

(19) (KR)
(12) (A)

(51) 。 Int. Cl. ⁷ (11) 2003 - 0003870
G02F 1/133 (43) 2003 01 14

(21) 10 - 2001 - 0039718
(22) 2001 07 04

(71) . 20

$$(72) \quad 104 \quad 1002$$

(74)

(54)

2

2

2

5

1

2a 2b

3

4

5

6 5 1 2 ()

< >

4, 24 : 5, 32, 34 :

6, 26 : 8, 28 :

10, 30 : 12 :

36 :

(Liquid Crystal Display)

가
 (Thin Film Transistor)
 가

n)	1	(10)	(G1 G
(6) ,	(8) ,	(D1 Dm)	
(6)	(6)	(5) ,	(8)
(6)	(4)		

(D1 Dm)	(10)	(12) , n	(G1 Gn) m
(TFT)		(TFT)	(TFT)

	(G1	Gn)		(D1	Dm)		(1
2)	.	(12)	.	,	(12)	.	
	(Clc)	가	.	.	(Cst)가	.	(Clc)
	(Cst)	.	.	.	(8)	.	(G1
	.	.	.	.	(TFT)	.	Gn)
(5)	,	.	.	.	가	.	.
	.	(6)	.	(6)	가	1	1
	.	.	.	(GL)	.	.	,
	.	.	.	(4)	.	.	.
	.	.	.	(8)	.	.	.
	.	.	.	(4)	.	.	.
	.	.	.	(8)	.	.	.
	,	.	.	,	(6)	.	.
	.	.	.	.	(4)	.	.
	.	.	.	.	(6)	.	.
	.	.	.	.	(R),	.	.
	.	.	.	.	(G),	.	.
	.	.	.	.	(B)	.	.

가 , 가
가 .

가
(Multi Domain) (Halfton Grayscale)

2
 ,
 (Twisted Nematic; , TN)
 ,
 2a (12)
 2 (12A, 12B) (12A, 12B) 가 (i) 2b
 (12A, 12B) (A, B) , (A +
 B) (i) 가 ,
 가 ,
 가

가 .

가

, 2 1
 , 80% 가 ,
 2 120% 가
 , 가 50% ,
 , 가 50%

, 2
 , 2 ,
 , 2

2 2
 , 2 ;
 , 2

3 6

, 3 , 3 (20)
 10ms (1F; 16.7ms) 2 (SF1, SF2)
 가 1 2 (SF1, SF2) (A, B) (20)
 , , TN 4
 , , , (W+B)
 (20) (20)
 60% 1 (SF1)
 00% 2 (SF2) 가 20% 1

, (1F) 2 (SF1, SF2)
가
1, SF2) (SF (20)
" C"
(SF1)
C 120% C 80% (SF1, SF2)
가 가

, (SF1, SF2) ,
 , (SF1, SF2)
 (20) 가 50% , (SF1, SF2)
 , 100% , (20)
 가 50% (SF1, SF2) , 0%
 , (SF1, SF2)

가, 가, 2, 3, 4, 가

, 5 2 가 2

$$\begin{array}{ccccccccc}
 5 & , & & & & & & & (30) \\
 & (G1 & Gn) & & (28) & , & (30) & (D1 & D \\
 m) & & & (26) & , & (26) & 1 & 2 \\
 (32, 34) & , & 1 & 2 & (32, 34) & & (26) & (36) & , \\
 & & & (28) & & (36) & & (24) & . \\
 \end{array}$$

(24) ,
 (28) (26) . , (24)
 . , (24) (26) , (R), (G), (B)
 (26) . , 1 2 (24) (SF1, SF2) 2
 (1F) 2 , (1F) (24)
 (24) ,
 (26) 1 2 (28)
 (24) 1 2 (32, 34)

$$1 \quad (36) \quad (SF1) \quad 1 \quad (32) \quad . \quad , \quad 2 \quad (24) \\ (34) \quad \quad \quad (36) \quad \quad \quad (SF2) \quad \quad \quad 2$$

$$(28) \quad (G1 \quad Gn) \quad (24) \quad , \quad , \\ (TFT) \quad . \quad , \quad (28) \quad (1F) \quad (SF1, SF2) \\ (G1 \quad Gn) \quad 2 \quad .$$

1 2 (32, 34) 가
 . , 1 2 (32, 34) 6 가 " C" 가 (SF1, SF2),
 가 " A", " B" 가 , 1 2 (32, 34) 6 " C"
 $= (A+B)/2$
 . , 1 (32) 6
 " A" . 2 (34) 2
 (SF2) . ,
 6 " B" . ,
 () 1 2 (32, 34)
 6 " C"

(36)		(24)	.			1	2	(32, 34)	
	(26)		.	(26)	1	2	(32, 34)	가	1
						(GL)			
1			(D1 Dm)	.	,		(26)	1	
(SF1)	1	(32)		(36)					
			(D1 Dm)	.	,	1	(SF1)		
(26)	2	(34)		(36)					
			(D1 Dm)	.					

