

(19)  
(12)(KR)  
(B1)(51) 。 Int. Cl.<sup>7</sup>  
G02F 1/133(45)  
(11)  
(24)2004 01 31  
10-0405583  
2003 11 03(21) 10-2001-0001266  
(22) 2001 01 10(65)  
(43)2001-0077969  
2001 08 20(30) 2000-006073 2000 01 11 (JP)  
2000-376914 2000 12 12 (JP)

(73) 가 가 1 1 1

(72) 가 가 가 1 가 가

가 가 가 1 가 가

(74)

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5(a)  
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1803 :

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D  
a  
(51)(가 ) a가  
(52)(가 )  
가 (53) b가 가 (54)  
4 D  
a가  
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8 1 8  
1 4 4  
2 a b  
a b  
6 가  
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R G B  
16  
16  
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>

(liquid crystal display device), (terminal device) (portable terminal)

가 ,

TN 가 (viewing angle) CRT

USP 5, 666, 178 USP 5, 652,634 , JP-A-9-5766

JP-A-61-51124 JP-A-61-51125 (alignment film)

" (viewing angle narrowing technology)"

(JP-A-11-174489, JP-A-11-7045, JP-A-9-105958), (JP-A-11-8  
4357 ), 가 (JP-A-10-97199 )

가 가

가 0.1

Vm Vs , 0.005Vs Vm 0.7Vs

가

가 가

1 2 2

가

1

(Thin Film Transistors : TFT)가

(12) (15) (11) (14) (11) (13)

(16) (epoxy sealer)(17) 5  $\mu$ m (11) (16)

(columns)

(sealer)(17)

18

(1802) (1801) (1801) (1801) (1801)

(1803) (1801) (1802)

, TN Chisso Petrochemical Co., Ltd TN LIXON

5010

, Japan Synthetic Rubber Co., Ltd Polyimide P1 - 1051

2

" , TFT가 (11) 가 (12) "

2

a b

2.5 mm

a b

17

b

2

a b

b

a b

a b

(sheet polarizer)가

. , a b .  
 , 가 70 % .  
 , 4 . , D  
 , a . , a b  
 . , D  
 , 5(a) a 5(b) b  
 5(a) 5(a) 5(b) a b ,  
 , a b (12) 가 (51) 가 (52) . , 가 (51)  
 5(a) a 가 (51) 가 (52) . , 가  
 (52) , . , 가 "  
 " 5(b) b , a 가 D (53) , 가 (54) . 가 (53) ,  
 5(b) b 가 D , 가 (54) 가 b가  
 . a b가 , , D ,  
 b , a . ,  
 , , a , b  
 , 6 . , 6  
 7 , D 가 ,  
 . 가 (visibility) , 15 , 8 1 8  
 , , , 0  
 , 9 , 1 , 16  
 3 7 , 1 5 , 32 , 18  
 , 2, 4, 6 8 , 15  
 30 , 가 . 가  
 가 , a b가  
 , 가 20  
 , 가 가  
 , 가 , 가  
 , 가 , 가  
 , 0.5 % 50 % 가 가  
 , 5 % 20 % 가 .  
 2 2 , a b 10(a) .  
 1 2 , a b , a b  
 . 10(a) , a b  
 , 2 , a b ,  
 b 2.5 mm . 1 45 . a

가 2 1 가 1 가

가 9 2 1 가

3 3 Merck Japan Co., Ltd STN ZLI-4540(270 Degree Twist)  
(stripe-shaped) ITO

ITO 2 200  $\mu\text{m}$

ITO 20  $\mu\text{m}$  2 가

a b 가 70 % ITO 가 ITO

3 a a b가 3 a b 가 9 1

3 1 가 1 5

11 14 25 가 a b 1 5

가 0.5 % 50 % 5 % 20 % 가

4 4 Chisso Petrochemical Co., Ltd. FL

C 2005 2  $\mu\text{m}$

가 1

4 1 가

9 3 7 50 가

1 5 15 가

a b

( 1, 2, 3) 11 2, 3, 4

3 1, 2, 3 가

9 1 40 5

1 1 15 30

10 2 1 23 24 5

20 20 5 20

3 70 1 5 1 4

9 , STN , TN 1 2 FLC 1 4

3 3 2 FLC

FLC

9

( 4)

