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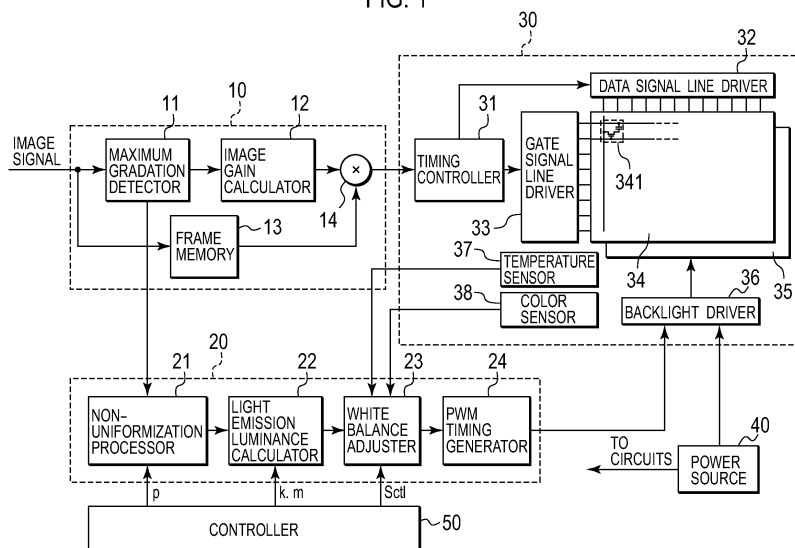
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(54) **Liquid crystal display device and image display method thereof**

(57) High quality images on liquid crystal panel can be obtained alleviating variations of the brightness and color among regions, in which backlight is divided when emission luminance of the backlight is controlled in each region based on image signal. A backlight device is divided into multiple regions, and has a configuration in which light emitted from a light source of each of the

regions is allowed to leak to other regions. A maximum gradation detector detects a maximum gradation of a regional image signal displayed on each of the regions of the liquid crystal panel. An image gain calculator obtains a gain to be multiplied to each regional image signal by using luminance bitmap held by luminance bitmap memory. An emission luminance calculator obtains an emission luminance of light to be emitted by each light source.

FIG. 1





EUROPEAN SEARCH REPORT

Application Number
EP 08 16 3888

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2005/184952 A1 (KONNO AKITOYO [JP] ET AL) 25 August 2005 (2005-08-25) * paragraph [0001] - paragraph [0123]; figures 1-20 *	1-6	INV. G09G3/34
E	EP 1 990 796 A2 (VICTOR COMPANY OF JAPAN [JP]) 12 November 2008 (2008-11-12) * paragraph [0001] - paragraph [0096]; figures 1-29 *	1-6	
			TECHNICAL FIELDS SEARCHED (IPC)
			G09G
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 18 June 2010	Examiner Gartlan, Michael
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 08 16 3888

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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18-06-2010

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专利名称(译)	液晶显示装置及其图像显示方法		
公开(公告)号	EP2113904A3	公开(公告)日	2010-07-28
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代理机构(译)	HARRISON , ROBERT JOHN		
优先权	2008119569 2008-05-01 JP		
其他公开文献	EP2113904A2		
外部链接	Espacenet		

摘要(译)

可以获得液晶面板上的高质量图像，减轻区域之间的亮度和颜色的变化，其中当基于图像信号在每个区域中控制背光的发光亮度时，背光被分开。背光装置被分成多个区域，并且具有允许从每个区域的光源发射的光泄漏到其他区域的配置。最大灰度检测器检测在液晶面板的每个区域上显示的区域图像信号的最大灰度。图像增益计算器通过使用由亮度位图存储器保持的亮度位图来获得要与每个区域图像信号相乘的增益。发光亮度计算器获得每个光源发出的光的发光亮度。

