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(B1)

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(24)

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10-0443324  
2004 07 27

(21) 10-2002-0009186  
(22) 2002 02 21

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(43)

10-2002-0068951  
2002 08 28

(30) JP-P-2001-00046595 2001 02 22 (JP)  
JP-P-2002-00002392 2002 01 09 (JP)

(73) 가 가 2 4-1

(72) 가 3 3-5 가 가

(74)  
:

(54) , ,

1 , X IC(28) 1 RAM(24),  
1 (26) (64) ,  
(26) 1 RAM(24) 1  
(66) , (68)

1

1  
2 CPU,  
3 1 X IC X IC ,  
4 3 X IC ,  
5 ,  
6 ,

7a

7b

8

1

9

1

X

IC

10

2

X

IC

11a

RAM

RAM

1

11b

12

가

, MPEG(Moving Picture Experts Group)

가

(Central Processing Unit : CPU )

RAM

, CPU

, 1

, CPU

가 CPU

DSP(Digital Signal Processor)

가

RAM

, 1

1

8-76721

가

9-281933

RAM

1

1

, 1

, 1

가

, 1

가

RAM

가

, RAM

, RAM

가

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1

, 2

가,

가 1

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, 1

1

RAM

RAM

RAM

RAM

1

RAM

RAM

RAM

RAM

RAM

R

AM

RAM

(多)

가

, 1

가

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가

( 1)

1

1.1

1

(10) CPU(12),

(14),

(20)

. CPU(12)

RAM

(14) MPEG

RAM

ASIC ( )

DSP

(20) RAM(24)

(26) Y

X

IC(

(22) ,

(22)

(22) ) (28) ,

가

(30)

(22) ,

( , 1 )

1 (Thin Film Transistor : TFT), 2 (Thin Film Diode : TFD) 3 (22)

(26) X IC(28) (1) , Y RAM(24) IC(30)

12 (28) 22 ( ) (22) , X IC ( )

(22) Y (30)

(22A) (22B) 1 (22)

CPU(12) X IC(28) CPU(12) X XRES, IC(28) A0,

D7 D0 8 XCS, XRD XWR A0

D7 D0 X IC(28) 가 1

(14) X RAM(24) IC(28) (14) X IC(28) HSsync

(26) 6 R, G, B VSync, 1

X IC(28) (20) (26) 1 RA

M(24) , 1 가 X IC(28)

) (22) (22) (22)

, X IC(28) CPU(12) (14) CPU(12) (14)

2 1 CPU(12), (14) CPU(12) CPU(12)

(42) (14)가 (40) CPU(12) CPU(12)

, CPU(12), (14), (42) (44)가 (44) 1 MPU(46)

(42) (44) CPU(12), (14)

(40) (48) (48) (48)

(50)가 (48) , MPEG

(40) (52) (52)

(40) (52) (52)

(54)

CPU(12) (22) (22A) SA, EA X IC(28)

. X IC(28) , 1

(22A) (48) (52) (48)

) (50) (14) (52) (14) (48)

(44) (48), (50) (50), (48) MPEG

(14) , MPEG (14) MP

EG (14) (52) (48) (52)

(14) (14) RGB (20) (42)

CPU(12) (54) (22) (20)

(22) (22) (22A) CPU(1

(22B)

2) (50), (48) , , (54)

1.2

3 , 1 X IC(28)

, 1 X IC(28) 1 RAM(24), 1

(20) CPU(12) (26) ( ) , RAM (60) 1

, RAM(24) RAM(24) , RAM (60) RAM(24)

(22) 1 가 가 (22)

(22) 1 (26) , (14)

) (62) 1 (14) 가 , N 가 N

(14) HSync가 (26) HSync

(62) N 가 (64) RAM(24)

(26)

(64) 1 (20) HSync

(68) (66) (66) (20) (22)

4 3 X IC(28)

, CPU(12) , 1 가 RAM(24)

(14) , 가 (62)

(14) N , HSync HSync (62)

