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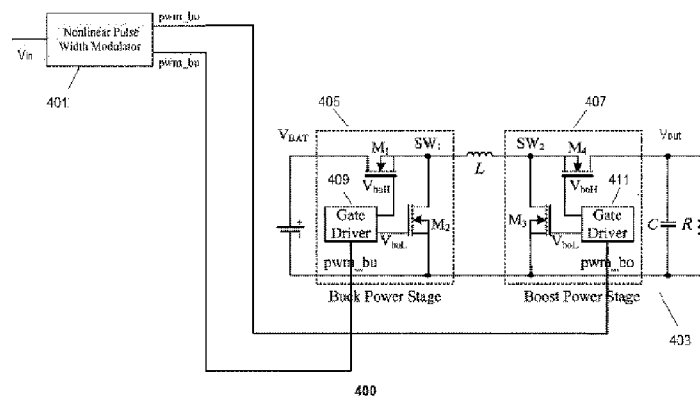
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(54) **Title:** BUCK-BOOST POWER AMPLIFIER WITH INDEPENDENTLY CONTROLLED POWER STAGES AND COMPENSATED NONLINEAR PULSE WIDTH MODULATOR

[Fig. 4]



(57) **Abstract:** A buck-boost power amplifier receiving a supply voltage and providing an output having a voltage swing higher than the supply voltage is provided. The buck-boost power amplifier comprises a buck power stage, a boost power stage, an inductor, and a non-linear pulse width modulator. The buck power stage and the boost power stage are independently controlled by the non-linear pulse width modulator. The non-linear pulse width modulator switches the buck-boost power amplifier between a buck mode wherein the output provides a voltage lower than the supply voltage and a boost mode wherein the output provides a voltage higher than the supply voltage.