Abstracts

A 6--21-GHz Monolithic HEMT 2 x 3 Matrix Distributed Amplifier

K.W. Kobayashi, R. Esfandiari, W.L. Jones, K. Minot, B.R. Allen, A. Freudenthal and D.C. Streit. "A 6--21-GHz Monolithic HEMT 2 x 3 Matrix Distributed Amplifier." 1993 Microwave and Guided Wave Letters 3.1 (Jan. 1993 [MGWL]): 11-13.

The results of the first monolithic matrix distributed amplifier fabricated using pseudomorphic HEMT technology are reported. The HEMT matrix amplifier obtains a combination of high gain, wide bandwidth, and reasonable IP3 and noise figure. The best gain response is 20 dB from 6-21 GHz. The noise figure is 5.5 dB and the third-order intercept point is 21 dBm. In comparison to GaAs HBT and MESFET technologies, the HEMT matrix distributed amplifier shows the best promise for wide-band millimeter-wave applications.

❑ Return to main document.