

# (12) United States Patent

Pavan

# (54) LOW DISTORTION SAMPLE AND HOLD CIRCUIT

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#### **Related U.S. Application Data**

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- (51) Int. Cl.<sup>7</sup> ..... H03K 17/00
- (58) Field of Search ...... 327/390, 589,
  - 327/91, 94, 391, 93

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## (57) ABSTRACT

A circuit 100, which can be used to perform a sample and hold function, includes a switch 112 with a current patch coupled between an input node VIN and an output node VOUT. A capacitor 114 is coupled to the output node VOUT. A replica device 160 includes a current path coupled between the input node VIN and a supply voltage node VDD. A bootstrap circuit, e.g., including a bootstrap capacitor 164, is coupled between a control terminal of the first switch 112 and a control terminal of the replica device 160.

### 8 Claims, 3 Drawing Sheets