N HSync (26)

(20) , RAM(24) , RAM (60)

가 1

1 (64) ,

RAM(24) (26)

1.3

( ) , , (20) (22)

5 (22)

(22) SA EA가 (22B) (22A) SA

IC(28) EA SA EA CPU(12) X

SA EA

Sync (22) 1 VSync 1 가 , H

, 1 HSync , CPU(12)

, , SA 가 ,

EA SA EA HSync

(64)

(14) , CPU(12) SA EA  
 , X IC(28) , X IC(28)  
 , 1  
 (22A) (22B) (22A) 가  
 ( )  
 , 1 , 1  
 (22) 1 (22)  
 6 (22) 「L」, 「H」  
 , 1 「LL...  
 LHH...HL...LL」 , 1 가 「LL...  
 ...LL」 , 1 가 「HH...HH」  
 「LL...LHH...HL...LL」 , 「LL...LL」  
 「HH...HH」 ,  
 7a 7b  
 , 6 7a 「H」  
 (22A) , 가 「H」  
 , 7b 가  
 8  
 (80) ,  
 (82) , 1  
 (84) HSync (22)  
 (80) , 1  
 (84) HSync , 1  
 (82) ,  
 (84) HSync (80)  
 1 , 가 「H」 , 가 7a ,  
 , 1 , 1  
 , CPU(12) 가 IC(28) ( )  
 14) , CPU(12) X SA  
 EA가 , SA  
 , X IC(28) EA , 1  
 1 X 가 IC(28) , CPU 1  
 가 가 CPU  
 1.4 X IC  
 9 X IC(28) , CPU (100) , (102), (104)  
 X IC(28)

CPU (100), XCS, A0, XRD,  
XWR, XRES (102), , 8, X  
D7 D0 D7 D0 , X  
IC(28) RAM CPU(12) 가 , CPU(12)  
A0 , D7 D0 , CPU(12)  
X IC(28) , 6 R, G, B , CLK가 .  
(104) , R, G, B , CLK  
6 R, G, B , CPU (100) (102)가 1 (110) , (10  
X IC(28) , CPU (100) (102)가 1 (110) , (10  
4) 2 (120) (112) (114)가 , 2 (120) (12  
1 (110) (102) (116)가 , X IC(28) 가  
2)가 , 가  
CPU(12) , IC(28) , CPU(12)  
X (114) , CPU(12)  
1 가 (110) RAM(24) I/O (162) , RAM(24) ,  
2 (120) (26) , (26) 1  
가  
X IC(28) , RAM(24), I/O (162), (26) , CPU (1  
30), (140), (68) (170), (180)  
, PWM (190) (114) CPU(12) ,  
CPU (130) CPU (130) ,  
RAM(24) , CPU (140) (140) (RAM(24)  
140) , (150)가 (150) , RAM(24)  
, 가  
, 9 , CPU(12) H·VSync가 CPU  
(130) HSync (誤) (150)  
, (140) H·VSync ,  
SA (170) X (172) Y (174) ,  
(170) (176) VSync,  
GCP, RAM(24) FR, LP, Y , CPU YD, Y YCLK,  
(190), (178) Y IC(30) (130) (180),  
PWM 1 (170) , (176)  
VSync X (14) VSync  
IC(28) (176)  
(26) LP  
(170) (176)  
, RAM(24) 1 1 LP  
(180) 3 (64) (66) ,  
(170) HSync  
LP 1 RAM(24) 1 ,  
(26) (190) (180) 1 ,  
PWM (68) PWM (190) , LC  
D , 1 (22) SEG .  
( 2) , 1 , 1  
1 X IC(28) , CPU(12) (14) , , 1  
가  
2 X IC , RAM(24) , ,  
RAM(24) ,  
10 2 X IC .

