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(73)

3 416

(72)

2 103 902

(74)

:

(54)

가

1

1

2

1, 2

1

2

2

2

(jitter)

가

8

1

2(a) 2(b)

3

4

5 4

6(a)~ 6(g) 5

7 가

8 가

9(a)~ 9(c) 8

10 8

11 10

12 10

13

14(a)~ 14(d) 10

15(a)~ 15(k) 10 가

16 10 가

17(a)~ 17(d) 10 가

18(a)~ 18(h) 10 가

19(a) 19(b) 10

20

21 20

22(a)~ 22(d) 21

23(a)~ 23(d) 22

24 25

26 21

27~ 30 26

31 21

32

cassette Recorder: (jitter), VCR) 가 (subcarrier) 가 (Video Ca

1 VCR (12), (18) / (Analog Digital Converter: ADC)(14), (11), (16), (20)

(12) (11) (Magnetic) (12) (16) (18) (20) (Y/U/V) (Y1/U1/V1) (Y OU

1/U1/V1) T

2(a) 2(b)

2(a)

가 , 2(b)

가

가

가

가

가 3

3  
32)

IN

가

(30)

가

, PLL(  
(WCK)  
(RCK)

(34)

(WCK)

(36)

가

(37)

(locking)

PLL(32)

(WCK)가

, PLL(32)

(WCK)

, PLL(32)

(WCK)

(WCK)

(34)가

(34)

가

가

3

(30)

(WCK)

ppm  
PLL(32)

(WCK)  
(WC

K)

(jitter)

가

(Interpolation)

가

(INTERPOLATION)

가

가

가



가 1 가 2 , (b) , (c) 가 , (d) (c) , (e) ,

4 , D1 , D2

(D1) 4 가 , 가

5 4 (44, 46) (47) (44) 1 (42) (46) 2 (45)

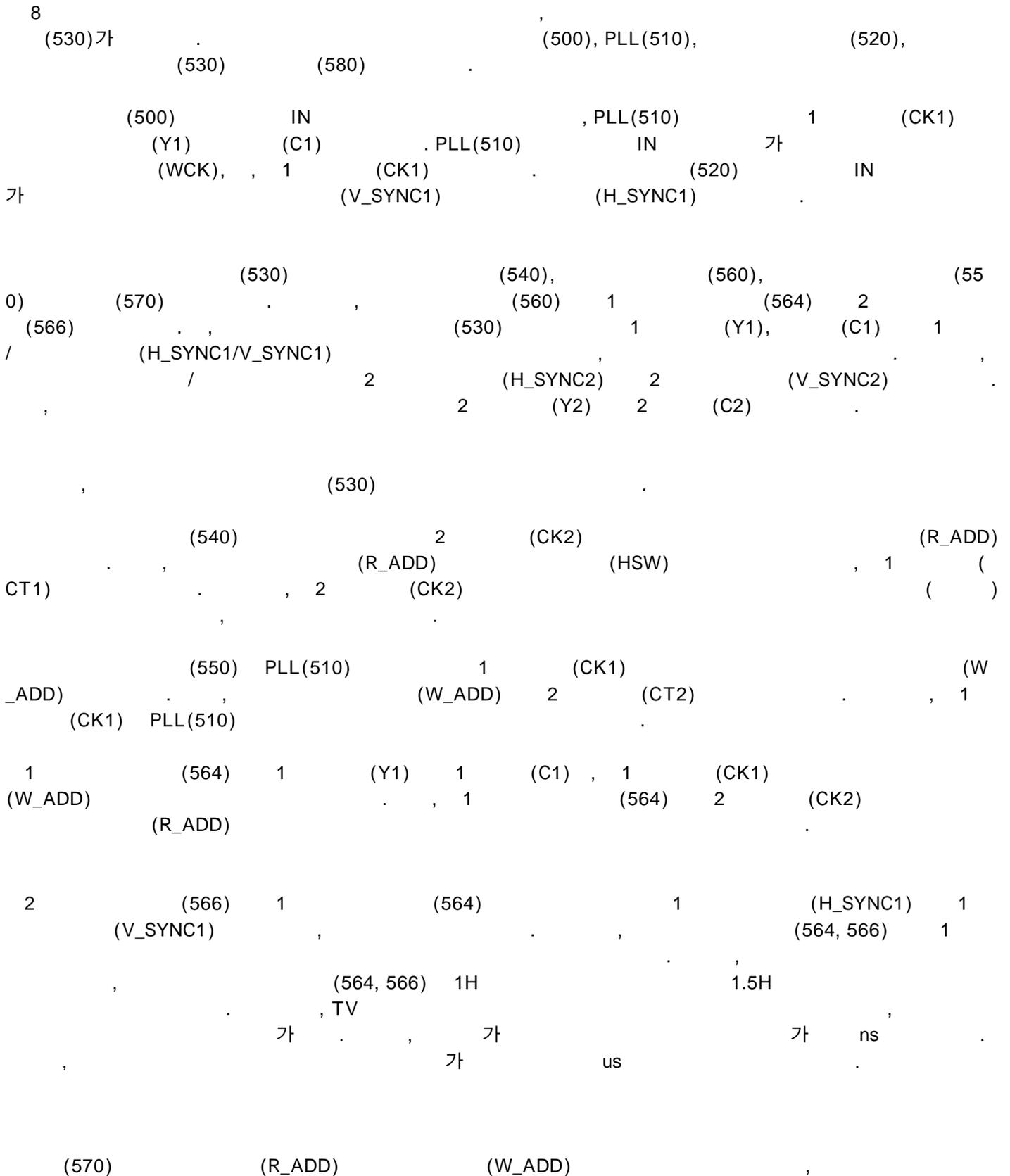
5 (44, 46) (42, 45) (M1, (M2) (47) (44, 46) (M1, M2) , (M1, MOUT

6(a)~ 6(g) 5 6(a) ( 44) (M1) , 6(b) (46) (M2) , 6(c) 1 6(d) 2 , 6(e) 6(f) 가 (44, 46) (M1, M2) , 6(g) (47) (MOUT)

, 6 , 1 2 (42, 44) , 6(a) (T1) (T2) (P1) , (T1) 6(c) 6(d) 가 , (T1) 6(e) 6(f) 가 (SKEW) , 가

7 (HSW)가 , 7 ,

TBC(Time Based Correction)



(R\_ADD) (W\_ADD) 1, 2 (CT1, CT2) 가

(R\_ADD) (R\_ADD) (CT1) (R\_ADD)가 (CT2) (W\_ADD)

가 (R\_ADD) (R\_ADD) (W\_ADD) (W\_ADD)

(580) (Y1) (C1) OUT / (Y2/C2) / (H\_SYNC2/V\_SYNC2) (500)

1 (CK1) PLL(510) , PLL(510) 1 (C

K1) (560) (560) (580)

가 2 (CK2) (580)

9(a)~ 9(c) 8 (560) (W\_ADD) (R\_ (R\_ADD)

ADD) (W\_ADD) (W\_ADD)

9(b) (W\_ADD) (R\_ADD)가 0.5 (H)

9(a) (W\_ADD) (R\_ADD) 0.5

9(c) (W\_ADD) (R\_ADD) 0.5

VCR (W\_ADD) (R\_ADD) 가 (R

가 (W\_ADD) (R\_ADD) (R

\_ADD) 0.5 가 (R\_ADD) (W

(530) 7 (HSW)

가 (R\_ADD) (W\_ADD)

0.5 (R\_ADD) (W\_ADD) 0.5

8 (570)

10 8 (530) 10

(550) 2 (CT2) 1 가 (W\_ADD)

