

2

, , , MPEG, , , ,

1 / ,

2 3 ,

3 4 3 ,

5 2 ,

6 P VLC ,

7 B VLC ,

8 2 ,

9 3 ,

10 9 ,

11 9 .

* *

300 : 310 :

320 : 400, 500 :

410, 510 : DCT 420, 520 :

430, 530 : VLC 440, 540 :

450, 550 : 460, 730 :

461, 561, 710, 810 : 462, 562, 720, 820 : IDCT

463, 563, 731, 831 : 가 464, 564, 733, 833 :

465 : 466, 735 :

560, 830 : / 565 : /

566, 835 : / 600 :

610 : 620 :

700, 800 : VLD

(viewpoint) 가 (bit rate) 가 (multi-viewpoint) / .

3 / .

ISO/IEC13818 MPEG(Moving Pictures Expert Group)-2 5,6

12,735 5,619,256 , (, ' ') 3 .

(Moving Compensator : MC), DCT(Discrete Cosine Transform), IDCT(Inverse DCT), (Moving Estimator ; ME), (Quantization), (Dequantization), VLC(Variable Length Coder), VLD(Variable Length Decoder) MPEG-2

(Disparity Estimation : ME) (Disparity Compensation : MC)

ability) (base layer) MPEG-2 TS(Temporal Sc (enhanceme nt layer)

1 5,612,735 5,619,256 /

(100) , (100) (200)

(100) , MPEG-2 DCT (110) , (120) , (120) , (130) , DCT (121) , (123) , MPEG-2 DC (125)

(200) , (210) , MPEG-2 DCT (220) , (230) , DCT , (231) , DC (233)

가 / (100) DCT (110)가 MP (140)

EG-2 , (120) (121) (123)

(125) DCT (121) (120) (121) DCT (110) DCT (123)
 (121) (Disparity vector) ,
 DCT (125) .

(110) (123) (121) DCT
 DCT (125) . ,
 DCT (125) (121) MPEG-2 (123)
 , DCT MPEG-2 (125)
 , (130) .

(110) (130) MPEG-2 DCT (125) DCT (210)
 , (200) (210)
 .

(200) (210) (130)
 CT (230) DCT (230) DCT (220) , D (230)
 , DCT (220) MPEG-2 (230)
 3) .

(210) DCT (230) DCT (231) (230)
 3) .

(233) DCT (231)가 DCT (220) (233) DCT
 (231) , (233) DCT (231) , DCT
 .

/ 가 2 가 2 / / 가

MPEG-2 / .

6 9 3 3 , 3 / .
 / .
 가 / 3 가
 . / , 12 ,
 6 MPEG 6 MPEG ,

MPEG , 8 MPEG 3 12 4

, 가,

가, 가,

가, 가,

가, 가,

DCT 가 DCT , 가 가 , VLC 가

VLC 가 , VLC 가

IDCT 가 , 가 가 , IDCT 가 IDCT ,가 가

가 , 가 ,

가 가

가 가

, VLC 가 DCT 가 DCT , 가 가 , VLC 가

VLC 가 ,

/ ,

가 / , IDCT 가 IDCT ,가 가 /

가 , 가 ,

가 가

가 가

가 가

가 가

T 가 IDCT , IDCT VLD 가 VLD , 가 , IDC

, IDCT 가 가 가

가 가

가

가 , IDCT 가 IDCT , IDCT VLD 가 VLD , VLD 가

/ ,가 , IDCT 가 가가

/ 가 / 가 /

/ B , B P 가, I , B

, B P 가, I B ,

P B , B P 가, I , B , B

, P 가 , I P

, 2 11 /

2 3 3

(300), 3 (310) (310)

(300) , (ME) (MC)

(310) (ME) (310) (MC) (310) ,

(DE) (DC) (300) (ME) (MC)

(DC) (300) (320) (DE)

3 , ,

MPEG2 (Intracoding : I) , (I

ntercoding : P B)

DCT , VLC

, I IDCT ,

(forward estimation) P , (backward esti

mation) B

I P B ,

I 가 B P

00)가, I B , B P (310) (320) (300)가 (320) (310)

I P B 4 , B P (310) (320) (300)가 , B , B (320) I P

가

5 2 (300) (400) , (400) DCT

DCT (410) , DCT (410) VLC(Variable Length Coding) VLC

(420) , (420) (440) , (440)

