

BOOST CIRCUIT

ABSTRACT

A boost circuit reduces the consumed current during a startup condition of the boost circuit. The boost circuit comprises a plurality of charge pump circuit stages (4A-4H). Each charge pump circuit stage (eg 4A) has a respective V_i input, a clock input, and a V_o output. Each circuit stage provides a voltage at the respective output which is higher than a voltage at the V_i input. The V_i input of a first of the circuit stages (4H) is connected to a power supply voltage (V_{IN}). Each of the plurality of circuit stages other than the first stage (4H) has a respective V_i input connected to the V_o output of an immediately preceding the circuit stage. During a startup condition, each of the clock signals transitions from an inactive state to a reciprocating state, the transition of each of the clock signals being delayed by at least one clock cycle with respect to each transition of the clock signal supplied to each preceding stage.

FIG.1