

TV ghost cancellation system using switched capacitor circuits

ABSTRACT

In TV reception, picture quality has been one of the primary criterion in its design. Ghost signals is one of the major causes of distortion and cannot be avoided in the TV receiver. Ghost cancellation is a nullifying operation and allows one to reduce its effect on the picture quality as much as possible. A ghost canceling network using a switched capacitor circuits for CCIR system B for television transmissions has been presented in this paper. Two-stage switched capacitor (SC) transversal filter has been used for reduction of distortion. In this paper the system has been simulated at the block diagram level and the component level using MATLAB and PSpice respectively. Results show that simulated system is able to suppress ghost with delays ranging from 0.1 μs to 20 μs with ghost suppression threshold at one percent amplitude.

Keyword: Ghost signals; Ghost cancellation; Television picture quality; Switched capacitor circuits