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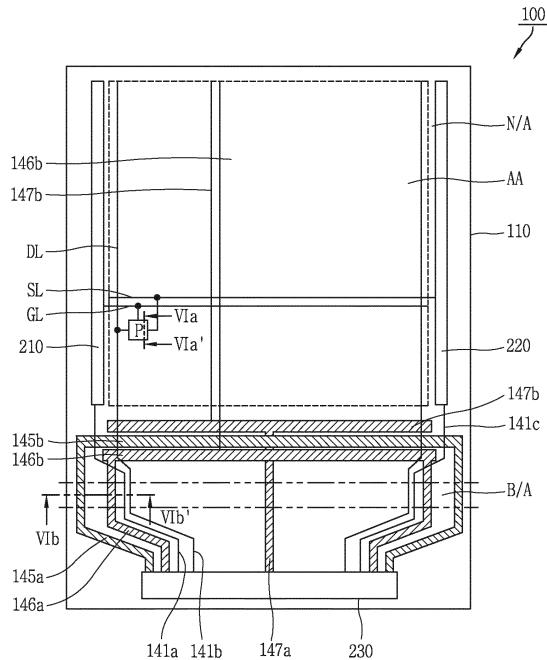
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(54) **Flexible display device and method for fabricating the same**

(57) Provided is a flexible display device (100) including: a display region (A/A) including pixels (P) to display images, each pixel including an organic light emitting diode (OLED) configured to receive a signal from a signal line and power from a power line to display the images; a non-display region(N/A) outside the display region (A/A) where images are not to be displayed, the non-display region (N/A) including: a circuit mount region including therein a driving circuit configured to supply the signal through the signal line and the power through the power line to each pixel (P); and a bending region (B/A) formed between the display region (A/A) and the circuit mount region and configured to be bent flexibly, wherein the signal line and the power line are formed on a same layer in the bending region (B/A).

FIG. 4





EUROPEAN SEARCH REPORT

Application Number

EP 14 19 8548

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	US 2003/027369 A1 (YAMAZAKI SHUNPEI [JP]) 6 February 2003 (2003-02-06) * Embodiment 5; paragraph [0002]; figures 6A-7C,8A,8B,8C, 19B *	1-6,10, 13,15-17	INV. G09G3/32 H01L27/32
A	----- US 2010/277443 A1 (YAMAZAKI SHUNPEI [JP] ET AL) 4 November 2010 (2010-11-04) * the whole document *	1-7,10, 11,13, 15-18	
A	----- KR 2013 0125715 A (SEMICONDUCTOR ENERGY LAB [JP]) 19 November 2013 (2013-11-19) * the whole document *	1-7,10, 11,13, 15-18	
			TECHNICAL FIELDS SEARCHED (IPC)
			G09G H01L
The present search report has been drawn up for all claims			
1	Place of search	Date of completion of the search	Examiner
	Munich	12 March 2015	Fulcheri, Alessandro
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			



5 Application Number

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CLAIMS INCURRING FEES

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

10 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):

15 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:

25 see sheet B

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

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

40 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:

45 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:

50 1-7, 10, 11, 13, 15-18

55 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

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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:

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1. claims: 1-7, 10, 11, 13, 15-18

OLED display device having a flexible region.
A width of the signal line in the bending region is greater than that of the signal line outside the bending region, and a width of the power line in the bending region is greater than that of the power line outside the bending region.

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2. claims: 8, 19

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OLED display device having a flexible region
At least one of the signal line and the power line is formed in a non-straight form in the bending region.

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3. claims: 9, 14

OLED display device having a flexible region
The signal line and the power line are formed of a same material.

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4. claim: 12

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OLED display device having a flexible region
Wherein the signal line is formed on the flexible substrate, and the power line is formed on an insulation layer overlying the signal line outside the bending region.

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

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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.

12-03-2015

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003027369 A1	06-02-2003	CN 1395323 A KR 20030004128 A KR 20070077492 A KR 20070077493 A TW 546857 B US 2003027369 A1 US 2005088088 A1 US 2006220551 A1	05-02-2003 14-01-2003 26-07-2007 26-07-2007 11-08-2003 06-02-2003 28-04-2005 05-10-2006
US 2010277443 A1	04-11-2010	CN 102317996 A CN 103871330 A JP 5538646 B2 JP 5701425 B2 JP 2010282181 A JP 2014186334 A JP 2015099391 A KR 20120016225 A KR 20140090247 A KR 20140094658 A KR 20150044972 A TW 201110087 A US 2010277443 A1 US 2013314346 A1 WO 2010128616 A1	11-01-2012 18-06-2014 02-07-2014 15-04-2015 16-12-2010 02-10-2014 28-05-2015 23-02-2012 16-07-2014 30-07-2014 27-04-2015 16-03-2011 04-11-2010 28-11-2013 11-11-2010
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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)	柔性显示装置及其制造方法		
公开(公告)号	EP2889866A3	公开(公告)日	2015-09-09
申请号	EP2014198548	申请日	2014-12-17
[标]申请(专利权)人(译)	乐金显示有限公司		
申请(专利权)人(译)	LG DISPLAY CO. , LTD.		
当前申请(专利权)人(译)	LG DISPLAY CO. , LTD.		
[标]发明人	LEE HO YOUNG KANG CHANGHEON		
发明人	LEE, HO YOUNG KANG, CHANGHEON		
IPC分类号	G09G3/32 H01L27/32		
CPC分类号	G09G3/3225 G09G2300/0426 G09G2380/02 H01L27/3276 H01L51/5203 H01L2251/5338 H01L2251/5392 G09G3/3291 H01L51/0097 H01L51/56 H01L2227/323		
优先权	1020130169271 2013-12-31 KR		
其他公开文献	EP2889866A2 EP2889866B1		
外部链接	Espacenet		

摘要(译)

提供一种柔性显示装置(100)，包括：显示区域(A/A)，包括显示图像的像素(P)，每个像素包括有机发光二极管(OLED)，其被配置为从信号线接收信号和功率从电源线显示图像；非显示区域(A/A)外的非显示区域(N/A)，其中不显示图像，非显示区域(N/A)包括：电路安装区域，其中包括驱动电路，该驱动电路被配置为通过信号线提供信号，并通过电源线向每个像素(P)供电；弯曲区域(B/A)形成在显示区域(A/A)和电路安装区域之间并且被配置为柔性弯曲，其中信号线和电源线形成在弯曲区域中的同一层上(B/A)。

FIG. 4