(614), 가 (616) (618) . 1H (550) 1H (612), (612) 2 (CT2)

1H , 1H , '1' , (618)

(614) 1H (612) , '1' , (618)

가 (616) , (618) 1 (CK1) 가 (616)

(W\_ADD)

(540) (640), (620) (630)

(640) 가 1 (HSW1) (642)

2 (HSW2) (HSW) , 2

(HSW2) (V\_SYNC1) ,

(640) (642) (644)

(640) (642) (V\_SYNC1)

(644) (H\_SYNC1) 2 (HSW2)

(HSW2) (Video\_SEL) 1 (HSW1) 2

(HSW) (HSW)

(HSW) (642) (H\_SYNC1)

(HSW2) 가 가 5~6 , (HSW2) 2 (

HSW2)

(620) (HSW) (W\_ADD) (R\_AD

D) (AD\_T) (T\_RAD) (620)

11

(630) 1 (CT1) 1 가 , 1

(630) (AD\_T)

4) (T\_RAD) (540) (632, 636), 가 (63

(638)

1 (CT1) (630) (632) (570)

1 - 1H . 가 (634) (632)

(R\_ADD) (636) 2 가 (636)

(AD\_T) (T\_RAD) 가 (634)

(638) (636) 2 (CK2)

(R\_ADD)

(560) MIN (C1), (Y1), / (H\_SYNC1, V

\_SYNC1) MOUT

(C2), (Y2), / (H\_SYNC2, V\_SYNC2) 가 .

, 10 (W\_ADD) (550) 1H

(612) , (W\_ADD) (R\_ADD)가  
 (614) (CK1)가 가 1 가 (W\_ADD)  
 가 (R\_ADD) 가 2 (CT2)가 , 1H (W\_ADD)  
 , 1H (612) (614) (W\_ADD)가 1H  
 (W\_ADD) 1 가 .

10 (R\_ADD) (HSW)가  
 (R\_ADD)가 (632) +1 1 가  
 (636) (HSW)가 (T\_RAD)가  
 (OFFSET) (T\_RAD) (W\_ADD)  
 가 , 1 (CT1)가 (R\_ADD)가 (W\_ADD)  
 H (R\_ADD) (632) 1 (CT1) -1  
 1H .

11 10 (620) (620)  
 (622, 628), 가 (623), (624, 625, 629) (626) .  
 (622) 1 (CK1) (HSW)  
 1 (EDGE1) .

가 (623) (OFFSET) (W\_ADD) , . ,  
 (OFFSET) , 0.5 .  
 (624) 1 (EDGE1) 가 (623)  
 (T\_RAD) .

(625) 1 (CK1) 1 (EDGE1) (626) 1  
 (EDGE1) (625) , , (626)  
 1 (EDGE1) .

(628) 2 (CK2) (626)  
 2 (EDGE2) . (629) 2 (CK2) 2 ( .  
 EDGE2) (AD\_T) .

, (620) 1 (EDGE1)  
 (AD\_T) , 1 (EDGE1) (W\_ADD)  
 (OFFSET) (R\_ADD)가

12 10 (570) (570) (651~653),  
 (654), (655), (656), 1 (657) 2 (659) .  
 (651) 4 2 (CK2/4) (R\_ADD) (651)  
 (RA1) 4 2 (CK2/4) 4 가 .  
 (652) 4 1 (CK1/4) (W\_ADD) (65  
 2) 4 1 (CK1/4) 4 가 .

(653) 1 (CK1) , 4 1 (CK1/4) , (653)  
 , 4 1 (CK1/4) 1 (CK1) 가 .

(654) 2 (CK2) (653)  
 (655) 가 , (654) (653) 가  
 2 (CK2) 가 .

(655) (654) (652) , 1 (652)  
 (655) (WA1) (652) (CK1)

(656) (651) (RA1) (655) (WA1) ,  
 (656) RA1 - WA1 .

1 (657) (656) (RA1 - WA1) 1 (REF1)  
 1 (CT1) , 2 (659) (656) (RA1 - WA1) , 2 (RE  
 F2) , 2 (CT2) , 1 (REF1) , 2 (RE  
 REF2) a , | -a | , 가  
 a , .

가 , 가  
 가 , 1H (W\_ADD) 가  
 (R\_ADD) (W\_ADD)가 (R\_ADD)  
 (R\_ADD)가 (W\_ADD) (W\_ADD)  
 가 (560) 1  
 (R\_ADD)가 (W\_ADD) , 1H 가 , 1H  
 가 (570) (R\_ADD)  
 , 12 (570)

(R\_ADD)가 (W\_ADD) (570)  
 , (656) (RA1 - WA1)가 , 가 1 (REF1) , (657)  
 (R\_ADD)가 (W\_ADD) 1 (CT1)가 ,

(W\_ADD)가 (R\_ADD) (570)  
 (656) (RA1 - WA1)가 , 가 2 (REF2) , ( (   
 W\_ADD)가 (R\_ADD) , 2 (659)  
 2 (CT2)가 .

13  
 , ( 700 ) , (   
 720 ) , / ( 740 ) , (   
 (760 ) .

10~ 13 (530)

가 , 2 (CK2) (530) (R\_ADD)가 1 (CK1) (W\_ADD)

14(a)~ 14(d) (CK1) , 14(b) (W\_ADD) , 14(c) 2 (CK2) 14(a) 1 (CK2) , 14(d) (R\_ADD)

가 , 14(a) 1 (CK1) 14(b) (W\_ADD) 1 가 , 14(c) 2 (CK2) 14(d) (R\_ADD)가 1 (CK1) PLL(510) , 2 (W\_ADD) (CK2) (R\_ADD) 0.5

(R\_ADD) (CK1,CK2) (W\_ADD) (HSW)가 (720) , (HSW)가 (722) , 700 (OFFSET) (R\_ADD) (724) .

15(a)~ 15(k) (HSW)가 15(a) 1 (CK1) , 15(b) (W\_ADD) , 15(c) (HSW) , 15(e) 1 (EDGE1) , 15(f) (T\_RAD) , 15(g) (626) , 15(h) 2 (CK2) , 15(i) 2 (EDGE2) , 15(j) (AD\_T) , 15(k) (R\_ADD)

20) (622) 15(d) (HSW)가 가 , (6 (624) 가 . 15(c) , 10 가 , (W\_ADD) 10 . 15(e) , (EDGE1)가 가 (624) , (T\_RAD)가 (HSW) 가 12 가 , 15(f) (T\_RAD) 12 . (628) 15(h) 2 (CK2) (626) (CK2) , 15(i) 2 (EDGE2) . (629) 2 (EDGE2) 15(j) (AD\_T) (AD\_T) (636) 가 (AD\_T) (T\_RAD) (638) , (638) (R\_ADD) (H (OFFSET) (724) ) . 15(k) , (H SW)가 (R\_ADD) 12가 . 2 (CK2) 1 가 . (HSW)가

(W\_ADD) (R\_ADD) .

16 (MIN) 16 (5) , 가  
 60) (560) (MOUT) .

, 724 (W\_ADD) (R\_ADD) /  
 가 ( 740 ) . , (W\_ADD)가 (R\_ADD) 가 ( 7  
 42 ) . 742 (W\_ADD)가 (R\_ADD) , 1H  
 가 (W\_ADD)가 ( 744 ) .

17(a)~ 17(d) (W\_ADD)가 (R\_ADD)  
 17(a) (H\_SYNC1) , 17(b) 2 (CT2) ,  
 17(c) 1H (612)( 10 ) , 17(d) .