1 4 , , 1 5 , , 25 30 9

1 4

TN STN 가 가 90 %

90 % 40 % 40 %

0.5 % 50 % 5 % 20 %

가 가 5 1

2

가

a b 1 7

가

가 6 12

13 a b 13

13

6 1 6 2

14 (R), (G), (B) 가 14

R, G, B a b 2 a 14 a b a R,

G, B b a R G B 가 14

15 a R G B

a가 15 D , D , a 가 5 a , R, G, B 8가 19 19 , p q a b p a b b , 6 가 a b , (121) 16 17 16 (131) 가 - (visible-ultraviolet ray irr adiation) 10 J/cm<sup>2</sup> (121) (131) (121) 가 (12 1) , (121) 17 (131) , 가 , 가 , 가 , 가 , 8 1 5 , 5 1 5 , 4 , 0.5 mm 가 5 mm 가 , 가 4 0.1 mm 1 cm , 가 , 0.5 % 50 % 5 % 20 % , 가



가 가 , 가  
· ,  
·  
1 (2002) , (1901) (1902) , 20 (2001)<sup>2</sup>

(57)

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가

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가

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(color)

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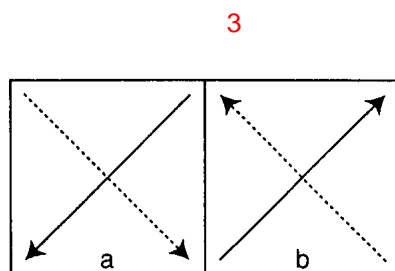
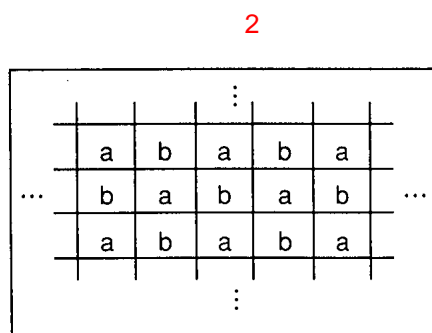
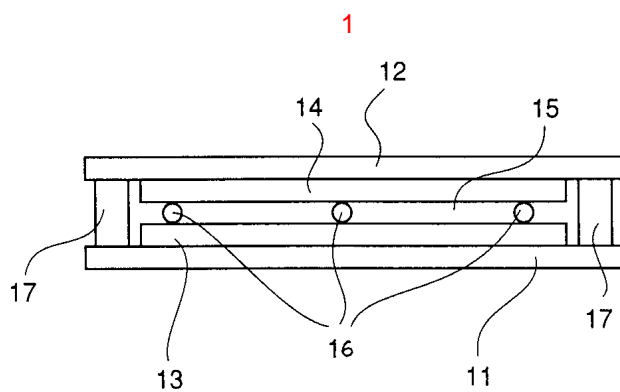
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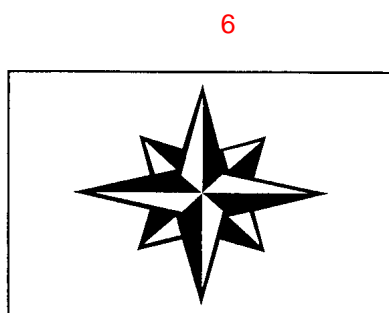
