

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl. 7
H01J 29/07

(11)
(43)

2003-0038252
2003 05 16

(21) 10-2001-0069967
(22) 2001 11 10

(71) ()
1 184

(72) 3 103 1501

(74)

:

(54)

가

Ph , SL Ph , SLx0.08% P
h SLx0.086% S , Phx0
.24% S Phx0.30% S , Phx0

7

1

2

3

4

5

6 , , BM ,

7

** **

1: 2:

4: 6:

8: 82:

84: 86:

Ph:

1

4) (4) , (4) 가 (2) (2) (2) , ((8)가 (6) (2) (10) (2))

(10) (20)가 (14) , (12) (20) (12) (1) (9) (1) , , 3 ()

2 (8)

2 (8) 가 (82) (84) , 가 (86)

3 (8) (84) (2) (9) (1) (84) (82) (8) 가 (82) 가

(88)가 (8) (8) 가 (82) 가

가 , , 가 . (82) X,Y X,Y

0.095%~0.115% , 27%~28%

, , 3

1 .

[1]

$$Mask-MTF_{max} = \cos\left(\frac{\theta}{2} \pi P_h \mu\right) = 2 \left\{ \frac{1}{2 P_h \mu} - \left(\frac{1}{P_h} + 0.5\right) \right\}$$

$$\mu = \frac{N}{2W}$$

*Mask - MTF:

*Ph:

*μ : *N:

*W:

0.5 가 가 ,
0.5 가 ,

가
JP 1999-007901 0.088%~0.123%

5 1 NTSC PAL

[1]

	NTSC	PAL		
0.095%	O	O	O	
0.105%	O	O	O	X
0.115%	O	O		X

*O: , * : *X: 가

* :

가 .

6 가

, , 3

가

가

(Ph),

(a), 6 BM(6) (d), (c) (b)

(Ph)

()

가

()

BM

6 가 662.4mm 32 0.25mm
0.095% BM (d) 0.100mm 0.629mm , 0.660mm
(a)가 0.120mm 0.170mm가 0.229mm가 27%
0.045mm가

0.020mm 0.010mm 0.015mm 가

가

가 가
가

(a)가 0.100mm
2

0.100mm

가

[2]

= × × ×

가

가

Ph

SL

Ph

SLx0.08% Ph SLx0.086%

S

S

Phx0.24% S Phx0.30%

7

1)

0.086%

2

[2]

	NTSC	PAL		
0.075%	O	O	O	O
0.080%	O	O	O	O
0.086%	O	O	O	O
0.095%	O	O	O	

*O: * :

2)

가

0.086%

가

가

60%가 가
0.25mm

6

가 662.4mm 32

3

[3]

		BM				
0.075	0.521	0.074	0.100	0.189	0.029	0.140
0.080	0.556	0.087	0.100	0.189	0.042	0.140
0.086	0.598	0.099	0.100	0.192	0.053	0.143
0.095	0.660	0.100	0.120	0.230	0.045	0.170

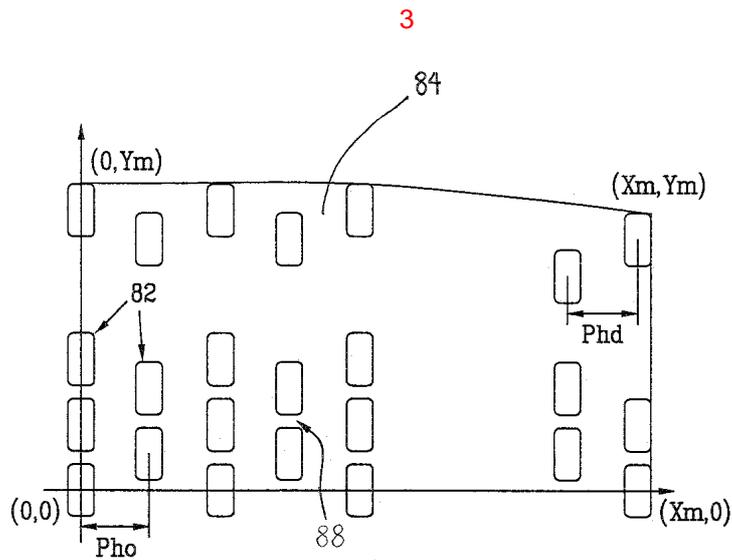
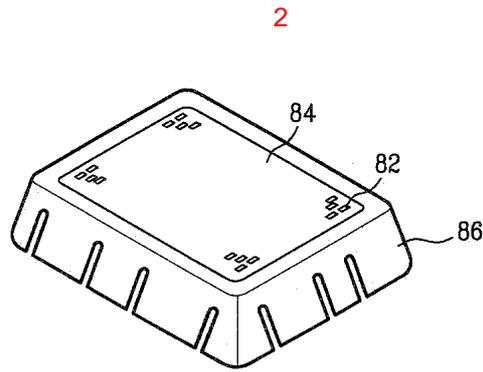
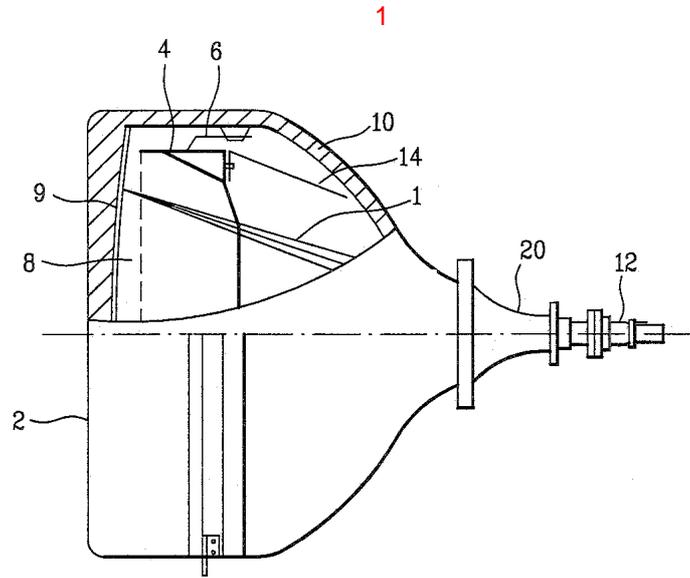
()

