Abstract

A set of components in a circuit which are called as modules or blocks are connected through interconnections called as wires. Various computational techniques are used to calculate and minimize the area, power and speed. Single IC consists of number of Processing Elements (PEs), which works on various voltage ranges. Due to this the IC power consumption increases, thereby temperature of the chip also increases. The increased temperature in some parts is called as hotspots. The main goal of this paper is to focus on calculation of area, power and hotspot of SRAM memory circuit for 8T and 10T memory cell using Microwind. This may used to design of many complicated memory circuits for various temperature ranges. The Submicron Technology is widely used for designing any complex analog circuits.

References

Temperature Oriented Design of SRAM cell using CMOS Technology

- Meng-Fan Chang, Yung-Chi Chen and Chien-Fu Chen 2010 A 0.45-V 300-MHz 10T flowthrough SRAM with expanded write/read stability and speed-area wise array for sub-0.5-V chips. IEEE Transactions on Circuit and Systems-II:Express Briefs, Vol. 57, No. 12, pp. 980-985.

Index Terms

Computer Science

Wireless
Keywords

Submicron technology  8T memory cell  10T cell  hotspot