

Title (en)

Low output noise density low power ldo voltage regulator

Title (de)

Leistungsarmer LDO-Spannungsregler mit geringer Ausgangsrauschdichte

Title (fr)

Régulateur de tension LDO à faible puissance et bruit de sortie à faible densité

Publication

**EP 2804067 A1 20141119 (EN)**

Application

**EP 13305645 A 20130517**

Priority

EP 13305645 A 20130517

Abstract (en)

There is described a low drop-out, LDO, voltage regulating circuit controlled by two independent feedback DC loops operating simultaneously. A first loop (100) sets the current (10) in a band-gap reference stage (10) to provide low noise and temperature compensation. The second loop (200) controls a pass device (MP1) of an output stage (30) to provide low drop-out regulated voltage (Vout) at an output (2) of the circuit. The stability is ensured by only one capacitor (Cstab) at the output of the circuit.

IPC 8 full level

**G05F 1/575** (2006.01)

CPC (source: EP)

**G05F 1/575** (2013.01)

Citation (applicant)

- EP 1624357 A1 20060208 - NANOPower SOLUTION CO LTD [JP]
- EP 0715238 A2 19960605 - TEXAS INSTRUMENTS INC [US]
- EP 1336912 A1 20030820 - MOTOROLA INC [US]
- EP 1865397 A1 20071212 - ST MICROELECTRONICS SA [FR]
- US 7362081 B1 20080422 - HUANG SHENGMING [GB]
- EP 1229419 A2 20020807 - BROADCOM CORP [US]
- EP 1191416 A2 20020327 - TEXAS INSTRUMENTS INC [US]
- EP 1365302 A1 20031126 - TEXAS INSTRUMENTS INC [US]
- US 7030598 B1 20060418 - DOW RONALD NEAL [US]

Citation (search report)

- [A] US 5325045 A 19940628 - SUNDBY JAMES T [US]
- [A] CN 102681584 A 20120919 - KUNSHAN BRIGATES MICROELECTRONICS CO LTD

Cited by

CN106843363A; CN111474974A; CN106774582A; EP3514653A1; US10671104B2; US10033270B2; US10069409B2

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2804067 A1 20141119; EP 2804067 B1 20151209**

DOCDB simple family (application)

**EP 13305645 A 20130517**