# Abstracts

## V-Band High-Efficiency Monolithic Pseudomorphic HEMT Power Amplifiers

*C.K. Pao, G.L. Lan, C.S. Wu, A. Igawa, M. Hu, J.C. Chen and Y.C. Shih. "V-Band High-Efficiency Monolithic Pseudomorphic HEMT Power Amplifiers." 1992 Microwave and Guided Wave Letters 2.10 (Oct. 1992 [MGWL]): 394-396.*

V-band monolithic power amplifiers have been developed and have demonstrated state-of-the-art performance. For the single-stage MMIC amplifier employing a 200-µm pseudo-morphic HEMT, 151.4 mW (757 mW/mm) output power with 26.4% power-added efficiency at 60 GHz is achieved. Maximum power-added efficiency of 30.6% at 130-mW output power was also obtained. A three-stage MMIC amplifier utilizing the same devices demonstrated 80-mW output power, 20.5% power-added efficiency, and 17-dB associated gain at 57 GHz. The linear gain of the amplifier was 21.5 dB.

❑ Return to main document.