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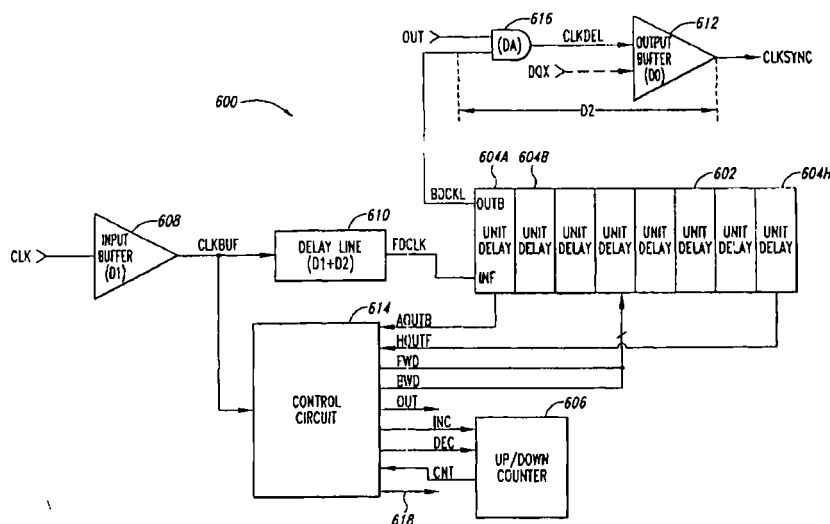
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(54) Title: **SYNCHRONOUS MIRROR DELAY (SMD) CIRCUIT AND METHOD INCLUDING A COUNTER AND REDUCED SIZE BI-DIRECTIONAL DELAY LINE**



(57) Abstract: A synchronous mirror delay (600) includes a model delay line (610) that is coupled to a bi-directional delay line (602). In operation, an initial edge of an input clock signal is applied through the model delay line to the bi-directional delay line. The SMD thereafter operates in a forward delay mode to alternately operate the bi-directional delay line in a forward mode and a backward mode to propagate the initial edge of the input clock signal through the bi-directional delay line and delay the initial edge of the input clock signal by a forward delay. In response to a subsequent edge of the input clock signal, the SMD mirrors the propagation of the input clock signal through the bi-directional delay line during the forward mode and further delays the initial edge of the input clock signal by a backward delay that is substantially equal to the forward delay.

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