

ABSTRACT OF THE DISCLOSURE

REGULATED INTERNAL POWER SUPPLY AND METHOD

A regulated internal power supply and method are provided. According to various embodiments, a regulated internal power supply system includes a DC to DC converter adapted to connect to an external supply voltage. The converter is further adapted to increase voltage level above a level of the external supply voltage. A low pass filter is connected to the DC to DC converter, and a current-mode bandgap voltage reference (BVR) is connected to the low pass filter. The BVR is adapted to provide second order curvature correction and to provide a tunable voltage reference gradient with respect to the external supply voltage. A power amplifier is connected to the BVR and to a circuit die, to provide a stable internal supply voltage to the die. Other aspects and embodiments are provided herein.

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