17 가 , 17(b)  
 (W\_ADD)가 (R\_ADD) , (570) 17(h) 2 (C  
 T2) , 17(c) 1H (612) 2 (CT2) 1H  
 (T84) , (W\_ADD) 1H . 17(  
 d) , 2 (CT2)가 A4 가 , 17(c)  
 1H (612)( 10 ) 가 , (W\_ADD) A4  
 가 1H (612) 가 1 가 .

, (W\_ADD)가 (R\_ADD) 가 , (R\_A  
 DD) 가

, 742 (W\_ADD)가 (R\_ADD) , (R\_ADD)  
 가 (W\_ADD) 가 ( 746 ) . 746 (R\_ADD)가  
 (W\_ADD) , (R\_ADD) 1H가 ( 725 ) .

18(a)~ 18(h) 10 가  
 18(a) 1 (CK1) , 18(b) (W\_ADD) ,  
 18(c) 4 1 (CK1/4) . 18(d) (655) , 18(e)  
 2 (CK2) , 18(f) (R\_ADD) . 18(g) (651)  
 , 18(h) 1 (CT1) .

, (R\_ADD)가 (W\_ADD) , 1 (657)( 12  
 )가 , 18(h) 1 (CT1)가 ,  
 (W\_ADD)가 18(b) , 18(c) 4 1 (CK1/4)  
 (655) 18(d) , 2 (REF1)( 12 ) , a -20 가 , (T80)  
 18(g) (R\_ADD) 0 , 18(d) (W\_ADD) 20 . ,  
 (T80) (656)( 12 ) -20 , 20 1 (CT  
 1)가 , 18 P2 (R\_ADD) 1H .  
 18(f) , 1H 100 가 .

(R\_ADD)가 (W\_ADD) 2  
 (560)

746 (R\_ADD)가 (W\_ADD) (R\_ADD) 1 가 (750).

19(a) 19(b) (530)  
 (W\_ADD) 1H (W\_ADD)가 (R\_ADD)가  
 19(b) (R\_ADD)가 (W\_ADD) (R\_ADD)가  
 1H가 (R\_ADD) 1H (R\_ADD)

(W\_ADD, R\_ADD) (750 (760)).

(T91 T92) 가 (560) 1 (T91 T92)

20 (800)가 20 (810), (820), (830), PLL(840) (800)

(810) (IN) (Y1) (C1) (C1)  
 Y1) PLL(840) 1 (CK1) (830) PLL(840)  
 (820) 2 (CK2) (820) (CK2)  
 8 (800) (850), (860) (870)  
 (850)

(850) 1 (CK1) (YW\_ADD) (854) (8  
 (YW\_ADD) (Y1) 1 (YR\_ADD) (YR\_ADD)  
 50) 2 (CK2) (850) (852), (854)  
 (858), 1 (854) 1 (856) 1 (852) (854)  
 1 가 (852) (854)  
 820) 2 (CK2) 1 (854) (YR\_ADD) 1 (856)  
 1 (YR\_ADD) (CT1)

(854) (850) (858) 1 (CK1) 1  
 (YW\_ADD) (Y1) (YW\_ADD) , , 1  
 (856) (856) 2 (CT2) . 1  
 (CT1) 2 (YR\_ADD) , (YW\_ADD) 1  
 (YR\_ADD) (CT2) . , 1, 2  
 (CT1, CT2) 1, 2 (CT1, CT2) . , 1, 2  
 1 (854) (Y1) 2 (CK2)  
 2 (Y2)

20 (850) 8  
 가 가 가

(860) 2 (CK2) (CW\_ADD) , (860)  
 (CW\_ADD) (C1) 2 (864) (CR\_ADD) (CR\_ADD) ,  
 2 (CK2) (860) (862),  
 (868), 2 (864) 2 (866)

(860) 2 (864) 1 가  
 (862) 2 (CK2) 2 (864)  
 (CR\_ADD) (CR\_ADD)  
 2 (866) 3 (CT3) ,  
 (868) 2 (CK2) (C1) (CW\_ADD) 2 (866) (CW\_ADD)  
 . 2 (866) (CR\_ADD) , 4 (CT4)  
 3 (CT3) 4 (CT4) . , 3, 4 (CT3, C  
 2  
 T4) (864) (C1) 2 (CK2)  
 2 (C2)

3 (870) (830) (H\_SYNC1) (V\_S  
 YNC1) (YW\_ADD) , 3 (870) /  
 (H\_SYNC1, V\_SYNC1) (YR\_ADD) , /  
 2 / (HSYNC2) . (860) 2  
 1

(880) 20 (800) , , 2 (Y2),  
 2 (C2) 2 / (H\_SYNC2, V\_SYNC2)

00) 가 1 2 (CK2) 1 (CK1) 20 2 (CK2) (8) (Y1) 1 (CK1) 2 (CK2) 가

21 20 (800) (860)

21 (938) (550) 4 (CT4) 1H (868) (868) 1H (934), 1H (932) 2 (932), 가 (936) 10 (866)( 20 )

(862) (950), (862) (970) (900), / (910), (920), (960)

(900) (HSW), 2 (CK2), 1, 2 (H\_SYNC1, H\_SYNC2) 1, 2 (Error1, Error2) 1 (Error1) 1, 2 (H\_SYNC1, H\_SYNC2) (900) 3 (870)( (H\_SYNC1) , 2 (H\_SYNC2) (Error1) 1 (CK1) , 2 (Error2) (CK2) (Error2) 26~ 30

/ (910) (900) 1 (Error1) (HOLD) (SKIP) (900) 1 (Error1) 1 (H\_SYNC1) 가, 2 (H\_SYNC2) (SKIP)가 , 1 (H\_SYNC1) 가, (H\_SYNC2) (H\_SYNC2) (H\_SYNC1) (HOLD) (960)

(HOLD) (922, 924) (922) +1 0 1 2 (HOLD)가 0 (922) 0 가 가 (924) (922) +2 1 2 (SKIP) (SKIP)가 (924) +2 (924) +2 (CR\_ADD) +2 가 (CR\_ADD) 2

22(a)~ 22(d) 21 22(a)  
(C1) , 22(b) (H\_SYNC1) , 22(c)  
(C2) , 22(d) (H\_SYNC2)

21 22  
, 21 , (820) 2 (CK2)  
. , (820) 13.5MHz 가 . 22(b)  
(H\_SYNC1) 2 (CK2) , PLL  
(840)( 20 ) (H\_SYNC1) 2 (CK2)  
. 22(b) , T71 850 , T72  
858 , T73 864 가 . (H\_S  
YNC1) 1 (CK1) 858 ,  
가 , 1 (CK1) 2 (CK2)  
858 가 . , 2 (CK2) 858 T72  
, T71 가 , 2 (CK2)  
850 , 858 8 가 . (C1)  
8 (CK2) , T73 864 , 858 8 가 .  
2 (C1) 8 .

, 20 (810) 2 (CK2)  
가 . , 가 858  
. , (H\_SYNC1)  
. , (DECIMATION)

23(a)~ 23(d) (H\_SYNC1)  
. 23 , 23(a) 가 , 23(b)  
가 , 23(c) 가  
, 23(d) 가 .

