(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 1 750 247 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
23.01.2008 Bulletin 2008/04

(43) Date of publication A2:
07.02.2007 Bulletin 2007/06

(21) Application number: **06254022.4**

(22) Date of filing: **01.08.2006**

(51) Int Cl.:
G09G 3/32 *(2006.01)*

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR MK YU

(30) Priority: **01.08.2005 KR 20050070439**

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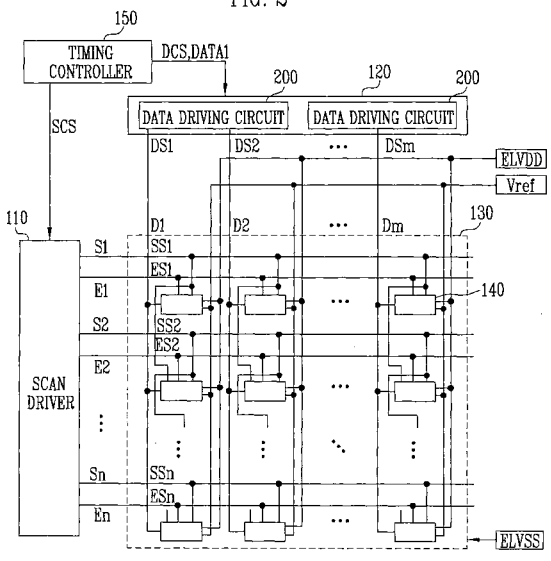
(54) Data driving circuits and organic light emitting diode display using the same

(57) A data driving circuit for driving pixels of a display to display images with uniform brightness may include a gamma voltage unit that generates gray scale voltages, a digital-analog converter that selects, as a data signal, one of the gray scale voltages using first data, a decoder that generates second data using the first data, a latch for storing the first data and the second data, a current sink that receives a predetermined current from the pixel during a first partial period of a complete period for driving the pixel based on the selected gray scale voltage, a voltage controller that controls a voltage value of the data signal using the second data and a compensation voltage generated based on the predetermined current, and a switching unit that supplies the data signal to the pixel during any partial period of the complete period elapsing after the first partial period.

FIG. 2



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EUROPEAN SEARCH REPORT

Application Number
EP 06 25 4022

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	HAI-JUNG IN ET AL: "A Novel Voltage-Programming Pixel with Current-Correction Method for Large-Size and High-Resolution AMOLEDs on Poly-Si Backplane" INTERNATIONAL MEETING ON INFORMATION DISPLAY, XX, XX, no. 286, 23 July 2005 (2005-07-23), pages 901-904, XP002405123 * pages 902,903; figure 3 * -----	1-26	INV. G09G3/32
A	US 2005/088103 A1 (KAGEYAMA HIROSHI [JP] ET AL) 28 April 2005 (2005-04-28) * paragraphs [0038] - [0043] * * paragraphs [0058], [0059], [0065]; figure 1 * -----	1-26	

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	30 November 2007	Adarska, Veneta

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

EPO FORM 1503 03.82 (P04C01)

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 06 25 4022

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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30-11-2007

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		JP 2005134435 A	26-05-2005
		KR 20050040679 A	03-05-2005

专利名称(译)	数据驱动电路和使用其的有机发光二极管显示器		
公开(公告)号	EP1750247A3	公开(公告)日	2008-01-23
申请号	EP2006254022	申请日	2006-08-01
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IPC分类号	G09G3/32		
CPC分类号	G09G3/3233 G09G3/3291 G09G2300/0819 G09G2300/0852 G09G2300/0861 G09G2310/0251 G09G2310/0262 G09G2310/027 G09G2320/043		
优先权	1020050070439 2005-08-01 KR		
其他公开文献	EP1750247A2		
外部链接	Espacenet		

摘要(译)

用于驱动显示器的像素以显示具有均匀亮度的图像的数据驱动电路可包括产生灰度级电压的伽马电压单元，数字 - 模拟转换器，其使用第一数据选择灰度级电压之一作为数据信号，使用所述第一数据生成第二数据的解码器，用于存储所述第一数据和所述第二数据的锁存器，在用于驱动所述像素的完整时段的第一部分时段期间从所述像素接收预定电流的电流宿基于所选择的灰度级电压，使用第二数据控制数据信号的电压值的电压控制器和基于预定电流产生的补偿电压，以及在任何部分时段期间将数据信号提供给像素的开关单元。在第一个部分时期之后经过的完整时期。

FIG. 2