FIG. 1A

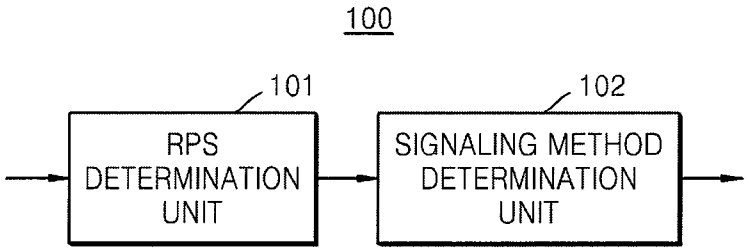

100
101
RPS DETERMINATION UNIT
102
SIGNALING METHOD DETERMINATION UNIT

FIG. 1B

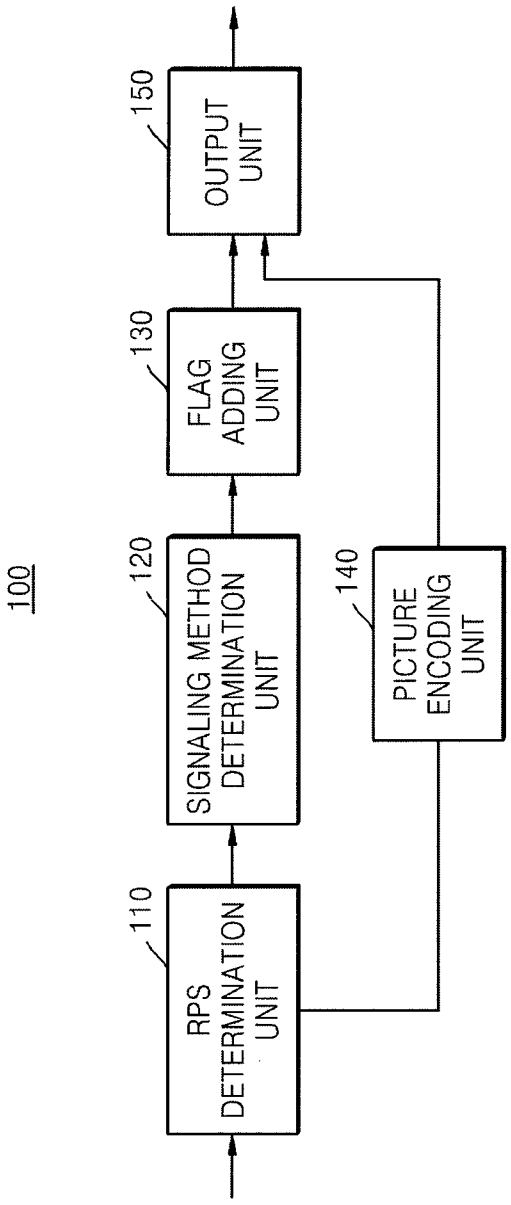

100
110
RPS DETERMINATION UNIT
120
SIGNALING METHOD DETERMINATION UNIT
130
FLAG ADDING UNIT
140
PICTURE ENCODING UNIT
150
OUTPUT UNIT

