عنوان مقاله:

Well-Polarized Inverters with Quantum-dot Cellular Automata

محل انتشار:

سومین کنفرانس بین المللی پژوهشهای کاربردی در مهندسی کامپیوتر و فن آوری اطلاعات (سال: 1394)

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خلاصه مقاله:

past few years many efforts have been made on Quantum-dot cellular automata (QCA) because it seems a good candidate for implementing next generation computers. Other technologies use electricity voltage or current to represent the binary values. However, in QCA it represents with charge polarization. In this paper two inverters are proposed whose polarizations are improved and their output signals are more robust. Consequently, the devices are more tolerable in noisy environment and they can perform more reliable. Finally the functionality of the models is verified by QCADesigner as a standard simulator for QCA models.

کلمات کلیدی:

Single Electron Devices, Quantum-dot Cellular Automata, Polarization, Inverter