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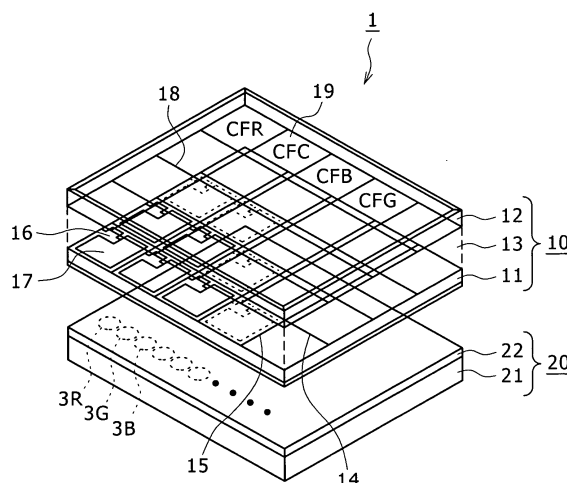
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(54) **Backlight driving device, backlight driving method, and liquid crystal display device**

(57) A backlight driving device for controlling driving of a backlight device for display, the backlight device generating predetermined white light by mixing light from a plurality of light emitting diodes of three or more colors, the backlight driving device including: storing means for storing an initial amount of current and a predetermined multiplication coefficient for each color; light quantity detecting means for detecting a light quantity for each color; and controlling means for adjusting an amount of current passed through the light emitting diodes of each color by feedback control on a basis of a detection output from the light quantity detecting means with an amount of current obtained by multiplying the initial amount of current by the predetermined multiplication coefficient as an initial value, whereby the predetermined white light is generated; wherein when a difference between the amount of current after the feedback control and the initial amount of current exceeds a predetermined threshold value, the controlling means updates the multiplication coefficient according to the amount of current after the feedback control.

FIG. 1



EP 1 667 102 A3



EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	US 6 608 614 B1 (JOHNSON RICK J [US]) 19 August 2003 (2003-08-19) * the whole document *	1-3,6-8	INV. G09G3/34
Y	WO 02/37454 A (NOKIA CORP [FI]) 10 May 2002 (2002-05-10) * abstract * * page 7, line 9 - page 8, line 18 * * page 9, line 11 - page 10, line 23; figures 5,6 * * page 11, line 11 - page 17, line 11; figure 7 * * page 17, line 24 - page 18, line 10 *	1-3,6-8	
Y	JP 2004 184852 A (OLYMPUS CORP) 2 July 2004 (2004-07-02) * the whole document *	1-3,6-8	
P,Y	-& US 2005/073845 A1 (MATSUI SHINZO [JP]) 7 April 2005 (2005-04-07) * paragraphs [0065] - [0111]; figures 1-6 *	1-3,6-8	
A	US 2003/011559 A1 (ADACHI KATSUMI [JP] ET AL) 16 January 2003 (2003-01-16) * paragraphs [0012], [0053] - [0071]; figures 1,6 *	1-8	TECHNICAL FIELDS SEARCHED (IPC) G09G
A	JP 2003 005714 A (SONY CORP) 8 January 2003 (2003-01-08) * abstract *	1-8	
A	JP 2004 086081 A (CITIZEN ELECTRONICS) 18 March 2004 (2004-03-18) * abstract *	1-8	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 24 March 2009	Examiner van Wesenbeeck, R
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	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 25 6878

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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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6608614	B1	19-08-2003	NONE	
WO 0237454	A	10-05-2002	AU 1600302 A CN 1568496 A EP 1336171 A2 FI 20002430 A US 2002113192 A1	15-05-2002 19-01-2005 20-08-2003 07-05-2002 22-08-2002
JP 2004184852	A	02-07-2004	US 2006170883 A1 US 2005073845 A1	03-08-2006 07-04-2005
US 2005073845	A1	07-04-2005	JP 2004184852 A US 2006170883 A1	02-07-2004 03-08-2006
US 2003011559	A1	16-01-2003	US 2007030241 A1	08-02-2007
JP 2003005714	A	08-01-2003	NONE	
JP 2004086081	A	18-03-2004	JP 4073272 B2	09-04-2008

专利名称(译)	背光驱动装置，背光驱动方法和液晶显示装置		
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其他公开文献	EP1667102B1 EP1667102A2		
外部链接	Espacenet		

摘要(译)

一种用于控制显示器的背光装置的驱动背光驱动装置，所述背光装置通过混合来自三种或更多种颜色的多个发光二极管的光来产生预定的白光，所述背光驱动装置包括：用于存储初始量的存储装置每种颜色的电流和预定的乘法系数；光量检测装置，用于检测每种颜色的光量；控制装置，用于根据光量检测装置的检测输出，通过反馈控制调节通过各种颜色的发光二极管的电流量，其中电流量是通过将初始电流量乘以预定值得到的乘法系数作为初始值，由此产生预定的白光；其中，当反馈控制后的电流量与初始电流量之间的差值超过预定阈值时，控制装置根据反馈控制后的电流量更新倍增系数。