FIG. 2A

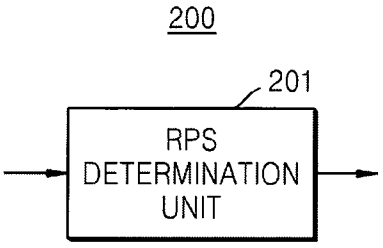

200
201
RPS DETERMINATION UNIT

FIG. 2B

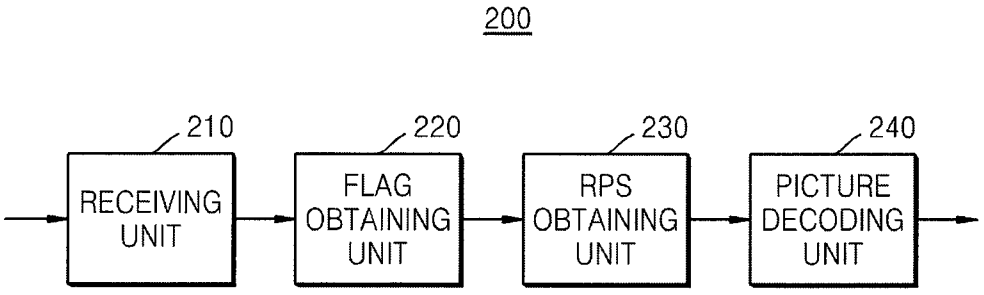

200
210
RECEIVING UNIT
220
FLAG OBTAINING UNIT
230
RPS OBTAINING UNIT
240
PICTURE DECODING UNIT

FIG. 3

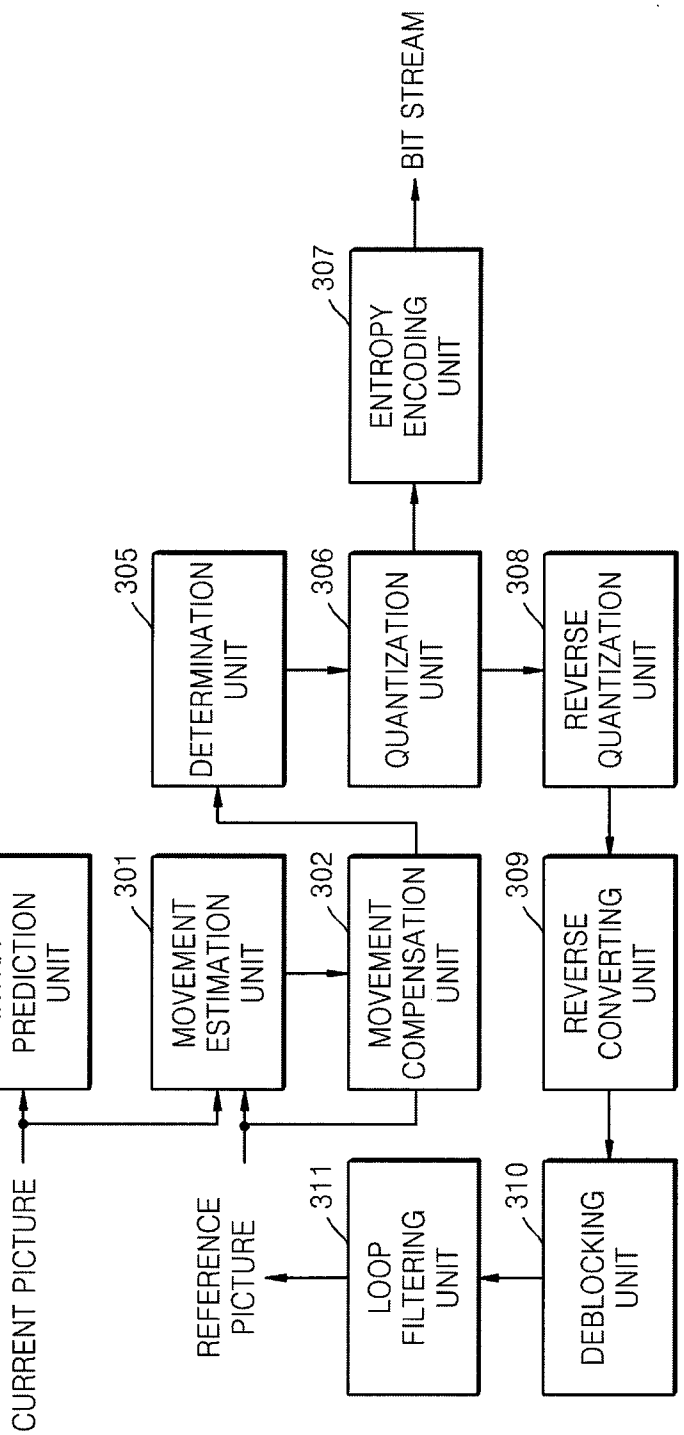

CURRENT PICTURE
303
INTRA-PREDICTION UNIT
301
MOVEMENT ESTIMATION UNIT
302
MOVEMENT COMPENSATION UNIT
305
DETERMINATION UNIT
306
QUANTIZATION UNIT
307
ENTROPY ENCODING UNIT
BIT STREAM
308
REVERSE QUANTIZATION UNIT
309
REVERSE CONVERTING UNIT
310
DEBLOCKING UNIT
311
LOOP FILTERING UNIT
REFERENCE PICTURE

