

# Abstracts

## A Fully Passivated Ultra Low Noise W-Band Monolithic InGaAs/InAlAs/InP HEMT Amplifier

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G.I. Ng, R. Lai, Y. Hwang, H. Wang, D.C.W. Lo, T. Block, K. Tan, D.C. Streit, R.M. Dia, A. Freudenthal, P.D. Chow and J. Berenz. "A Fully Passivated Ultra Low Noise W-Band Monolithic InGaAs/InAlAs/InP HEMT Amplifier." 1995 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 95.1 (1995 [MCS]): 63-66.

A W-band 3-stage monolithic low noise amplifier has been developed based on InGaAs/InAlAs/InP HEMT MMIC technology. Both wafer passivation and stabilization bakes have been introduced for the first time to the MMIC process to make it more suitable for production. A minimum noise figure of 3.3 dB and 20 dB associated gain has been achieved at 94 GHz and represents the best reported performance to date for any passivated multi-stage MMIC LNA's operating at W-band.

 [Return to main document.](#)