* : 1.049

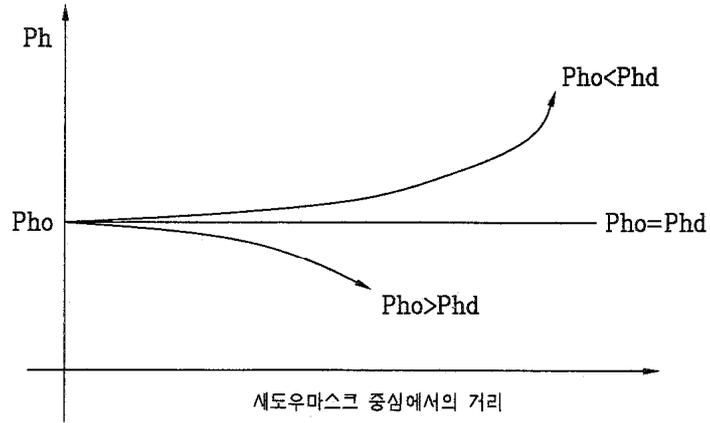
* : 1.35

* :
 * : ×0.25 , 60% 가
 가 0.100mm 0.086% (Ph) 0.598mm , (a)
 42mm가 BM 0.099mm 25% 0.1
 053mm가 0.192mm가 0.
 0.020mm 0.018mm 0.015mm 가 ,
 0.075% 18%가
 (a)가 0.100mm (Ph) 0.521mm
 60%가 가 0.124mm가 0.140mm가 0
 .140mm (b) 0.189mm가
 가 0.029mm가 0.020mm 0.015mm 35
 %
 가 가
 (Ph) (SL) 0.080%~0.086%가
 , (S) 24%~30%가 가
 가 가 가
 ,
 ,

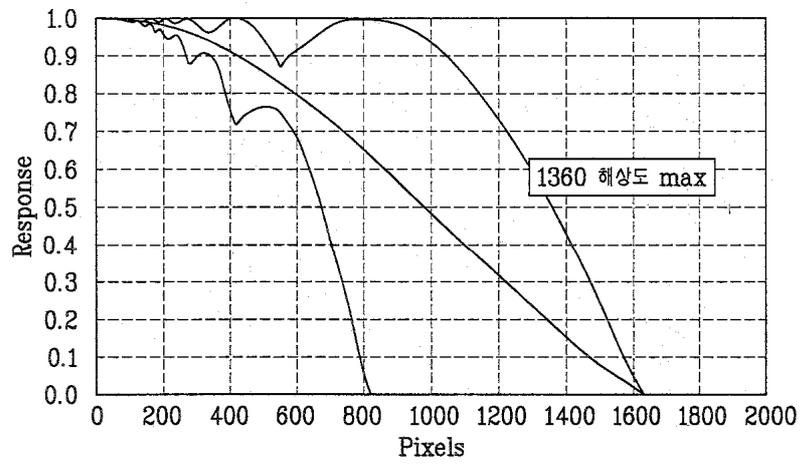
- (57)
1. , , ,
 Ph , SL Ph ,
 SL×0.08% Ph SL×0.086%
 2. ,
 1 S S ,
 Ph×0.24% S Ph×0.30%



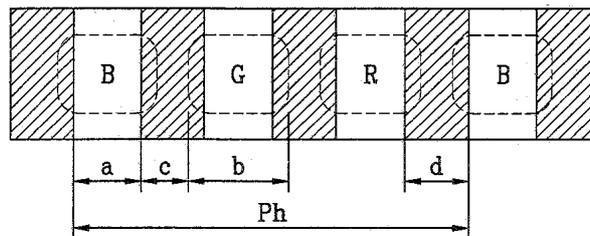
4



5



6



7