FIG. 4

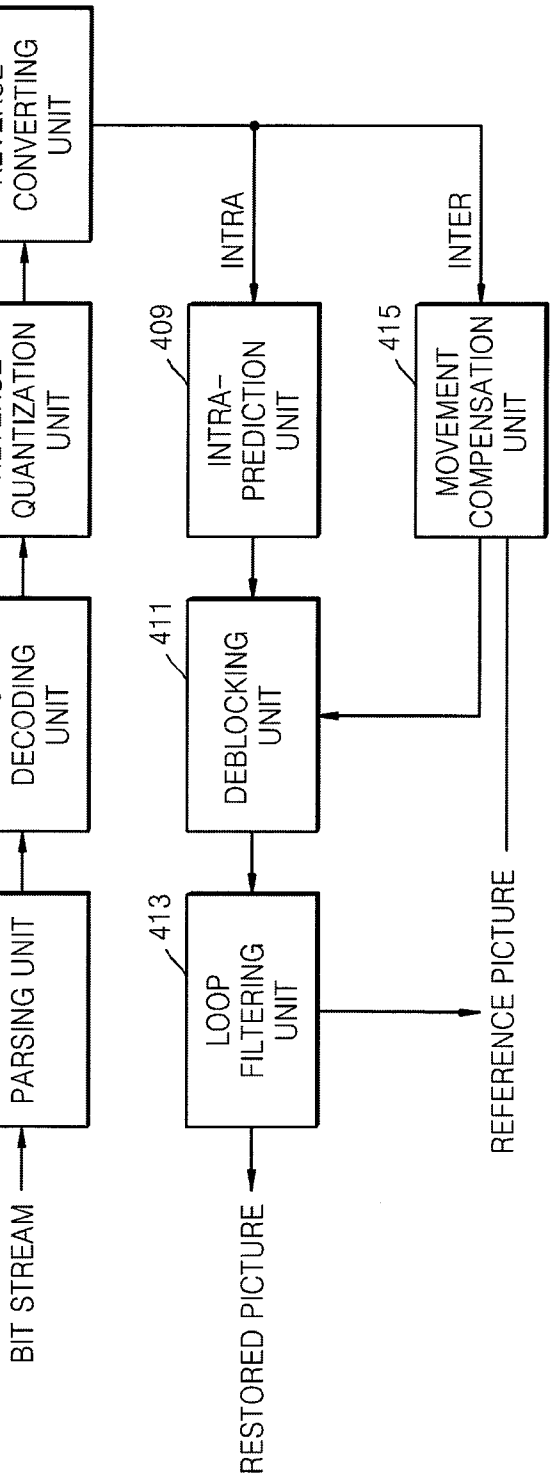

BIT STREAM
401
PARSING UNIT
403
ENTROPY DECODING UNIT
405
REVERSE QUANTIZATION UNIT
407
REVERSE CONVERTING UNIT
INTRA
INTER
409
INTRA-PREDICTION UNIT
415
MOVEMENT COMPENSATION UNIT
411
DEBLOCKING UNIT
413
LOOP FILTERING UNIT
RESTORED PICTURE
REFERENCE PICTURE

FIG. 5

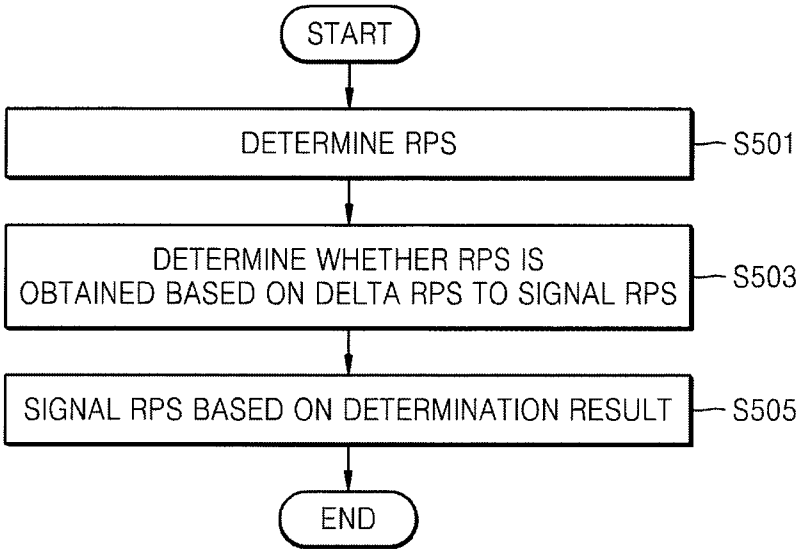

START
DETERMINE RPS
S501
DETERMINE WHETHER RPS IS OBTAINED BASED ON DELTA RPS TO SIGNAL RPS
S503
SIGNAL RPS BASED ON DETERMINATION RESULT
S505
END

