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(54) **Portable information apparatus with active matrix electroluminescent display**

(57) There is provided a portable information apparatus including an EL display device which can reduce consumed electric power at the time when a still picture is displayed. In the EL display device included in the portable information apparatus, a plurality of memory circuits and a D/A converter are arranged in a pixel. When the EL display device displays the still picture, picture display functions other than the EL display device and control circuits for controlling the EL display device are stopped, so that the portable information apparatus capable of reducing the consumed electric power can be obtained.

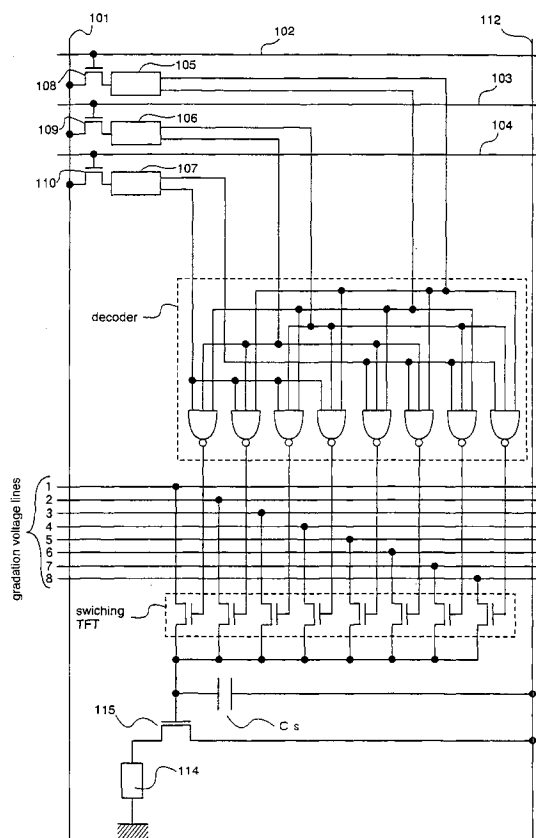


Fig. 8



EUROPEAN SEARCH REPORT

Application Number
EP 01 12 0262

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	EP 0 365 445 A (EASTMAN KODAK CO [US]) 25 April 1990 (1990-04-25) * column 2, line 26 - column 4, line 37; figures 1-3 *	1-5,8,9, 17,19	INV. G09G3/32
A	US 5 977 940 A (AKIYAMA MASAHIKO [JP] ET AL) 2 November 1999 (1999-11-02) * column 9, line 38 - column 13, line 13 * * column 16, line 45 - column 17, line 19 * * figures 1,2,7 *	1-5,8,9, 17,19	
X	WO 97/04436 A (MCKNIGHT DOUGLAS J [US]) 6 February 1997 (1997-02-06)	1,2,17, 19	
A	* page 1, line 20 - line 27 * * page 38, line 10 - line 20 * * page 49, line 5 - line 28 * * figure 11 *	3-5,8,9	
			TECHNICAL FIELDS SEARCHED (IPC)
			G09G
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 6 May 2009	Examiner Farricella, Luigi
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

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EPO FORM 1503 03 82 (P04C01)



Application Number

EP 01 12 0262

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:

☒ 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:

1-18, 22-25

☐ 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

EP 01 12 0262

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: 1-18,22-25

An electroluminescent display apparatus with pixels comprising memory cells and a digital to analog converter.

2. claims: 19-21

A method of driving a luminescent display apparatus with memory cells contained in the pixels, in which the readout operation of a video buffer is stopped after transfer of the data to the display.

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

EP 01 12 0262

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.

06-05-2009

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专利名称(译)	具有有源矩阵电致发光显示器的便携式信息设备		
公开(公告)号	EP1182636A3	公开(公告)日	2009-10-14
申请号	EP2001120262	申请日	2001-08-23
[标]申请(专利权)人(译)	株式会社半导体能源研究所		
申请(专利权)人(译)	SEL半导体能源研究所有限公司.		
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[标]发明人	YAMAZAKI SHUNPEI KOYAMA JUN		
发明人	YAMAZAKI, SHUNPEI KOYAMA, JUN		
IPC分类号	G09G3/32 G06F15/02		
CPC分类号	G09G3/3266 G09G3/3275 G09G2300/0809 G09G2300/0828 G09G2300/0857 G09G2320/0242 G09G2330/021		
优先权	2000253188 2000-08-23 JP		
其他公开文献	EP1182636B1 EP1182636A2		
外部链接	Espacenet		

摘要(译)

提供一种便携式信息设备，包括EL显示设备，其可以减少显示静止图像时的消耗电力。在便携式信息设备中包括的EL显示装置中，多个存储电路和D/A转换器布置在像素中。当EL显示装置显示静止图像时，停止除EL显示装置和用于控制EL显示装置的控制电路之外的图像显示功能，从而可以获得能够降低消耗电力的便携式信息装置。

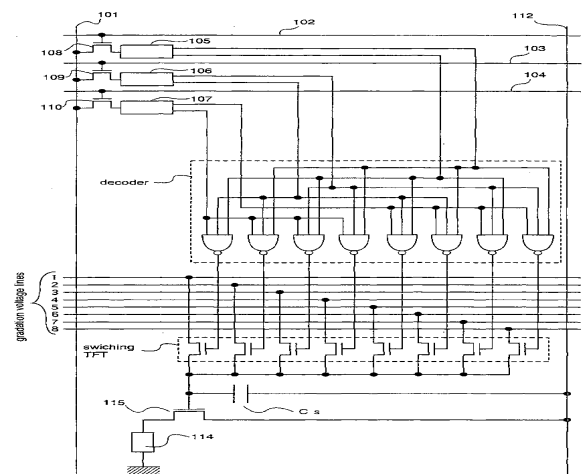


Fig. 8