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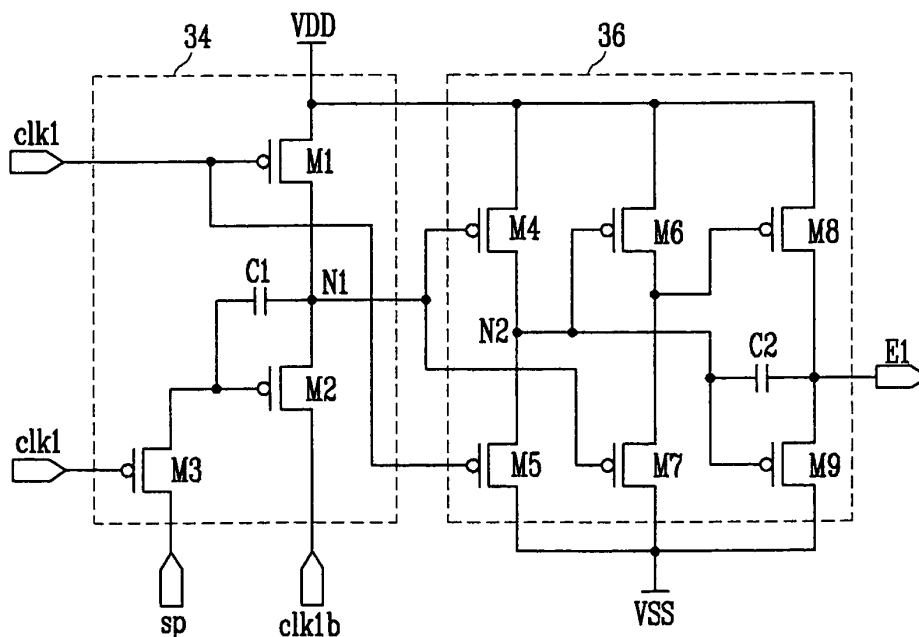
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(54) **Emission control line driver and organic light emitting display using the emission control line driver**

(57) An emission control line driver capable of being mounted on a panel, of improving driving speed, and of minimizing power consumption. The emission control

line driver includes stage circuits each having clock, inverted clock, and start pulse inputs and each generating an emission control signal pulse. The stage circuits are cascaded to provide a series of emission control signal

**FIG. 4**





## EUROPEAN SEARCH REPORT

Application Number  
EP 06 25 4758

| 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 2005/018807 A1 (HAN SANG-SOO [KR] ET AL) 27 January 2005 (2005-01-27)<br>* paragraphs [0048] - [0057] *<br>* paragraphs [0070], [0071] *<br>* figures 3-6 * | 1,7,<br>18-25                                                                                                                                                                                                                                                                | INV.<br>G09G3/00                        |
| X                                                                                                                                                                                                                                                      | US 2005/036581 A1 (LIN HSIAO-YI [TW]) 17 February 2005 (2005-02-17)<br>* paragraphs [0026] - [0033] *<br>* figures 1,2 *                                       | 22-28                                                                                                                                                                                                                                                                        |                                         |
| A                                                                                                                                                                                                                                                      | US 5 633 653 A (ATHERTON JAMES H [US]) 27 May 1997 (1997-05-27)<br>* column 6, line 66 - column 7, line 58 *<br>* figure 7 *                                   | 8-10                                                                                                                                                                                                                                                                         |                                         |
| A                                                                                                                                                                                                                                                      | US 2004/164978 A1 (SHIN DONG-YONG [KR] ET AL) 26 August 2004 (2004-08-26)<br>* paragraphs [0039], [0040] *<br>* figure 3 *                                     | 11-17                                                                                                                                                                                                                                                                        |                                         |
|                                                                                                                                                                                                                                                        |                                                                                                                                                                |                                                                                                                                                                                                                                                                              | TECHNICAL FIELDS SEARCHED (IPC)         |
|                                                                                                                                                                                                                                                        |                                                                                                                                                                |                                                                                                                                                                                                                                                                              | G11C<br>G09G                            |
| The present search report has been drawn up for all claims                                                                                                                                                                                             |                                                                                                                                                                |                                                                                                                                                                                                                                                                              |                                         |
| Place of search<br>The Hague                                                                                                                                                                                                                           |                                                                                                                                                                | Date of completion of the search<br>22 January 2009                                                                                                                                                                                                                          | Examiner<br>Ladiray, Olivier            |
| CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |                                                                                                                                                                | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |                                         |

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EPO FORM 1503 03 82 (P04C01)

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

EP 06 25 4758

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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22-01-2009

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|-------------------------------------------|---------------------|----------------------------|---------------------|
| US 2005018807 A1                          | 27-01-2005          | KR 20050011849 A           | 31-01-2005          |
| US 2005036581 A1                          | 17-02-2005          | TW 229341 B                | 11-03-2005          |
| US 5633653 A                              | 27-05-1997          | DE 69529569 D1             | 13-03-2003          |
|                                           |                     | DE 69529569 T2             | 20-11-2003          |
|                                           |                     | EP 0777900 A1              | 11-06-1997          |
|                                           |                     | JP 10507843 T              | 28-07-1998          |
|                                           |                     | WO 9607174 A1              | 07-03-1996          |
| US 2004164978 A1                          | 26-08-2004          | CN 1525643 A               | 01-09-2004          |
|                                           |                     | JP 3851302 B2              | 29-11-2006          |
|                                           |                     | JP 2004260788 A            | 16-09-2004          |
|                                           |                     | KR 20040076087 A           | 31-08-2004          |

|                |                                                            |         |            |
|----------------|------------------------------------------------------------|---------|------------|
| 专利名称(译)        | 使用发射控制线驱动器的发射控制线驱动器和有机发光显示器                                |         |            |
| 公开(公告)号        | <a href="#">EP1763003A3</a>                                | 公开(公告)日 | 2009-03-04 |
| 申请号            | EP2006254758                                               | 申请日     | 2006-09-13 |
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| IPC分类号         | G09G3/00                                                   |         |            |
| CPC分类号         | G09G3/3266 G09G2320/0252 G09G2330/021 G11C19/184 G11C19/28 |         |            |
| 优先权            | 1020050085414 2005-09-13 KR                                |         |            |
| 其他公开文献         | EP1763003B1<br>EP1763003A2                                 |         |            |
| 外部链接           | <a href="#">Espacenet</a>                                  |         |            |

#### 摘要(译)

一种发射控制线驱动器，能够安装在面板上，提高驱动速度，并使功耗最小化。发射控制线驱动器包括级电路，每个级电路具有时钟，反相时钟和起始脉冲输入，并且每个级电路产生发射控制信号脉冲。级联电路级联以提供一系列发射控制信号