FIG. 6

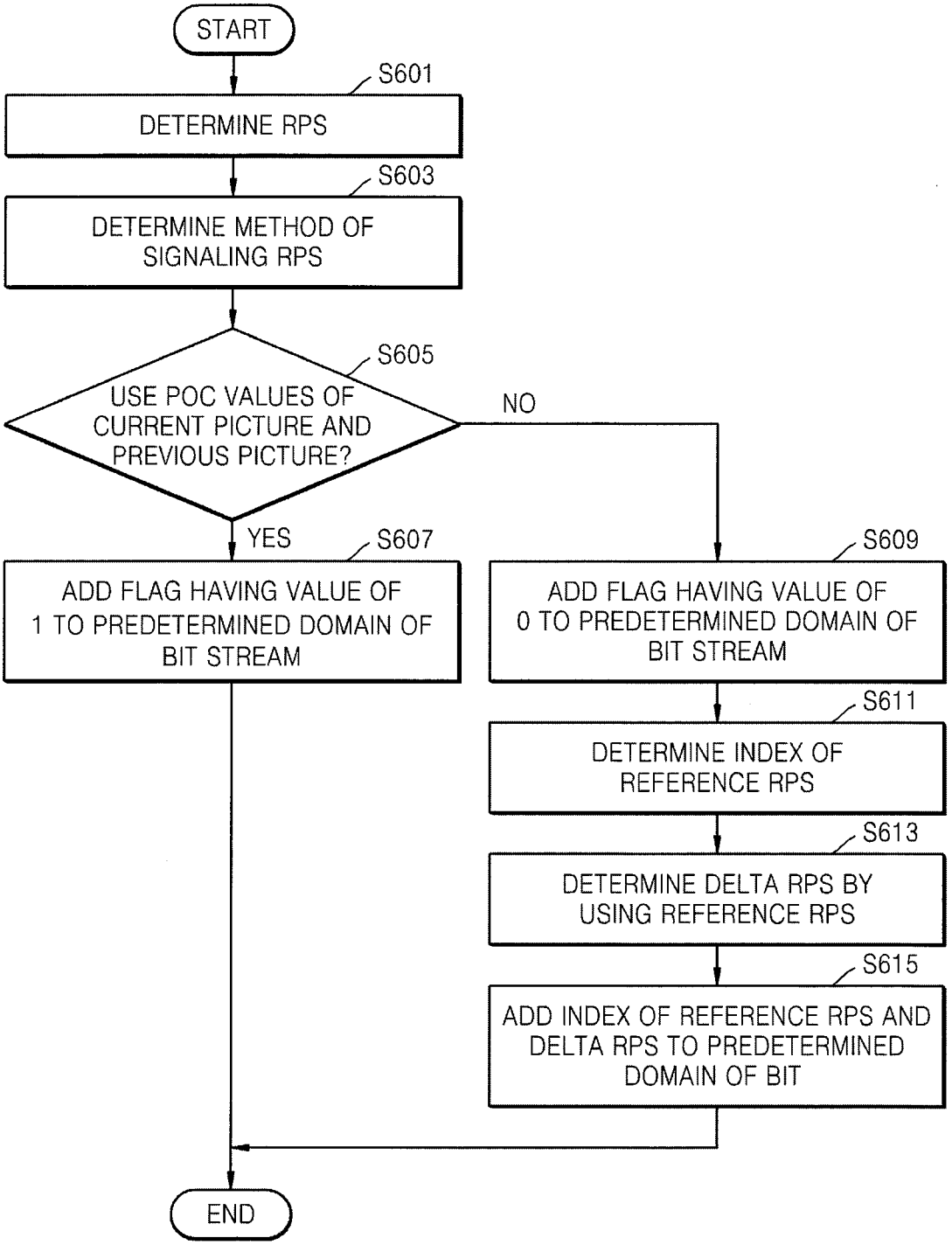

START
S601
DETERMINE RPS
S603
DETERMINE METHOD OF SIGNALING RPS
S605
USE POC VALUES OF CURRENT PICTURE AND PREVIOUS PICTURE?
NO
YES
S607
ADD FLAG HAVING VALUE OF 1 TO PREDETERMINED DOMAIN OF BIT STREAM
S609
ADD FLAG HAVING VALUE OF 0 TO PREDETERMINED DOMAIN OF BIT STREAM
S611
DETERMINE INDEX OF REFERENCE RPS
S613
DETERMINE DELTA RPS BY USING REFERENCE RPS
S615
ADD INDEX OF REFERENCE RPS AND DELTA RPS TO PREDETERMINED DOMAIN OF BIT
END