(440) (450) , (420)

(420) (400) (320)

(460)

(461) (460) , (420) (461) , 가 (3)

10) IDCT IDCT (462) , IDCT (462) 가 (463) , 가 (463)가 (464) , (464) (465) , (464)

464) (400) (465) 가 (463) (466)

(300) , (460)

(400)가 (400) VLC (430) VL

C가 DCT (410) DCT , (420) (440)

, VLC (430) 6 (forward predicted) VLC 7 , P (bidirectional predicted) VLC VLC

(440) (420) DCT (410) (450)가

가 IDCT (420) IDCT (462) (460) 가 (463) (461)가 , IDCT (462) 가 (310) (463) (310)

B , B P 2

(464) 2

(464) (465)가 (466)

가 (464) (463) IDCT (462) 가 (466)

(400)

8 2 (310) (320)

(500) DCT DCT (510) , DCT (510) (520) , (520)

VLC VLC (530) , VLC (530) VLC

(540) , (540) (520) (550) , (52

0) (300)가 (560) (500)

/ (561) (560) , IDCT (520) IDCT (562) , IDCT (562) (561) , 가 (5

63)가 (563) , (564) (564) , (564)

/ (565) , (300) (564)

(565) / (564)

(500) 가 (563) (566)

/ (560) (310) (320) , (500)가 DCT (510)가 DCT (520)가

VLC (530)가 VLC VLC VLC (540)

(540) (520) DCT (510) (550)가

IDCT (520) IDCT (562) IDCT / 가 (560) (561)가 , IDCT (562)가

(563) (563) (563) / 가 (563) / 가 (565)가

(300) (564) / (564) (566)

, / (566) , (564) 가 (563) IDCT

(562) 가 (500)

, (564) (464) 가 2

9 3 (600), (610) (620)

(600) , (610) (620) (610) ,
 (600)가 (610) , (62
 0) , (600)가

10 9 (600)
 VLD (710) VLD (700) IDCT (730) , VLD (700) IDCT (720) , IDCT (720) (710) ,

가 (731) , (730) , IDCT (720) 가 (610)
 (620) 가 (731)가 (733) , (733) 가 (731) (735)

(600) , VLD (700)가 VLD
 (710)가 , IDCT (720)가 IDCT
 IDCT (720) (730) 가 (731) 가
 (610)(620) 가 (731) (733) (735)가

11 9 (610) (620)
 (810) , VLD (810) VLD (800) , VLD (800)
 (600)가 IDCT (820) , IDCT (820)
 / (830)
 / (830) , IDCT (820) 가 (833) ,
 (833) 가 (831) , 가 (831) (600) 가 (831)
 / (835) /

DCT VLD(800)가 VLD (610) (620) (810)가 , IDCT (820)가 I

IDCT (820) / (830) 가 (831) / (83
 3) 가 (733) / (735)가
 가 (831)

/ 가

MPEG-2 가 , ,
 가

1.

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가

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가

2.

1 , ;

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DCT DCT ;

DCT

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VLC VLC VLC ;

VLC

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3.

2 , ;

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IDCT IDCT ;

IDCT

가

가 ;

가 가

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가

4.

1 , ;

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DCT DCT ;

DCT

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VLC

VLC

VLC ;

VLC

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5.

4

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IDCT

IDCT ;

IDCT

/

가

가 ;

가 가

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가 /

6.

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가

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가

7.

6

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VLD VLD ;

VLD

;

IDCT IDCT ;

IDCT

8.

7

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;

IDCT

가

가 ;

가 가 ;

가

6 9.

VLD VLD ;

VLD ;

IDCT IDCT ;

IDCT

가 /

9 10.

IDCT

가

가 ;

가 ;

/ / / 가

11.

P

가,

I

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P

B

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가,

가

I

B

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12.

