Abstracts

Millimeter-Wave Downconverter with Subharmonic Pump

T.F. McMaster, M.V. Schneider and W.W. Snell, Jr.. "Millimeter-Wave Downconverter with Subharmonic Pump." 1976 MTT-S International Microwave Symposium Digest of Technical Papers 76.1 (1976 [MWSYM]): 185-187.

Hybrid integrated downconverters which are pumped at half the frequency needed in a conventional downconverter have shown a conversion loss of 3 dB and a SSB receiver noise figure of 6.7 dB at 50 GHz. Each downconverter circuit consists of a stripline conductor pattern, a novel transition from waveguide to stripline and a Schottky barrier diode pair. The circuits can be tuned over an RF bandwidth of 20 GHz, and they can be readily scaled to frequencies up to 100 GHz.

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