

Abstracts

An X-Band Monolithic Double Double-Balanced Mixer for High Dynamic Receiver Application

T.N. Ton, G.S. Dow, T.H. Chen, M. Lacon, T.S. Lin, S. Bui and D. Yang. "An X-Band Monolithic Double Double-Balanced Mixer for High Dynamic Receiver Application." 1990 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 90.1 (1990 [MCS]): 115-118.

An X-Band monolithic double double-balanced mixer utilizing MESFET process is described. This monolithic mixer demonstrates RF performance comparable to that of a hybridized mixer. The mixer achieves a high input IP_{sub 3} of 20 dBm and 1-dB compression output power of 3.6 dBm at 20 dBm LO drive. The measured conversion loss is less than 10 dB from 7 to 10 GHz with a IF output frequency of 5 GHz. We believed this represents highest IP_{sub 3} performance among the reported monolithic mixers.

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