FIG. 7

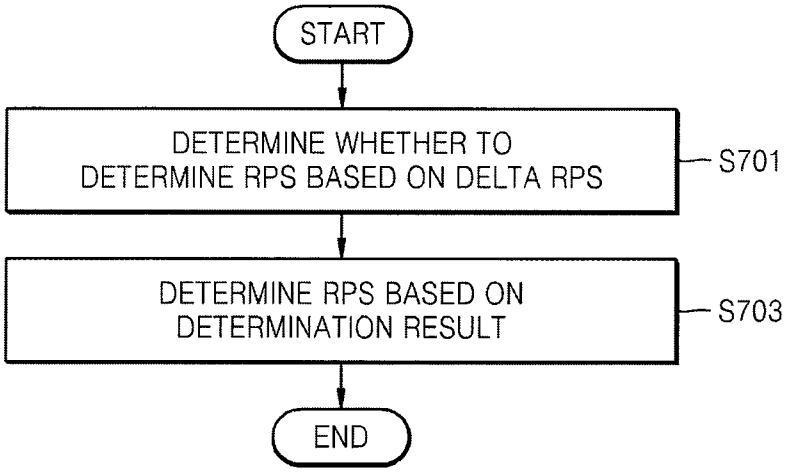

START
DETERMINE WHETHER TO DETERMINE RPS BASED ON DELTA RPS
S701
DETERMINE RPS BASED ON DETERMINATION RESULT
S703
END

FIG. 8

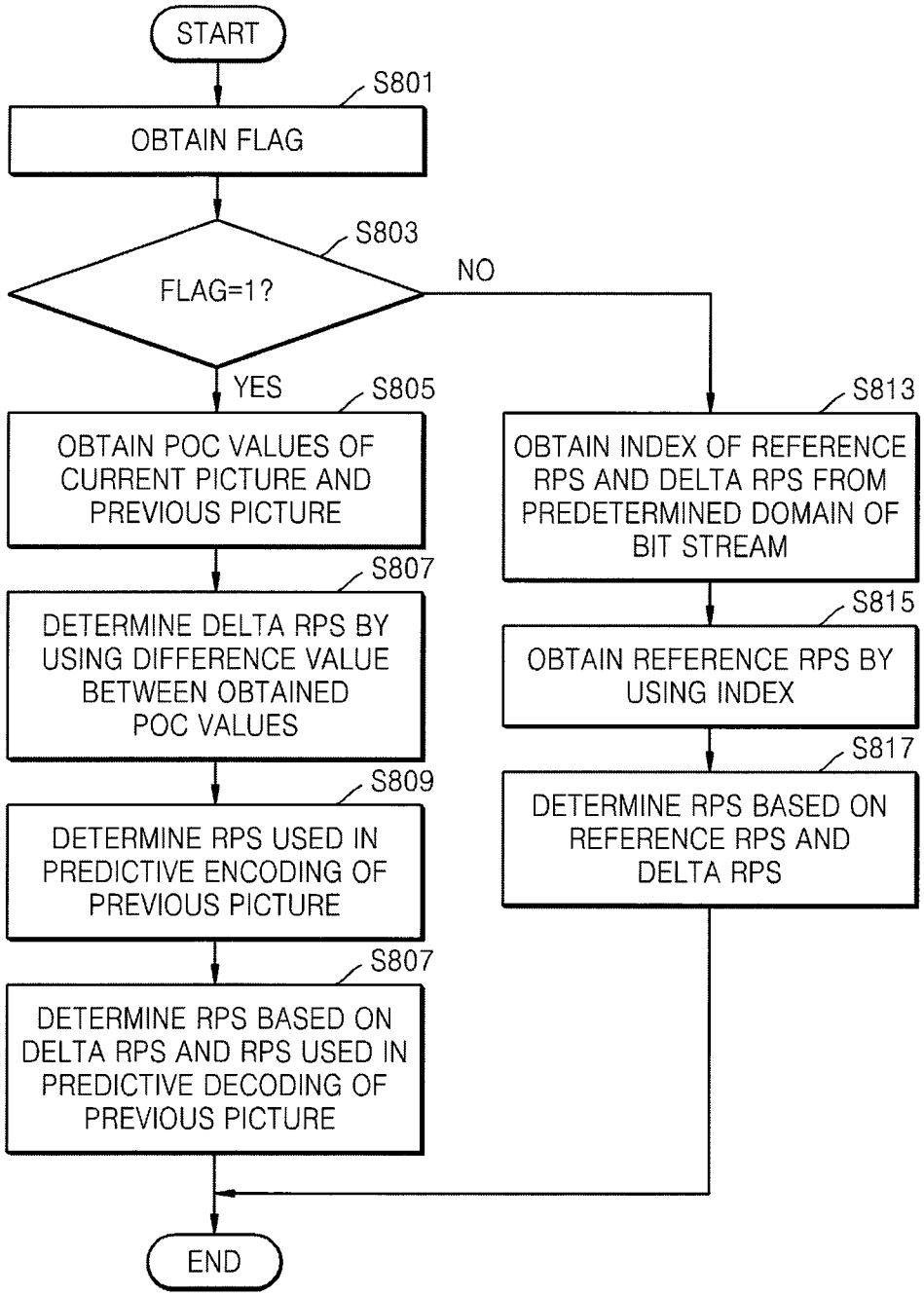

START
S801
OBTAIN FLAG
S803
FLAG=1?
NO
YES
S805
OBTAIN POC VALUES OF CURRENT PICTURE AND PREVIOUS PICTURE
S807
DETERMINE DELTA RPS BY USING DIFFERENCE VALUE BETWEEN OBTAINED POC VALUES
S809
DETERMINE RPS USED IN PREDICTIVE ENCODING OF PREVIOUS PICTURE
S807
DETERMINE RPS BASED ON DELTA RPS AND RPS USED IN PREDICTIVE DECODING OF PREVIOUS PICTURE
S813
OBTAIN INDEX OF REFERENCE RPS AND DELTA RPS FROM PREDETERMINED DOMAIN OF BIT STREAM
S815
OBTAIN REFERENCE RPS BY USING INDEX
S817
DETERMINE RPS BASED ON REFERENCE RPS AND DELTA RPS
END

FIG. 9

1	num_short_term_ref_pic_sets	ue(v)
	for(i=0;i<num_short_term_ref_pic_sets;i++)	
3	short_term_ref_pic_set(i)	
	long_term_ref_pics_present_flag	u(1)

FIG. 10

5	short_term_ref_pic_set_sps_flag	u(1)
	if(!short_term_ref_pic_set_sps_flag)	
7	short_term_ref_pic_set(num_short_term_ref_pic_sets)	
	else	
	short_term_ref_pic_set_idx	u(v)
	if(long_term_ref_pics_persent_flag){	
	num_long_term_pics	ue(v)
	for(i=0;i<num_long_term_pics;i++){	
	delta_poc_lsb_lt[i]	ue(v)
	delta_poc_msb_present_flag[i]	u(1)
	if(delta_poc_msb_present_flag[i])	
	delta_poc_msb_cycle_lt_minus1[i]	ue(v)
	used_by_curr_pic_lt_flag[i]	u(1)
	}	
	}	

