



(11) **EP 2 722 887 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
30.11.2016 Bulletin 2016/48

(51) Int Cl.:
H01L 27/32 (2006.01) **H01L 51/00** (2006.01)
G09G 3/32 (2006.01) **H01L 51/52** (2006.01)
G09G 3/00 (2006.01)

(43) Date of publication A2:
23.04.2014 Bulletin 2014/17

(21) Application number: **13162379.5**

(22) Date of filing: **04.04.2013**

(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:
• **Kwon, Tae-Hoon**
Gyeonggi-Do (KR)
• **Ka, Ji-Hyun**
Gyeonggi-Do (KR)

(30) Priority: **22.10.2012 KR 20120117537**

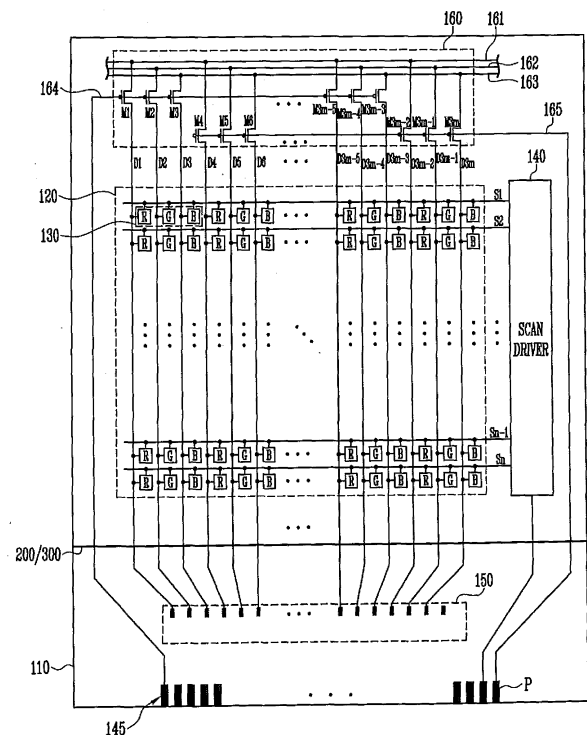
(74) Representative: **Mounteney, Simon James**
Marks & Clerk LLP
90 Long Acre
London
WC2E 9RA (GB)

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

(54) **Organic light emitting display device and testing method thereof**

(57) An organic light emitting display device and a testing method thereof for detecting a failure occurring in a cutting process of a protective film attached to an upper end of a panel. The organic light emitting display device includes a first substrate on which a pixel unit and a tester are formed. The pixel unit includes a plurality of pixels positioned at intersection portions of scan lines and data lines, and the tester includes a plurality of transistors coupled to the respective data lines so as to supply test signals to the data lines. The transistors are divided into at least two groups, so that transistors of one group are turned on/off by a first test control line, and transistors of another group are turned on/off by a second test control line, the first and second test control lines being disposed on opposite sides of the substrate.

