Title (en)
    BATTERY COMPENSATION SYSTEM USING PWM

Title (de)
    BATTERIEKOMPENSATIONSSYSTEM MIT PWM

Title (fr)
    SYSTÈME DE COMPENSATION DE BATTERIE PAR PWM

Publication
    EP 3053260 A1 20160810 (EN)

Application
    EP 14850350 A 20141003

Priority
    • US 201314046969 A 20131006
    • US 2014059040 W 20141003

Abstract (en)
    [origin: WO2015051248A1] Compensation system adapted for use with a battery-powered, PWM-driven portable electronic device to enable consistent power to the device load despite battery voltage drop resulting from battery depletion, comprising: a voltage divider circuit for proportionally adjusting the voltage to a measurable range; an analog-to-digital converter for receiving the output from the voltage divider and converting it into a digital voltage value; and a microprocessing unit for running software code steps for receiving digital voltage input and user-determined power setting input for determining a compensating duty cycle for application by the software to the PWM to drive the load consistently at the user-determined power setting despite decrease in battery voltage resulting from battery depletion.

IPC 8 full level
    H02M 3/156 (2006.01); **G02B 1/116** (2015.01); **G02C 11/08** (2006.01); **H02M 1/00** (2007.01); **H03K 7/08** (2006.01); **H05B 3/86** (2006.01)

CPC (source: EP KR US)
    G02B 27/0006 (2013.01 - EP KR); **G02C 11/08** (2013.01 - EP KR); **G06F 13/385** (2013.01 - EP KR); **G06F 13/4081** (2013.01 - EP KR); **H02J 7/0063** (2013.01 - EP KR US); **H02J 7/007192** (2020.01 - EP KR US); **H02M 3/156** (2013.01 - EP KR US); **H02M 3/1563** (2013.01 - EP); **H05B 1/023** (2013.01 - EP KR); **H05B 3/84** (2013.01 - EP KR); H02M 1/0022 (2021.05 - EP); H05B 2203/011 (2013.01 - EP KR); H05B 2203/013 (2013.01 - EP KR)

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)
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DOCDB simple family (application)
    US 2014059040 W 20141003; AU 2014329396 A 20141003; CA 2925348 A 20141003; CN 201480055014 A 20141003; EP 14850350 A 20141003; JP 2016520014 A 20141003; KR 20167011997 A 20141003