Abstracts

High gain-density K-band p-HEMT LNA MMIC for LMDS and satellite communication (2000 Vol. I [MWSYM])

Y. Mimino, M. Hirata, K. Nakamura, K. Sakamoto, Y. Aoki and S. Kuroda. "High gain-density K-band p-HEMT LNA MMIC for LMDS and satellite communication (2000 Vol. I [MWSYM])." 2000 MTT-S International Microwave Symposium Digest 00.1 (2000 Vol. I [MWSYM]): 17-20.

A miniature and broadband, K-band p-HEMT LNA MMIC, that incorporates simple lumped matching elements and series bias topologies, has been developed for LMDS (Local Multi-point Distribution Service) and satellite communication. The gain and noise figure is 14.5+/-1.5 dB and 1.7+/-0.2 dB, respectively, at frequencies between 23 and 30 GHz. The die size of the MMIC is 0.9 mm/sup 2/, the gain-density of this MMIC is as high as 14.4 dB/mm/sup 2/, which is more than two times larger than that of previously reported.

❑ Return to main document.