

An Encoder for Differential Manchester and Inverse Differential Manchester Line Codes

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Abstract

A synchronous digital circuit for encoding differential Manchester and inverse differential Manchester codes is presented. The design is based on a new representation of these codes as Moore state machines, which is extracted from a new code definition through encoding equations. The encoder utilizes two flip-flops, one OR gate and one X-OR gate, which can be easily implemented in hardware using standard ICs or part of an LSI / VLSI circuit.