

(19) (KR)  
(12) (B1)

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(21) 10 - 1994 - 0006206 (65) 1994 - 0021266  
(22) 1994 03 28 (43) 1994 10 17

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(30) 08/038,391 1993 03 29 (US)

(73) 75265 13500

(72) 75252 1203 7825

75080 607

75214 6745

(74)

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(54)

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PWM 1 (104) . (106) (102)  
. . (108) ,

1

2a 2e

3

4

5a - 5c

6a - 6b

106 :

108 :

508, 520, 522, 524 : 4WM

(Spatial Light Modulator: SLM)

SLM

가  
SLM

( ) . , 가

		(raster)					1
,	가 1	40	600	(600dpi)	8.5" x 11"		
	11" x 600dpi	660		1	40	4400	
8.5 x 600	5.100		22.44	$\times 10^{-6}$		44.6	

SIM

t ion) . (line integra

가

가

(Pulse Width Modulation: PWM)

, PWM (significance)

, 4 -

가

가

16

1/2

(MSB)

1/4

1/8

1/16

PWM

가

PWM

가

,

SLM

1

가

1

( 가 )

)

(DMD)

가

SLM

,

가

,

가

가

가

,

PWM

1

가

16

가

16 -

16

가

( )

15

, 2

, 2 -

PWM 1

4

가

가

128 x 4

512

. 128

. 가

, 128

, PWM

. 512

가

, 512

128

2

PWM

가

128

1.02

가

512

4

가

, 500

5

/

, 600dpi

48

가

가

=

(500) x

x

(5 / ) x

(600dpi) ÷ t

(48)

&lt; &gt;

변 수	그레이 스케일 인 자	유 효 깊이	평균 데이터율 (MHz)	파크 데이터율 (MHz)
RI	$n_I = 7$	$2^{n_I}$	4	1 X
	$n_I = 9$	$2^{n_I}$	16	4 X
PWM 전체 장치 + RI	$n_I = 7$ $n_P = 2$	$2^{n_I} \times n_P$	16	4 X
PWM 1행 + RI	$n_I = 7$ $n_P = 2$	$2^{n_I} + n_P$	4.0625	2 X
PWM 1행	$n_P = 9$	$n_P$	.28125	4 X

$$n_I = ; n_P = \text{PWM} ; RI = ; n_I = 7 \quad (\text{RI})$$

, PWM  
(loading) 가 , 1 PWM

. 512 가 128 가 , 512

, 가 PWM LSB ,  $2^n$  , 2 가 2  
PWM 가 1 , 1/2  
PWM MSB , 2 , 1/2 P  
WM ( ) 9 , 1 , 1/2  $n_P$   
t 7 , 4 가 ,  
1 PWM  
PWM 가 ,

PWM 가 , 512 , 128  
PWM 4 , 128 + 1 129 SLM , 128  
128 129 (baseline)  $2^{n-1}$  PWM

412 512 1  
(Organic Photoreceptor: OPC)  
412 512 가 OPC  
가 , OPC

1 SLM . . 128 4  
PWM , (104) PWM .  
가 1  
. , 2 PWM 1 " " .  
(106) PWM . PWM  
(106) (108) .

1 가 가  
가

2a, (202), (204), 0, LSB, 2a, - 2e, .  
 . 1, PWM, PWM, MSB, , PWM, MSB, PW  
 . , , , , , , ,  
 M, ., PWM, , LSB, , , ,  
 4, 1/16, ., MSB가, , , , 1/  
 2, ., ., ., ., ., ., .