, 3 X IC(28) ,  
 2 X IC(200) 1 RAM(24), 1  
 (26)  
 M(210) 2 X IC(200) RAM(24) RAM(210) RA  
 RAM(220) RAM(220) (212) RAM(220)  
 CPU(12) ( ) RAM (212) 1  
 RAM(24) RAM(24)  
 CPU(12) ( ) RAM (212)  
 M(24) RAM(24) 1 CPU(12) RA  
 가  
 RAM(24) RAM(220) (22) 1  
 가  
 (64) RAM(220) (22)  
 RAM(24) (26)  
 (64) 1 (20) HSync  
 (66) (66) (20) (22)  
 RAM(220) RAM(24)  
 1 1  
 11a RAM(220) 11b  
 RAM(220)  
 RAM(24) 가 가  
 2 X IC(200) 4 1 X IC(28)  
 ) 가 IC(200) 9 1 가 RAM(  
 24) X 가 RAM(220) 2 가 (17  
 0) 가 RAM(24) 가 1  
 가 (180) 가 가  
 가 가  
 가 , 1

(57)

1.

가 RAM ,  
 1 가 ,  
 ,  
 , RAM ,  
 ,



, 가 가 ,  
,

2.

3.

4.

5.

, 가 RAM ,  
RAM , 가 RAM ,  
RAM ,

6.

7.

1 5 ,  
,

8.