P

가,

I

, B

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B

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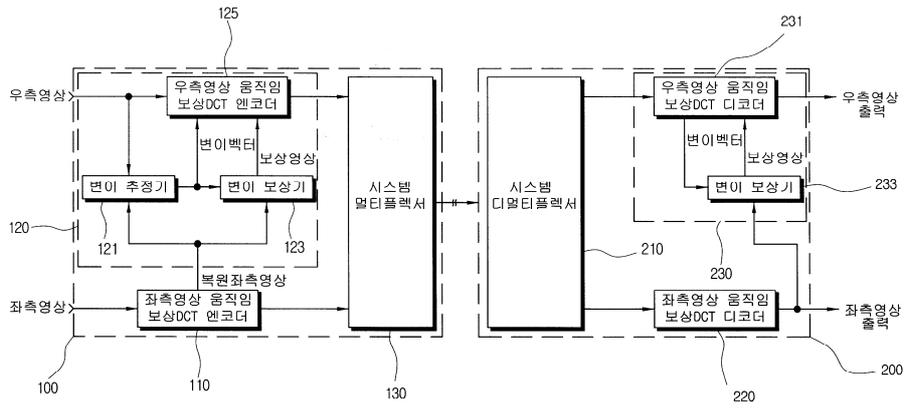
가 ,

/

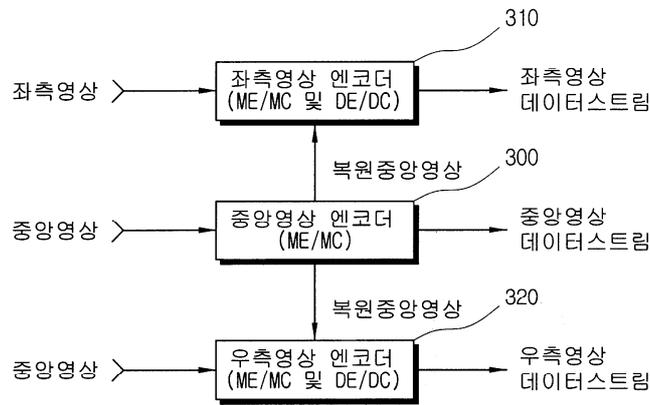
I

P

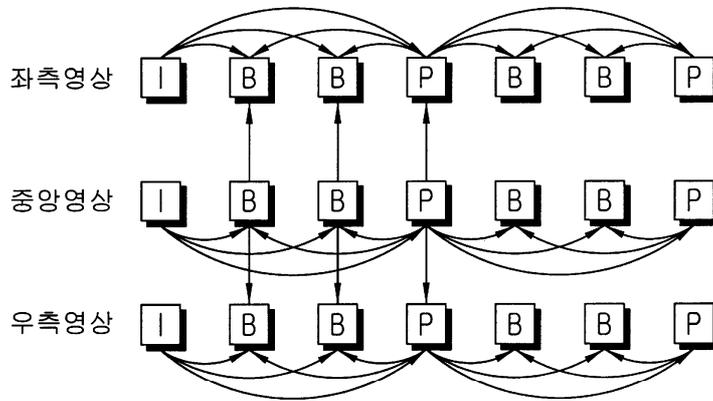
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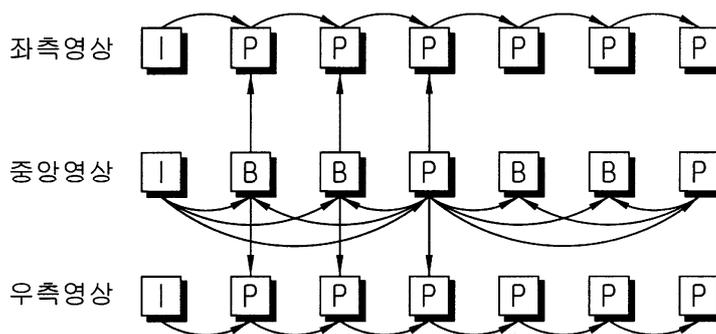
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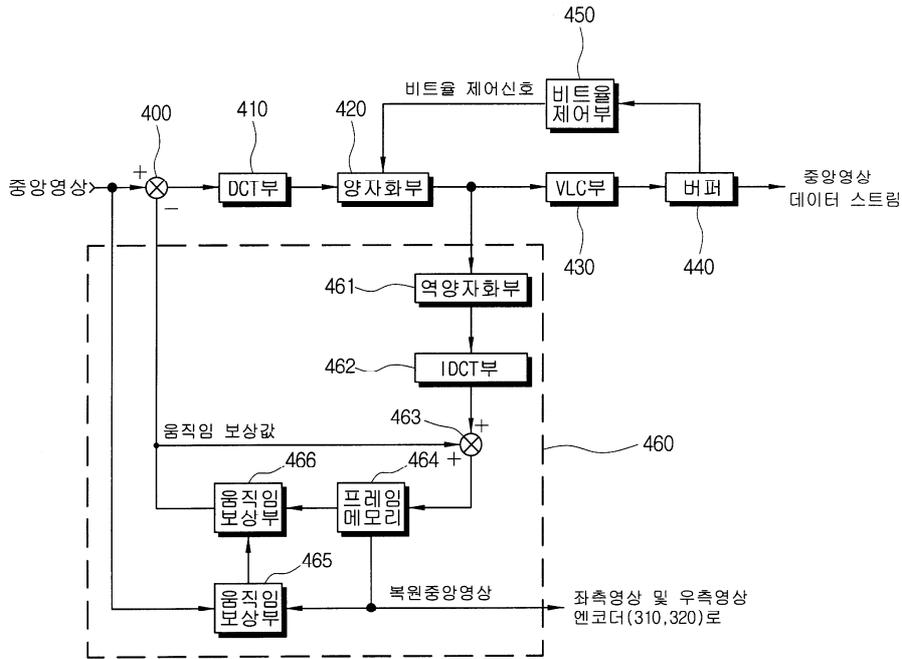
3