2b - 2d (204) PWM 2c , PWM 0  
 , PWM 1 PWM 가 (204) 0 , (206)

4 , 0 128 , 가 128 PWM (204) PWM 128  
 , 0 128 , 가 (204)

(408) 1/2 , 25% 12.5% 4 (404) 가 6.75% 가 50% 가 75% 1 (410) 1/4  
 , 1 (412 414)

5a (profile) (502) (photoinduced)  
 , 가 ,

가 f , 600dpi 1/600 (1+f) , (1-f)  
 , f , f 0 ,

(504) 1/600 600dpi 1 " " t<sub>0</sub> t<sub>1</sub> MSB(508) 가  
 , t<sub>1</sub> t<sub>2</sub> MSB - 1(520) 4 PWM (508, 520, 522 524) (528)  
 , MSB(508) (528) 50% 가 , MSB - 1(520) 25% 가  
 , LSB+1(522) 12.5% 가 , LSB 6.25% 가 1  
 2 600dpi  
 /  
 PWM t<sub>0</sub> - t<sub>4</sub> 4 16

PWM 1 가 , 5b 4(MSB - 1), 2(LSB+1) 1(LSB)  
 7 (518) 5c 8(MSB) 가  
 (visual artifact) 5a

PWM 가 6a 6a  
 PWM (5a 4 )  
 (618)  
 #3 (620) #2 (622) 1 - 1  
 (624)  
 t<sub>-3</sub>, t<sub>-2</sub>, t<sub>-1</sub>, t<sub>1</sub>, t<sub>2</sub>, t<sub>3</sub>  
 6 2 6  
 가  
 0, .25, .5 .75 가 , .5  
 t<sub>2</sub> 가 , (622) t<sub>-2</sub> .75  
 t<sub>-3</sub> , t<sub>3</sub>

, .35, .65 .9 2 PWM 가 . (tone)

The diagram illustrates a digital-to-analog converter architecture. It consists of three main components arranged horizontally: a **PWM** (Pulse Width Modulator) on the left, a **SLM** (Spatial Light Modulator) in the center, and a **decoder** on the right. The **PWM** is connected to the **SLM** via a line labeled **SLM**. The **SLM** is connected to the **decoder** via a line labeled **PWM**. The **decoder** is labeled **(decoder)**. Above the **PWM** and **SLM** are two small boxes labeled **가** (Korean for 'A'). Above the **decoder** is a large box labeled **가** (Korean for 'A').

PWM . PWM (624) , 가 , 2 6b (632) 가 . . . . . (630) . . . . .

PMW . . . . . SLM . . . . . PWM  
가 가 . . . . . 가 ,  
가

(57)

1.

a

b

10

2.

1 ,

3.

1 ,

4.

1 ,

5.

,

a.

,

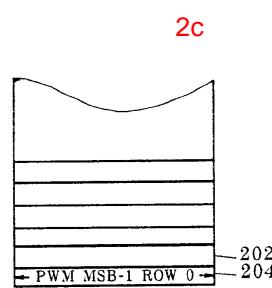
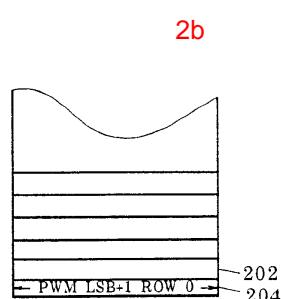
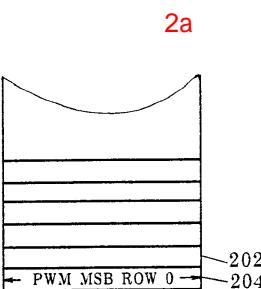
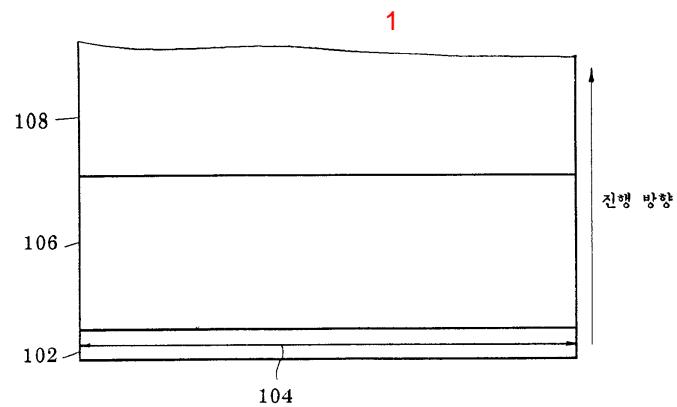
b.

