Abstracts

An 8-15 GHz GaAs Monolithic Frequency Converter (1987 [MCS])

R. Ramachandran, S. Moghe, P. Ho and A. Podell. "An 8-15 GHz GaAs Monolithic Frequency Converter (1987 [MCS])." 1987 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 87.1 (1987 [MCS]): 31-34.

An MMIC frequency converter with an RF bandwidth of 8-15 GHz and an IF bandwidth of 1.5 GHz has been designed and built. The MMIC chip has15 dB conversion gain and includes a two-stage RF amplifier, a two-stage LO buffer amplifier, a double-balanced mixer and a three-stage IF amplifier. This high level of integration is realized on a 48 x 96 mil area, resulting in good RF yields. The circuit employs a push-pull configuration to eliminate the need for via-holes (low-inductance grounds) and facilitate a compact layout.

❑ Return to main document.