, 23 , 가 , 22(a)~22(d) ,  
23 가 가 . 858 가 .  
(920) (CR\_ADD)

, 21 , (950) 10 (950) (952) (954)  
(950) (640)

W\_ADD (970) (950) (HSW) , (C  
(T\_RAD) (900) 2 (Error2) (AD\_T) ,  
(900) (Error2) (970) (T\_RAD)  
(970) 31

(960) 3 (CT3) (920) - 1H  
(T\_RAD) (960) (AD\_T)  
(968) (960) (962, 966), 가 (964)

(866) 12 (570)

(864) (MIN) (C1)가 , (MOUT)  
(C2)가

21 , (970) (852)( 20 )  
(900) 2 (Error2) 가 , (YR\_ADD)  
(CR\_ADD) 가 , 2 (Error2)  
가

24(a) ~ 24(d) 2 (Error2)가  
24(a) , 24(b)  
, 24(c) 가  
, 24(d) 24(c)

, 24 , (H\_SYNC1) , (H\_SYNC2)  
, 24(b) ,  
(H\_SYNC1) , (H\_SYNC2)가 , 24(b)  
, (H\_SYNC2)가 , (hg1~hg7)가  
(SKEW)가 , 24(d) J1, J2  
가,

25(a) ~ 25(d) 25(a)  
, 25(b) 25(a)  
, 25(c) 25(b)  
, 25(d)

25(b) ag1~ag8 25(a) (hg1~hg8) 2 (Error2)  
 , , 25(b) , , 25(c)  
 , 가 , 25(d)  
 . ag1~ag8 . ,

26 21 (900) (900)  
 (90), (95) 가 (97)

1 (Error1) (90) 1 (H\_SYNC1) 2 (H\_SYNC2)  
 0.5H , 1 (Error1) , ,  
 904), (902), (905, 906), 0.5H (907) (908) (90) (901, 903,

(90) (901) 3 (870)  
 (H\_SYNC2) (E1) (902)  
 (901) (E1) , 2 (CK2) (E1) , CNT1  
 (903) 1 (H\_SYNC1) , (E2)  
 (904) (HSW) , (E3) (905)  
 (902) (CNT1) , (903) (E2)  
 (905) 1 (Error1)가 / (910)( 2  
 1 ) 가 , (906) 1 (Error1) , (904)  
 0.5H (E3) (Q1) . 0.5H (907) (906) (Q1)  
 (908) 0.5H (907)  
 (908) 0  
 (H\_SYNC1) (908) (H\_SYNC1)  
 (H\_SYNC2)

(95) (HSW)  
 5) (912, 914), (913), 0.5H (915), 0.5H (916) , (917) (9

1 (95) (912) (HSW)  
 (H\_SYNC1) , (E4) (913) (912)  
 (914) (E4) , 2 (CK2) (CNT2)  
 (HSW) , (915) (913)  
 (CNT2) , (914) (Q2)  
 0.5H (916) (915) (Q2) 0.5H ,  
 (917) 0.5H (916)

가 (97) (90) , (95)  
 2 (Error2) . 2 (Error2) 25 ag1~ag8 .

27(a)~27(h) 26 (900)

27(a) 2 (CK2) , 27(b) 2 (H\_SYNC2) , 27(c) 2  
 7(d) (901) (E1) (902) (CNT1) , 27(e)  
 1 (H\_SYNC1) , 27(f) (903) (E2) , 27(g)  
 (905) (Error1)

, 26 27 (900) (H\_SYNC1, H\_SYNC2)  
 , 26 (901) 2 (H\_SYNC2)  
 27(c) (E1) (902) (901) (E1)  
 27(d) 2 (CK2) , 2 (CK2)가 14.3MHz  
 가 , (902) 0~909 , ( )  
 903) 27(e) 1 (H\_SYNC1) (E2) 27(f) .  
 , (902) (CNT1) 1 (H\_SYNC1) (E2) (905) .  
 , 27(g) (905) (Error1) (E2) 1 (905) (H\_SYNC1)  
 2 (H\_SYNC2) , 27(g) , (903) H  
 \_SYNC1 (905)

28(a)~ 28(d) 26 (HSW)가  
 . 28 , 28(a) (90) (905)  
 (Error1) , 28(b) (HSW) , 28(c) (90)  
 4) (E3) , 28(d) (906) (Q1) .

, 28(a) , (905) f0, f1, f2... 가  
 . , (HSW)가 (914) 28(c)  
 (E3)가 (906) (Q1) (HSW) 가  
 (905) (Error1) , 27(f)  
 28(d) ,  
 (90) (H\_SYNC1) ,  
 (H\_SYNC2) 0.5

29(a) 29(b) 1 (H\_SYNC1) 2 (H\_SYNC2)

29 , 2 (H\_SYNC2) (1H) 0.5H가 , 2  
 9(a) 1 (H\_SYNC1)가 0.5H 가 , 1,  
 2 (T97)가 , 29(b) , 2 (H\_SYN  
 C2) 0.5H 1 (H\_SYNC1)가 가 , 1, 2  
 (T98)가 , 29  
 가 , 2 (H\_SYNC2)  
 0.5H

30(a)~ 30(d) 26 (95) 30(a)  
 (HSW) , 30(b) (H\_SYNC1) , 30(c)  
 (913) (CNT2) , 30(d) (915) (Q2) .

26~ 30 (95) (912) 30(b)  
 1 (H\_SYNC1) 30(a) (HSW) ,  
 (913) (H\_SYNC1) 2 (CK2) ,  
 30(c) , 0~909 (913) 30(d) (91  
 5) (HSW) 가 (H\_SYNC1)가 2 (H\_S  
 (915) (Q2) 1 (H\_SYNC1)가 2 (H\_S  
 YNC2) , 30(d) (915) (Q2) 0.5  
 H (916) , (917)

(908) , (917) 가 (97)  
 2 (Error2)가 , 2 (Error2) (HSW)가 가 ,  
 가 , 24 ag1~ag8 . (862) 가 2 (Error2)

31 21 (970) (970) (970)  
 951), 가 (952), (953, 954), (955), (956) (957) .

(970) 11 (620)  
 , 가 (952) (CW\_ADD) , (OFFSET) 2 (ER  
 ROR2) (953) 가 , (OFFSET)  
 (CW\_ADD) (CR\_ADD)가 , 1H  
 910 , 2 (CK2)가 1.43MHz (OFFSET) 1H ,  
 (OFFSET) (900) (CR\_ADD) , (CW\_ADD)  
 (Error2) (T\_RAD)

(970)가 (850) , 1 (CK  
 1)가 , 2 2 (CK2)가 (852) (CK  
 ( ) (Error2) (YR\_ADD)가 .

20 (855, 866) 12 (570)  
 , (855, 866) 가 2 (CK2) 가 . (860)

32 20  
 . 32 (1100 ) , /  
 (1200 ) , (1500 ) ,  
 ( 1700 ) / (1800 ) .

20~ 32

가 ( 1100 ).  
 (YW\_ADD) PLL(840)( 20 ) 1 (CK1)  
 (CW\_ADD) 2 (CK2) ( 1120 ).  
 2 (CK2) (YR\_ADD) (CR\_ADD)가  
 ( 1140 ). , (CK2)  
 , 1200 가 가 .  
 , (870) (H\_SYNC1) , 가 (H\_ SYNC2) 가 가 ( 1220 ). 1220 (H\_SYNC1) (H\_ SYNC2) 가 가 ( 1240 ). 21  
 22 가 .

2 (Error2) ( 1260 ). , 가 (Error2) /  
 가 ( 1500 ). , (HSW)가 가 ( 1520 ).  
 (HSW)가 , 1100 (YR\_ADD, C  
 R\_ADD) (OFFSET) , 1260 (Error2)  
 (YR\_ADD, CR\_ADD)가 ( 1540 ). , (OFFS  
 ET) 1H , 가 .