6.

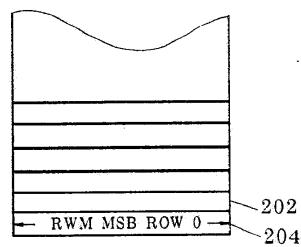
5 ,

7.

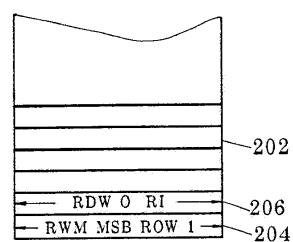
5 ,



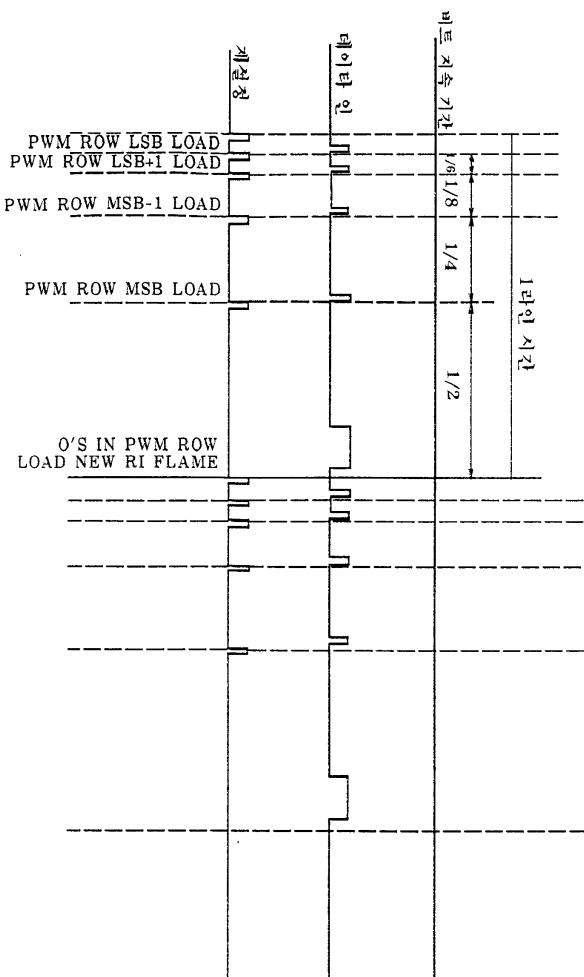
2d



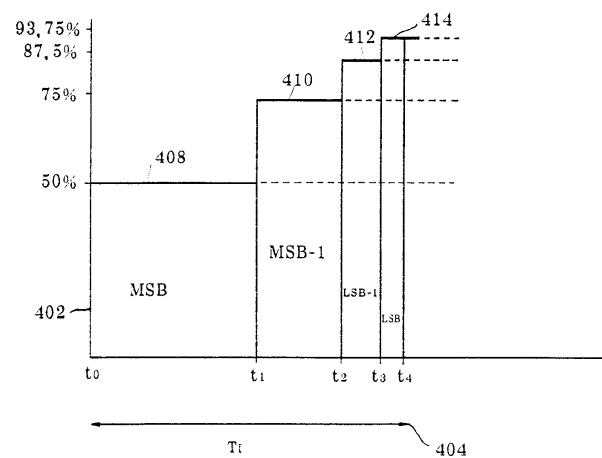
2e



