

(19)
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(43)2002 - 0065791
2002 08 14(21) 10 - 2001 - 0005973
(22) 2001 02 07(71) .
20

(72) 3 1049 - 1 401

(74) :
:

(54)

, , , CLC , CLC ,

, , 가 가 .

3

1 CLC(Cholesteric Liquid Crystal)

2 1 .

3 CLC
 4 3
 5 4 II - II
 6 CLC

< >

100 : 102 :

104 : QWP 105 :

106 : 110 :

130 : 132 : CLC

134 : 136 :

138 :

(Cholesteric Liquid Cry
 stal Color Filter)

(Thin film transistor -
 liquid crystal display ;)가

(TFT array substrate)
 (color filter substrate)

7%

(ba
 ttery)

가

가 , 가
PDA(Personal Digital Assistant)

가

가

가

2

가

가

가

가

가

(, CLC

) 가 /

CLC

(contrast ratio)

가

CLC

CLC

CLC

(pitch)

가

400 700nm

가

6

50nm

550nm

450nm

CLC

R,G,B

가

/

, 가

1

CLC

가

/ (on/off)

가

(AM

LCD ; Active Matrix Liquid Crystal Display)

(10, 30)

(10, 3

0)

(50)

(10)

(1)

(T)가

(T)

(T)

가

(16)

(16)

(14 ; BI

ack Matrix)가

(1)

QWP(18 ; Quarter Wave Plate)

(20)

(30) (1) , R(; Red), G(; Green), B(; Blue)
 , CLC (32) CLC (32)가
 , CLC (32) (34)
 . (36)

, CLC , CLC 가 .

, .
 2 1 .
 , (11) (13) (matrix)
 , (11) (13) (16)
 , (16) (T)가 ,
 (14)가 .

, (16) (11) (13)
 , (14) (16) (13)
 , (cross - talk) (16) 가
 , (16) , 80%
 .

(aperture ratio) 가 가 가 , 가
 , 가

, .
 , (16) ,
 , 가 .

,
 , CLC
 , CLC ,
 .

4 3 .

(141) (147) (141) (147) (T)가 ,
 (141) (147) CLC (132)가

R,G,B .

CLC (132) (138) (138)
 (T) (136)

3 (138) (T) CLC (13
 2) (138) (140) (142)

CLC (132)

(140) (142) (138)
 (3 134) CLC (132)

(138) (138)
 (T) 가

5 4 II - II C
 LC

(100) (140) (140)
 (142) (142) (144)
 (144) (146, 148)
 (146, 148) (148) (136) 가
 (150) (136) 가 (150)
 (132)가 (134) CLC

(136) (148) (138)

(134) CLC (132)
 (138) (T)
 (T) 90%

가 .

6 CLC

ST1, ST2 1

5
 1

1 가 , CLC .

ST3 , ST2 . CLC ,

(black resin)

(acrylic)

ST4 , CLC .

CLC CLC , (baking),

CLC R,G,B 가 R,G,B CLC , CLC

ST5 CLC 2

2 가 .

2 .

, 2 CLC .

ST6 2 .

, CLC .

80%

, CLC , CLC

, .

, 90% , CLC

가 .

, .

, CLC
가 .

, CLC
,
가 .

, , 가
.

(57)

1.

;

;

, 가 1 ;

;

;

;

(Cholesteric Liquid Crystal) ;

.

2.

1 ,

.

3.

2 ,

$\lambda/4$

QWP(Quarter Wave Plate)

.

4.

1 ,

(contact hole)

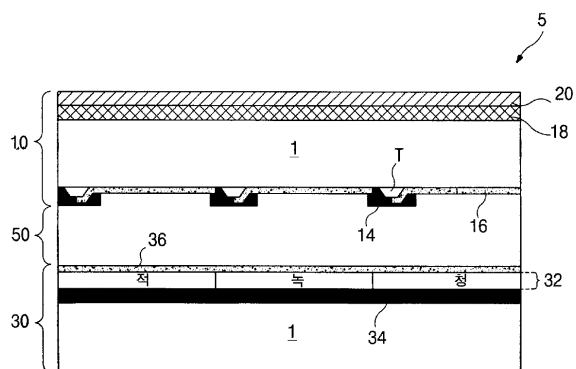
.

5.

