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- (71) **Applicant (for all designated States except US):** SKY-
WORKS SOLUTIONS, INC. [US/US]; 20 Sylvan Road,
Woburn, MA 01801 (US).
- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** REISNER, Russ,
Alan [US/US]; 4430 Camino de la Rosa, Newbury Park,
CA 91320 (US). KACZMAN, Daniel, Lee [US/US]; 5110
Via El Molino, Newbury Park, CA 91320 (US). LIN, Yu-
Jui [—/US]; 395 Arden Ave., Unit 2, Glendale, CA 91203
(US). WU, Andy, Cheng Pang [US/US]; 743 Via Mar-
quesa, Camarillo, CA 93012 (US).
- (74) **Agent:** KING, John, R.; Knobbe Martens Olson & Bear,
LLP, 2040 Main Street, Fourteenth Floor, Irvine, CA
92614 (US).
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(54) **Title:** APPARATUS AND METHODS FOR CAPACITIVE LOAD REDUCTION

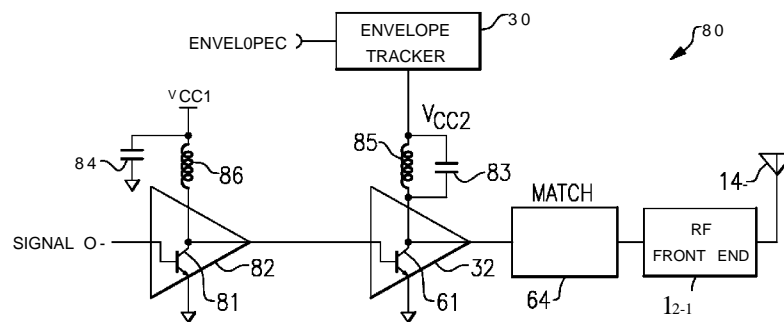


FIG.8A

(57) **Abstract:** Apparatus and methods for capacitive load reduction are disclosed. In one embodiment, a power amplifier system includes a power amplifier (32) configured to amplify a radio frequency (RF) signal of a first frequency and an envelope tracker (30) configured to control a supply voltage of the power amplifier using an envelope of the RF signal. The power amplifier system further includes an inductor (85) electrically connected between the power amplifier and the envelope tracker and a capacitor (83) electrically connected between the power amplifier and the envelope tracker. The capacitor and the inductor are configured to have a resonance near the first frequency.

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INTERNATIONAL SEARCH REPORT

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PCT/US2012/028958**A. CLASSIFICATION OF SUBJECT MATTER*****H03F 1/32(2006.01)i, H03F 3/24(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)

H03F 1/32; H03F 3/38; H01Q 11/12; H03F 1/34; G06G 7/12; H04B 1/04; H03F 3/04

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: A power amplifier system, a first power amplifier, a second power amplifier, an envelope tracker, a first inductor electrically connected between the first power amplifier and the envelope tracker, a first capacitor electrically connected between the first power amplifier and the envelope tracker

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2003-0179048 A1 (ARILD KOLSRUD et al.) 25 September 2003 See abstract, claims 1, 5-8 and figure 7	1-2, 7-9, 11-12, 15-16, 18, 27-29, 3-6, 10, 13-14, 17, 19-26
A	US 7199652 B2 (SHIGERU MORIMOTO et al.) 03 April 2007 See abstract, claim 1 and figure 1	1-29
A	US 7042294 B2 (MARTIN GOSS) 09 May 2006 See abstract, claims 1-4 and figure 6	1-29
A	US 7679433 B1 (LI YUSHAN) 16 March 2010 See abstract, claims 1, 8 and figure 6	1-29
A	US 2006-0057980 A1 (TANBIR HAQUE et al.) 16 March 2006 See abstract, claims 1-2 and figure 3	1-29

 Further documents are listed in the continuation of Box C. See patent family annex.

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"&" document member of the same patent family

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189 Cheongsu-ro, Seo-gu, Daejeon Metropolitan
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Authorized officer

Kang Hyun II

Telephone No. 82-42-481-8268



INTERNATIONAL SEARCH REPORT

Information on patent family members

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us 2006-0057980 A 1	16 ,03 .2006	None	