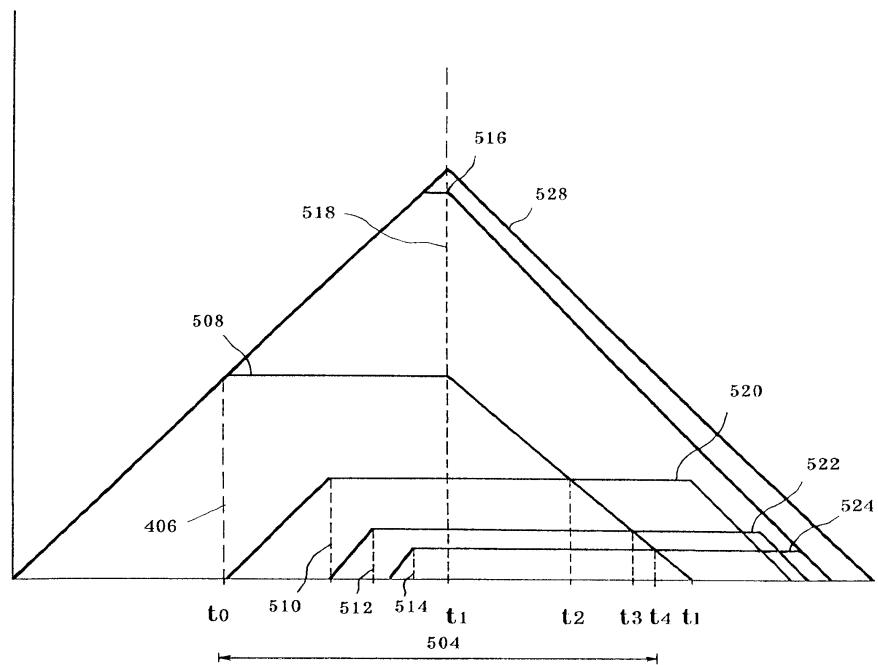
3



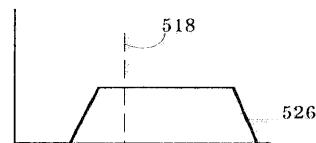
4



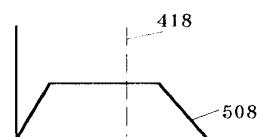
5a



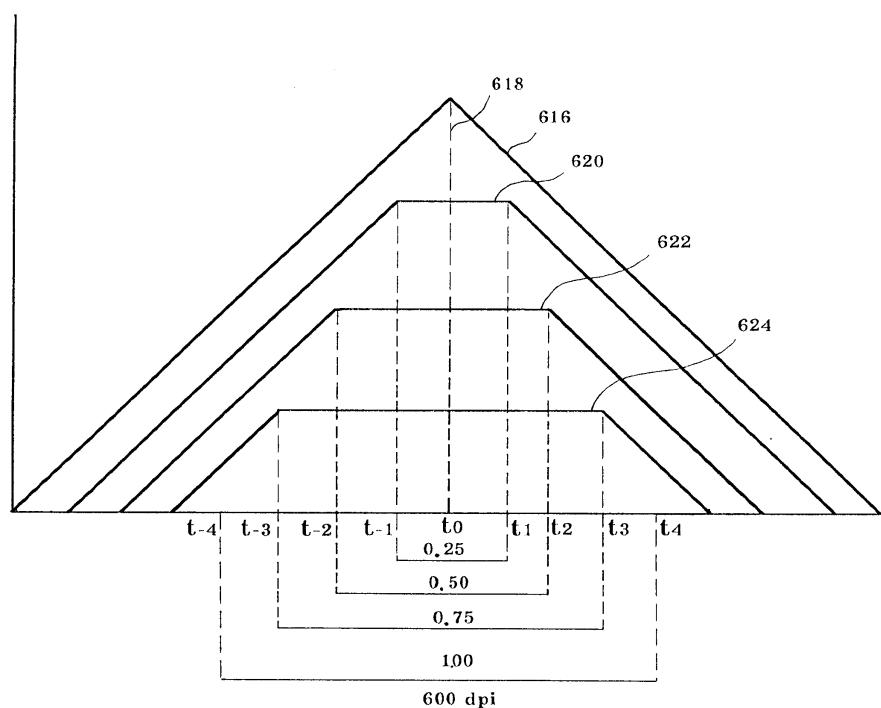
5b



5c



6a



6b