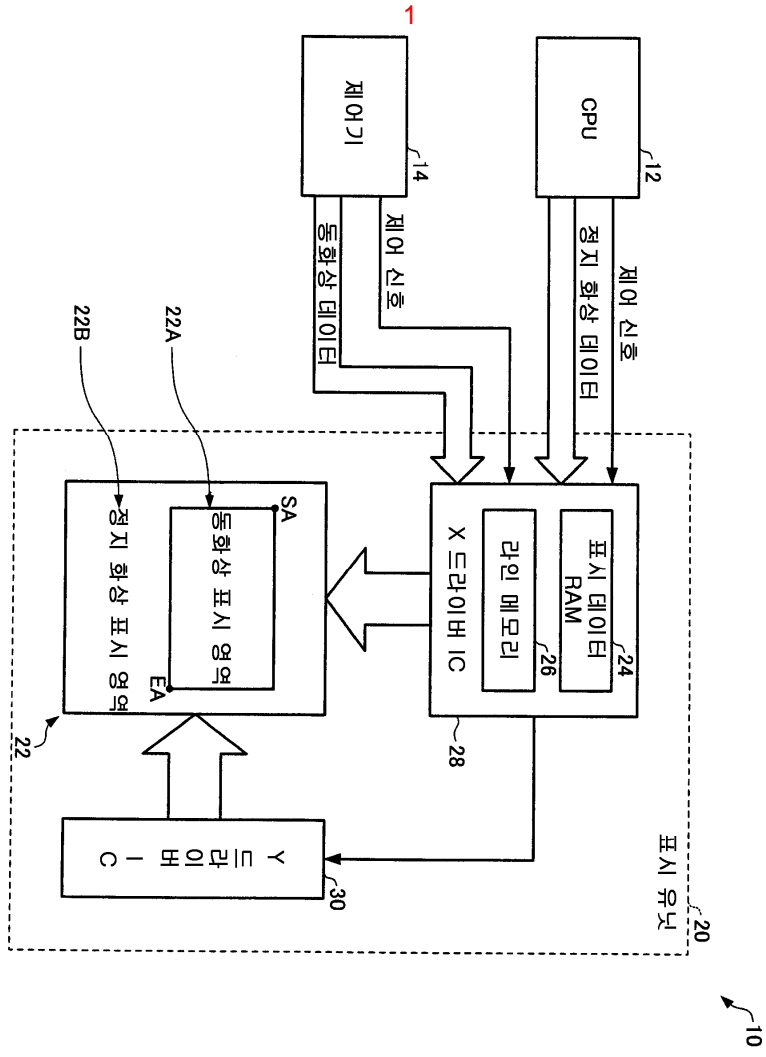
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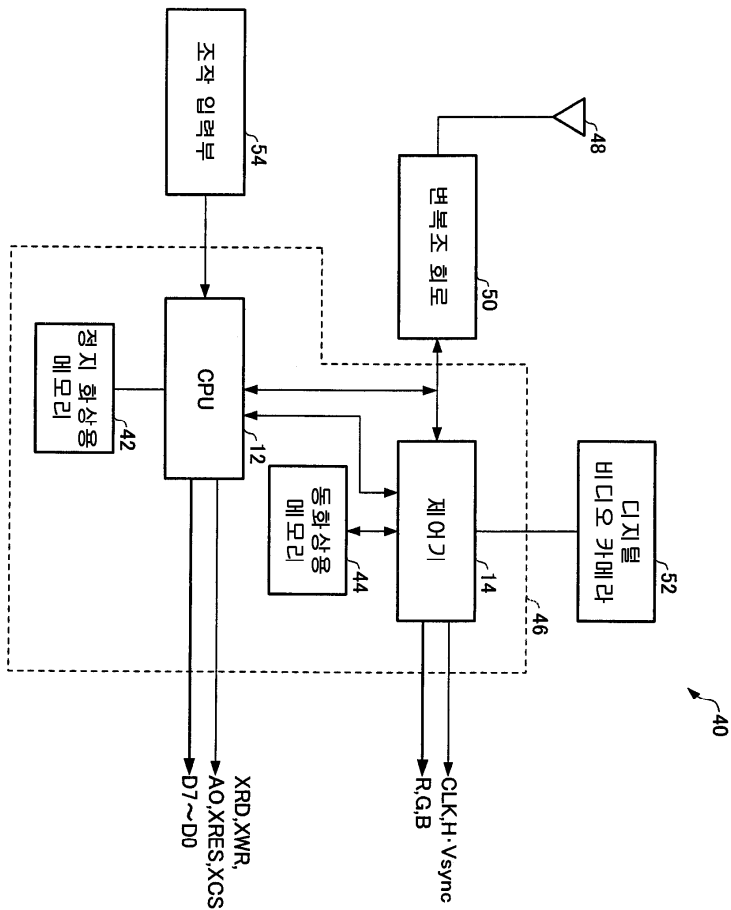
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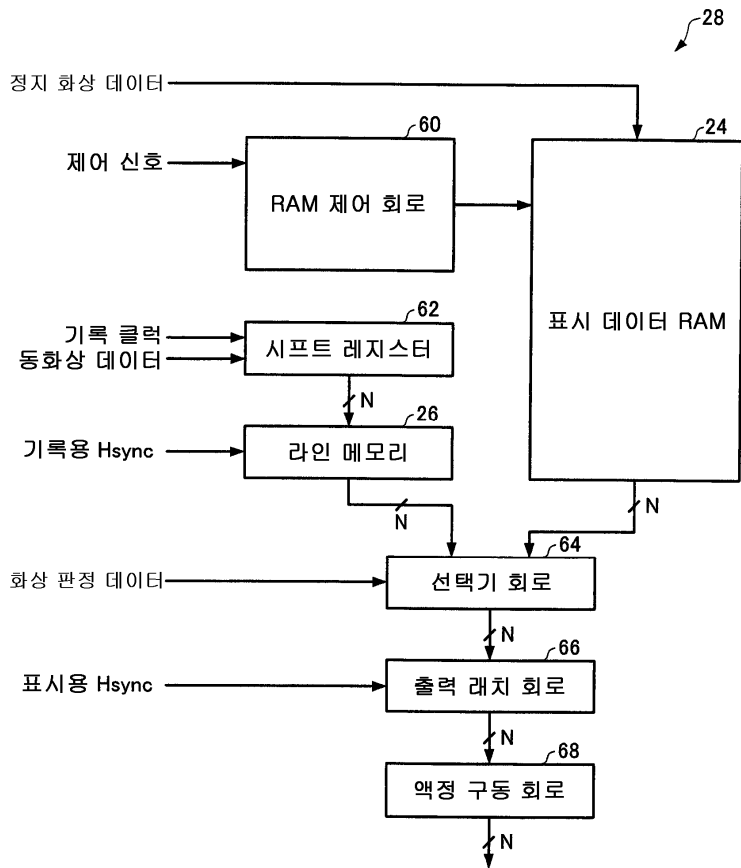
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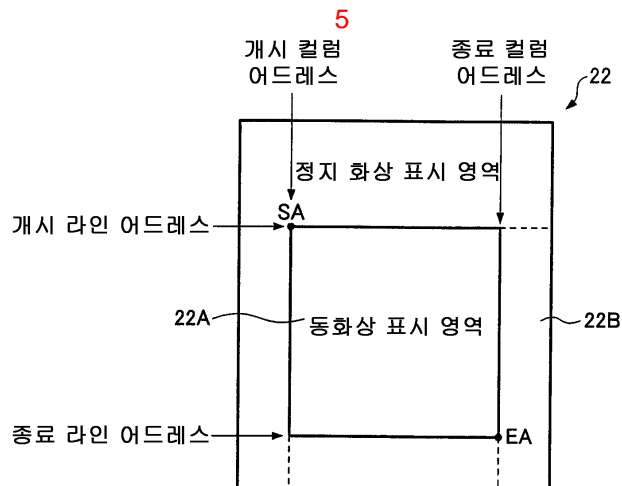
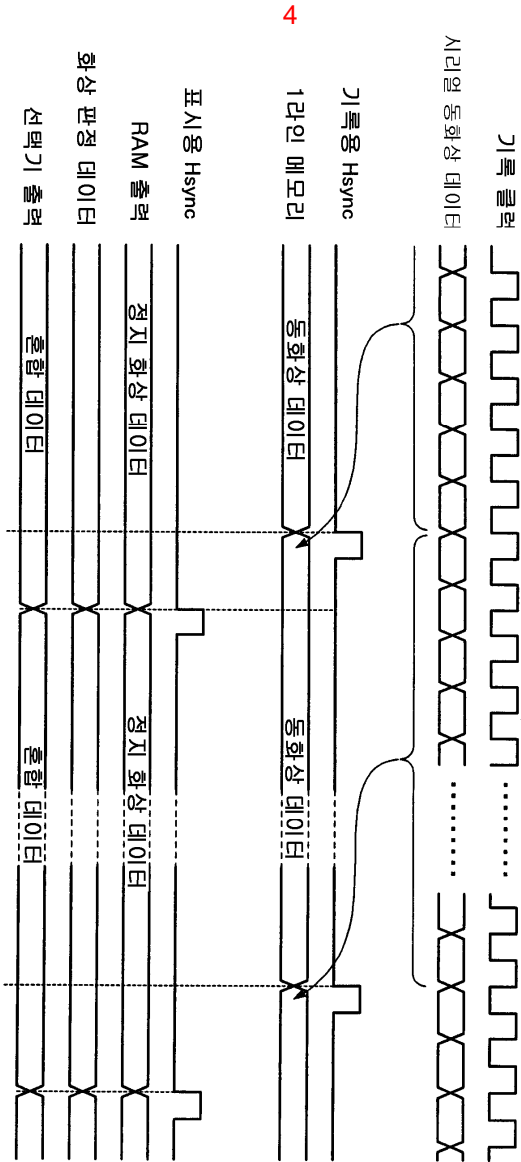


