



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
13.11.2013 Bulletin 2013/46

(51) Int Cl.:
H05B 33/08 (2006.01)

(43) Date of publication A2:
12.09.2012 Bulletin 2012/37

(21) Application number: **12156751.5**

(22) Date of filing: **23.02.2012**

(84) Designated Contracting States:
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 States:
BA ME

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(30) Priority: **07.03.2011 US 201113042349**

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(54) **Controllers, systems and methods for controlling dimming of light sources**

(57) A controller for controlling dimming of an LED light source includes a control terminal and dimming control circuitry coupled to the control terminal. The control terminal provides a driving signal to control a control switch coupled to the LED light source, thereby controlling the dimming of the LED light source.

The dimming control circuitry generates the driving signal according to a set of operations of a power switch that transfers an AC signal. The dimming control circuitry further adjusts the driving signal by counting multiple waves of the AC signal to control the dimming of the LED light source.

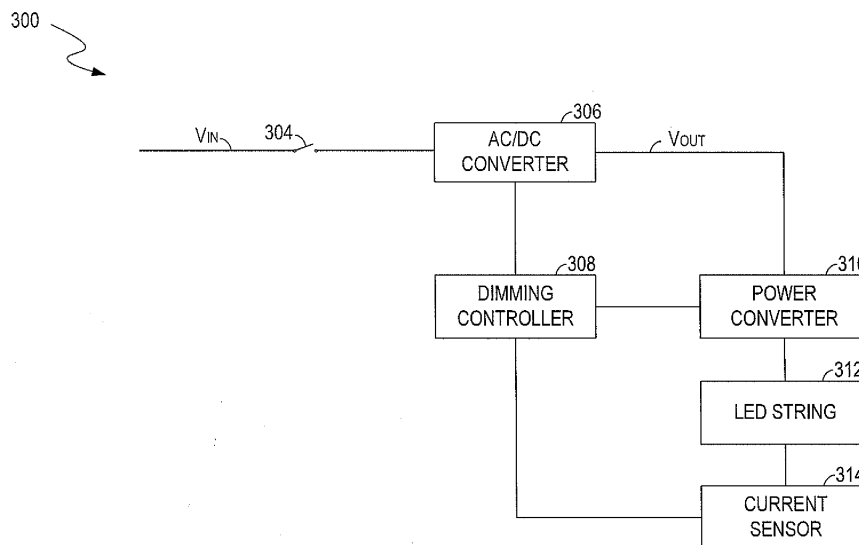


FIG. 3



EUROPEAN SEARCH REPORT

Application Number
EP 12 15 6751

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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A	SUPERTEX INC: "Closed Loop LED Driver with Enhanced PWM Dimming", DATA SHEET, 31 December 2009 (2009-12-31), pages 1-12, XP002714011, CA, 94089, US * fig.1 typical application circuit; page 1 *	1,9,10, 12	
A	TEXAS INSTRUMENT: "Driving High-Current LEDs", APPLICATION REPORT, 31 January 2007 (2007-01-31), pages 1-8, XP002714012, * page 2; figure 2 *	1,12	
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 3 October 2013	Examiner Benedetti, Gabriele
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

 2
EPO FORM 1503 03/02 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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03-10-2013

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82