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Liu et al.

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(54) **HIGH-VOLTAGE NMOS SWITCH**

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(*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Under 35 U.S.C. 154(b), the term of this patent shall be extended for 0 days.

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(52) **U.S. Cl.** **327/390; 327/536; 327/589**

(58) **Field of Search** **327/390, 536, 327/537, 589; 307/110, 126, 130**

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(57) **ABSTRACT**

A high voltage NMOS switch is adjustable in order to optimize the switch for proper operation with different circuit configurations. A high voltage booster, included within the high voltage NMOS switch, enables the switch to reclaim the previously unused second half-cycle of a power source waveform signal, which thereby increases the speed of the NMOS switch by a factor of two. In addition, the high voltage NMOS switch provides added ramp rate flexibility by enabling a user to optimize the ramp rate of the high voltage NMOS switch for different circuit configurations.

14 Claims, 11 Drawing Sheets

