

عنوان مقاله:

Time measurement in the quick switching by dual circuit

محل انتشار:

چهارمین کنفرانس بین المللی پژوهش های نوین در علوم مهندسی و تکنولوژی (سال: 1394)

تعداد صفحات اصل مقاله: 15

نویسنده:

Mohammadreza Motavalli Kasmaie - Assistance professor in Electronics Engineering (Transmission), Technical and Engineering College, Qom University, Iran

خلاصه مقاله:

If the time-characteristic for the start and stop signals are not similar, time systematic errors will occur (the time error from the amplitude and ascension gradient of pulse signal) in measurement of the time in the quick switching circuits. The time errors must be added also to errors of channel amplitude that increases the time measurement error. The amplitude error which is visible and highly significant can be removed completely by using CFT and zero amplitude formation method. CFT is usually based on the voltage signal where its bandwidth may be limited by circuit resistors and parasitic capacitors (that increase the time measurement error). Increasing undesirable parasitic capacitors effect in modern microelectronic circuits is unavoidable. Therefore, replacing conventional circuits with dual circuits should be suitable. In the new method, circuit parameters information appears in the current signals (instead of voltage signals). In the complex digital circuits with feedback, time difference between the input and output pulses leads to interfering pulses such as glitch. The CFT circuits play important role in minimization of interfering signals. In this study, CFT and its zero amplitude detector is presented, designed, fabricated and tested for current signal

کلمات کلیدی:

Upper and lower current threshold, Zero current detector, Starts and stop signals, Constant Fraction Trigger

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/515294>

