New practical researches on ultra-low power systems with no-loss of information for preventing heat generation as reversible gates is making many progresses in a combination with nano-scale quantum-dot cellular automata technology. In this paper, two important design factors of QCA is investigated. Then a novel robust design of Toffoli reversible gate is proposed and compared its useful template for further uses in VLSI circuits to the others.

References

A Novel robust Design of Toffoli gate in Quantum-Dot Cellular Automata


Index Terms

Computer Science

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Keywords

Toffoli, reversible gate, QCA, Boundary input, Boundary output