



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 11 1757

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)
X,D	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 11, 30 September 1998 (1998-09-30) -& JP 10 161110 A (MATSUSHITA ELECTRIC IND CO LTD), 19 June 1998 (1998-06-19) * abstract * -& US 6 300 990 B1 (MATSUSHITA ELECTRIC IND CO LTD) 9 October 2001 (2001-10-09) * column 8, line 31 - line 64; figure 3; example 4 * * column 9, line 2 - line 35; figure 4 * * column 11, line 21 - line 55; example 5 * * column 13, line 40 - line 67; example 6 * * column 9, line 4 - line 52 * * column 23, line 53 *	2-4,6,7,9	G02F1/13363 G02F1/139
A	---	1,5,8	
A	KOMURA S ET AL: "An optical design for reflective color STN-LCDs" PROCEEDINGS OF 5TH ASIAN SYMPOSIUM ON INFORMATION DISPLAY. ASID '99 (IEEE CAT. NO.99EX291), PROCEEDINGS OF THE 5TH ASIAN SYMPOSIUM ON INFORMATION DISPLAY. ASID'99, HSINCHU, TAIWAN, 17-19 MARCH 1999, pages 37-40, XP002267783 1999, Taipei, Taiwan, SID Taipei Chapter, Taiwan ISBN: 957-97347-9-8 whole document ---	1-9	TECHNICAL FIELDS SEARCHED (Int.Cl.7) G02F
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 23 January 2004	Examiner Thomas, K
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	

EPO FORM 1503 03.82 (P04C01)



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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	FUJITA S ET AL: "Reflective color STN-LCD technologies" LIQUID CRYSTAL MATERIALS, DEVICES, AND APPLICATIONS VI, SAN JOSE, CA, USA, 26-27 JAN. 1998, vol. 3297, pages 108-114, XP002267784 Proceedings of the SPIE - The International Society for Optical Engineering, 1998, SPIE-Int. Soc. Opt. Eng, USA ISSN: 0277-786X whole document -----	1-9	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
The present search report has been drawn up for all claims			
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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			

EPO FORM 1503 03/82 (P04C01)

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

EP 00 11 1757

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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23-01-2004

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		US 2001048495 A1	06-12-2001
		US 6300990 B1	09-10-2001

EPO FORM P0459

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

专利名称(译)	反射型液晶显示装置		
公开(公告)号	EP1058149A3	公开(公告)日	2004-03-31
申请号	EP2000111757	申请日	2000-06-02
[标]申请(专利权)人(译)	夏普株式会社		
申请(专利权)人(译)	夏普株式会社		
当前申请(专利权)人(译)	夏普株式会社		
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IPC分类号	G02F1/133 G02F1/1335 G02F1/13363 G02F1/139		
CPC分类号	G02F1/13363 G02F1/133634 G02F1/1397 G02F2001/133638 G02F2202/40 G02F2203/02 G02F2203/64 G02F2413/03 G02F2413/08 G02F2413/12 G02F2413/15		
优先权	1999158662 1999-06-04 JP		
其他公开文献	EP1058149B1 EP1058149A2		
外部链接	Espacenet		

摘要(译)

本发明的一个目的是获得具有高对比度和高亮度的消色差显示器。NB模式的反射型液晶显示装置(1)包括具有STN型液晶层(9)的液晶单元;第一相位差板(4);第二相位差板(3);偏振片(2),第一和第二相位差片和偏振片按此顺序设置在液晶盒的一个表面上;反射层(15)设置在液晶盒中,反射层形成液晶盒的另一个表面。液晶层(9)的延迟 $\Delta n \cdot d$ 为LC,第一相位差板(4)的延迟 $\Delta n_1 \cdot d_1$ 和第二相位差板(3)的延迟 $\Delta n_2 \cdot d_2$ 选自660nm至830nm的范围,120分别为nm至240nm和300nm至430nm。扭转角 χ 选自220°至260°的范围。预定角度 θ , ϕ 和 ψ 分别选自-130°至-75°,-20°至-60°和-15°至-45°的范围。

FIG. 1

