Abstracts

6.7 GHz frequency synthesizer in 0.8 /spl mu/m silicon bipolar production technology

G. Ritzberger, H. Knapp, J. Bock, M. Rest, L. Treitinger and A.L. Scholtz. "6.7 GHz frequency synthesizer in 0.8 /spl mu/m silicon bipolar production technology." 2001 MTT-S International Microwave Symposium Digest 01.2 (2001 Vol. II [MWSYM]): 701-704 vol.2.

This paper presents a 6.7 GHz phase-locked loop frequency synthesizer in a low-cost 0.8 /spl mu/m/25 GHz-f/sub T/ silicon bipolar production technology. The total power consumption of 82 mW at 3 V includes the power consumption of the voltage-controlled oscillator, the phase-frequency detector, the charge pump, the loop filter, and the divider. The synthesizer offers a phase noise performance of -103 dBc/Hz at 1 MHz offset from the carrier. 6.7 GHz is the highest operating frequency for silicon-based synthesizers published.

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