

Title (en)  
System and method for controlling LED cluster

Title (de)  
System und Verfahren zur Steuerung eines LED-Clusters

Title (fr)  
Système et procédé pour le contrôle de grappe de DEL

Publication  
**EP 2273851 A3 20110511 (EN)**

Application  
**EP 09163687 A 20090624**

Priority  
EP 09163687 A 20090624

Abstract (en)  
[origin: EP2273851A2] In one embodiment, a control system is for controlling a lighting system which comprises a cluster (20) of different colour LEDs. The control system comprises a first control unit (24) for generating amplitude values for the different LEDs of the cluster to provide a desired colour point and a second control unit (38) for controlling pulse width values for the different LEDs to provide a desired brightness. Current sources (32) are provided for individually driving the LEDs of the cluster. This system allows the control of colour point to be independent from the control of brightness of the LED cluster. This provides a low cost solution and a fast, accurate and flexible control to a LED cluster.

IPC 8 full level  
**H05B 44/00** (2022.01)

CPC (source: EP US)  
**G09G 3/2003** (2013.01 - EP US); **G09G 3/3426** (2013.01 - EP); **H05B 45/18** (2020.01 - EP US); **H05B 45/22** (2020.01 - EP); **H05B 45/24** (2020.01 - EP); **G09G 2320/041** (2013.01 - EP); **G09G 2360/145** (2013.01 - EP)

Citation (search report)

- [XY] US 2006256049 A1 20061116 - SCHOU GUY [FR]
- [Y] US 2007133199 A1 20070614 - LEBENS GARY A [US], et al
- [XY] US 2007159421 A1 20070712 - PEKER ARKADIY [US], et al
- [X] WO 2007141732 A2 20071213 - KONINKL PHILIPS ELECTRONICS NV [NL], et al
- [X] EP 1672706 A1 20060621 - SONY CORP [JP]
- [Y] HULETT J ET AL: "Measuring LED Junction Temperature", INTERNET CITATION, July 2008 (2008-07-01), pages 1 - 3, XP002563429, Retrieved from the Internet <URL:http://www.photonics.com/Content/ReadArticle.aspx?ArticleID=34316> [retrieved on 20080701]
- [X] MICHAEL DAY, TAREK SAAB: "Creating uniform LED intensity in RGB billboard and video displays", - 17 October 2005 (2005-10-17), XP002563244, Retrieved from the Internet <URL:http://www.videsignline.com/showArticle.jhtml;jsessionid=YQVWUWPSQI4RRQE1GHPSKHWATMY32JVN?articleID=172301376> & MICHAEL DAY: "PWM dimming enhances color purity in high-end LED video displays", - 31 October 2005 (2005-10-31), XP002563245, Retrieved from the Internet <URL:http://www.videsignline.com/showArticle.jhtml;jsessionid=YQVWUWPSQI4RRQE1GHPSKHWATMY32JVN?articleID=172901567> & TEXAS INSTRUMENTS: "TLC5940 - 16 CHANNEL LED DRIVER WITH DOT CORRECTION AND GRAYSCALE PWM CONTROL", DATASHEET TLC5940, - October 2007 (2007-10-01), pages 1 - 21, XP002563251, Retrieved from the Internet <URL:http://focus.ti.com/lit/ds/symlink/tlc5940.pdf>

Cited by  
EP3244696A1; DE102019208347A1; CN103688593A; FR3124578A1; GB2488208A; GB2488208B; US8508150B2; US8339067B2; WO2013014568A1; WO2016032772A1; WO2019238260A1; US9173268B2; US9769899B2; USRE49454E; US10595372B2; US11252805B2; KR20200090882A; CN111788867A; JP2021520025A; JP2022105677A; FR3124579A1; EP4199651A1; US10161786B2; US10605652B2; US11243112B2; USRE48955E; USRE50018E; US9668306B2; US9736903B2; US10485062B2; EP3130199A1; US9668314B2; USRE48922E; USRE48956E; US11304278B2; USRE49421E; USRE49479E; USRE49705E; US9736895B1; US10302276B2; US10767835B2; US11326761B2; USRE49246E; US11662077B2; WO2022268879A1; US8378588B2; US9651632B1; US10210750B2; US10847026B2; US11210934B2; US11272599B1; USRE49137E; US11915581B2

Designated contracting state (EPC)  
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 SE SI SK TR

Designated extension state (EPC)  
AL BA RS

DOCDB simple family (publication)  
**EP 2273851 A2 20110112; EP 2273851 A3 20110511; WO 2010150119 A2 20101229; WO 2010150119 A3 20110811**

DOCDB simple family (application)  
**EP 09163687 A 20090624; IB 2010052542 W 20100608**