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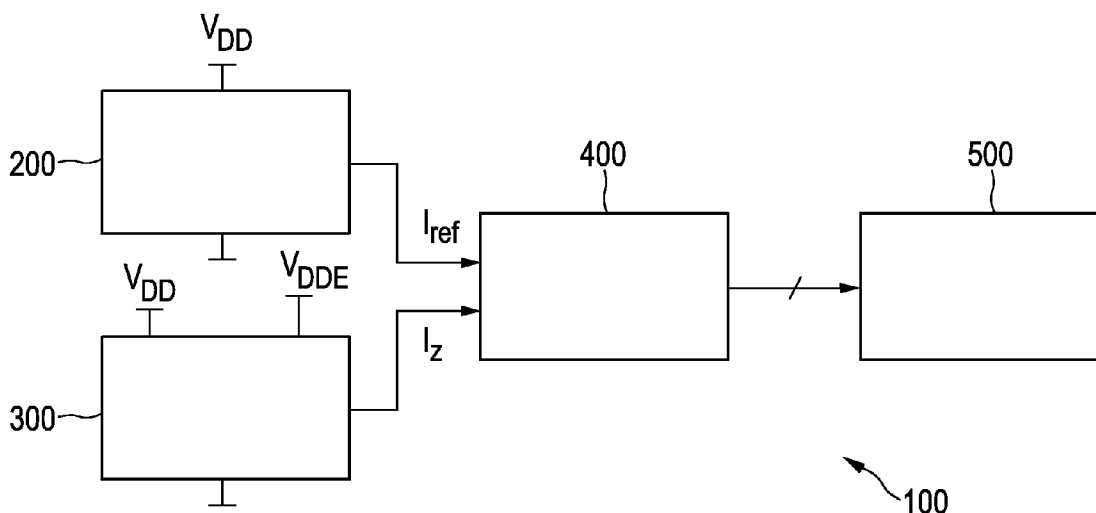
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(54) Title: VERY LOW POWER ANALOG COMPENSATION CIRCUIT



(57) Abstract: The present invention relates to a compensation circuit for providing compensation over PVT variations within an integrated circuit. Using a low voltage reference current source, the compensation circuit generates directly, from an on-chip reference low voltage supply (V_{DD}), a reference current (I_{ref}) that is constant over PVT variations, whereas a detection current (I_z) that is variable over PVT variations is generated by a sensing circuit, which is based on a current conveyor, from a low voltage supply ($V_{DDE}-V_{DD}$) applied across a single diode-connected transistor (M10) corresponding to a voltage difference between two reference low voltage supplies. Both currents (I_{ref} , I_z) are then compared inside a current mode analog-to-digital converter that outputs a plurality of digital bits. These digital bits can be subsequently used to compensate for PVT variations in an I/O buffer circuit.

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