Abstracts

A Ku-Band MMIC PLL Frequency Synthesizer

T. Ohira, M. Muraguchi, T. Hirota, K. Osafune and M. Ino. "A Ku-Band MMIC PLL Frequency Synthesizer." 1989 MTT-S International Microwave Symposium Digest 89.3 (1989 Vol. III [MWSYM]): 1047-1050.

A Ku-band PLL frequency synthesizer has been developed in a very compact configuration, incorporating two novel monolithic chips of GaAs MMIC and LSI. The MMIC includes a Ku-band VCO, a dual-output buffer amplifier, a balun and a dynamic/static prescaler. A very small chip size has been realized by the uni-planar MMIC configuration. The LSI includes a dual-modulus prescaler, programmable counters, and a PFC. The proposed synthesizer exhibits a tuning range broader than 1 GHz and a phase noise of about -70 dBc/Hz at 1 kHz offset from the carrier.

❑ Return to main document.