

# Abstracts

## A W-Band Monolithic Low Noise AlGaAs/InGaAs Pseudomorphic HEMT Amplifier Mounted on a Small Hermetically-Sealed Package with Waveguide Interface

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Y. Itoh, M. Nakayama, K. Nakahara, T. Takagi, T. Sakura, N. Yoshida, T. Katoh, T. Kashiwa and Y. Ito. "A W-Band Monolithic Low Noise AlGaAs/InGaAs Pseudomorphic HEMT Amplifier Mounted on a Small Hermetically-Sealed Package with Waveguide Interface." 1995 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 95.1 (1995 [MCS]): 187-190.

A W-band monolithic low noise AlGaAs/InGaAs/ GaAs pseudomorphic HEMT amplifier mounted on a small hermetically-sealed package has been developed for use in Advanced Microwave Scanning Radiometer. A six-stage amplifier cascading three two-stage MMIC amplifier chips is assembled on a small hermetically-sealed package with waveguide interface and has achieved a noise figure of 4.3 dB with a gain of 28.1 dB at 91 GHz. The overall amplifier measures 12 x 32.8 x 5.4 mm<sup>3</sup>. This is the first W-band multi-stage monolithic low noise amplifier mounted on a hermetically-sealed package.

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