



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
02.07.2003 Bulletin 2003/27

(51) Int Cl.7: **G02F 1/1333, G02F 1/1347**

(43) Date of publication A2:
03.04.2002 Bulletin 2002/14

(21) Application number: **01122624.8**

(22) Date of filing: **27.09.2001**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR**
Designated Extension States:
AL LT LV MK RO SI

- **Kizaki, Yukio**
Minato-ku, Tokyo (JP)
- **Enomoto, Shintaro**
Minato-ku, Tokyo (JP)
- **Tanaka, Masao**
Minato-ku, Tokyo (JP)

(30) Priority: **27.09.2000 JP 2000293622**

(74) Representative: **HOFFMANN - EITLÉ**
Patent- und Rechtsanwälte
Arabellastrasse 4
81925 München (DE)

(71) Applicant: **Kabushiki Kaisha Toshiba**
Tokyo 105-8001 (JP)

(72) Inventors:
• **Nakai, Yutaka**
Minato-ku, Tokyo (JP)

(54) **Liquid crystal display and method of manufacturing the same**

(57) There are provided a liquid crystal display having high light utilizing efficiency, simple structure and high aperture ratio and its manufacturing method. A pixel isolator surrounding respective pixel is formed on a substrate to thereby isolate the respective pixel. A liquid

crystal layer is formed by dripping liquid crystal microcapsule. Thereby, by isolating respective pixel, the pixel can be driven without being influenced by voltage applied to contiguous pixels. Further, since the respective pixel is partitioned, the liquid crystal layer and electrodes can be coated accurately.

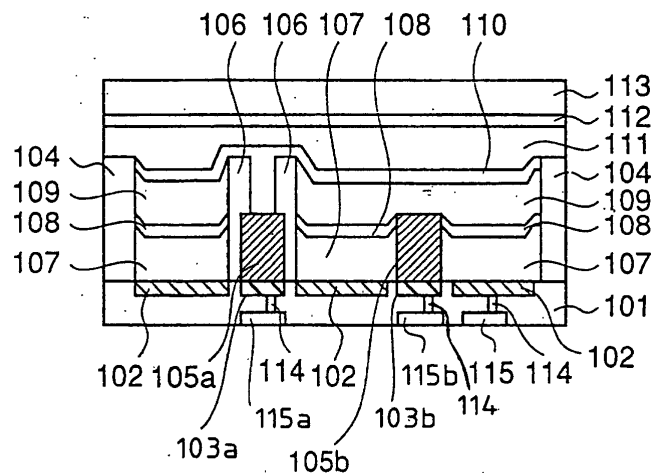


Fig. 1



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 01 12 2624

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	US 6 067 134 A (NAKAI YUTAKA ET AL) 23 May 2000 (2000-05-23) * column 3, line 37 - line 38; figures 5,6,18 *	1-18	G02F1/1333 G02F1/1347
A	--- PATENT ABSTRACTS OF JAPAN vol. 1997, no. 03, 31 March 1997 (1997-03-31) & JP 08 313939 A (TOSHIBA CORP), 29 November 1996 (1996-11-29) * abstract * -----	1,2,11, 15,17	
			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
THE HAGUE		7 May 2003	Gill, R
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 (P04/C01)

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

EP 01 12 2624

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.

07-05-2003

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 6067134	A	23-05-2000	JP	3361029 B2	07-01-2003
			JP	10260427 A	29-09-1998

JP 08313939	A	29-11-1996	KR	200258 B1	15-06-1999
			US	5790215 A	04-08-1998

EPO FORM P0459

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