



US 20220393679A1

(19) **United States**(12) **Patent Application Publication**  
**ISAKANIAN et al.**(10) **Pub. No.: US 2022/0393679 A1**(43) **Pub. Date: Dec. 8, 2022**(54) **CIRCUIT DEVICE AGING ASSESSMENT  
AND COMPENSATION****H03K 19/0185** (2006.01)**H03K 5/24** (2006.01)(71) Applicant: **QUALCOMM Incorporated**, San  
Diego, CA (US)(52) **U.S. Cl.**CPC ..... **H03K 17/6871** (2013.01); **G01R 31/2849**  
(2013.01); **H03K 19/018507** (2013.01); **H03K**  
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(57)

**ABSTRACT**

An aspect relates to an apparatus including a set of one or more receivers; a first replica circuit being a substantial replica of at least a portion of one of the set of one or more receivers; a first control circuit generates an output signal selectively coupled to an input of the first replica circuit; a second replica circuit being a substantial replica of at least a portion of one of the set of one or more receivers; a comparator including a first input coupled to a first output of the first replica circuit, a second input coupled to a second output of the second replica circuit, and an output; and a second control circuit including an input coupled to the output of the comparator, and an output coupled to the first replica circuit and to the set of one or more receivers.

(21) Appl. No.: **17/804,383**(22) Filed: **May 27, 2022****Related U.S. Application Data**(63) Continuation of application No. 17/339,195, filed on  
Jun. 4, 2021, now Pat. No. 11,381,238.**Publication Classification**(51) **Int. Cl.****H03K 17/687** (2006.01)**G01R 31/28** (2006.01)