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(43) 2001 11 08

(73) 575

(72) 27 519

155 301

(74)

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(54)

TFT 가 ; R, G, B
R, G, B ; 가 , 3
가 , 가

4

, , , ,

1

2 2

3 3

4

5

6

7 (가), (), ()

1

2

R,G,B

(Liquid crystal display, LCD)

LCD , 1 (1) (2a) (2b)

(2)가 가 (2) (B) 3 (1)

3 (1R, 1B, 1C)가 (R), (G), (B) 3 (pixel)가

(1) (11) (1R, 1B, 1C)

(12)가 (11) (13)

(1R, 1G, 1B) (2R, 2G, 2B)

3G, 3B)가 (11) (13) TFT(Thin Film Trasistor, 3R, (Liquid Crystal, LC)가

TFT LCD

, LCD

LCD 3

, LCD 가

가 3 TFT 가 TFT 3 TFT 가

LCD LCD 가 5,760,858 (triode) LCD 가

가 LCD 3 LCD 가 LCD 가 R,G,B 가

가 (diode) 가 2 (4)가 (3) (31) (32) (33R, 33G, 33B) (31) (33)

TFT (Thin Film Trasistor, 34R, 34G, 34B)가 (Liquid Crystal, LC)가

(4) (41) (42R, 42G, 42B) R, G, B (43R, 43G, 43B) (42) R, G, B (44R, 44G, 44B) (44R, 44G, 44B) (graphite), (diamond), (carbon nano tube) R, G, G (45R, 45G, 45B) (printing), ????(electrophretic)

(42), (cathode plate) (43R, 43G, 43B) (42R, 42G, 42B)가 (anode plate) 가

가 가 가

가 , , , , , 가 , LCD가 가 R, G B
 , (4) , , , 3 ,
 , 3 (4) , (3) (3R) (3G)가 (on)
 , (4) (4R) (4G) 가 (3) 10
 00μm 가 (4) (41) 가 (4)

TFT - LCD 가 TFT LCD 가 R,G,B 가 가

- 1 가 가 가
- 2
- 3 가 가
- 4 ,

; TFT 가
 , R, G, B
 R, G, B R, G, B R, G, B
 가 ; 가

R, G, B

R, G, B

1

2

R, G, B

R, G, B

3

1

2

R,G,B

4

G, B

1

R,

2, 3, 4
R, G, B

가

2, 3, 4

2, 3, 4

4

4

(100)

2 ()

(200)가

(100)

(101)

(102)가

(103)

(104)

(102)

(105)

TFT(106)가

(101)

(104)

(LC)

(200)

(201)

(203R, 203G, 203B)

R, G, B

(203R, 203G, 203B)

R, G, B

(204R, 204G, 204B)

(206)

R, G, B

(204R, 204G, 204B)

R, G, B

(20

7R, 207G, 207B)

(207R, 207G, 207B)

(graphite),

(diam

ond),

(carbon nano tube)

R, G, B

(208R, 208G, 208B)

(100)

(200)

(200)

(100)

(100)

(300)

4

(200)

R

, G

, B

(100)

R

, G

, B

LCD

(200)

R, G, B

가

가

가

TFT 가

가

가 3

5

(200)

1 60 (frame), 16.7 msec
 (1m sec) R,G,B 5.81msec
 (Field sequential) , 1msec
 (4367924 ,Appl. Phys. Lett., 36 899(1980))

LCD 가 , R, G, B
 LCD LCD 1/3 TFT 가
 (200) 4
 , 3
 가 , 가

LCD 가 , R, G, B
 LCD LCD 1/3 TFT
 가 (200) 4
 , 3
 가 , 가

가 , 가 가

(57)

1.

; TFT 가
 ;
 , R, G, B , R, G,
 B ; 가

2.

1 ,

가 5.81msec

3.

1 ,
R, G, B R, G, B

4.

1 ,

5.

1 ,

6.

5 ,
R, G, B 1 2

R, G, B 4 R, G, B 3

7.

6 ,
1 2 R,G,B

8.

1 ,

9.

8 ,

1

R, G, B

4

10.

8

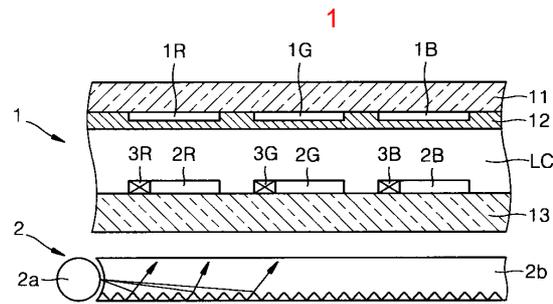
2, 3, 4

R, G, B

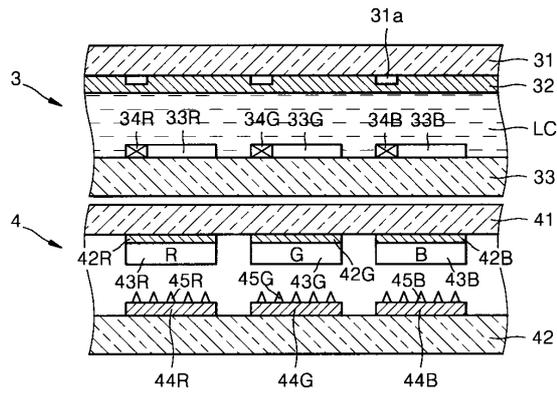
11.

