Abstracts

A 40GHz Band Monolithic Even Harmonic Mixer with an Antiparallel Diode Pair

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A monolithic even harmonic mixer with a new simplified circuit configuration is described. The mixer employs an antiparallel diode pair, open and short circuited stubs as filters for separating RF output signal, IF input signal and LO power from each other. The circuit configuration is suitable for MMIC. A 40GHz band even harmonic mixer is fabricated on a 1.7mmx2.2mm GaAs substrate, and a conversion loss of 9.5dB and a suppression of the virtual LO leakage of 75dB are achieved.

❑ Return to main document.