Duh, S.M.J. Liu, S.C. Wang, P. Ho and P.C. Chao. "High Performance Q-Band 0.15µm InGaAs HEMT MMIC LNA." 1993 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 93.1 (1993 [MCS]): 99-102.*

A monolithic three-stage pseudomorphic InGaAs HEMT low noise amplifier developed in our laboratory exhibits state-of-the-art low noise and gain performance at Q-band frequencies: it demonstrated 22 dB of gain with 3 dB noise figure from 41 to 45 GHz. From 35 to 50 GHz, it gave a flat gain response of over 22 dB gain across the Q-band range. This amplifier uses 0.15 µm gate length GaAs-based pseudomorphic HEMTs with on-chip matching circuits and bias circuits. The chip size is 2.3x1.0 mm².

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