		(30)		(20)	, n	(G1	Gn)	m
		(D1	Dm)		(TFT)	.	.	(TFT)
	(G1	Gn)		(D1	Dm)	.	.	(20)
.	.	(20)		.	.	.	.
.	.	(Clc)	가	.	.	(20)	.	(Clc)
.	.			.	.	(Cst)가	.	
.	.			.	.	(30)	.	(1F)
1	2		(SF1, SF2)	,	.	(SF1, SF2)	.	

가, (1F) 2 (SF1, SF2) 3

(1F) 3
3

(1F) 3

3

가 3ms

가

2

가

(57)

1.

2

2

2.

1

가

3.

1

4.

1

2

80%

가

120%

2

1

가

5.

1

,

가 50%

,

가 50%

6.

1

,

,

7.

2

2

,

2

,

,

2

8.

7

,

가

9.

7

,

10.

7

2	80%
가	120%

11.

7

가 50%

1

가 50%

12.

1

2

2

2

2

13.

12

2

가

14.

12

1

15.

12

,

2

2

,

2

80%

가

120%

가

16.

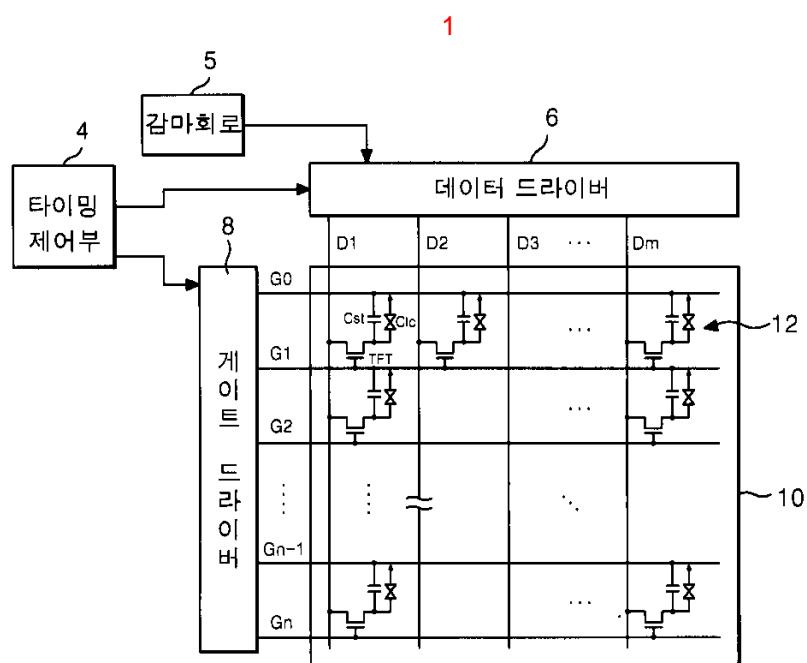
15

,

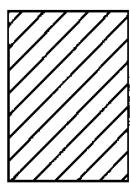
가 50%

,

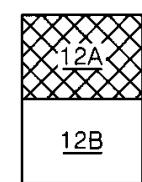
