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(54) **Liquid crystal display device**

(57) A liquid crystal display device comprises a liquid crystal layer (13) containing a nematic liquid crystal material, first and second light-transmissive substrates (11, 12) which hold the nematic liquid crystal material therebetween such that liquid crystal molecules are aligned in a predetermined directions, and first and second circular electrodes (EL1, EL2) which are formed on the first and second light-transmissive substrates (11, 12) and apply to the liquid crystal layer (13) an electric field for controlling the orientation of the liquid crystal molecules. In particular, the first and second circular electrodes (EL1, EL2) include radial light-shielding electrode lines and concentric light-shielding electrode lines, which are opposed to each other to divide the liquid crystal layer (13) into a plurality of domains between which liquid crystal molecules are set in different tilt directions under the electric field.

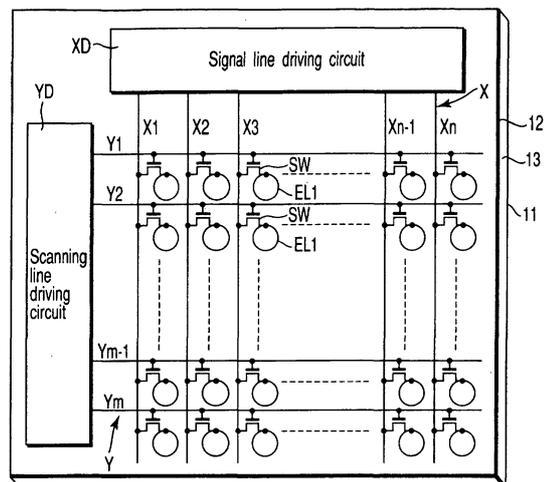


FIG. 1



European Patent Office

EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 03, 30 March 2000 (2000-03-30) -& JP 11 352490 A (SAMSUNG ELECTRONICS CO LTD), 24 December 1999 (1999-12-24) * figure 9 *	1-3	G02F1/1343 G02F1/1368 G02F1/139
A	-& US 6 342 938 B1 (LEE KYE-HUN ET AL) 29 January 2002 (2002-01-29) * figure 9 * * column 2, line 1 - line 31 *	1-3	
A	US 5 610 743 A (TSAI MENG-JIN) 11 March 1997 (1997-03-11) * abstract *	1-3	
A	US 5 309 264 A (JOHN RICHARD A ET AL) 3 May 1994 (1994-05-03) * abstract *	1-3	
A	OHMURA K ET AL: "33.3: DEVELOPMENT OF SUPER-HIGH-IMAGE-QUALITY VERTICAL-ALIGNMENT-MODE LCD" 1997 SID INTERNATIONAL SYMPOSIUM DIGEST OF TECHNICAL PAPERS. BOSTON, MAY 13 - 15, 1997, SID INTERNATIONAL SYMPOSIUM DIGEST OF TECHNICAL PAPERS, SANTA ANA, SID, US, vol. 28, 13 May 1997 (1997-05-13), pages 845-848, XP000722823 ISSN: 0097-966X * the whole document *	1-3	TECHNICAL FIELDS SEARCHED (Int.Cl.7) G02F
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
MUNICH	4 December 2003	Lüssem, G	
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	
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		& : member of the same patent family, corresponding document	

EPO FORM 1503 03 82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 02 02 0580

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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优先权	2001285342 2001-09-19 JP		
其他公开文献	EP1296175A2		
外部链接	Espacenet		

摘要(译)

一种液晶显示装置，包括含有向列液晶材料的液晶层（13），第一和第二透光基板（11,12），其将向列液晶材料保持在其间，使得液晶分子以预定的方式排列形成在第一和第二透光基板（11,12）上的第一和第二圆形电极（EL1, EL2），并向液晶层（13）施加用于控制液体取向的电场晶体分子。特别地，第一和第二圆形电极（EL1, EL2）包括径向遮光电极线和同心遮光电极线，它们彼此相对以将液晶层（13）分成多个区域。哪种液晶分子在电场下设置在不同的倾斜方向上。

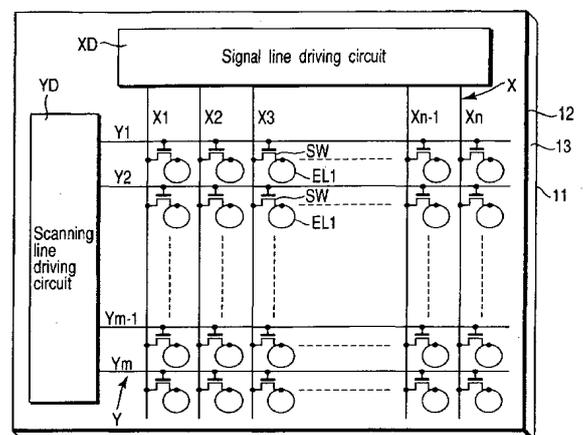


FIG. 1