Abstract:

The proposed invention is an improved process, voltage and temperature (PVT) invariant voltage reference generator using sub-threshold MOSFETS. Sub-1V band gap reference also used to generate similar accuracy levels with process variations. The proposed circuit has been designed and optimized in 180nm mixed-mode CMOS technology. The output voltage of the proposed voltage reference generator varies by only ±0.85% across process corners and temperature range of 0°C to 100°C. The proposed circuit consumes only 19nW DC power and operates at supply voltages as low 600mV.