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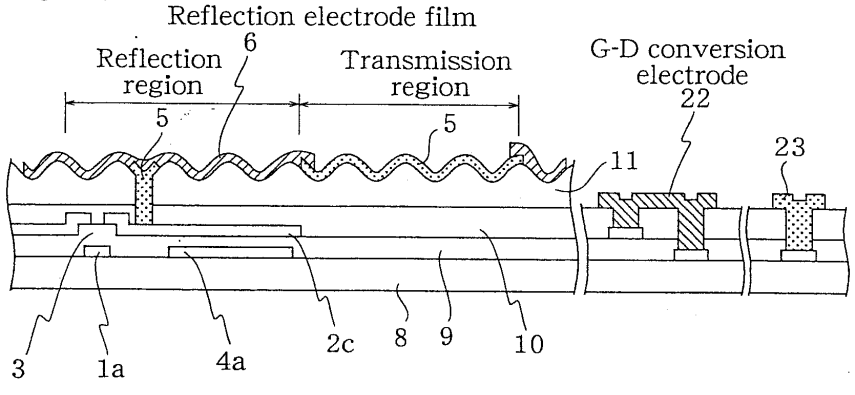
(54) Transflective liquid crystal display and method for manufacturing the same

(57) A method for manufacturing a transflective type active matrix substrate comprising the steps of depositing a passivation film (10) on a substrate on scanning lines and signal lines and forming a first contact hole in a portion, G-D conversion portion, which is provided around said substrate to lead out a signal line, and filling said first contact hole with a predetermined conductive material, and
depositing an organic film both in a transmission region and a reflection region, then forming irregularities on the surface and removing the organic film on a terminal of a switching element to form a second contact hole, and forming a transparent electrode film in the transmission region, and
forming a reflection electrode film (16) overlapping with the transparent electrode film around an overall periphery to interconnect the terminal and the reflection electrode film (6) through the second contact hole.

FIG.15(d)



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PARTIAL EUROPEAN SEARCH REPORT

under Rule 62a and/or 63 of the European Patent Convention. This report shall be considered, for the purposes of subsequent proceedings, as the European search report

Application Number
EP 11 15 7148

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	JP 2001 194662 A (NEC CORP) 19 July 2001 (2001-07-19) * the whole document * & US 2004/070709 A1 (KANOU HIROSHI [JP] ET AL) 15 April 2004 (2004-04-15) * the whole document * -----	1	INV. G02F1/1335 ADD. G02F1/1362

TECHNICAL FIELDS SEARCHED (IPC)

G02F

INCOMPLETE SEARCH

The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC so that only a partial search (R.62a, 63) has been carried out.

Claims searched completely :

Claims searched incompletely :

Claims not searched :

Reason for the limitation of the search:

see sheet C

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Place of search	Date of completion of the search	Examiner
Munich	23 December 2011	Wolfrum, Georg

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 (P04E07)

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INCOMPLETE SEARCH
SHEET C

Application Number
EP 11 15 7148

Claim(s) completely searchable:
1

Claim(s) not searched:
2-4

Reason for the limitation of the search (non-patentable invention(s)):

Three independent method claims which contravene Rule 43(2) EPC have been identified in the present application, namely claims 1 to 3. After the invitation in accordance with Rule 62a(1) EPC to indicate the independent method claim on the basis of which the search is to be carried out, the applicant has submitted an amended set of claims 1-4 with his reply dated 19.07.2011. This amended set of claims is apparently based on claims 1-4 as originally filed. However, the applicant may not amend the description, claims and drawings of his European patent application before receiving the European search report according to Rule 137(1) EPC. Therefore, the amended set of claims 1-4 cannot be searched. However, the submission of the applicant has to be understood as an indication that the applicant wants to receive a European search report for claim 1 as originally filed.
Therefore, no European search report has been drawn up for independent device claims 2 and 3 in accordance with Rule 62a(1) EPC. Thus, their subject-matter is regarded as unsearched subject-matter. The European search opinion is established for the subject-matter of claim 1 only.

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 11 15 7148

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.

23-12-2011

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2001194662 A	19-07-2001	JP 2001194662 A	19-07-2001
		KR 20010086334 A	10-09-2001
		KR 20040062478 A	07-07-2004
		TW I238280 B	21-08-2005
		US 2004070709 A1	15-04-2004

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)	透反液晶显示器及其制造方法		
公开(公告)号	EP2345925A3	公开(公告)日	2012-02-22
申请号	EP2011157148	申请日	2002-08-05
[标]申请(专利权)人(译)	NEC液晶技术株式会社		
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当前申请(专利权)人(译)	NLT科技有限公司.		
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IPC分类号	G02F1/1335 G02F1/1362 G02B5/08 G02B5/30 G02F1/1333 G02F1/1343 G02F1/136 G02F1/1368 G09F9/30 G09F9/35 H01L21/336 H01L29/786		
CPC分类号	G02F1/133555 G02F1/133504 G02F1/136227 G02F2001/136236		
优先权	2001237887 2001-08-06 JP		
其他公开文献	EP2345925A2		
外部链接	Espacenet		

摘要(译)

一种制造半透半反型有源矩阵基板的方法，包括以下步骤：在扫描线和信号线上的基板上沉积钝化膜（10），并在部分GD转换部分中形成第一接触孔，该部分设置在所述基板周围引出信号线，用预定的导电材料填充所述第一接触孔，并在透射区域和反射区域中沉积有机膜，然后在表面上形成凹凸，并去除端子上的有机膜。开关元件形成第二接触孔，在透射区域形成透明电极膜，并形成与整个周边的透明电极膜重叠的反射电极膜（16），以使端子和反射电极膜互连（6））通过第二个接触孔。