

Abstracts

A comparison of W-band MMIC mixers using InP HEMT technology

R.S. Virk, Long Tran, M. Matloubian, Minh Le, M.G. Case and C. Ngo. "A comparison of W-band MMIC mixers using InP HEMT technology." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 435-438.

This paper compares the performance of three different W-band mixer designs in the same InP HEMT technology. A resistive HEMT mixer, an active HEMT mixer, and a rat-race diode mixer are designed and measured for conversion, intermodulation and noise performance for an LO frequency of 94 GHz and IF frequencies ranging from 0.5 to 5 GHz. This is the first direct comparison of three high-performance W-band mixers fabricated in the same InP HEMT technology.

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