

# (19) United States

# (12) Patent Application Publication (10) Pub. No.: US 2022/0360221 A1 Garvik

### Nov. 10, 2022 (43) **Pub. Date:**

### (54) OSCILLATOR CIRCUITS

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- (21) Appl. No.: 17/736,004
- (22) Filed: May 3, 2022
- (30)Foreign Application Priority Data

(GB) ...... 2106467.0

## **Publication Classification**

(51) Int. Cl. H03B 5/36 (2006.01)H03L 7/099 (2006.01)

U.S. Cl. H03B 5/36 (2013.01); H03L 7/099 CPC ..... (2013.01); H03B 2200/0082 (2013.01)

#### (57)**ABSTRACT**

A method of operating an oscillator circuit comprising a resonator is provided. The method comprises maintaining a resonance of the resonator by a) connecting the resonator to an input voltage  $(V_{buf})$  for a first pulse period to charge the resonator only partially towards the input voltage  $(V_{buf})$ ; b) connecting the resonator to a second, lower, voltage for a second pulse period to discharge the resonator at least partially; and repeating steps a) and b) at a rate corresponding to the resonance of the resonator and with a phase corresponding to the resonance of the resonator, so as to maintain the resonance of the resonator.

