



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
30.05.2012 Bulletin 2012/22

(51) Int Cl.:
G09G 3/30 (2006.01) G09G 3/32 (2006.01)

(43) Date of publication A2:
05.10.2011 Bulletin 2011/40

(21) Application number: **10011654.0**

(22) Date of filing: **23.06.2000**

(84) Designated Contracting States:
DE FR GB

(30) Priority: **23.06.1999 JP 17652199**

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC:
00113394.1 / 1 063 630

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(54) **Active matrix EL display device**

(57) An EL display device capable of producing a vivid multi-gradation color display, and an electronic device having the EL display device. An electric current supplied to an EL element 110 is controlled by providing a resistor 109 between a current control TFT 108 and the EL element 110 formed in a pixel 104, the resistor 109 having

a resistance higher than the on-resistance of the current control TFT 108. The gradation display is executed by a time-division drive system which controls the emission and non-emission of light of the EL element 110 by time, preventing the effect caused by a dispersion in the characteristics of the current control TFT 108.

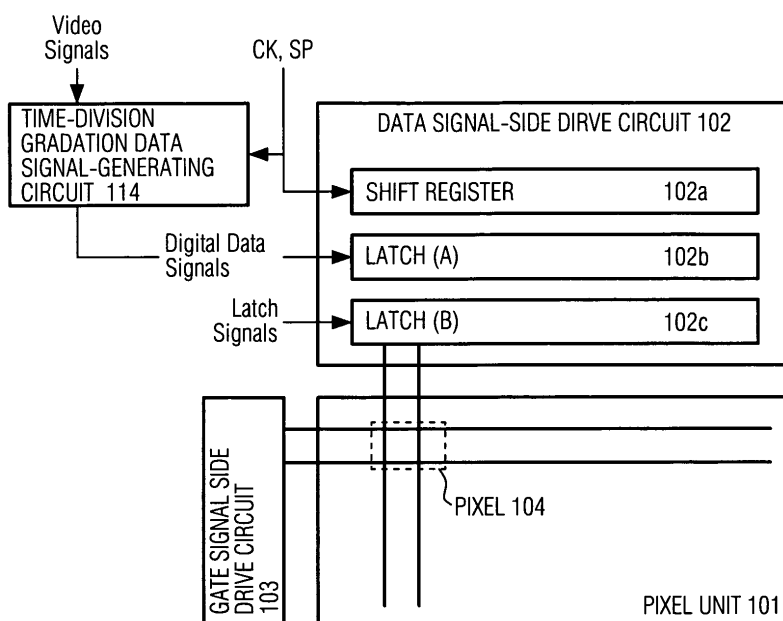


FIG. 1(A)

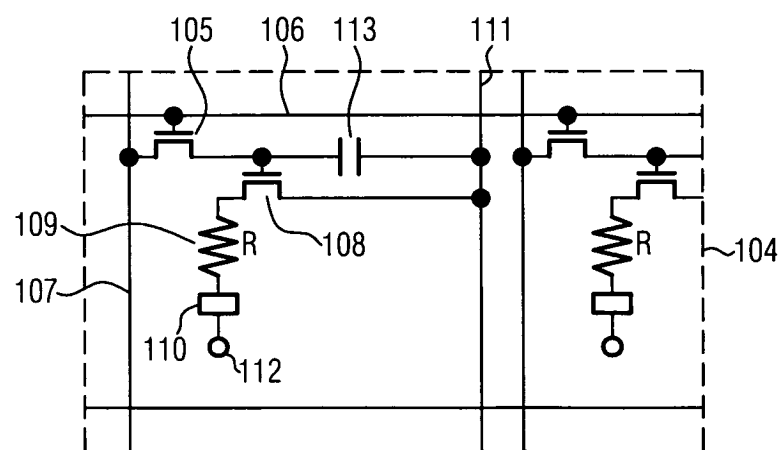


FIG. 1(B)



EUROPEAN SEARCH REPORT

Application Number
EP 10 01 1654

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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L	& US 6 147 451 A (HAMADA YUJI ET AL) 14 November 2000 (2000-11-14) * abstract * * column 3, line 51 - column 4, line 41 * * column 9, line 17 - column 11, line 4 * * figures 1-4,10,11 *		
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 19 April 2012	Examiner Farricella, Luigi
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	

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EPO FORM 1503 03.92 (P04C01)



EUROPEAN SEARCH REPORT

Application Number
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			TECHNICAL FIELDS SEARCHED (IPC)
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 19 April 2012	Examiner Farricella, Luigi
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			

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EPO FORM 1503 03.82 (P04C01)

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

EP 10 01 1654

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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专利名称(译)	有源矩阵EL显示器件		
公开(公告)号	EP2372682A3	公开(公告)日	2012-05-30
申请号	EP2010011654	申请日	2000-06-23
[标]申请(专利权)人(译)	株式会社半导体能源研究所		
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[标]发明人	KOYAMA JUN		
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IPC分类号	G09G3/30 G09G3/32 G02F1/136 G09F9/30 G09G3/20 H01L27/15 H01L27/32 H01L51/50 H05B33/12 H05B33/14		
CPC分类号	H01L27/1255 G09G3/2018 G09G3/2022 G09G3/3233 G09G3/3258 G09G3/3275 G09G3/3291 G09G2300/026 G09G2300/0408 G09G2300/0426 G09G2300/0809 G09G2300/0842 G09G2300/0885 G09G2310/0221 G09G2310/04 G09G2320/0223 G09G2320/0233 G09G2320/043 G09G2330/021 H01L27/1214 H01L27/1251 H01L27/156 H01L27/3248 H01L27/3262 H01L27/3272 H01L27/3276 H01L2924/0002 H01L2924/00		
代理机构(译)	GRÜNECKER , KINKELDEY , STOCKMAIR & SCHWANHÄUSSER		
优先权	1999176521 1999-06-23 JP		
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摘要(译)

一种能够产生鲜明的多灰度彩色显示的EL显示装置，以及具有该EL显示装置电子装置。通过在电流控制TFT 108和形成在像素104中的EL元件110之间提供电阻器109来控制提供给EL元件110的电流，电阻器109的电阻高于电流控制TFT的导通电阻。通过时分驱动系统执行灰度显示，该时分驱动系统控制EL元件110的光的发光和不发光，防止由电流控制TFT108的特性的分散引起的影响。

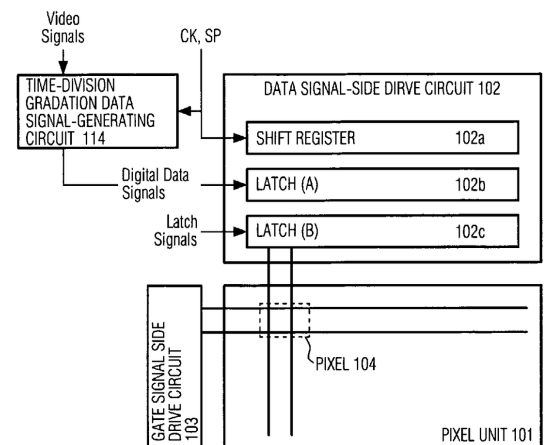


FIG. 1(A)