Abstract

Dual modulus prescaler is one of the main building blocks in Frequency synthesizers. Which gives the flexibility to select channels on the basis of the number of times each of the modulus is selected. Modern frequency synthesizer requires high speed, low power prescaler. This paper proposes the design of such a prescaler using the carbon nanotube based transistor. The two most important performance parameters in the proposed design is speed and power. The biggest limiting factor in this optimization is the technology. The prescaler is often implemented with CMOS technologies. In this paper CNTFET is introduced for designing the high speed and low power 2/3 dual modulus prescaler.
References

- B. -U Klepser, &quot;SiGe Bipolar 5. 5 GHz dual-modulus prescaler,&quot; IEE Electronics Letters, vol. 35, no. 20, pp. 1728-1730, September 1999.
Design of High Speed Dual Modulus Prescaler using Carbon Nanotube Field Effect Transistor


Index Terms
Keywords
Dual Modulus Prescalar  Frequency Synthesizer  Cntfet  Cmos