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(54) **Organic light emitting display and driving method thereof**

(57) An organic light emitting display device includes: a plurality of pixels at crossing portions of data lines, scan lines, and emission control lines; a sensor for sensing degradation information of organic light emitting diodes and mobility information of driving transistors, which are included in each pixel; a converter for storing the degradation information of organic light emitting diodes and

the mobility information of driving transistors, which are sensed utilizing the sensor and converting input data to corrected data by utilizing the stored information; and a data driver receiving the corrected data and generating data signals to be supplied.

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EUROPEAN SEARCH REPORT

Application Number
EP 08 16 2287

| 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 | WO 2005/015530 A1 (KONINKL PHILIPS ELECTRONICS NV [NL]; CHILDS MARK J [GB]; KNAPP ALAN G) 17 February 2005 (2005-02-17) * abstract * * page 21; figure 7 * * page 18 * * page 22 - page 23; figure 9 * * page 22; figure 8 * * page 20; figures 5,6 * ----- | 1-4, 18-23 | INV. G09G3/32 |
| X | EP 1 752 955 A1 (SAMSUNG SDI CO LTD [KR]; IUCF HYU [KR]) 14 February 2007 (2007-02-14) * abstract * | 18-23 | |
| A | * paragraph [0011] - paragraph [0017] * * paragraph [0028] - paragraph [0051]; figures 3-14 * | 5-8 | |
| X | EP 1 758 084 A2 (SAMSUNG SDI CO LTD [KR]; IUCF HYU [KR]) 28 February 2007 (2007-02-28) * the whole document * | 1-4, 18-23 | TECHNICAL FIELDS SEARCHED (IPC) |
| A | EP 1 130 565 A1 (SONY CORP [JP]) 5 September 2001 (2001-09-05) * abstract * * paragraph [0100] - paragraph [0115]; figures 21-27 * | 5-8 | G09G |
| A | JP 2004 004675 A (SEIKO EPSON CORP) 8 January 2004 (2004-01-08) * abstract * * paragraph [0081] - paragraph [0084]; figure 9 * ----- | 5-8 | |
| 5 The present search report has been drawn up for all claims | | | |
| Place of search Munich | | Date of completion of the search 9 August 2012 | Examiner Wolff, Lilian |
| 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)



Application Number

EP 08 16 2287

CLAIMS INCURRING FEES

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

☐ 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):

☐ 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:

see sheet B

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

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

☒ 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:

1-8, 18-23

☐ 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:

☐ 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).

**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:

1. claims: 1-4, 18-23

first invention

2. claims: 5-8

second invention

3. claims: 9, 11, 14, 16

third invention

4. claims: 10, 12, 13, 15, 17

fourth invention

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

EP 08 16 2287

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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09-08-2012

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---------------------|----------------------------|---------------------|
| WO 2005015530 A1 | 17-02-2005 | EP 1654720 A1 | 10-05-2006 |
| | | JP 2007501953 A | 01-02-2007 |
| | | KR 20060064614 A | 13-06-2006 |
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| 专利名称(译) | 有机发光显示器及其驱动方法 | | |
| 公开(公告)号 | EP2028639A3 | 公开(公告)日 | 2012-09-19 |
| 申请号 | EP2008162287 | 申请日 | 2008-08-13 |
| [标]申请(专利权)人(译) | 三星显示有限公司 | | |
| 申请(专利权)人(译) | 三星移动显示器有限公司. | | |
| 当前申请(专利权)人(译) | 三星DISPLAY CO. , LTD. | | |
| [标]发明人 | KWON OH KYONG | | |
| 发明人 | KWON, OH-KYONG | | |
| IPC分类号 | G09G3/32 | | |
| CPC分类号 | G09G3/3283 G09G3/3233 G09G2300/0814 G09G2300/0819 G09G2300/0852 G09G2300/0861 G09G2310/027 G09G2310/0272 G09G2320/0233 G09G2320/0295 G09G2320/043 G09G2320/045 | | |
| 优先权 | 1020070084730 2007-08-23 KR | | |
| 其他公开文献 | EP2028639B1 EP2028639A2 | | |
| 外部链接 | Espacenet | | |

摘要(译)

一种有机发光显示装置，包括：在数据线，扫描线和发射控制线的交叉部分处的多个像素;用于检测有机发光二极管的劣化信息和驱动晶体管的迁移率信息的传感器，包括在每个像素中;转换器，用于存储有机发光二极管的劣化信息和驱动晶体管的迁移率信息，利用传感器检测并利用存储的信息将输入数据转换为校正数据;数据驱动器接收校正数据并产生要提供的数据信号。

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|---|---|---|---|
|  European Patent Office 2012-09-19 | | EUROPEAN SEARCH REPORT Application Number EP 08 16 2287 | |
| 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 | WO 2005/015530 A1 (KONINKL PHILIPS ELECTRONICS NV [NL]; CHILDS MARK J [GB]; KNAPP ALAN G) 17 February 2005 (2005-02-17) * abstract * * page 21; figure 7 * * page 18 * * page 22; figure 9 * * page 20; figures 5,6 * | 1-4; 18-23 | INV. G09G3/32 |
| X | EP 1 752 955 A1 (SAMSUNG SDI CO LTD [KR]; IUCF HYU [KR]) 14 February 2007 (2007-02-14) * abstract * * paragraph [0011] - paragraph [0017] * * paragraph [0028] - paragraph [0051]; figures 3-14 * | 18-23 | |
| A | EP 1 758 084 A2 (SAMSUNG SDI CO LTD [KR]; IUCF HYU [KR]) 28 February 2007 (2007-02-28) * the whole document * | 5-8 | |
| X | EP 1 758 084 A2 (SAMSUNG SDI CO LTD [KR]; IUCF HYU [KR]) 28 February 2007 (2007-02-28) * the whole document * | 1-4; 18-23 | TECHNICAL FIELD G09G |
| A | EP 1 130 565 A1 (SONY CORP [JP]) 5 September 2001 (2001-09-05) * abstract * * paragraph [0100] - paragraph [0115]; figures 21-27 * | 5-8 | |
| A | JP 2004 004675 A (SEIKO EPSON CORP) 6 January 2004 (2004-01-06) * abstract * * paragraph [0081] - paragraph [0084]; figure 9 | 5-8 | |
| ----- | | | |
| -The present search report has been drawn up for all claims- | | | |
| Date of search Munich | | Date of completion of the search 9 August 2012 | |
| Examiner Munich | | Examiner Wolff, Lillian | |
| CATEGORY OF CITED DOCUMENTS | | | |
| X : particularly relevant to the invention A : particularly relevant to the application * : document cited for other reasons - : non-relevant document TD : intermediate document | | 1 : theory or principle underlying the invention 2 : prior art document, not disclosed in, or 3 : document cited in the application 4 : document cited for other reasons 5 : overview of the same patent family, corresponding document | |