A Conditional Keeper Technique for Sub-0.13μ Wide Dynamic Gates

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ABSTRACT

In this paper, we present an efficient *Conditional Keeper-Technique*, where a large fraction of the keeper is turned ON only if the dynamic output remains *High* in the evaluation phase. Thus, strong keepers can be utilized with leaky gates without significant impact on performance of the gates. Compared to the conventional technique, 9-to-35% higher performances have been observed across 8-to-32-bit wide dynamic gates in a *0.13μm* technology.