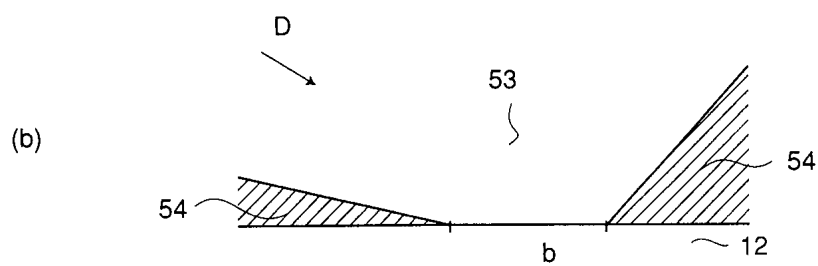
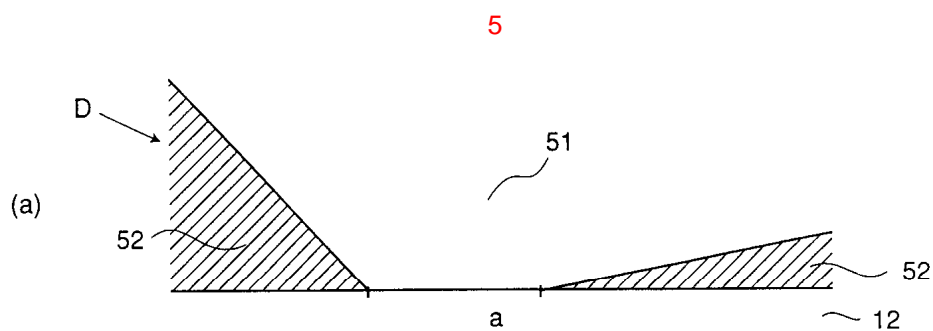
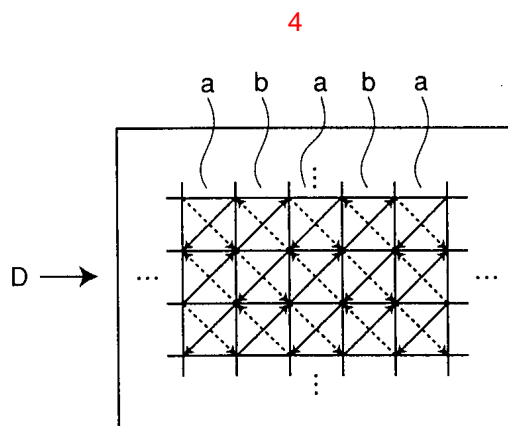
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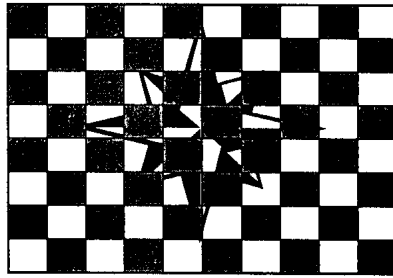
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1 1 1 1 2 2 , ,  
 1 1 2 1  
 , 1  
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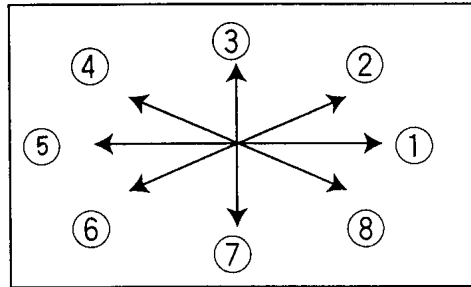




7



8



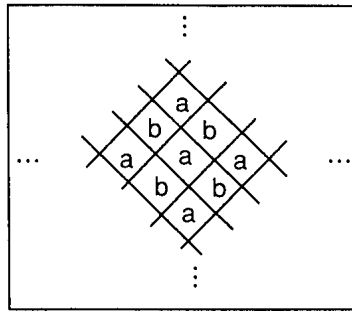
9

각각의 방향의 최소 가시 각도 (도)

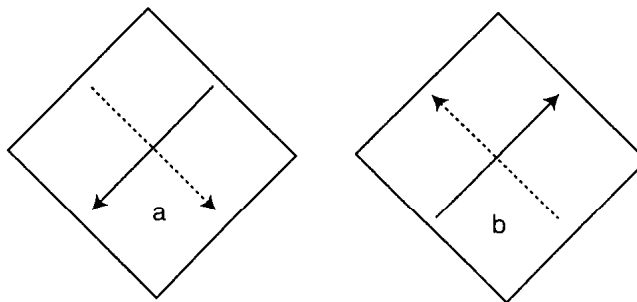
		①	②	③	④	⑤	⑥	⑦	⑧
제1 실시예	형상	16	18	32	17	16	18	32	19
	문자	15	18	30	18	15	18	30	18
제2 실시예	형상	16	18	30	17	15	16	25	16
	문자	12	15	24	15	12	15	25	14
제3 실시예	형상	11	14	24	14	14	12	25	13
	문자	10	13	22	13	10	12	23	12
제4 실시예	형상	15	33	50	34	14	33	50	34
	문자	15	35	50	35	15	33	52	36
비교예 1	형상	45	22	31	19	15	18	30	18
	문자	40	20	30	18	15	19	33	19
비교예 2	형상	23	18	22	14	11	12	25	13
	문자	24	18	22	13	10	12	23	12
비교예 3	형상	70	45	53	38	10	30	51	35
	문자	70	45	55	36	18	33	49	37
비교예 4	형상	25	29	40	28	25	25	33	25
	문자	22	23	33	24	22	25	36	25

