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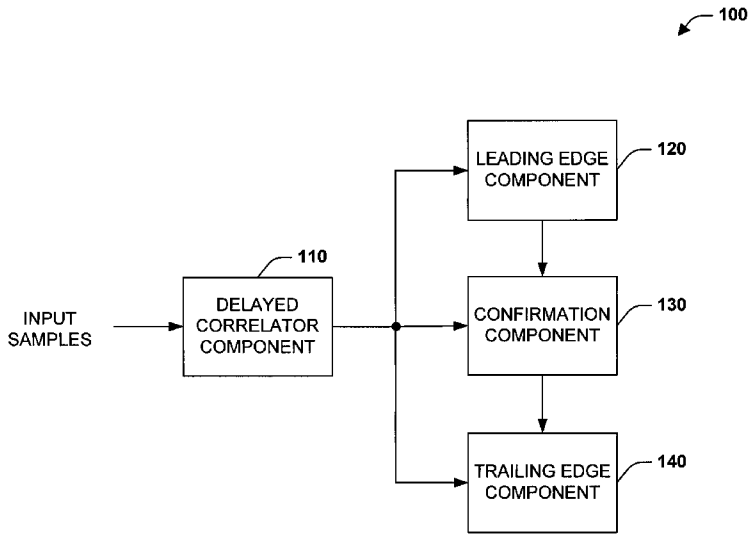
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(54) Title: FRAME SYNCHRONIZATION AND INITIAL SYMBOL TIMING ACQUISITION SYSTEM AND METHOD



(57) Abstract: A robust initial frame detection and symbol synchronization system and methodology are provided. In particular, a first pilot is employed in conjunction with three acquisition stages. In the first stage, an attempt is made to observe the leading edge of the correlation curve associated with the first pilot symbol. In the second stage, a determination is made as to whether a leading edge was detected in the first stage by attempting to observe a flat portion and/or trailing edge of the correlation curve. Furthermore, during this second stage, a frequency loop can be updated to account for frequency offset. The third stage is for observing the trailing edge of the curve if it was not already observed in stage two. Upon detection and confirmation of receipt of the first pilot, a second pilot can subsequently be employed to acquire fine symbol timing.

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