Abstracts

18-40 GHz Semi-Monolithic Balanced Cascade Amplifiers Using AlGaAs/InGaAs P-HEMT and GaAs MESFET

M. Kimishima and T. Ashizuka. "18-40 GHz Semi-Monolithic Balanced Cascade Amplifiers Using AlGaAs/InGaAs P-HEMT and GaAs MESFET." 1993 MTT-S International Microwave Symposium Digest 93.2 (1993 Vol. II [MWSYM]): 523-526.

18 - 40 GHz semi-monolithic balanced cascade amplifiers have been developed by using AIGaAs/InGaAs pseudomorphic HEMT's and GaAs MESFET's. This paper describes the design, fabrication and performance of the modules and exhibits superior advantages of semi-monolithic process technology for millimeter wave applications. It is demonstrated that the P-HEMT amplifier exhibits a gain of 5.7 ± 0.4 dB, a noise figure of less than 3.6 dB, and the three stage amplifier exhibits againof 15.6 ± 0.8 dB, a noise figure of less than 4.2 dB. input/output return losses of better than 9.0 dB and an 1 dB compressed power of greater than 11.0 dBm.

❑ Return to main document.