10

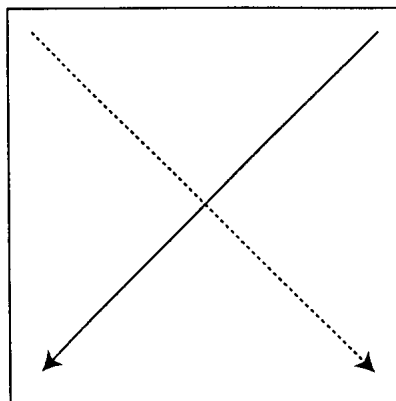
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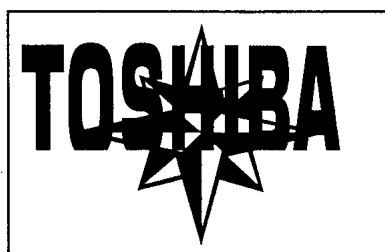
(b)



11

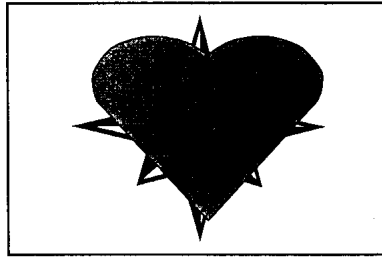


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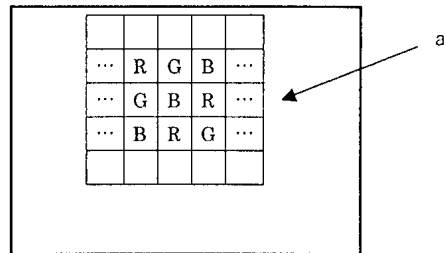