가 50%



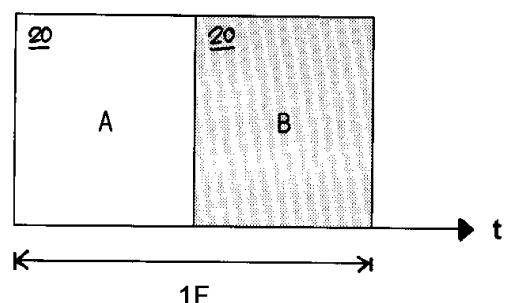
2a

12*i* 그레이

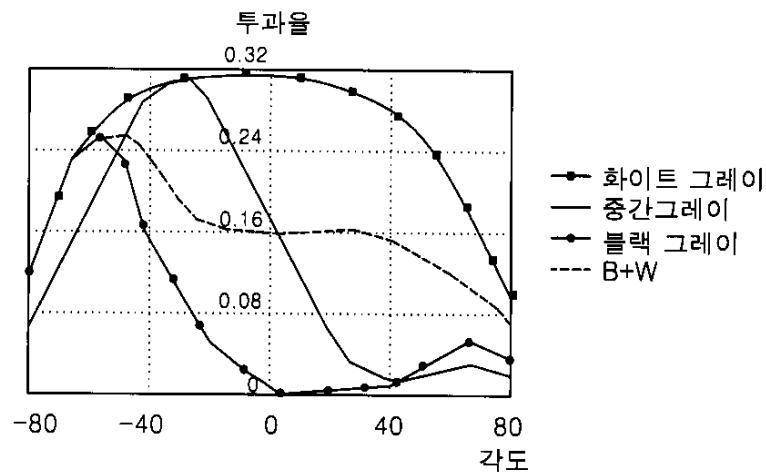
2b

12A+B= *i* 그레이12B

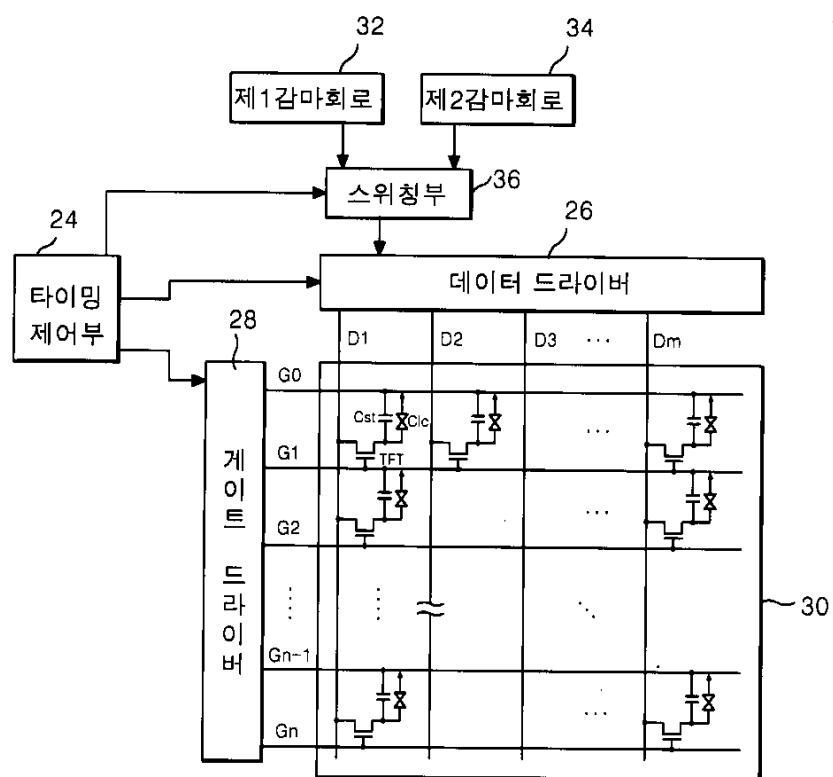
3



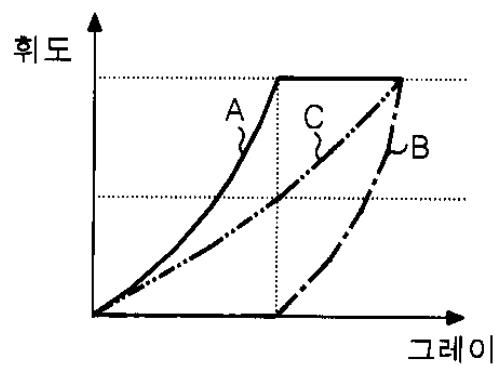
4



5



6



专利名称(译)	用于驱动宽视角的液晶显示器的方法和设备		
公开(公告)号	KR1020030003870A	公开(公告)日	2003-01-14
申请号	KR1020010039718	申请日	2001-07-04
[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		
[标]发明人	HONG HYUNGKI 홍형기		
发明人	홍형기		
IPC分类号	G09G3/36 G09G3/20 G02F1/133		
CPC分类号	G09G3/2025 G09G3/3648 G09G2320/028 G09G3/2018 G09G3/3659 G09G2320/0276 G09G2300 /0876		
其他公开文献	KR100870487B1		
外部链接	Espacenet		

摘要(译)

用途：提供一种用于驱动液晶显示装置以实现宽视角的方法和装置，通过在时分后至少两个组合实现灰度级并驱动该范围内的灰度来提高宽视角具有良好的宽视角特性。

