
Poster Presentation

[FLXp1]Flexible Electronics Technologies

Thu. Nov 28, 2019 2:30 PM - 5:00 PM Main Hall (1F)

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[FLXp1-8]A high performance 3-bit ripple counter circuit based on Organic TFTs for flexible read out integrated circuit

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We propose a high performance 3-bit negative edge-triggered ripple counter based on Organic Thin Film Transistors (OTFTs). All the logic gate circuits used in this work are inverters and NAND circuits based on OTFTs with large zero-VGS load. A voltage range of 0 to 30V and a frequency of 12.5KHz clock signal is used for the ripple counter as input clock input. A high output level of ~27.4V and a low output level of ~4 or 5V are measured at the 2nd and 3rd stages' output node of the ripple counter. Their frequencies are one quarter and one eighth of the input signal' s frequency. The output signal of the proposed ripple counter changes when its input signal falls to low level from high.