FIG. 11

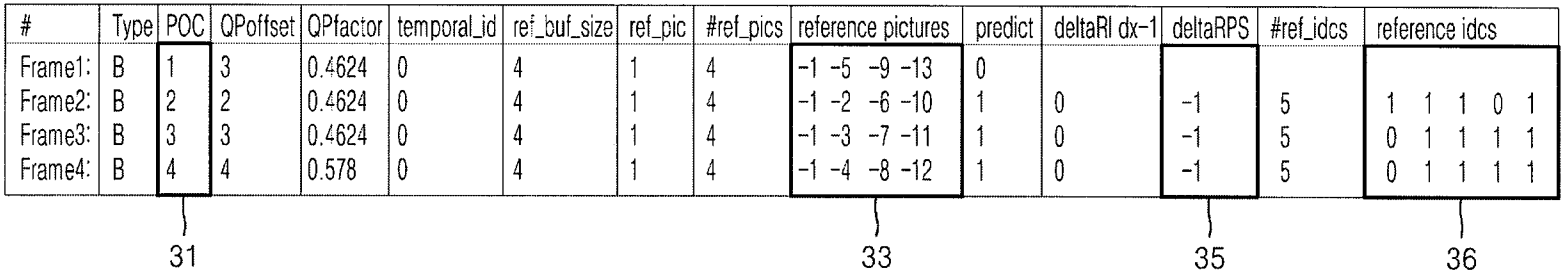
	short_term_ref_pic_set(idx) {	Descriptor
9	inter_ref_pic_set_prediction_flag	u(1)
11	if(inter_ref_pic_set_prediction_flag) {	
13	if(idx==num_short_term_ref_pic_sets)	
15	derived_delta_rps_flag	u(1)
17	if(!derived_delta_rps_flag) {	
19	delta_idx_minus1	ue(v)
21	delta_rps_sign	u(1)
23	abs_delta_rps_minus1	ue(v)
	}	
	for(j=0;j<=NumDeltaPocs[RIdx];j++) {	
	used_by_curr_pic_flag[j]	u(1)
	if(!used_by_curr_pic_flag[j])	
	use_delta_flag[j]	u(1)
	}	
	}	
	else {	
	num_negative_pics	ue(v)
	num_positive_pics	ue(v)
	for(i=0;i<num_negative_pics;i++) {	
	delta_poc_s0_minus1[i]	ue(v)
	used_by_curr_pic_s0_flag[i]	u(1)
	}	
	for(i=0;i<num_negative_pics;i++) {	
	delta_poc_s1_minus1[i]	ue(v)
	used_by_curr_pic_s1_flag[i]	u(1)
	}	
	}	
	}	

FIG. 12A

#	Type	POC	QPoffset	QPfactor	temporal_id	ref_buf_size	ref_pic	#ref_pics	reference pictures	predict	deltaRI dx-1	deltaRPS	#ref_idcs	reference idcs
Frame1:	B	8	1	0.442	0	4	1	4	-8 -10 -12 -16	0	0			
Frame2:	B	4	2	0.3536	0	2	1	3	-4 -6 4	1	0	4	5	1 1 0 0 1
Frame3:	B	2	3	0.3536	0	2	1	4	-2 -4 2 6	1	0	2	4	1 1 1 1
Frame4:	B	1	4	0.68	0	2	0	4	-1 1 3 7	1	0	1	5	1 0 1 1 1
Frame5:	B	3	4	0.68	0	2	0	4	-1 -3 1 5	1	0	-2	5	1 1 1 1 0
Frame6:	B	6	3	0.3536	0	2	1	4	-2 -4 -6 2	1	0	-3	5	1 1 1 1 0
Frame7:	B	5	4	0.68	0	2	0	4	-1 -5 1 3	1	0	1	5	1 0 1 1 1
Frame8:	B	7	4	0.68	0	2	0	4	-1 -3 -7 1	1	0	-2	5	1 1 1 1 0

25 27 29 30

FIG. 12B



#	Type	POC	QPoffset	QPfactor	temporal_id	ref_buf_size	ref_pic	#ref_pics	reference pictures	predict	deltaRI dx-1	deltaRPS	#ref_idcs	reference idcs
Frame1:	B	1	3	0.4624	0	4	1	4	-1 -5 -9 -13	0				
Frame2:	B	2	2	0.4624	0	4	1	4	-1 -2 -6 -10	1	0	-1	5	1 1 1 0 1
Frame3:	B	3	3	0.4624	0	4	1	4	-1 -3 -7 -11	1	0	-1	5	0 1 1 1 1
Frame4:	B	4	4	0.578	0	4	1	4	-1 -4 -8 -12	1	0	-1	5	0 1 1 1 1

31 33 35 36