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(54) POWER MANAGEMENT INTEGRATED CIRCUIT WITH CHARGE PUMP

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(57)ABSTRACT

In an embodiment, an apparatus is disclosed that includes a power management integrated circuit (PMIC). The PMIC includes a voltage regulator supplied by a first power source and configured to generate a first output and a charge pump supplied by a second power source and configured to generate a second output. A bias voltage output of the power management integrated circuit is generated based at least in part on the first output and the second output. The charge pump is configured to adjust the second output based at least in part on a comparison between the bias voltage output and a reference voltage.

