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(54) Colour filter arrangement for a liquid crystal display device

(57) A display device comprises a light source consisting of three emission elements, each of which emits light of different wavelength regions corresponding to the respective colors of red, green and blue, and a display module consisting of a display part wherein each pixel has two types of color filters that transmit red and green light and green and blue light, respectively. As an example, the first type of color filter may be yellow whereas the second type of color filter may be cyan. One frame of video signals is split during display to become two subframes and it is possible to alternately emit for each subframe green light, which is transmitted through both color filters, and red and blue light, each of which is transmitted through only one filter.

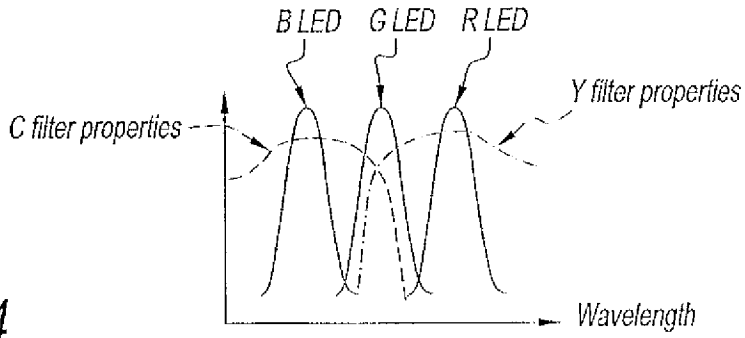

Fig. 4

(a)

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EUROPEAN SEARCH REPORT

Application Number
EP 06 11 2694

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 2004/032523 A (KONINKL PHILIPS ELECTRONICS NV [NL]; HEKSTRA GERBEN J [NL]; CORNELISSE) 15 April 2004 (2004-04-15)	1-4,7	INV. G09G3/36 G09G3/34
Y	* page 4, line 32 - page 10, line 8; figures 2-11 *	5,6	

Y	US 2002/075224 A1 (SON HYEON HO [KR]) 20 June 2002 (2002-06-20) * paragraphs [0037] - [0051]; figures 3-7 *	5,6	

Y	US 2004/239839 A1 (HONG HYUNG-KI [KR] HONG HYUNG KI [KR]) 2 December 2004 (2004-12-02) * paragraphs [0057] - [0090]; figures 7-11 *	5,6	

TECHNICAL FIELDS SEARCHED (IPC)

G09G

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	6 June 2008	Harke, Michael

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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A : technological background
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EPO FORM 1503 03.82 (P04C01)

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06-06-2008

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2004032523 A	15-04-2004	AU 2003263539 A1	23-04-2004
		CN 1685738 A	19-10-2005
		JP 2006501513 T	12-01-2006
		KR 20050046816 A	18-05-2005
		US 2007146509 A1	28-06-2007
US 2002075224 A1	20-06-2002	KR 20020046595 A	21-06-2002
US 2004239839 A1	02-12-2004	KR 20040103997 A	10-12-2004

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	用于液晶显示装置的滤色器装置		
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其他公开文献	EP1715473A2		
外部链接	Espacenet		

摘要(译)

一种显示装置，包括由三个发光元件组成的光源，每个发光元件发出对应于红色，绿色和蓝色的相应颜色的不同波长区域的光，以及由显示部分组成的显示模块，其中每个像素具有两种类型的分别传输红光和绿光以及绿光和蓝光的滤色器。作为示例，第一类型的滤色器可以是黄色，而第二类型的滤色器可以是青色。一帧视频信号在显示期间被分割成两个子帧，并且可以针对每个子帧交替发射绿光，其通过两个滤色器发送，红色和蓝色光，每个子帧仅通过一个滤波器发送。

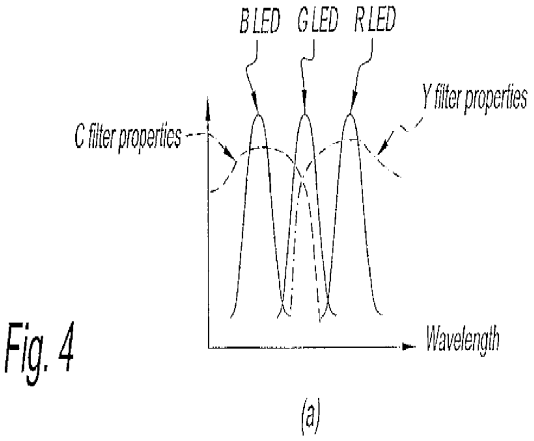

Fig. 4