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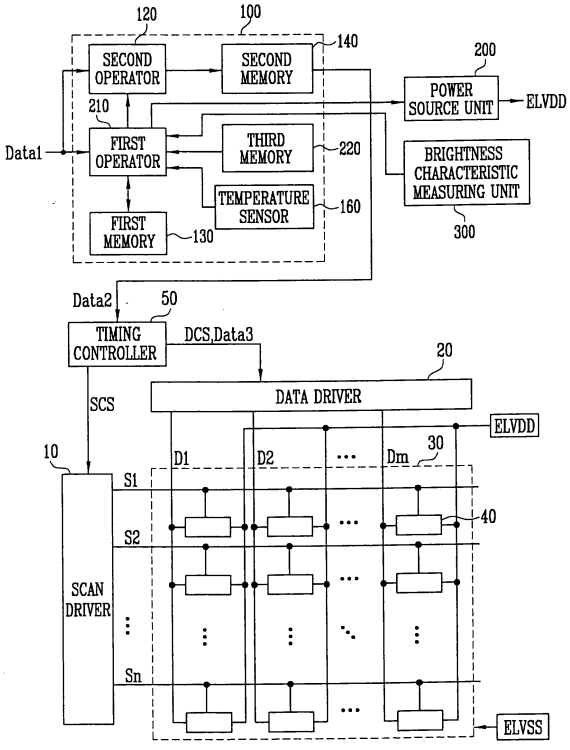
(54) **Organic light emitting display and method of driving the same**

(57) A method of driving an organic light emitting display capable of displaying an image with uniform brightness. The method includes storing a brightness characteristic corresponding to emission time of an organic light emitting diode (OLED), adding first data supplied in units of frames by pixels to generate accumulated data, extracting accumulated data of a pixel to which currently supplied first data is to be supplied and calculating maximum brightness corresponding to emission time of the extracted accumulated data, calculating maximum brightness corresponding to emission time of largest accumulated data among the accumulated data, controlling a bit value of the first data using maximum brightness of a pixel to which the first data is to be supplied and maximum brightness of the largest accumulated data to generate second data, and controlling a voltage value of a first power source supplied to the pixels in response to the maximum brightness of the largest accumulated data.

FIG. 6



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EUROPEAN SEARCH REPORT

Application Number
EP 08 25 3900

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 Y	US 6 552 735 B1 (DEHMLOW BRIAN P [US]) 22 April 2003 (2003-04-22) * column 1, line 42 - column 7, line 5; figures 1-3 *	1,3,4,9 2,5-8, 10-20	INV. G09G3/32
Y	EP 1 617 400 A (SANYO ELECTRIC CO [JP]) 18 January 2006 (2006-01-18) * paragraph [0142]; figures 11,12b *	2,8	
Y	US 2003/071804 A1 (YAMAZAKI SHUNPEI [JP] ET AL) 17 April 2003 (2003-04-17) * paragraphs [0008] - [0013], [0 41] - [0056], [0 78] - [0084], [244] - [0257]; figures 1-9, 17,19 *	5-7, 12-15	
Y	WO 2007/079572 A1 (IGNIS INNOVATION INC [CA]; NATHAN AROKIA [CA]; CHAJI REZA G [CA]) 19 July 2007 (2007-07-19) * paragraphs [0091] - [0104]; figures 24-26 *	10,17-20	
Y	WO 2005/114637 A2 (E INK CORP [US]; VOSSLOH INFORMATION TECHNOLOGI [DE]; ZEHNER ROBERT W) 1 December 2005 (2005-12-01) * page 8, line 24 - line 28 *	11,16	TECHNICAL FIELDS SEARCHED (IPC) G09G

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	5 May 2011	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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Application Number
EP 08 25 3900

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

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LACK OF UNITY OF INVENTION
SHEET B

Application Number
EP 08 25 3900

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-4, 8, 9

   controlling a voltage value of a first power source supplied to the pixelsin in order to compensate for the overall brightness degradation

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2. claims: 5-7, 12-15

   pixels emit light or do not emit light in a plurality of sub frames included in a frame in order to avoid the problem of non-uniformity due to differences in pixel driving characteristics

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3. claims: 10, 17-20

   supplying a dummy pixel with power and measuring the light emitted in order to model the time-varying luminance characteristic data

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4. claims: 11, 16

   measuring current temperature modifying the data based on the measured current temperature in order to counteract the affects of environmental influences

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 08 25 3900

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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05-05-2011

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专利名称(译)	有机发光显示器及其驱动方法		
公开(公告)号	EP2068299A3	公开(公告)日	2011-06-15
申请号	EP2008253900	申请日	2008-12-05
[标]申请(专利权)人(译)	三星显示有限公司		
申请(专利权)人(译)	三星移动显示器有限公司.		
当前申请(专利权)人(译)	三星DISPLAY CO.，LTD.		
[标]发明人	KIM DO IK		
发明人	KIM, DO-IK		
IPC分类号	G09G3/32		
CPC分类号	G09G3/3225 G09G3/2022 G09G3/3275 G09G2320/0233 G09G2320/0271 G09G2320/0285 G09G2320/029 G09G2320/041 G09G2320/043 G09G2320/0626 G09G2320/0693 G09G2330/02 G09G2330/028 G09G2360/145		
优先权	1020070125545 2007-12-05 KR		
其他公开文献	EP2068299A2		
外部链接	Espacenet		

摘要(译)

一种驱动能够显示具有均匀亮度的图像的有机发光显示器的方法。该方法包括存储对应于有机发光二极管（OLED）的发光时间的亮度特性，添加以像素为单位提供的第一数据以产生累积数据，提取当前提供的第一数据所针对的像素的累积数据。提供并计算与提取的累积数据的发射时间对应的最大亮度，计算与累积数据中的最大累积数据的发射时间对应的最大亮度，使用第一数据的最大亮度控制第一数据的比特值提供数据和最大累积数据的最大亮度以产生第二数据，并响应于最大累积数据的最大亮度控制提供给像素的第一电源的电压值。

FIG. 6