



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**11.01.2006 Bulletin 2006/02**

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

(43) Date of publication A2:  
**12.11.2003 Bulletin 2003/46**

(21) Application number: **03010487.1**

(22) Date of filing: **09.05.2003**

(84) Designated Contracting States:  
**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 States:  
**AL LT LV MK**

- **Yoon, Jong Geun**  
**Anyang-si,**  
**Gyeonggi-do (KR)**
- **Kim, Sung Tae**  
**Seoul (KR)**

(30) Priority: **09.05.2002 KR 2002025559**

(74) Representative: **Vetter, Ewald Otto et al**  
**Meissner, Bolte & Partner**  
**Anwaltssozietät**  
**Postfach 10 26 05**  
**86016 Augsburg (DE)**

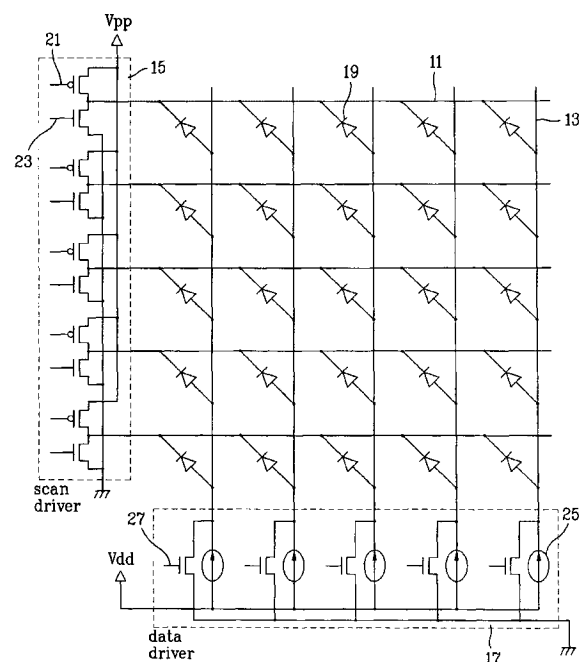
(71) Applicant: **LG ELECTRONICS INC.**  
**Seoul (KR)**

(72) Inventors:  
• **Kim, Hak Su**  
**Gangbuk-gu,**  
**Seoul (KR)**

(54) **Organic electroluminescent display module**

(57) An organic electroluminescent module is disclosed. The organic electroluminescent module comprises a plurality of scan lines, a plurality of data lines perpendicular to the plurality of scan lines, a plurality of light emitting diodes formed at cross regions of the plurality of scan lines and the plurality of data lines, a scan driver having inverse voltage applying transistors and ground voltage applying transistors respectively connected to the plurality of scan lines, a data driver having static current sources and ground voltage applying transistors respectively connected to the plurality of data lines, and a driver controller for controlling the scan driver and the data driver. Impurities in the organic EL module can easily be eliminated by an inverse voltage. As a result, a lifetime of the organic EL module can be prolonged and quality of display can be improved.

FIG. 1





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 5 923 309 A (ISHIZUKA ET AL) 13 July 1999 (1999-07-13) * abstract * * column 4, line 37 - column 7, line 27; figures 4,6-10 * -----	1-5	G09G3/32
X	US 6 337 542 B1 (HANAKI TAKASHI ET AL) 8 January 2002 (2002-01-08) * abstract * * the whole document * -----	1-5	
X	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 21, 3 August 2001 (2001-08-03) & JP 2001 092411 A (DENSO CORP), 6 April 2001 (2001-04-06) * abstract * -----	1-5	
X	PATENT ABSTRACTS OF JAPAN vol. 018, no. 210 (E-1537), 14 April 1994 (1994-04-14) & JP 06 013181 A (FUJI ELECTRIC CO LTD), 21 January 1994 (1994-01-21) * abstract * * the whole document * -----	1-5	
			TECHNICAL FIELDS SEARCHED (IPC)
			G09G
The present search report has been drawn up for all claims			
Place of search <b>Munich</b>		Date of completion of the search <b>14 November 2005</b>	Examiner <b>Wolff, L</b>
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	

6  
EPO FORM 1503 03/82 (P04C01)

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

EP 03 01 0487

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  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

14-11-2005

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5923309	A	13-07-1999	JP 3547561 B2	28-07-2004
			JP 9305146 A	28-11-1997
US 6337542	B1	08-01-2002	JP 2001092411 A	06-04-2001
JP 2001092411	A	06-04-2001	US 6337542 B1	08-01-2002
JP 06013181	A	21-01-1994	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	有机电致发光显示模块		
公开(公告)号	<a href="#">EP1361561A3</a>	公开(公告)日	2006-01-11
申请号	EP2003010487	申请日	2003-05-09
申请(专利权)人(译)	LG电子株式会社.		
当前申请(专利权)人(译)	LG电子株式会社.		
[标]发明人	KIM HAK SU YOON JONG GEUN KIM SUNG TAE		
发明人	KIM, HAK SU YOON, JONG GEUN KIM, SUNG TAE		
IPC分类号	G09G3/32 H05B33/12 G09G3/20 G09G3/30 H01L51/50 H05B33/10		
CPC分类号	G09G3/3216 G09G3/3266 G09G3/3283 G09G2310/0256 G09G2320/043 G09G2330/10		
优先权	1020020025559 2002-05-09 KR		
其他公开文献	EP1361561A2		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

公开了一种有机电致发光模块。有机电致发光模块包括多条扫描线，垂直于多条扫描线的多条数据线，形成在多条扫描线和多条数据线的交叉区域的多个发光二极管，扫描驱动器具有分别连接到多条扫描线的反向电压施加晶体管和接地电压施加晶体管，具有分别连接到多条数据线的静态电流源和接地电压施加晶体管的数据驱动器，以及用于控制扫描驱动器的驱动器控制器和数据驱动程序。通过反向电压可以容易地消除有机EL模块中的杂质。结果，可以延长有机EL模块的寿命并且可以提高显示质量。

FIG. 1

