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DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
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[Continued on next page]

(54) Title: A LOW POWER REFERENCE CURRENT GENERATOR WITH TUNABLE TEMPERATURE SENSITIVITY

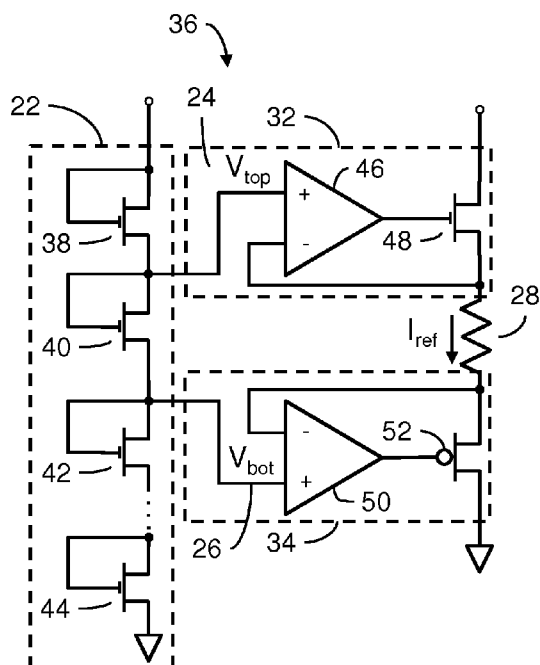


FIG. 5

(57) Abstract: An improved reference current generator is provided. A voltage difference generator generates two voltages that are separated by a relatively small electrical potential. The two closely separated voltages are applied across a resistive element with relatively large impedance value resulting in a small and stable reference current. The result is a power efficient, temperature compensated reference current generator.



EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,
LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/038295**A. CLASSIFICATION OF SUBJECT MATTER***G11C 5/14(2006.01)i*

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G11C 5/14; H03K 17/16; H03B 1/00; H03K 19/0948

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords:reference,current,voltage,difference,buffer,temperature,circuit,amplifier

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2010-0246283 A1 (HIROTA AKIHIRO) 30 September 2010 See Paragraphs [0056]-[0059], [0065] and Figures 5, 10, 11.	1-31
A	US 05668483A A (ROOHPARVAR; FRANKIE F.) 16 September 1997 See Column 4, line 20-Column 7, line 24 and Figures 2, 3.	1-31
A	US 7768324 B1 (LIMOTYRAKIS SOTIRIOS) 03 August 2010 See Column 7, line 1-Column 8, line 20 and Figures 3-5.	1-31



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

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"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2010-0246283 A1	30.09.2010	JP 2010-231356 A US 8243531 B2	14.10.2010 14.08.2012
US 05668483A A	16.09.1997	US 05900741A A US 06127841A A	04.05.1999 03.10.2000
US 7768324 B1	03.08.2010	US 7821305 B1	26.10.2010