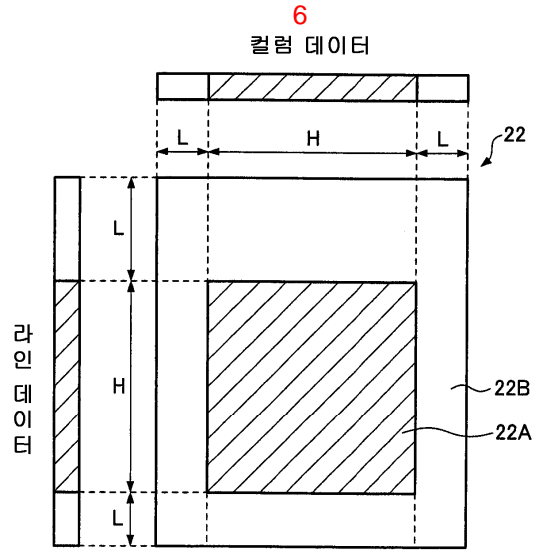
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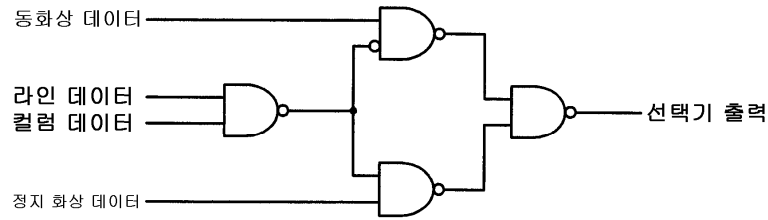


