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(54) **CLOCKLESS PROGRAMMABLE PULSE WIDTH GENERATION USING AN INVERSE CHAOTIC MAP**

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(57) **ABSTRACT**

Technologies are provided for generation of programmable pulse signals using inverse chaotic maps, without reliance on a clocking signal. Some embodiments of the technologies include an apparatus that can receive a sequence of bits having a defined number of bits, where the sequence of bits represent a desired continuous pulse signal having a pro-grammable width in time-domain. The apparatus can also can receive a precursor continuous pulse signal having an arbitrary width in time-domain that fits within the dynamic range of the apparatus. The apparatus can generate the desired continuous pulse signal by transforming the precur-sor continuous pulse signal using the sequence of bits and an inverse chaotic map.