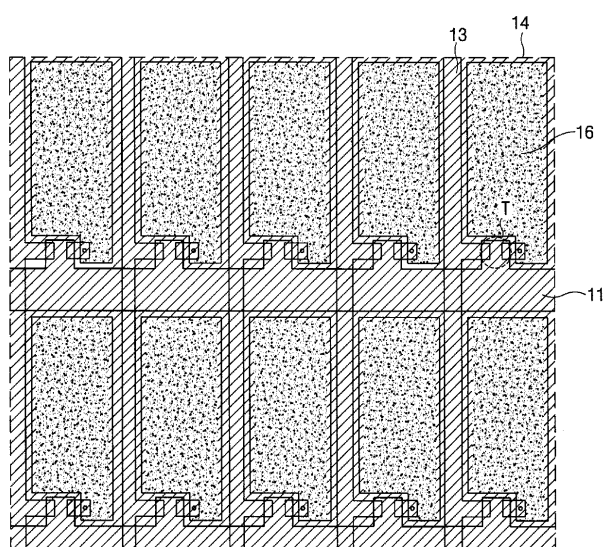
1 ,

(nematic)

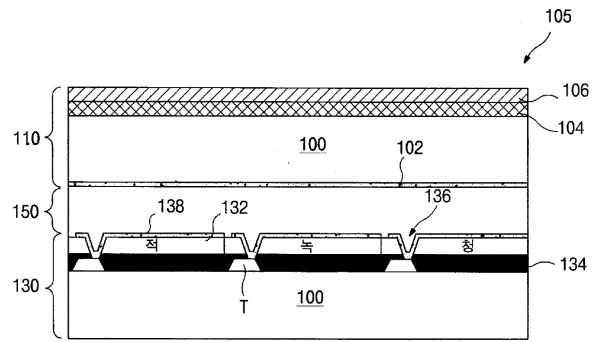
1



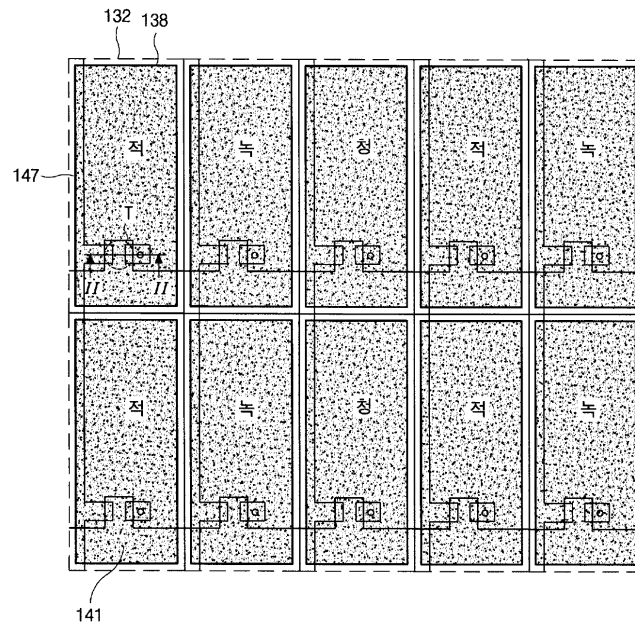
2



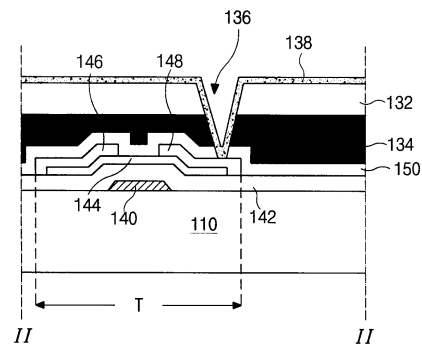
3



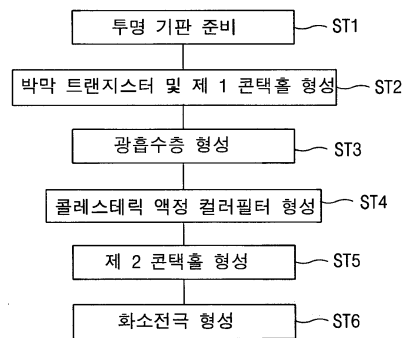
4



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6



专利名称(译)	使用胆甾型液晶滤色器的反射型液晶显示装置		
公开(公告)号	KR1020020065791A	公开(公告)日	2002-08-14
申请号	KR1020010005973	申请日	2001-02-07
[标]申请(专利权)人(译)	乐金显示有限公司		
申请(专利权)人(译)	LG显示器有限公司		
当前申请(专利权)人(译)	LG显示器有限公司		
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发明人	문중원		
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代理人(译)	贞媛KI		
其他公开文献	KR100393389B1		
外部链接	Espacenet		

摘要(译)

在本发明中，在同一基板上形成包括薄膜晶体管和像素电极的阵列层，CLC滤色器和光吸收层，在薄膜晶体管和像素电极之间设置CLC滤色器和光吸收层，吸收层用作阻挡非像素区域上的光的黑色矩阵，并且用于防止像素电极与栅极布线和数据布线之间发生电干扰，使得像素电极与栅极布线和与其相邻的数据布线重叠。从而增加孔径比并增加反射亮度。

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