

Title (en)
Circuit

Title (de)
Schaltungsanordnung

Title (fr)
Circuit

Publication
EP 1411751 A3 20070418 (EN)

Application
EP 03103461 A 20030919

Priority
• EP 03103461 A 20030919
• EP 02079326 A 20021014

Abstract (en)
[origin: EP1411751A2] In a circuit arrangement for driving a LED array comprising red, green and blue LEDs, a control loop is added for limiting the duty cycles of the control signals for driving the red, green and blue LEDs. In case one of the duty cycles reaches the limit value, the reference signals for the red, green and blue light are decreased with the same relative amount. The color point of the light is thereby maintained, even when the efficiency of part of the LEDs decreases.
[origin: EP1411751A2] A control loop (CC123) limits duty cycle of control signal for driving red, green and blue (RGB) LEDs by decreasing the reference signal for red, green and blue light. Independent claims are also included for the following: (1) backlight; and (2) LCD unit.

IPC 8 full level
H05B 33/08 (2006.01); **H05B 44/00** (2022.01)

CPC (source: EP US)
H05B 45/20 (2020.01 - EP US); **H05B 45/28** (2020.01 - EP US)

Citation (search report)
• [XA] US 2002070914 A1 20020613 - BRUNING GERT W [US], et al
• [XA] WO 02076150 A1 20020926 - KONINKL PHILIPS ELECTRONICS NV [NL]
• [A] WO 02080625 A1 20021010 - KONINKL PHILIPS ELECTRONICS NV [NL]
• [A] US 6069676 A 20000530 - YUYAMA HARUMI [JP]
• [AP] WO 03032689 A1 20030417 - KONINKL PHILIPS ELECTRONICS NV [NL]

Cited by
US10230783B2; US8937930B2; US9035568B2; US7656100B2; WO2013086036A1; WO2006011108A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

Designated extension state (EPC)
AL LT LV MK

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