FIG. 1



EP 2 722 887 A3



EUROPEAN SEARCH REPORT

Application Number
EP 13 16 2379

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 2010/006838 A1 (YOSHIDA MASAHIRO [JP] ET AL) 14 January 2010 (2010-01-14)	1,5,7-11	INV. H01L27/32 H01L51/00 G09G3/32 H01L51/52 G09G3/00	
Y	* paragraphs [0043] - [0071] * * paragraphs [0054], [0059] * * figures 1-2 *	2-4,6		
X	EP 2 275 861 A1 (SHARP KK [JP]) 19 January 2011 (2011-01-19)	1,5-11		
Y	* paragraphs [0035], [0051] - [0072]; figure 1 *	2-4,6		
X	US 2007/018680 A1 (JEON JIN [KR] ET AL) 25 January 2007 (2007-01-25)	1,5-11		
Y	* paragraph [0045] - paragraph [0060]; figure 1 *	2-4		
X	US 2008/054798 A1 (JEONG JIN-TAE [KR] ET AL) 6 March 2008 (2008-03-06)	1,5-11		
Y	* paragraph [0053] - paragraph [0074]; figure 2 *	2-4		
Y	US 2010/301742 A1 (MORIWAKI TOSHIKI [JP]) 2 December 2010 (2010-12-02)	2-4		TECHNICAL FIELDS SEARCHED (IPC)
Y	* paragraphs [0027], [0029]; figure 1 *	2-4		H01L G09G
Y	US 2008/160864 A1 (SONG SEUNG-YONG [KR] ET AL) 3 July 2008 (2008-07-03)	2-4		
	* paragraph [0064] - paragraph [0075]; figure 9C *			
The present search report has been drawn up for all claims				
Place of search Munich		Date of completion of the search 19 October 2016	Examiner Bernabé Prieto, A	
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 16 2379

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.

19-10-2016

10

15

20

25

30

35

40

45

50

55

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2010006838 A1	14-01-2010	CN 101443700 A	27-05-2009
		CN 102087451 A	08-06-2011
		US 2010006838 A1	14-01-2010
		WO 2008015808 A1	07-02-2008

EP 2275861 A1	19-01-2011	BR PI0912347 A2	13-10-2015
		CN 101999095 A	30-03-2011
		EP 2275861 A1	19-01-2011
		JP 5036865 B2	26-09-2012
		JP 5379271 B2	25-12-2013
		JP 2012212168 A	01-11-2012
		US 2011018142 A1	27-01-2011
		WO 2009139290 A1	19-11-2009

US 2007018680 A1	25-01-2007	CN 1900802 A	24-01-2007
		JP 2007025700 A	01-02-2007
		KR 20070010567 A	24-01-2007
		US 2007018680 A1	25-01-2007
		US 2009072854 A1	19-03-2009
		US 2010045639 A1	25-02-2010

US 2008054798 A1	06-03-2008	NONE	

US 2010301742 A1	02-12-2010	CN 101901879 A	01-12-2010
		CN 102738203 A	17-10-2012
		CN 102738411 A	17-10-2012
		JP 5471035 B2	16-04-2014
		JP 2010277690 A	09-12-2010
		US 2010301742 A1	02-12-2010
		US 2013221841 A1	29-08-2013

US 2008160864 A1	03-07-2008	JP 4368908 B2	18-11-2009
		JP 2008165170 A	17-07-2008
		US 2008160864 A1	03-07-2008

专利名称(译)	有机发光显示装置及其测试方法		
公开(公告)号	EP2722887A3	公开(公告)日	2016-11-30
申请号	EP2013162379	申请日	2013-04-04
[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	KWON TAE HOON KA JI HYUN		
发明人	KWON, TAE-HOON KA, JI-HYUN		
IPC分类号	H01L27/32 H01L51/00 G09G3/32 H01L51/52 G09G3/00		
CPC分类号	G09G3/006 G09G3/3208 G09G2380/02 H01L27/3276 H01L27/3288 H01L27/3297 H01L51/0031 H01L51/0097 H01L51/524 H01L51/5253 H01L2251/5338 H01L2251/566 H01L27/3244		
优先权	1020120117537 2012-10-22 KR		
其他公开文献	EP2722887A2		
外部链接	Espacenet		

摘要(译)

一种有机发光显示装置及其测试方法，用于检测在安装到面板的上端的保护膜的切割过程中发生的故障。有机发光显示装置包括其上形成有像素单元和测试器的第一基板。像素单元包括位于扫描线和数据线的交叉部分的多个像素，并且测试器包括耦合到各个数据线的多个晶体管，以便向数据线提供测试信号。晶体管被分为至少两组，使得一组的晶体管通过第一测试控制线导通/截止，另一组的晶体管通过第二测试控制线导通/截止，第一和第二测试控制线设置在衬底的相对侧上。

