

Total Irradiated Dose Measurement Using N-MOST Based Oscillator

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Resumen

This work presents a novel methodology for measuring gamma radiation doses, based on an OBIST (Oscillation-Based Built In Self-Testing) scheme. The studied circuit has a configuration of a Colpitts oscillator designed with three nMOS transistors. The gamma radiation incidence on the transistors produces a shift in the threshold voltage, which changes the oscillation frequency and makes it possible to measure the value of the radiation dose.

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