Abstracts

1.5 Watts V-Band Power Amplifier Using PHEMT Technology

L. Marosi, D. Yamauchi, J. Goel, G. Onak, D.I. Stones, A. Sharma, K. Tan, B. Brunner and J. Mancini. "1.5 Watts V-Band Power Amplifier Using PHEMT Technology." 1994 MTT-S International Microwave Symposium Digest 94.2 (1994 Vol. II [MWSYM]): 653-656.

A Millimeter wave power amplifier has been developed using power MMIC based on 0.15 Micron T gate pseudomorphic HEMT technology. A basic building block power module with 800 mW of output power has been demonstrated which covers 59.5 to 63.5 GHz. Two such modules have been power combined to achieve 1.5 Watt output power level with more than 20.0 dB linear gain. This is the highest V-band power reported in the literature to date. With the demonstration of the low loss power combining schemes and the basic building block power module, levels of up to 10.0 Watts can be easily achieved by using higher order of combining.

❑ Return to main document.