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Conte et al.(10) **Pub. No.: US 2022/0399880 A1**(43) **Pub. Date: Dec. 15, 2022**(54) **RING OSCILLATOR CIRCUIT****H03K 3/012** (2006.01)**H03K 3/014** (2006.01)(71) Applicants: **STMicroelectronics S.r.l.**, Agrate
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Jouanneau, ST-Egreve (FR)(57) **ABSTRACT**

In an embodiment a ring oscillator circuit includes a chain of cascade-coupled inverter stages coupled between an oscillator supply voltage node and a reference voltage node, the oscillator supply voltage node configured to provide an oscillator supply voltage, a current generator circuit coupled between the oscillator supply voltage node and a system supply voltage node configured to provide a system supply voltage, the current generator circuit being configured to inject a current into the oscillator supply voltage node and a biasing circuit including a first bias control transistor and a second bias control transistor coupled in series between the reference voltage node and the oscillator supply voltage node, wherein the first bias control transistor is configured to selectively couple the reference voltage node and the oscillator supply voltage node in response to the oscillator control signal being indicative that the ring oscillator circuit is in an inactive operation state.

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