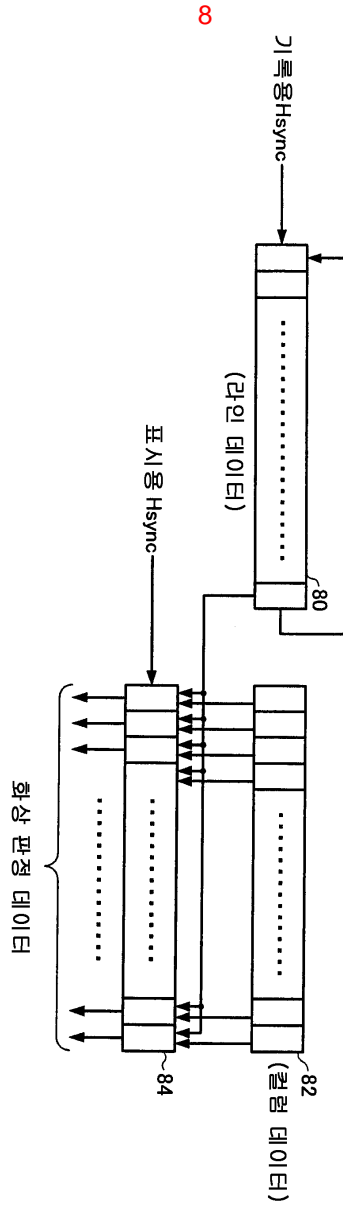


**7a**

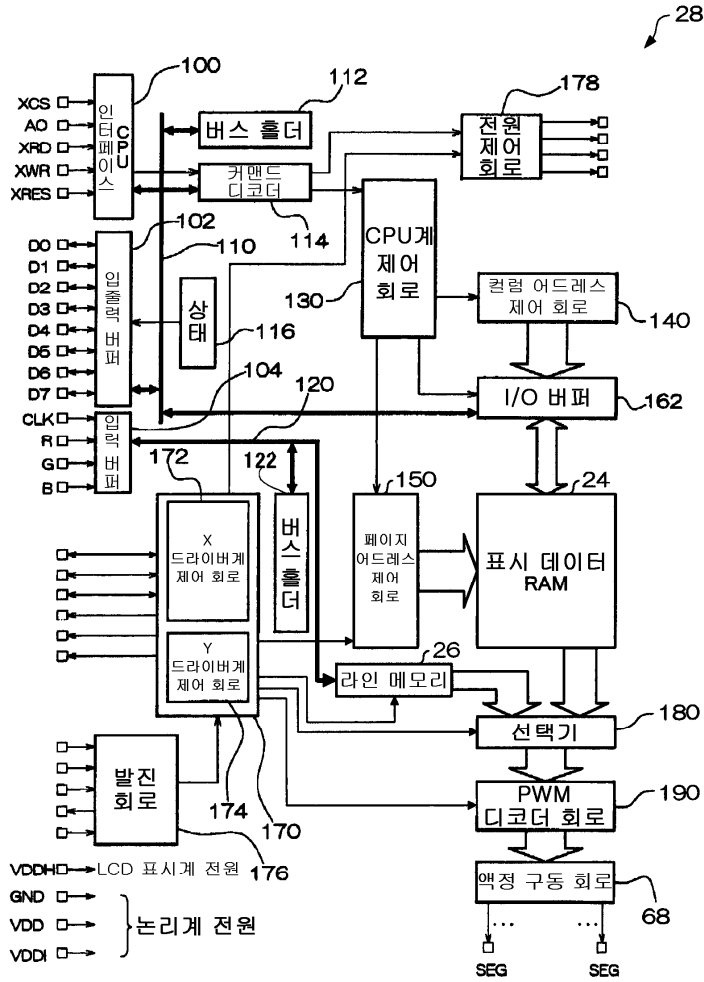
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|--------|--------|-----------|
| H      | H      | 동화상 데이터   |
| H      | L      | 정지 화상 데이터 |
| L      | H      | 정지 화상 데이터 |
| L      | L      | 정지 화상 데이터 |