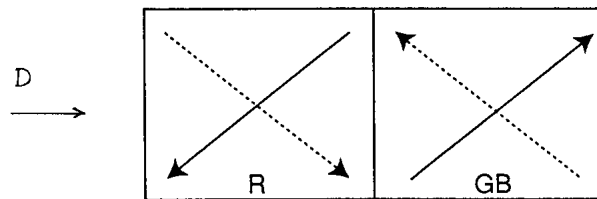
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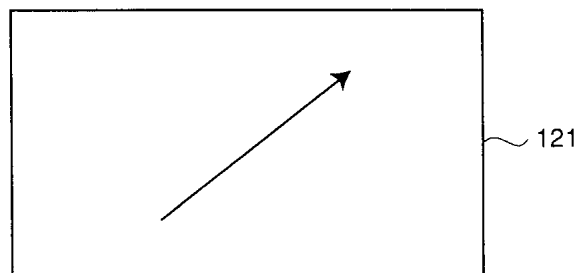
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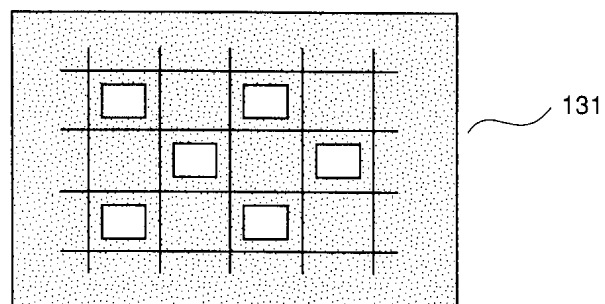
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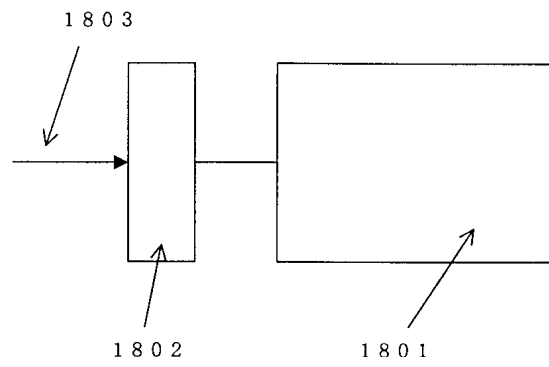
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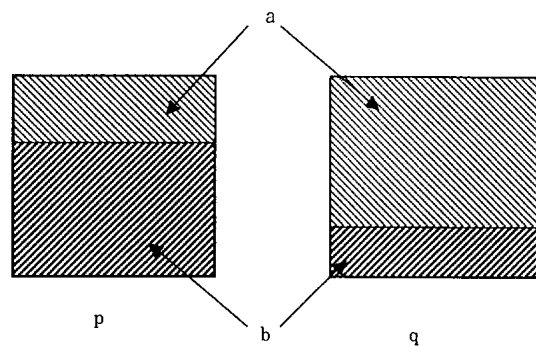
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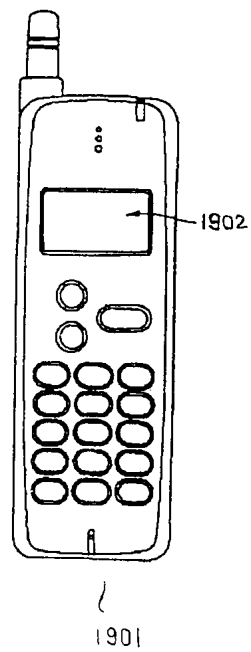
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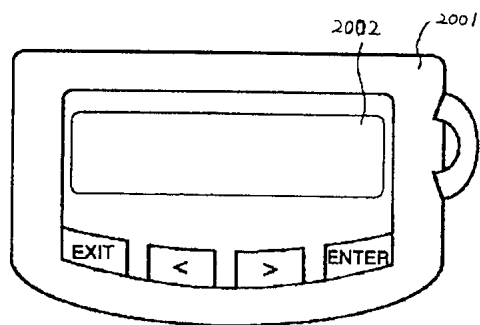
19



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专利名称(译)	液晶显示器		
公开(公告)号	<a href="#">KR100405583B1</a>	公开(公告)日	2004-01-31
申请号	KR1020010001266	申请日	2001-01-10
[标]申请(专利权)人(译)	株式会社东芝		
申请(专利权)人(译)	Sikki东芝股份有限公司		
当前申请(专利权)人(译)	Sikki东芝股份有限公司		
[标]发明人	TAKATOH KOHKI 다카토고끼 NAKAMURA SEIICHI 나카무라세이이찌		
发明人	다카토고끼 나카무라세이이찌		
IPC分类号	G02F1/139 G02F1/1347 G02F1/13 G02F1/1333 G02F1/1337 H04M1/725 G02F1/137 G02F1/133		
CPC分类号	G02F2001/133757 H04M1/72519 G02F1/133753 G02F1/1347 G02F2001/133374 G02F1/1323		
代理人(译)	CHANG, SOO KIL		
优先权	2000006073 2000-01-11 JP 2000376914 2000-12-12 JP		
其他公开文献	KR1020010077969A		
外部链接	<a href="#">Espacenet</a>		

#### 摘要(译)

液晶显示装置包括液晶层，在液晶层中取向的取向层，以及用于驱动液晶的驱动电路，其中取向层被分成多个区域，这些区域被配置成具有可识别尺寸的指定形状，方向彼此不同。这使得难以在除显示器前面之外的方向上识别显示的图像，从而当从除前面的方向观看显示器时，看到固定图案并且提供诸如产品名称或产品形状的固定显示器。它适用。 1 指数方面 显示，液晶，对准层，对准，定影图像