1500 , ,  
 ADD)가 (WR\_ADD, CR\_ADD) ( 1700 ). , (YW\_ADD, CW\_ ADD)가  
 가 ( 1740 ). 1740 , 13 가  
 CW\_ADD) 1H 가 , (YW\_ADD,

, 1740 , (YW\_ADD, CW\_ADD)가 (YR\_ADD, CR\_ADD)  
 가 , 가 ( 1760 ). 1760  
 1H ( 1770 ). , 가 (YR\_ADD, CR\_ADD)  
 (852, 862) , 1770 가 2

, 1760 , (YR\_ADD, CR\_ADD)가  
 1780 ). , 13 1 가 (

$$\frac{(Y1) \cdot (YW\_ADD) / 1700 + (YR) \cdot (854, 864) / (1800)}{(CR\_ADD) \cdot 1700 + (CW\_ADD) / 1700}$$

itter) , 가 (j  
 (skew) 가

(57)

1.

가 , 1

$$\frac{1}{2} \cdot \frac{1}{2} ; 1, 2$$

1 , 2

2.

1 ,

3.

1 , ,

2 1 가 ,

;

, 1 1 가

1

4.

3 , ,  
 가 1 , ;  
 ;  
 , 1 1 가  
 , 1 .

5.

- (a) 가 1 , 2 ;
- (b) 가 ;
- (c) (b) , ;
- (d) .

6.

5 , (b) ,  
 가 , .

7.

- 5 , (c) ,
- (c1) 가 가 ;
- (c2) (c1) 가 , 1H  
 가 ;
- (c3) (c1) 가 , 가  
 가 ;
- (c4) (C3) 가 ,  
 1H ;

(c5) (c3)

가  
가

8.

2 가 1 , / ,  
 1 , 2  
 1 ;  
 1 , 2  
 2 ;  
 2 ,  
 2 2

9.

8 , ,  
 / , /  
 3

10.

9 , 1~ 3 ,  
 1.5 , /

11.

8 , ,  
 , 1 ; , 1, 2  
 , 2 , 3, 4  
 2

12.

11 , ,  
 2 3 , 2 ;  
 2 4 , 2

13.

12 , ,  
 가 1 , ;  
 ; , 2 / 1, 2  
 ;  
 1 가 / ;  
 ; ,  
 ; 2 ,  
 ; , 3 1 가  
 , 1 .

14.

13 , ,  
 1 ; 1 ,  
 ;  
 1가 , 가 2  
 .

15.

13 , ,  
 3 - 1H 1 ;  
 1 가 , 가 2가 ;  
 2 ;  
 2 1 , 2 2 .

16.

12 , ,  
 4 1H 1 1H ;  
 1H 1 , ;  
 가 , 가 가 ;  
 가 , 1 가 .

17.

11 , ,  
 2 , 1 ;  
 1 , 1 ;  
 2 .

18.

, / , ,  
 (a) 가 1 가 2 , ,  
 , 2 ;  
 (b) ;  
 (c) 가 ; , ;

(d) (c) , ;

(e) , .

19.

18 , (b) ,

(b1) 가 가 ;

(b2) (b1) 가 ; ,

(b3) (b2) ,

20.

18 , (d) ,

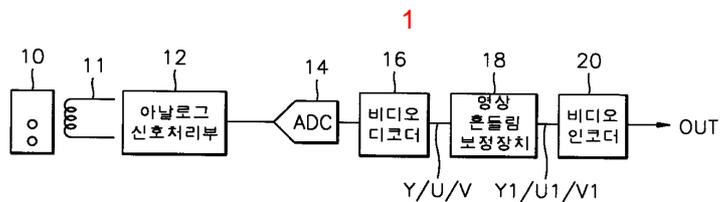
(d1) 가 가 ;

(d2) (d1) 가 , 1H  
가 ;

(d3) (d1) 가 ,  
가 가 ;

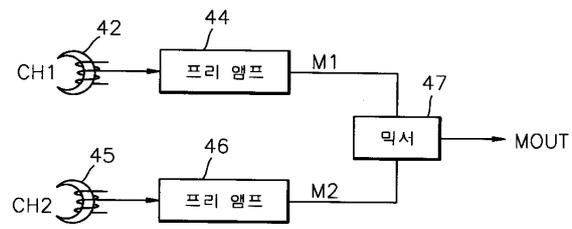
(d4) (d3) 가 ,  
1H ;

(d5) (d3) 가 , ,  
1 가 ,

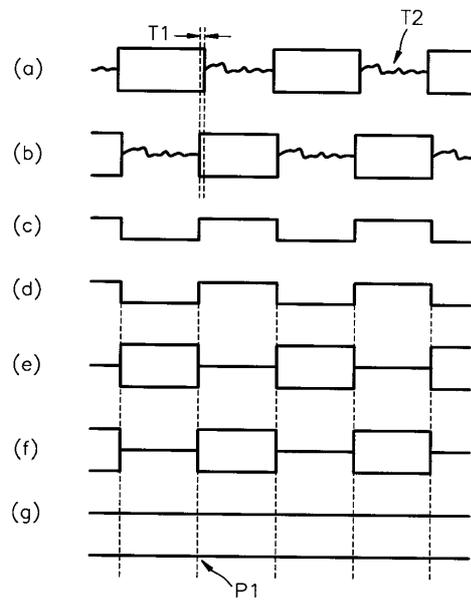




5



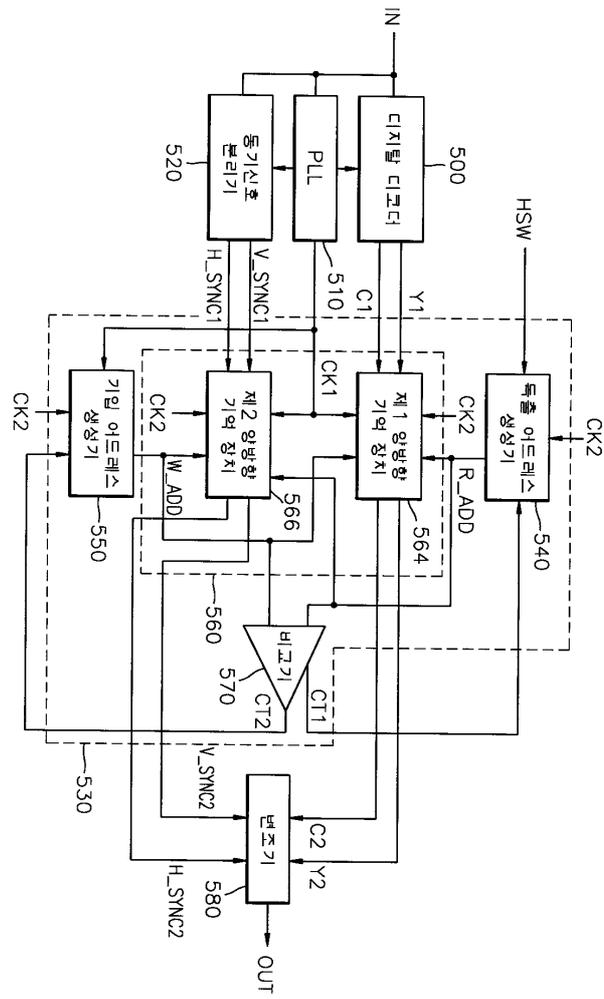
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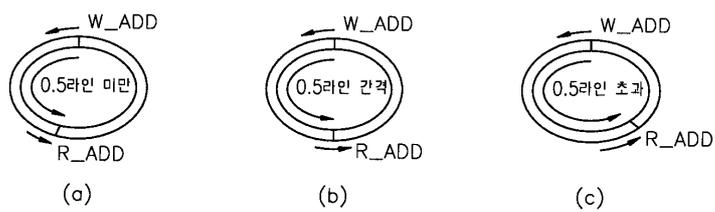
7

