



(11) **EP 1 927 976 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
19.08.2009 Bulletin 2009/34

(51) Int Cl.:
G09G 3/36^(2006.01)

(43) Date of publication A2:
04.06.2008 Bulletin 2008/23

(21) Application number: **07023249.1**

(22) Date of filing: **30.11.2007**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR MK RS

(72) Inventors:
• **Lin, Ching-Yao**
Hemei Town
Chang-Hua Hsien
Taiwan (TW)
• **Oku, Norio**
Shihlin District
Taipei City
Taiwan (TW)

(30) Priority: **01.12.2006 CN 200610160776**

(71) Applicant: **TPO Displays Corp.**
Miao-Li County (TW)

(74) Representative: **Schaerberle, Steffen**
Hofer & Partner
Patentanwälte
Pilgersheimer Strasse 20
81543 München (DE)

(54) **Liquid crystal display system capable of improving display quality and method for driving the same**

(57) Systems for displaying images incorporates a display device (30,40) that includes a plurality of gate lines, a plurality of data lines intersecting the plurality of gate lines, a plurality of switches each having a first end coupled to a corresponding gate line and a second end coupled to a corresponding data line, a plurality of storage

units each coupled to a third end of a corresponding gate switch for storing data received from a corresponding data line, a power line formed in parallel with the plurality of gate lines, and a plurality of coupling capacitors each having a first end coupled to the power line and a second end coupled to a corresponding data line.

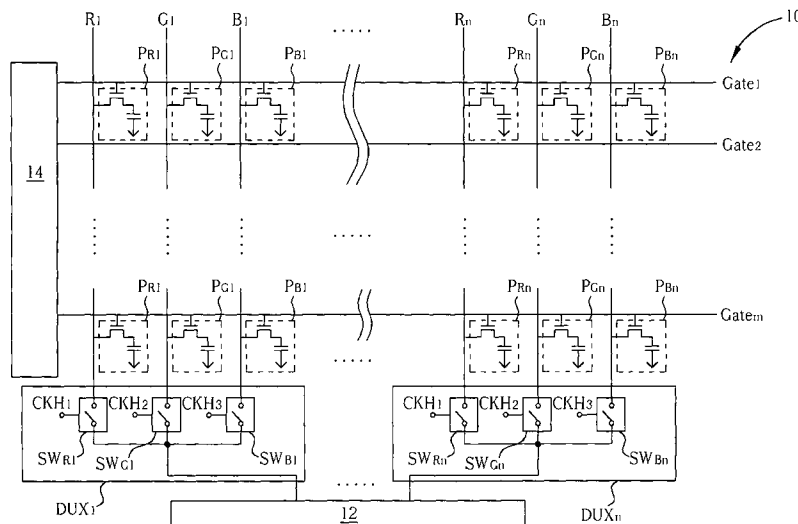


Fig. 1 Prior Art

EP 1 927 976 A3



EUROPEAN SEARCH REPORT

Application Number
EP 07 02 3249

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	FR 2 507 803 A1 (SONY CORP [JP]) 17 December 1982 (1982-12-17) * figure 5 * * page 3, line 36 - page 4, line 8 * -----	1-18	INV. G09G3/36
A	JP 2005 208085 A (SONY CORP) 4 August 2005 (2005-08-04) * figure 9 * * figure 14 * * paragraph [0018] - paragraph [0020] * -----	1-18	
A	EP 0 883 102 A1 (THOMSON LCD [FR] THALES AVIONICS LCD S A [FR]) 9 December 1998 (1998-12-09) * column 5, line 20 - line 56; figure 2 * * column 5, line 20 - line 56 * -----	1-4	
A	WO 2005/109393 A1 (SHARP KK [JP]; KONDO NAOKO [JP]; FURUKAWA HIROYUKI [JP]; UENO MASAFUMI) 17 November 2005 (2005-11-17) * the whole document * -----	1-18	
A	WO 2004/092812 A1 (SAMSUNG ELECTRONICS CO LTD [KR]; LEE BAEK-WOON [KR]) 28 October 2004 (2004-10-28) * the whole document * -----	1-18	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			G09G
1	Place of search The Hague	Date of completion of the search 9 July 2009	Examiner Husselin, Stephane
CATEGORY OF CITED DOCUMENTS		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	
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			

EPO FORM 1503 03.82 (P04C01)

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

EP 07 02 3249

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.

09-07-2009

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
FR 2507803	A1	17-12-1982	AU 552787 B2	19-06-1986
			AU 8461782 A	16-12-1982
			CA 1184682 A1	26-03-1985
			DE 3221972 A1	05-01-1983
			GB 2103857 A	23-02-1983
			JP 1594073 C	14-12-1990
			JP 2019457 B	01-05-1990
			JP 57204592 A	15-12-1982
			NL 8202315 A	03-01-1983
			US 4485380 A	27-11-1984

JP 2005208085	A	04-08-2005	NONE	

EP 0883102	A1	09-12-1998	DE 69813948 D1	05-06-2003
			DE 69813948 T2	04-03-2004
			FR 2764424 A1	11-12-1998
			JP 11052907 A	26-02-1999
			US 6252566 B1	26-06-2001

WO 2005109393	A1	17-11-2005	JP 2005352437 A	22-12-2005
			TW 259989 B	11-08-2006

WO 2004092812	A1	28-10-2004	NONE	

专利名称(译)	能够改善显示质量的液晶显示系统及其驱动方法		
公开(公告)号	EP1927976A3	公开(公告)日	2009-08-19
申请号	EP2007023249	申请日	2007-11-30
[标]申请(专利权)人(译)	统宝光电股份有限公司		
申请(专利权)人(译)	TPO DISPLAYS CORP.		
当前申请(专利权)人(译)	TPO DISPLAYS CORP.		
[标]发明人	LIN CHING YAO OKU NORIO		
发明人	LIN, CHING-YAO OKU, NORIO		
IPC分类号	G09G3/36		
CPC分类号	G09G3/3648 G09G3/3614 G09G3/3688 G09G2300/043 G09G2310/0297 G09G2320/0209		
优先权	200610160776.5 2006-12-01 CN		
其他公开文献	EP1927976A2		
外部链接	Espacenet		

摘要(译)

用于显示图像的系统包括显示装置 (30,40)，该显示装置包括多条栅极线，与多条栅极线交叉的多条数据线，多个开关，每个开关具有连接到相应栅极线的第一端和第二端耦合到对应的数据线，多个存储单元，每个存储单元耦合到对应开关的第三端，用于存储从对应数据线接收的数据，与多条栅极线平行形成的电源线，以及多个每个耦合电容器具有耦合到电源线的第一端和耦合到相应数据线的第二端。

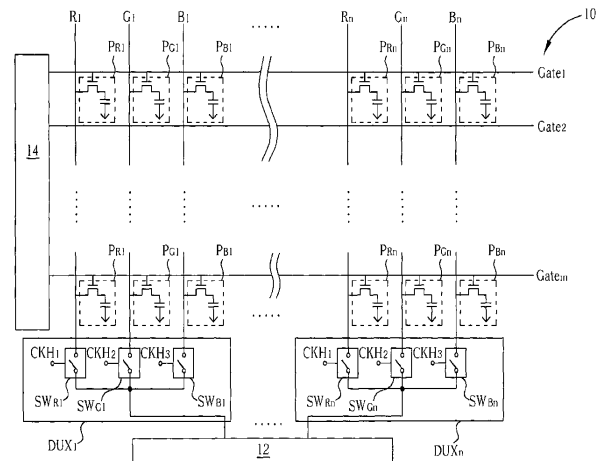


Fig. 1 Prior Art