



US 20220416733A1

(19) **United States**(12) **Patent Application Publication**
YU(10) **Pub. No.: US 2022/0416733 A1**(43) **Pub. Date: Dec. 29, 2022**(54) **AMPLIFIER CIRCUIT WITH A CURRENT SOURCE**(71) Applicant: **Intel Corporation**, Santa Clara, CA (US)(72) Inventor: **Chuanzhao YU**, Phoenix, AZ (US)(21) Appl. No.: **17/355,203**(22) Filed: **Jun. 23, 2021****Publication Classification**(51) **Int. Cl.**
H03F 3/195 (2006.01)
H03F 3/24 (2006.01)
H03F 1/02 (2006.01)(52) **U.S. Cl.**CPC **H03F 3/195** (2013.01); **H03F 3/245** (2013.01); **H03F 1/0227** (2013.01); **H03F 2200/451** (2013.01)

(57)

ABSTRACT

Amplifier circuits, radio communication circuits, radio communication devices, and methods provided in this disclosure. The amplifier circuit may include an amplifier configured to amplify an input signal to provide an output signal. The output signal of the amplifier may include a direct current (DC) signal. The amplifier circuit may further include a current source coupled to the amplifier. The current source may be configured to receive an electrical supply. The current source may further be configured to divide the direct current (DC) signal of the output signal based on the electrical supply.

