Abstracts

50-100 GHz octave band MMIC mixers

K. Kamozaki, N. Kurita, T. Tanimoto, H. Ohta, T. Nakamura and H. Kondoh. "50-100 GHz octave band MMIC mixers." 1997 Radio Frequency Integrated Circuits (RFIC) Symposium 97. (1997 [RFIC]): 95-98.

Single-balanced MMIC mixers covering RF and LO bands of 50-100 GHz have been developed. A Marchand balun and a side-coupled balun in microstrip configurations were compared for LO drive ports of the mixers. The Marchand balun type demonstrated a conversion loss of 11.6 dB/spl plusmn/2.8 dB over a 50-103.5 GHz band, whereas the side-coupled balun type achieved a conversion loss of 11.6/spl plusmn/2.2 dB from 50 GHz to 95 GHz. These results represent the widest bandwidth reported to date in MM-wave bands.

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