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(19) **United States**(12) **Patent Application Publication****Liu et al.**(10) **Pub. No.: US 2022/0393670 A1**(43) **Pub. Date: Dec. 8, 2022**(54) **CHIP, SELF-CALIBRATION CIRCUIT AND METHOD FOR CHIP PARAMETER OFFSET UPON POWER-UP**(52) **U.S. Cl.**CPC ..... **H03K 3/037** (2013.01); **H03K 23/00** (2013.01)(71) Applicant: **Fremont Micro Devices Corporation, Shenzhen (CN)**

(57)

**ABSTRACT**

A chip, a self-calibration circuit and method for chip parameter offset upon power-up are disclosed. The circuit includes a counting circuit, a calibration data latch circuit, a calibration data selection circuit and a parameter calibration circuit. The counting circuit outputs a sequentially scanned counting signal when receiving a valid enabling signal. The calibration data latch circuit latches the counting signal when receiving a valid latch signal. The calibration data selection circuit selects the counting signal latched by the calibration data latch circuit as a calibration signal when receiving the valid latch signal, otherwise selects the counting signal currently outputted as the calibration signal. The parameter calibration circuit implements a parameter calibration based on the calibration signal in a calibration mode, while outputs the valid latch signal when the parameter calibration satisfies a preset requirement. Thus, a parameter calibration with a higher accuracy and flexibility is realized in a cheaper way.

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