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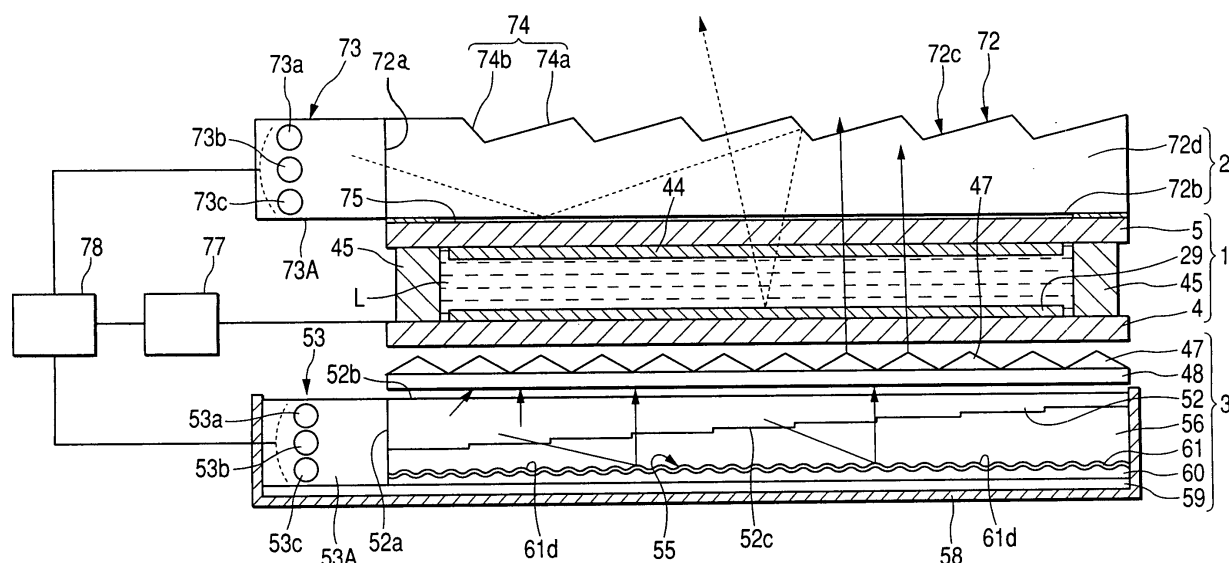
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(54) **Color liquid crystal display device**

(57) The color liquid crystal display device includes a transmissive liquid crystal display panel (1), a frontlight (2) arranged on a surface of the liquid crystal display panel, the frontlight (2) including a front-side light source (73) for emitting light having three primary colors, a backlight (3) arranged on a back side of the liquid crystal display panel (1), the backlight (3) including a back-side light

source (53) for emitting light having three primary colors, a controller for controlling the front-side light source (73) and the back-side light source such that light emitted from the front-side light source and the back-side light source is irradiated onto the liquid crystal display panel (1) as alternating light, and a control circuit for controlling display of the liquid crystal display panel in synchronization with the alternating light.

FIG. 2





EUROPEAN SEARCH REPORT

Application Number
EP 05 01 1358

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	US 5 337 068 A (STEWART ROGER G [US] ET AL) 9 August 1994 (1994-08-09) * the whole document *	1-9	INV. G09G3/36
A	US 2002/122019 A1 (BABA MASAHIRO [JP] ET AL) 5 September 2002 (2002-09-05) * paragraphs [0014] - [0033]; figures 1,8,9,11 *	1-9	
			TECHNICAL FIELDS SEARCHED (IPC)
			G09G G02F
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 21 April 2009	Examiner Kunze, Holger
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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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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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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21-04-2009

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 5337068	A	09-08-1994	DE	69025341 D1	21-03-1996
			DE	69025341 T2	29-08-1996
			EP	0528797 A1	03-03-1993
			JP	3233927 B2	04-12-2001
			JP	5504416 T	08-07-1993
			WO	9110223 A1	11-07-1991

US 2002122019	A1	05-09-2002	JP	3766274 B2	12-04-2006
			JP	2002191055 A	05-07-2002

专利名称(译)	彩色液晶显示装置		
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其他公开文献	EP1600929A2		
外部链接	Espacenet		

摘要(译)

彩色液晶显示装置包括透反液晶显示面板(1), 设置在液晶显示面板表面上的前灯(2), 前灯(2)包括用于发光的前侧光源(73)具有三原色的光, 布置在液晶显示面板(1)背面的背光(3), 背光(3)包括用于发射具有三原色光的背面光源(53), 控制器, 用于控制前侧光源(73)和后侧光源, 使得从前侧光源和后侧光源发出的光作为交替照射到液晶显示板(1)上光和控制电路, 用于与交变光同步地控制液晶显示板的显示。

