

عنوان مقاله:

Design and optimization of a new adder based on carbon nanotube using field-effect transistors

محل انتشار:

دومین کنفرانس بین المللی پژوهش های دانش بنیان در مهندسی کامپیوتر و فناوری اطلاعات (سال: 1396)

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خلاصه مقاله:

Adders refer to the most important elements in digital circuits. Thus providing an optimal design of this element contributes significantly to the improvement of the output parameters of these circuits. In this paper, a new adder with Low power and high frequency response is provided in which carbon nanotube field-effect transistors are used instead of CMOS transistors. The proposed circuit than circuits similar to it have low consumption power and high frequency response. This circuit with technology of 320 nm and 0.9-volt power supply has been considered and the results showed a significant improvement in throughput and latency parameters of the designs of the past

کلمات کلیدی:

full adder, field-effect transistors, carbon nanotubes

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