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(54) **REGULATOR WITH FLIPPED VOLTAGE FOLLOWER ARCHITECTURE**

(71) Applicant: **Faraday Technology Corp.**, Hsin-Chu City (TW)

(72) Inventors: **Chen-Hui Xu**, Suzhou City (CN); **Xiao-Dong Fei**, Suzhou City (CN); **Wen-Chi Huang**, Hsin-Chu City (TW); **Hui-Wen Hu**, Suzhou City (CN)

(73) Assignee: **Faraday Technology Corp.**, Hsin-Chu City (TW)

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(57) **ABSTRACT**

The present invention discloses a regulator. The regulator includes a bias voltage generating circuit and a flipped voltage follower (FVF), wherein the bias voltage generating circuit is configured to generate a bias voltage, and the FVF is configured to generate an output voltage according to the bias voltage and a supply voltage. The FVF includes a first P-type transistor and a first N-type transistor. The P-type transistor is configured to receive the bias voltage via a gate electrode of the P-type transistor, to generate the output voltage on a source electrode of the P-type transistor. A drain electrode of the first N-type transistor is connected to the supply voltage, a source electrode of the first N-type transistor is connected to the source electrode of the first P-type transistor, and a gate electrode of the first N-type transistor receives a driving signal for compensating the output voltage.