



(11) **EP 2 747 062 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
22.03.2017 Bulletin 2017/12

(51) Int Cl.:
H01L 27/00 (2006.01)

(43) Date of publication A2:
25.06.2014 Bulletin 2014/26

(21) Application number: **13194955.4**

(22) Date of filing: **28.11.2013**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
 Designated Extension States:
BA ME

(72) Inventors:
 • **Park, Kyung Hoon**
Gyeonggi-Do (KR)
 • **Park, Jong Hyun**
Gyeonggi-Do (KR)
 • **Heo, Seong Kweon**
Gyeonggi-Do (KR)

(30) Priority: **29.11.2012 KR 20120137356**

(74) Representative: **Taor, Simon Edward William**
Venner Shipley LLP
200 Aldersgate
London EC1A 4HD (GB)

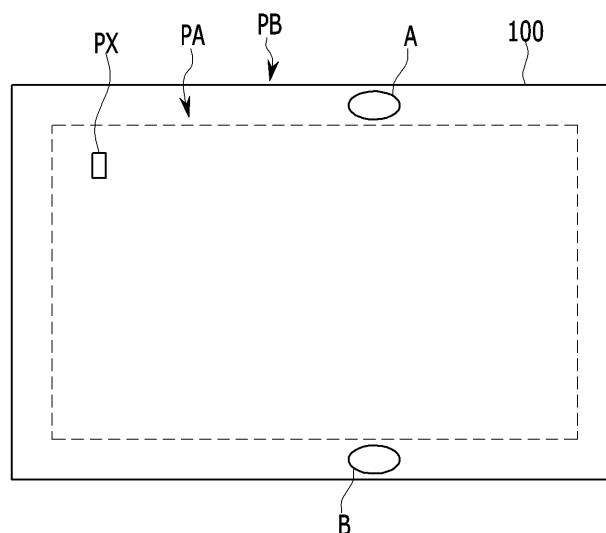
(71) Applicant: **Samsung Display Co., Ltd.**
Gyeonggi-do (KR)

(54) **Organic light emitting diode display**

(57) Disclosed is an organic light emitting diode display including: a pixel unit including an organic light emitting diode for displaying an image; and a periphery surrounding the pixel unit. The periphery includes a gate common voltage line formed on the substrate and receiving a common voltage from an external circuit, an interlayer insulating layer covering the gate common voltage

line and including a common voltage contact hole for exposing a part of the gate common voltage line, a data common voltage line formed on the interlayer insulating layer and contacting the gate common voltage line through the common voltage contact hole, and a plurality of protrusions provided in the common voltage contact hole and formed on the substrate.

FIG. 1



EP 2 747 062 A3



EUROPEAN SEARCH REPORT

Application Number
EP 13 19 4955

5

10

15

20

25

30

35

40

45

50

55

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 2011/198572 A1 (PARK SUN [KR] ET AL) 18 August 2011 (2011-08-18) * paragraphs [0003], [0037] - [0040], [0059] - [0075]; figures 1-3 *	1,3-5	INV. H01L27/00
X	US 2012/139000 A1 (LEE YUL-KYU [KR] ET AL) 7 June 2012 (2012-06-07) * paragraphs [0003], [0045] - [0053]; figures 1-2 *	1-11	
A	US 2012/138935 A1 (PARK SUN [KR] ET AL) 7 June 2012 (2012-06-07) * paragraph [0048]; figure 14 *	1,7-9	
A	US 2012/025700 A1 (RYU DO-HYUNG [KR] ET AL) 2 February 2012 (2012-02-02) * figures 11,12 *	1	
			TECHNICAL FIELDS SEARCHED (IPC)
			G09G H01L
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 9 February 2017	Examiner Pichon, Jean-Michel
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 03/02 (P04C01)

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

EP 13 19 4955

5 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.

09-02-2017

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2011198572 A1	18-08-2011	KR 20110093510 A US 2011198572 A1	18-08-2011 18-08-2011
US 2012139000 A1	07-06-2012	CN 102487071 A KR 20120060544 A TW 201225281 A US 2012139000 A1	06-06-2012 12-06-2012 16-06-2012 07-06-2012
US 2012138935 A1	07-06-2012	CN 102544055 A KR 20120063205 A TW 201227813 A US 2012138935 A1	04-07-2012 15-06-2012 01-07-2012 07-06-2012
US 2012025700 A1	02-02-2012	CN 102347453 A EP 2413363 A2 JP 2012119301 A KR 20120011318 A TW 201210015 A US 2012025700 A1	08-02-2012 01-02-2012 21-06-2012 07-02-2012 01-03-2012 02-02-2012

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)	有机发光二极管显示器		
公开(公告)号	EP2747062A3	公开(公告)日	2017-03-22
申请号	EP2013194955	申请日	2013-11-28
[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DISPLAY CO. , LTD.		
当前申请(专利权)人(译)	三星DISPLAY CO. , LTD.		
[标]发明人	PARK KYUNG HOON PARK JONG HYUN HEO SEONG KWEON		
发明人	PARK, KYUNG HOON PARK, JONG HYUN HEO, SEONG KWEON		
IPC分类号	H01L27/00		
审查员(译)	PICHON , JEAN-MICHEL		
优先权	1020120137356 2012-11-29 KR		
其他公开文献	EP2747062A2		
外部链接	Espacenet		

摘要(译)

公开了一种有机发光二极管显示器，包括：像素单元，包括用于显示图像的有机发光二极管；以及围绕像素单元的周边。外围包括形成在基板上并从外部电路接收公共电压的栅极公共电压线，覆盖栅极公共电压线并包括用于暴露栅极公共电压线的一部分的公共电压接触孔的层间绝缘层，数据公共电压线形成在层间绝缘层上并通过公共电压接触孔接触栅极公共电压线，以及多个突起设置在公共电压接触孔中并形成在基板上。

FIG. 1

