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(54) **APPARATUS, SYSTEM AND METHODS FOR A
TEMPERATURE COMPENSATED CURRENT
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(57) **ABSTRACT**

An apparatus may include a current mirror circuit, a cascode circuit and a current generator circuit. The current generator circuit may produce a Proportional-to-Absolute Temperature (PTAT) current and a Complementary-to-Absolute Temperature (CTAT) current. The PTAT current and the CTAT current may be based on a first impedance and a second impedance. A combination of the PTAT current and the CTAT current may be a current reference. The values of the first impedance and the second impedance may be chosen to reduce the first-order temperature coefficient of the current reference and the current reference may be a first-order temperature-compensated current reference.

