

A Portable Clock Recovery Circuit (CRC) For Systems-On-Chip Serial Data Communication

Elrabaa, Muhammad E. S.; Computer Engineering Department, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia, elrabaa@kfupm.edu.sa; **Microelectronics, 2006. ICM '06. International conference; Publication Date: 16-19 Dec. 2006; ISBN: 1-4244-0765-6**
King Fahd University of Petroleum & Minerals

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Summary

An all-digital clock recovery circuit that is capable of extracting the clock embedded in the serial data stream is presented. The new CRC can retime the output clock with the received data within two bit transitions. The absence of analog filters or other analog blocks gives it a much smaller area than conventional circuitry. Also, being fully-digital, it can be described, simulated and synthesized using hardware description languages and be ported to any technology (thus supporting system on a chip designs). Circuit operation and performance was demonstrated using a 0.13 μ m, 1.2V CMOS technology and T-Spice simulations.

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