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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2022/0385238 A1**
(43) **Pub. Date: Dec. 1, 2022**(54) **SYSTEM AND METHOD FOR ADJUSTING
AMPLIFIER BIAS CURRENT BASED ON
INPUT SIGNAL ENVELOPE TRACKING**(52) **U.S. Cl.**CPC **H03F 1/0222** (2013.01); **H03F 3/245**
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(2013.01); **H03F 2200/537** (2013.01)(71) Applicant: **QuantalRF AG**, Zurich (CH)(72) Inventors: **Ali FARD**, Corona Del Mar, CA (US);
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9, 2021.**Publication Classification**(51) **Int. Cl.****H03F 1/02** (2006.01)
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H03F 3/195 (2006.01)(57) **ABSTRACT**

A system and method which includes receiving an input signal having an envelope and generating an envelope detection signal corresponding to the envelope. A bias current provided to an amplifier circuit is adjusted based upon the envelope detection signal, the amplifier circuit including an amplifier and a transformer. The transformer is configured to establish a magnetically coupled feedback loop from an output of the amplifier to an input of the amplifier. An output signal is provided, by the amplifier circuit, in response to the input signal.

