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(54) **A LEVEL SHIFTER AND MULTI-VOLTAGE-DOMAIN CIRCUITS**

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(57) **ABSTRACT**

An electronic circuit that switchably generates an offset-bias output at a offset-bias voltage in response to at least an enable signal at a low voltage relative to the offset-bias voltage is provided. The electronic circuit includes a reference input terminal, configured to be connected to a reference voltage; a low-voltage-input terminal, configured to receive the enable signal at a first voltage; a high-voltage-supply terminal, configured to receive power at a second voltage; an offset-bias output terminal, configured to output the offset-bias output, the offset-bias voltage being less than the second voltage; a voltage-offset circuit configured to generate the offset-bias voltage from the second voltage; a bias circuit configured to switchably provide a bias current to the voltage-offset circuit; and a high-voltage stand-off circuit, connected between the bias circuit and the voltage-offset circuit and configured to withstand a voltage difference between the second voltage and the reference voltage.