10

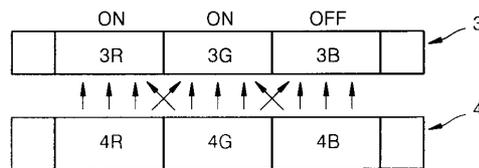
2, 3, 4



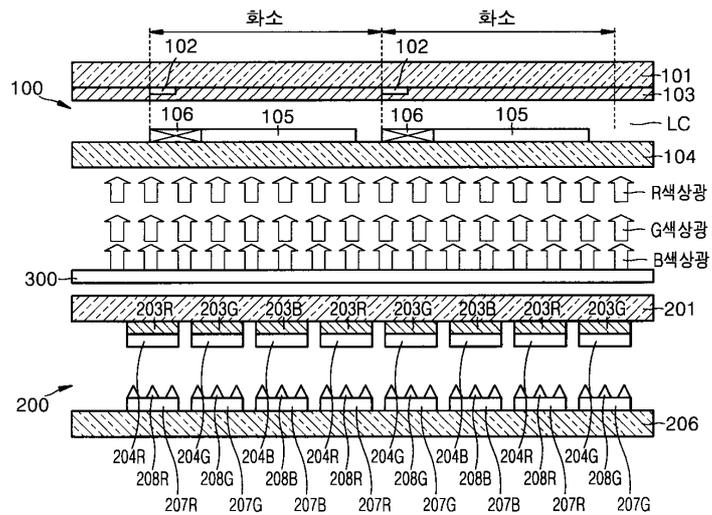
2



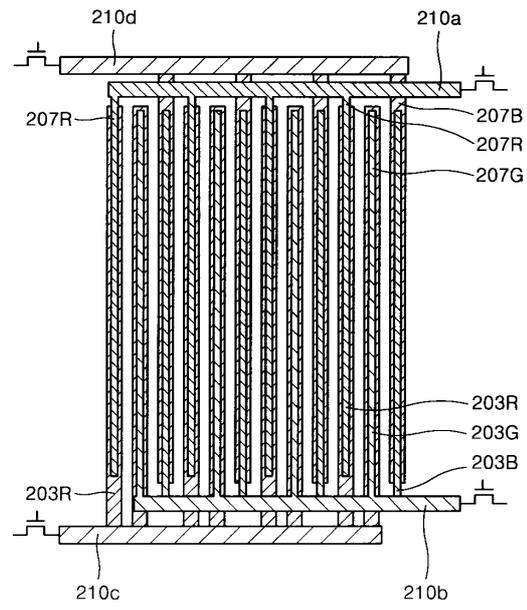
3



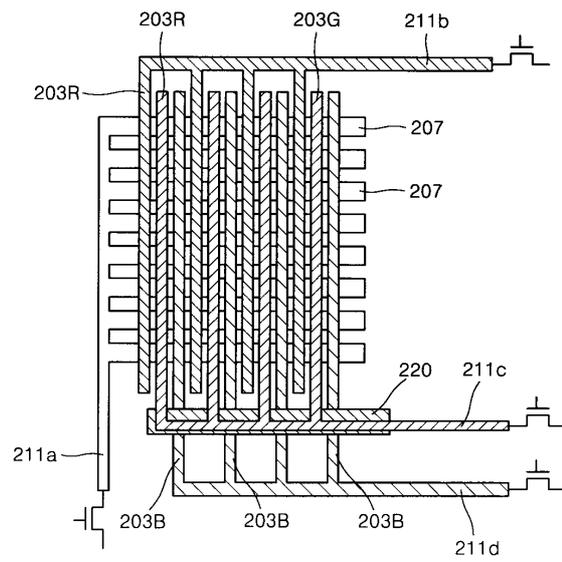
4



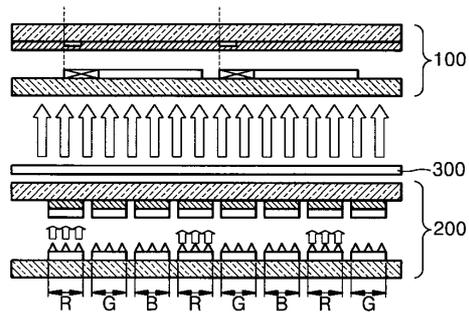
5



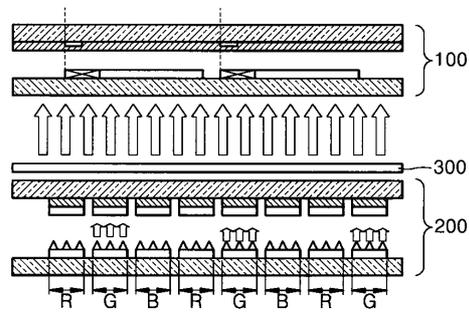
6



7a



7b



7c