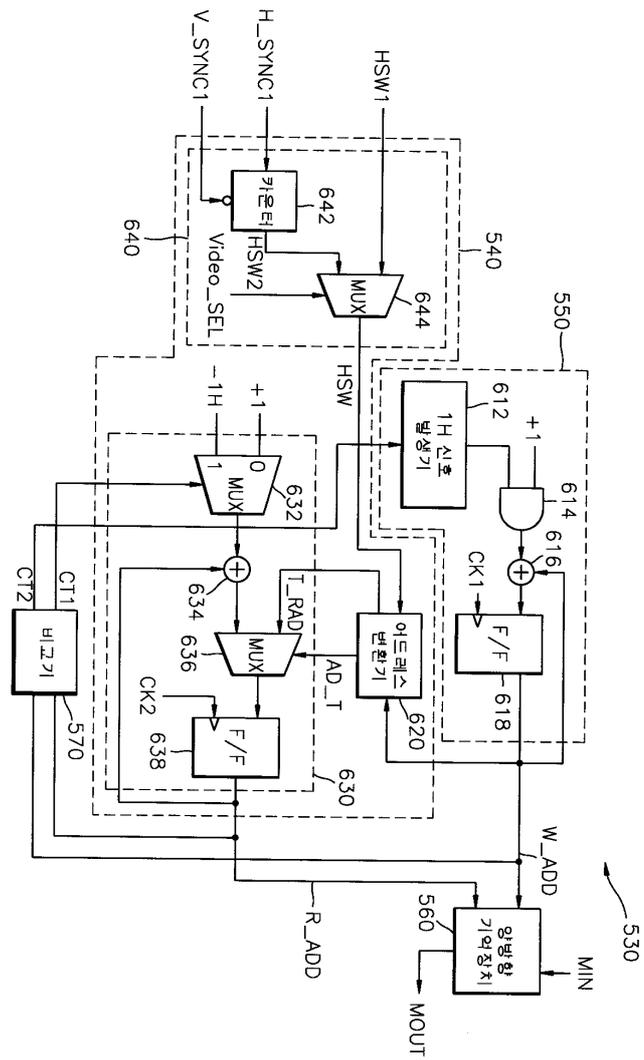


8

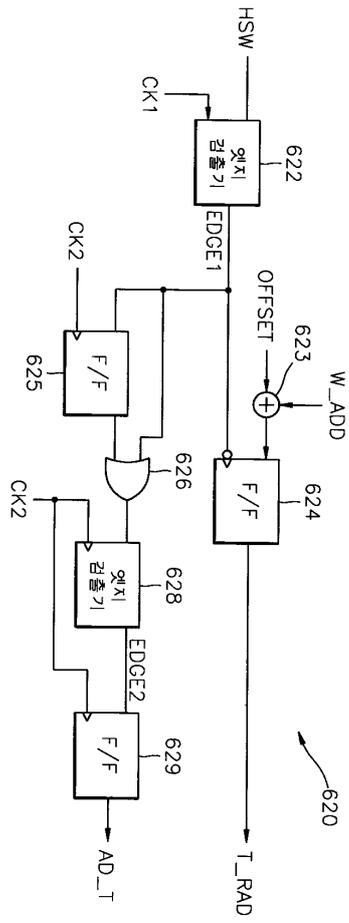


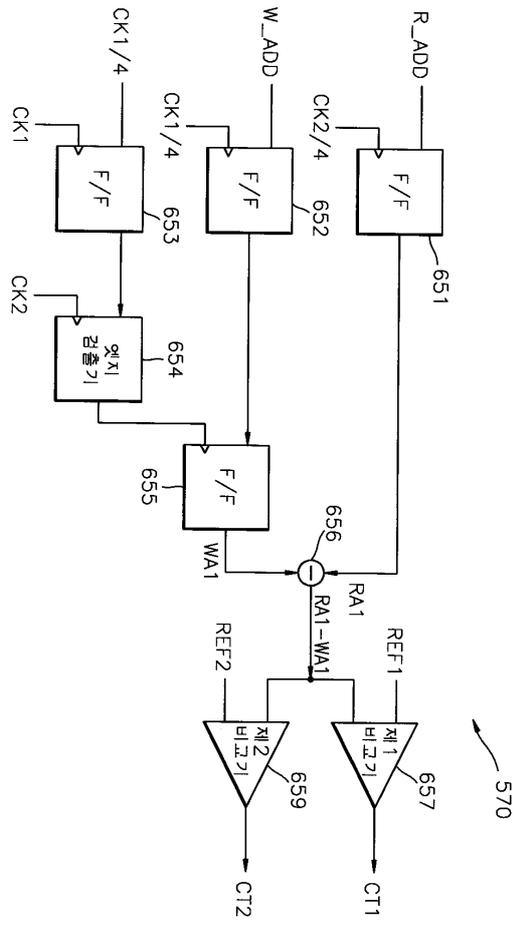
9



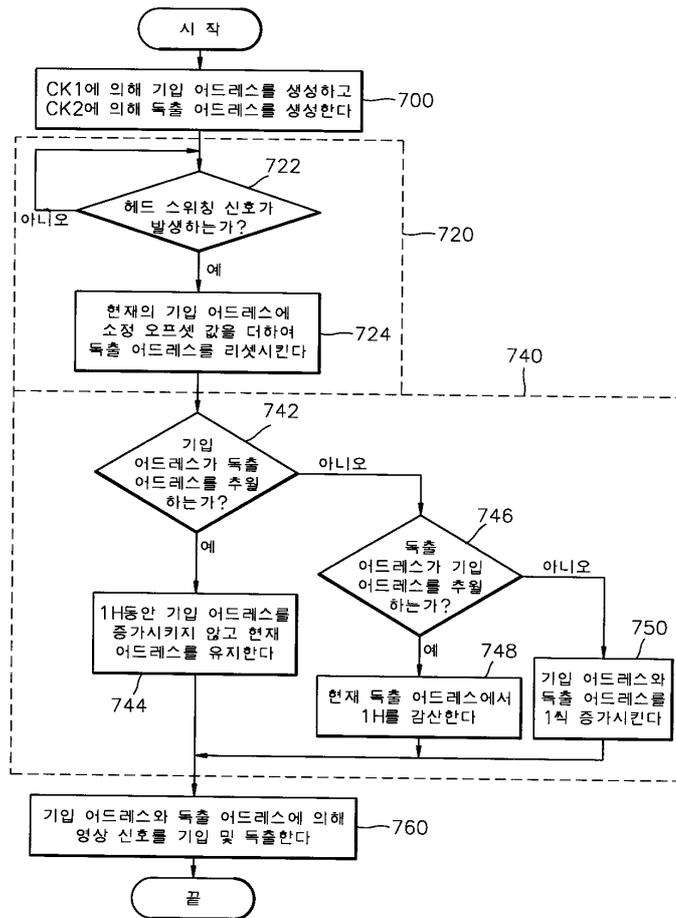


11

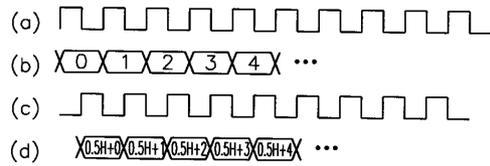




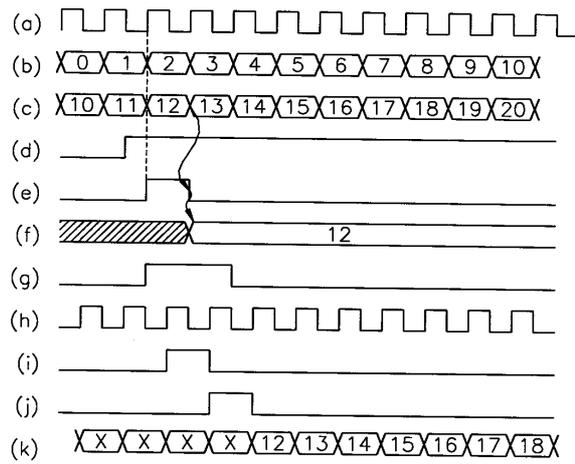
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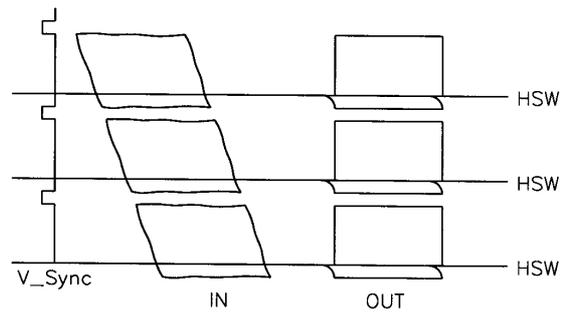
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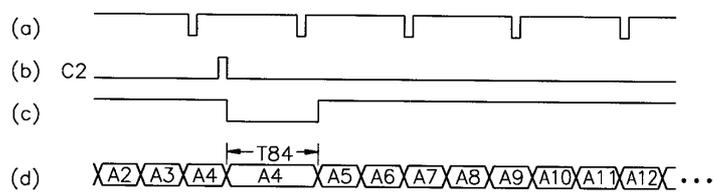
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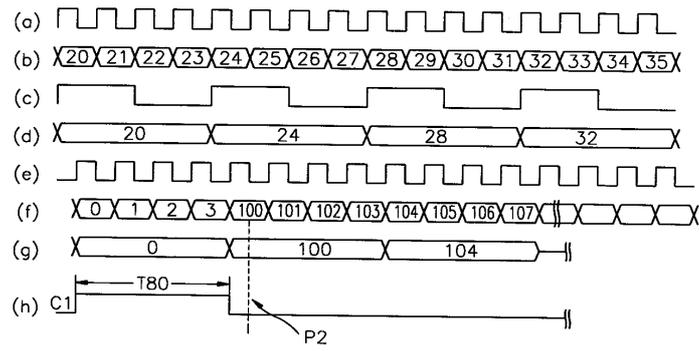
