

## (19) United States

## (12) Patent Application Publication (10) Pub. No.: US 2024/0213998 A1

Goroju et al. (43) **Pub. Date:** 

Jun. 27, 2024

## (54) METHODS AND APPARATUS TO CAPTURE SWITCH CHARGE INJECTIONS AND COMPARATOR KICKBACK EFFECTS

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(21) Appl. No.: 18/129,604

Filed: Mar. 31, 2023 (22)

(30)Foreign Application Priority Data

Dec. 22, 2022 (IN) ...... 202241074406

## **Publication Classification**

Int. Cl. (51)(2006.01)H03M 1/38

U.S. Cl. CPC ...... *H03M 1/38* (2013.01)

(57)**ABSTRACT** 

An example apparatus includes: controller circuitry configured to: provide switch signals to capacitive digital to analog converter (C-DAC) circuitry, the C-DAC circuitry including switches; configuring the switches into a third configuration begin an Auto Zero (AZ) phase with a third switch in a closed state; configuring the switches into a fourth configuration to repeat the transition of the third switch to the open state corresponding to a first configuration; configuring the switches into a fifth configuration to repeat the transition of a first switch and a second switch to the open state corresponding to a second configuration; configuring the switches into a sixth configuration to repeat the transition of the third switch to the closed state corresponding to a second configuration; and performing an AZ decision with the switches in the sixth configuration.