4



5



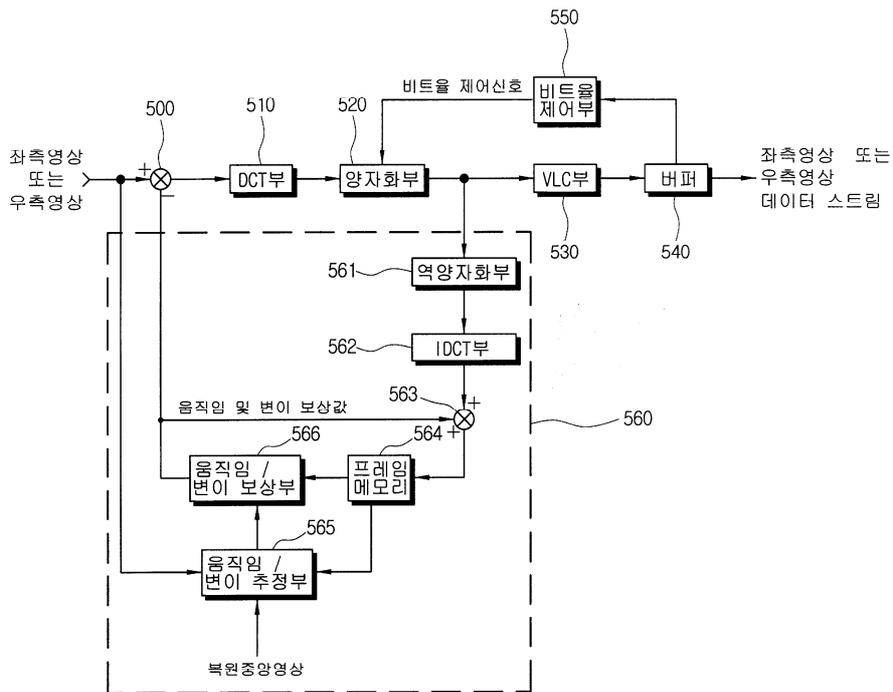
6

macroblock_type	VLC code								
	macroblock_disparity								
	macroblock_quant								
	macroblock_motion_forward								
	macroblock_motion_backward								
	macroblock_pattern								
	macroblock_intra								
	spatial_temporal_weight_code_flag								
	permitted spatial_temporal_weight_classes								
	Description								
10	1	0	1	0	0	0	0	Interp(For, Disp), Not coded	0
11	1	0	1	0	1	0	0	Interp(For, Disp), coded	0
010	0	0	1	0	1	0	0	For, coded	0
011	0	0	1	0	0	0	0	For, Not coded	0
0010	1	0	0	0	0	0	0	Disp, Not coded	0
0011	1	0	0	0	1	0	0	Disp, Coded	0
0001 0	1	1	1	0	1	0	0	Interp(For, Disp), Coded, Quant	0
0001 1	0	0	0	0	0	1	0	Intra	0
0000 01	1	0	0	0	0	1	0	Intra, Quant	0
0000 10	0	1	1	0	1	0	0	For, Coded, Quant	0
0000 11	1	1	0	0	1	0	0	Disp, Coded, Quant	0