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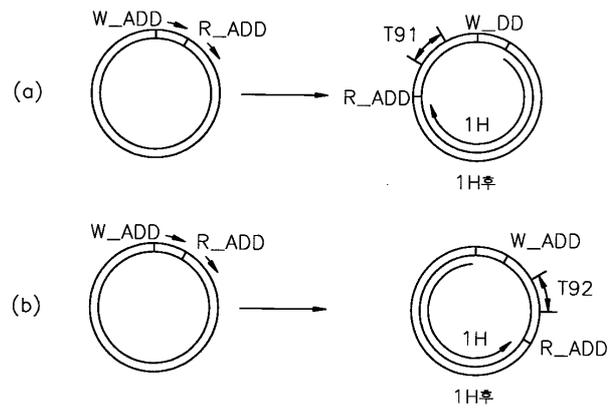
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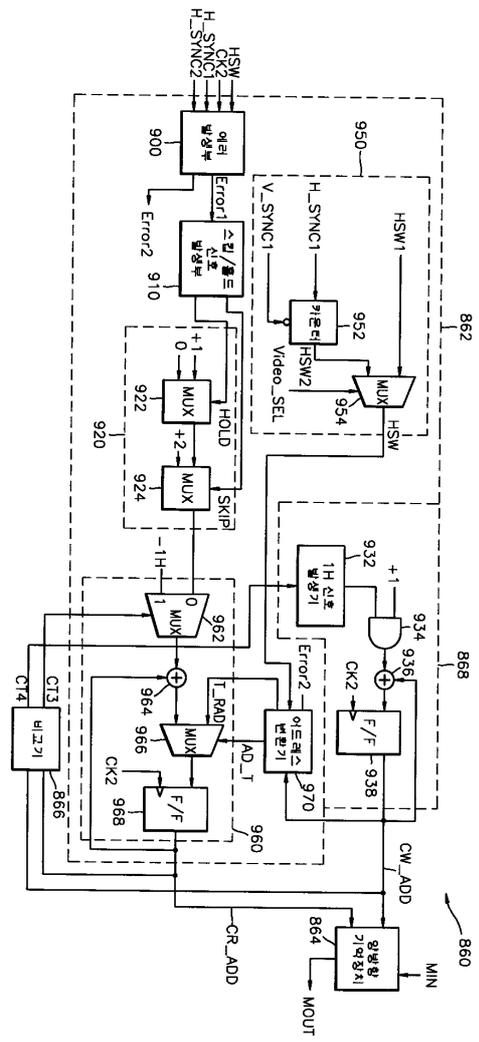
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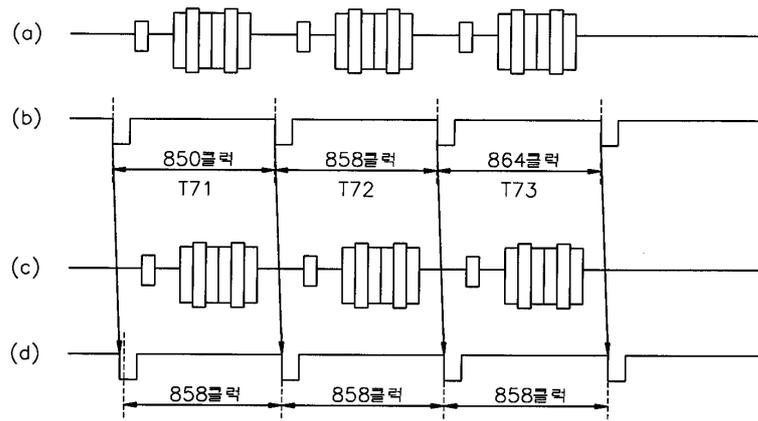
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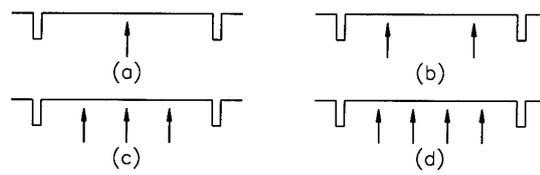


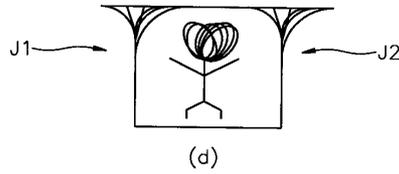
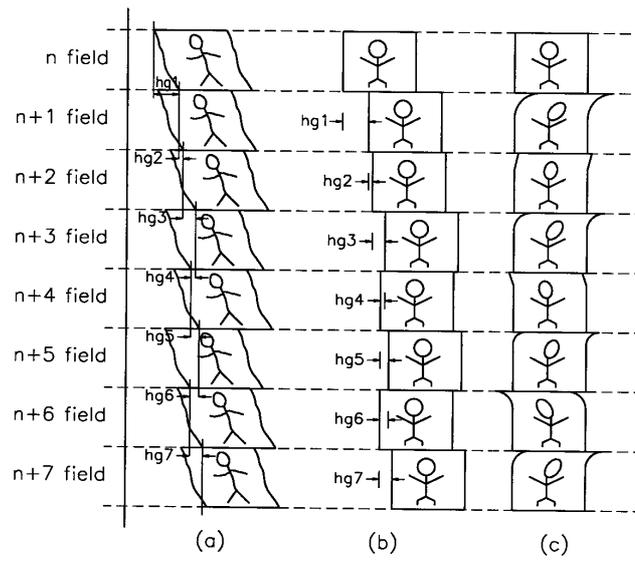