**7b**

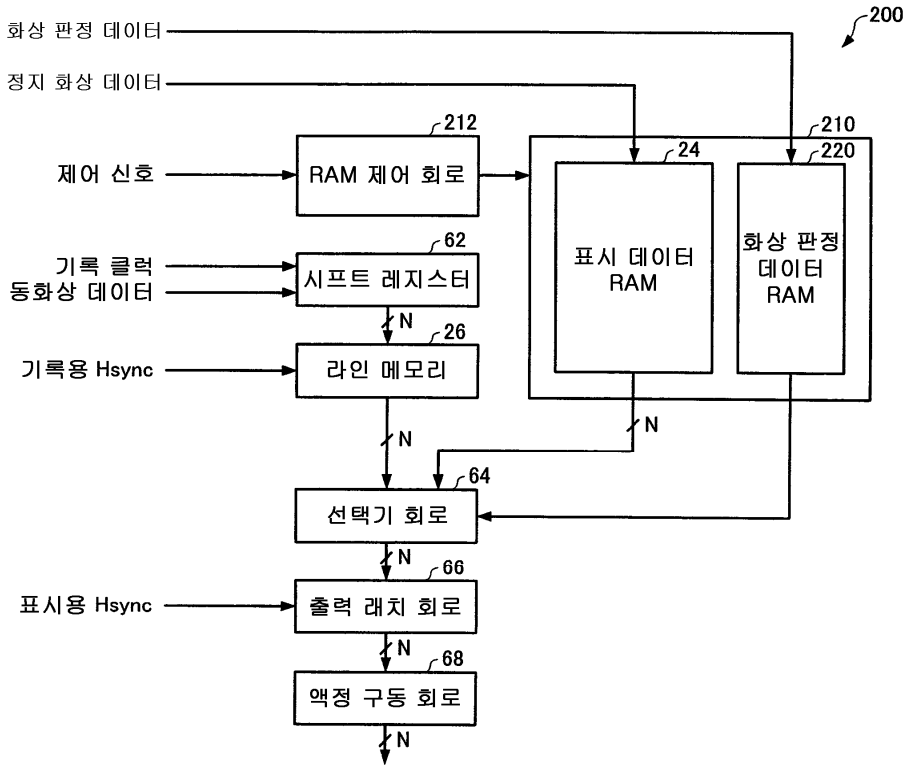




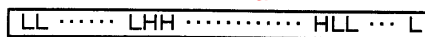
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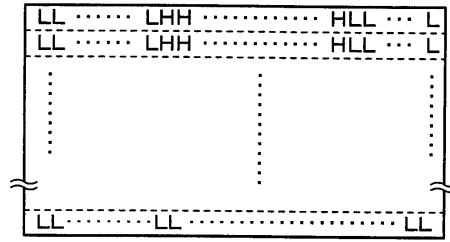
10



11a



11b



12

