



- (51) International Patent Classification:
H02M 3/28 (2006.01) *H02M 1/42* (2007.01)
- (21) International Application Number:
PCT/US2012/035751
- (22) International Filing Date:
30 April 2012 (30.04.2012)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
13/096,766 28 April 2011 (28.04.2011) US
- (63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 13/096,766 (CON)
Filed on 28 April 2011 (28.04.2011)
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, 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, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, 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,

[Continued on next page]

(54) Title: POWER CONVERSION SYSTEM AND METHOD

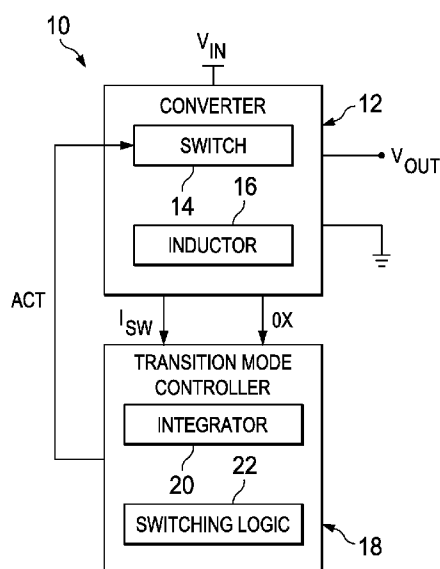


FIG. 1

(57) Abstract: A power conversion system (10) includes a converter (12) configured to convert an input voltage (V_{IN}) to an output voltage (V_{OUT}). The converter includes a switch (14) that is controlled in response to an activation signal (ACT) to provide current through an inductor (16). A transition mode controller (18) provides the activation signal (ACT) based on a measure of charge derived from current through the switch and based on the current through the inductor.



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

— with international search report (Art. 21(3))

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

3 January 2013

A. CLASSIFICATION OF SUBJECT MATTER***H02M 3/28(2006.01)i, H02M 1/42(2007.01)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)

H02M 3/28; H02M 7/5381; H02M 3/335; H05B 41/32; H02M 7/44; H02M 5/42; H02M 3/24

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: "Converter", "Current Sensing", "Transition mode", "Zero-Crossing", "Inductor", "Flyback", "Buck", "Boost"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6351401 B1 (U.S. Philips Corp) 26 Feb. 2002 see the abstract, claims 1-10, column 1 line 10 - column 3 line 65, and figures 1-6	1-17
A	US 6229725 B1 (Hughes Electronics Corp) 08 May 2001 see the abstract, claims 1-15, and figures 1-8	1-17
A	US 4985821 A (Lambda Electronics Inc) 15 Jan. 1991 see the abstract, claims 1-8, and figures 1-4	1-17
A	US 5101335 A (Eastman Kodak Comp) 31 Mar. 1992 see the abstract, claims 1-18, and figures 1-3	1-17
A	US 4866592 A (Fuji Electric Co) 12 Sep. 1989 see the abstract, claims 1-2, and figures 1-7	1-17
A	US 2009-0097280 A1 (Delta Electronics Inc) 16 Apr. 2009 see the abstract, claims 1-20, and figures 1-12	1-17



Further documents are listed in the continuation of Box C.



See patent family annex.

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"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

Date of the actual completion of the international search

23 OCTOBER 2012 (23.10.2012)

Date of mailing of the international search report

25 OCTOBER 2012 (25.10.2012)

Name and mailing address of the ISA/KR

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City, 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/035751

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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