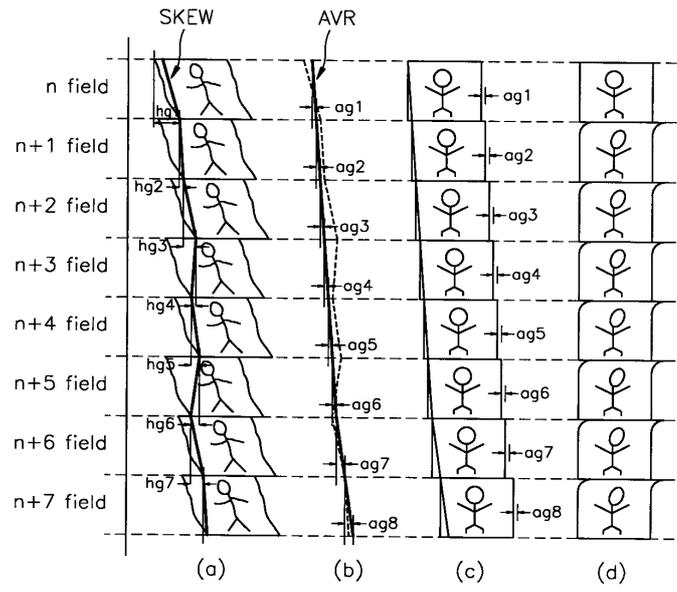
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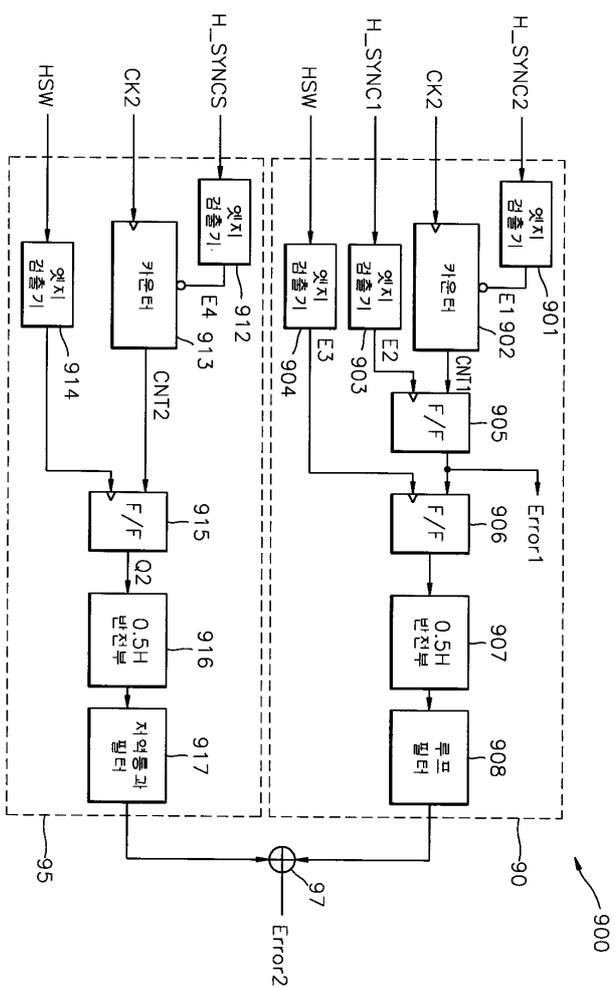


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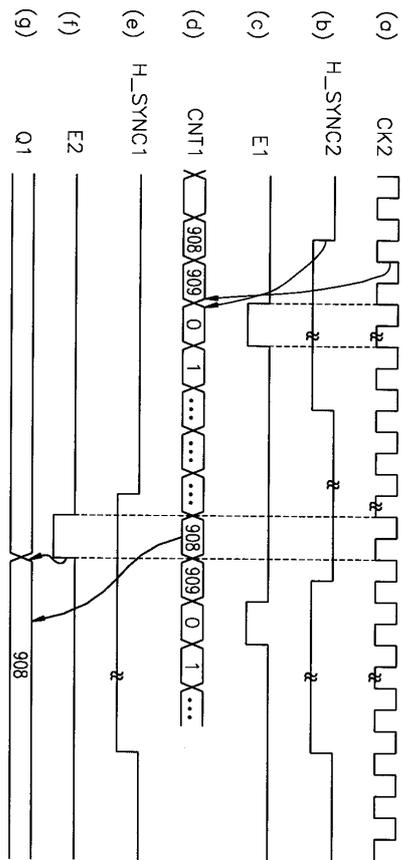




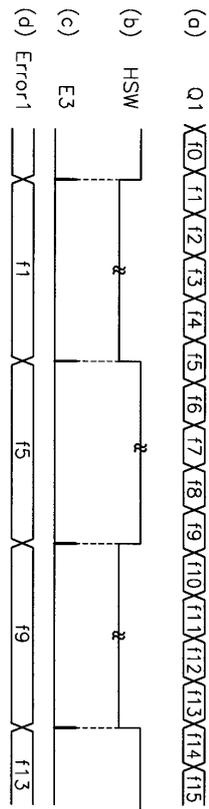




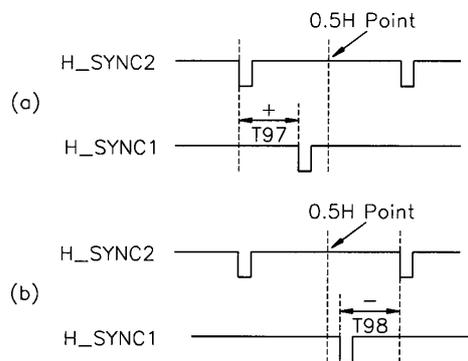
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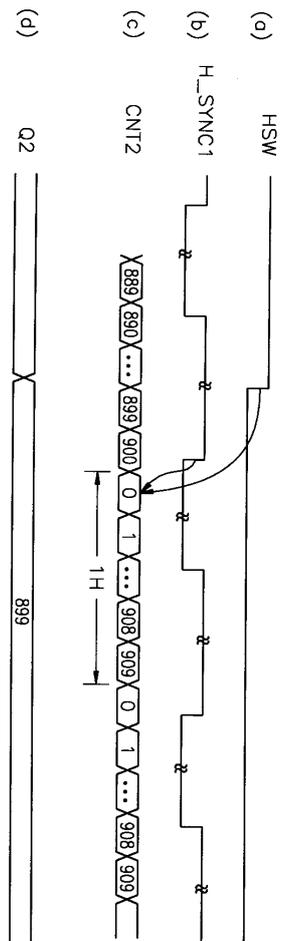
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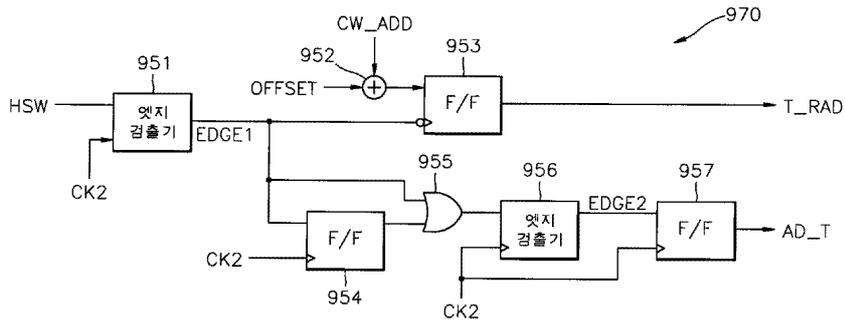
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30



31



32

