عنوان مقاله:

Design of New Full Swing Low-Power and High-Performance Full Adder for Low-Voltage Designs

محل انتشار:

کنفرانس بین المللی پژوهش های کاربردی در فناوری اطلاعات، کامپیوتر ومخابرات (سال: 1394)

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خلاصه مقاله:

This paper, presents a new design for 1-bit full adder cell using hybrid-CMOS logic style. The new full swing full adder cell has excellent performance in low values of power supply, so this circuit is a suitable choice for low-power applications and low-voltage designs. According to the simulation results, the proposed full adder has the best power consumption, propagation delay and power-delay product compared to its counterparts, such that the power-delay product of the proposed full adder is 39% better than the next best PDP. HSPICE simulations using TSMC's 130nm technology with a power supply of 1.2V was utilized to evaluate the performance of the circuits.

کلمات کلیدی:

Full Adder, High-Performance, Hybrid-CMOS, Low-Power, Low-Voltage, VLSI