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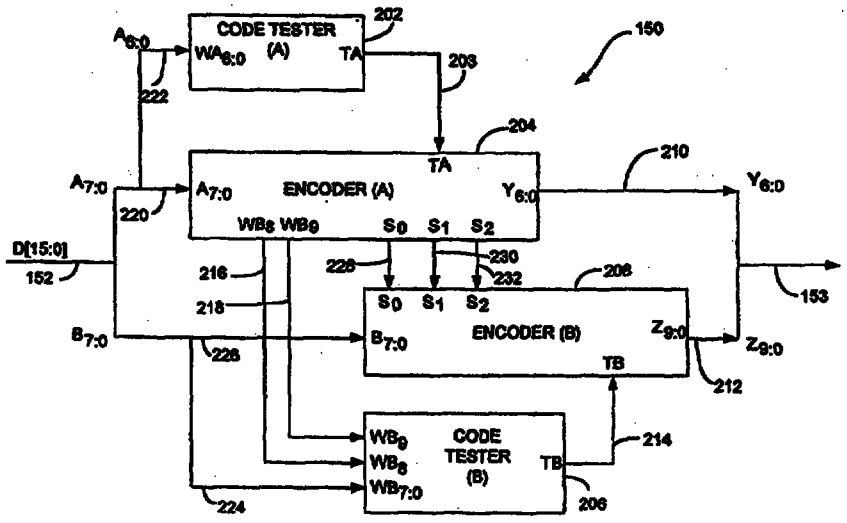
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(54) Title: EFFICIENT RUN LENGTH LIMITED CODE WITH SHORT INTERLEAVED CONSTRAINT



(57) Abstract

Encoder (150) divides successive data words (152) into first and second portions. The first portion of each successive data word (152) is mapped into a corresponding first code pattern and a corresponding state variable according to a selected code. A second portion of each successive data word (152) is mapped into a corresponding second code pattern that is associated with the state variable, according to the selected code. The first and second code patterns are combined to form each of the successive code words (153), which are concatenated to form an encoded bit stream having a plurality of bit positions. The encoder imposes constraints on the selected code such that the encoded bit stream has a maximum of seven consecutive same binary symbols in adjacent ones of the plurality of bit positions and a maximum of five consecutive same binary symbols in every other one of the plurality of bit positions.