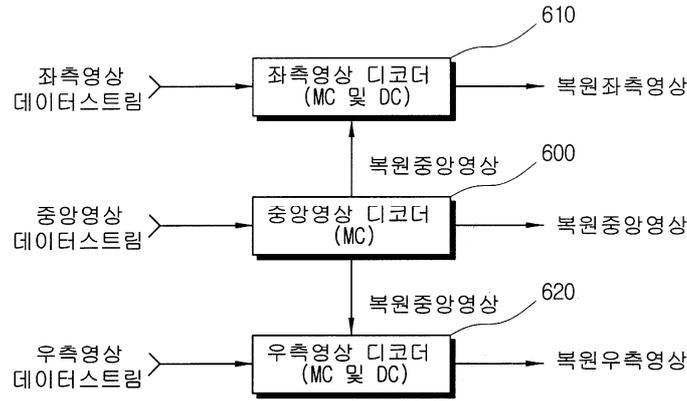
7

macroblock_type VLC code									
macroblock_disparity									
macroblock_quant									
macroblock_motion_forward									
macroblock_motion_backward									
macroblock_pattern									
macroblock_intra									
spatial_temporal_weight_code_flag									
permitted spatial_temporal_weight_classes									
Description									
10	0	0	1	1	0	0	0	Interp(For, Back), Not coded	0
11	0	0	1	1	1	0	0	Interp(For, Back), Coded	0
0010	1	0	0	1	1	0	0	Interp(Back, Disp), Coded	0
0011	1	0	0	1	0	0	0	Interp(Back, Disp), Not coded	0
0100	1	0	1	0	1	0	0	Interp(For, Disp), Coded	0
0101	1	0	1	0	0	0	0	Interp(For, Disp), Not coded	0
0110	1	0	1	1	1	0	0	Interp(For, Back, Disp), Coded	0
0111	1	0	1	1	0	0	0	Interp(For, Back, Disp), Not coded	0
0001 00	0	0	1	0	0	0	0	For, Not coded	0
0001 01	0	0	1	0	1	0	0	For, Coded	0
0001 10	0	0	0	1	0	0	0	Back, Not coded.	0
0000 11	0	0	0	1	1	0	0	Back, Coded.	0
0000 100	0	0	0	0	0	1	0	Intra	0
0000 101	0	1	1	1	1	0	0	Interp(For, Back), Coded, Quant	0
0000 110	1	0	0	0	0	0	0	Disp, Not coded	0
0000 111	1	0	0	0	1	0	0	Disp, Coded	0
0000 0100	1	1	1	0	1	0	0	Interp(For, Disp), Coded, Quant	0
0000 0101 0	1	1	1	1	1	0	0	Interp(For, Back, Disp), Coded, Quant	0
0000 0101 1	1	1	0	1	1	0	0	Interp(Back, Disp), Coded, Quant	0
0000 0110 0	0	1	1	0	1	0	0	For, Coded, Quant	0
0000 0110 1	0	1	0	1	1	0	0	Back, Coded, Quant	0
0000 0111 0	1	1	0	0	1	0	0	Disp, Coded, Quant	0
0000 0111 11	0	1	0	0	0	1	0	Intra, Quant	0

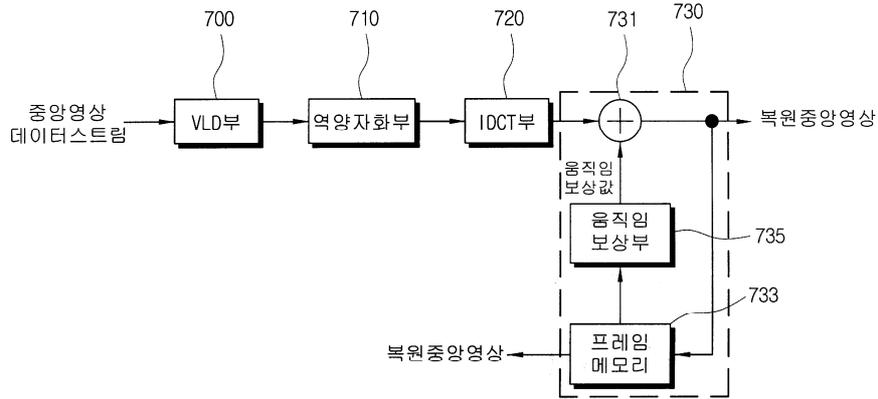
8



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10



11

