

Title (en)

Electronic circuit with self-calibrated PTAT current reference, and method for operating same

Title (de)

Elektronischer Schaltkreis mit selbst kalibriertem PTAT-Referenzstrom, und sein Einsatzverfahren

Title (fr)

Circuit électronique à référence de courant PTAT auto-calibrée, et procédé pour sa mise en action

Publication

**EP 2887176 B1 20220914 (FR)**

Application

**EP 13198965 A 20131220**

Priority

EP 13198965 A 20131220

Abstract (en)

[origin: CN104731148A] The invention relates to an electronic circuit with self-calibrated PTAT current reference and a method for actuating the same. The electronic circuit(1) with a self-calibrated PTAT current reference includes a PTAT current generator dependent on at least one integrated resistor(8) for supplying a PTAT output current(3). It further includes a reference current generator(3) dependent on at least one switched capacitor resistor(12), for supplying a reference current(Iref). The reference current(Iref) and the PTAT output current(IOUT) are compared in a comparator(6) so as to digitally adapt the programmable integrated resistor(8), or to digitally adapt the dimensional ratio of the transistors(P11,P12,P13) of a current mirror in the PTAT current generator, to supply the adapted PTAT output current(IOUT).

IPC 8 full level

**G01K 7/01** (2006.01); **G05F 3/24** (2006.01)

CPC (source: EP KR US)

**G05F 3/242** (2013.01 - EP KR US); **G05F 3/262** (2013.01 - KR US)

Citation (examination)

- JP 2011124854 A 20110623 - FUJITSU LTD
- US 2010289462 A1 20101118 - WU CHIA-HSIN [TW]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**EP 2887176 A1 20150624; EP 2887176 B1 20220914**; CN 104731148 A 20150624; CN 104731148 B 20160831; HK 1211715 A1 20160527; JP 2015122494 A 20150702; JP 5918344 B2 20160518; KR 101749794 B1 20170621; KR 20150073122 A 20150630; TW 201541219 A 20151101; TW I675275 B 20191021; US 2015177772 A1 20150625; US 9442509 B2 20160913

DOCDB simple family (application)

**EP 13198965 A 20131220**; CN 201410784806 A 20141217; HK 15112380 A 20151216; JP 2014253730 A 20141216; KR 20140184793 A 20141219; TW 103142196 A 20141204; US 201414558839 A 20141203