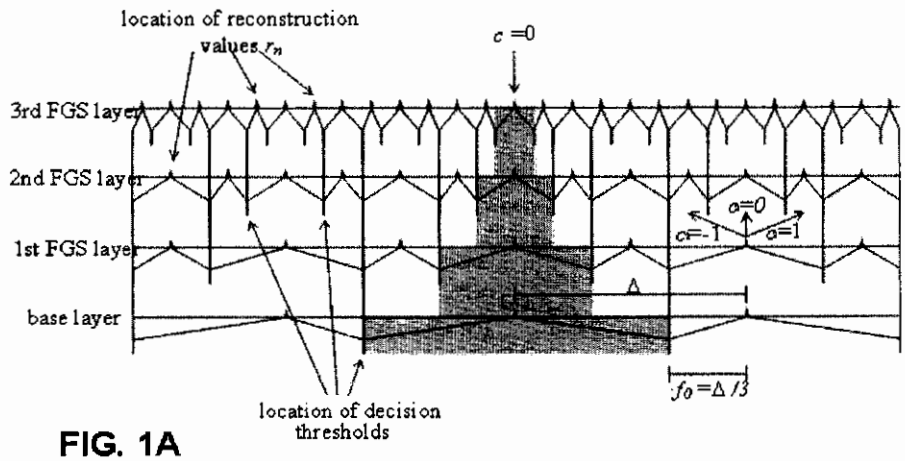

location of reconstruction values r_n
c =0
3rd FGS layer
2nd FGS layer
1st FGS layer
base layer
α=0
α=-1
α=1
Δ
f_0=Δ /3
location of decision thresholds

FIG. 1A

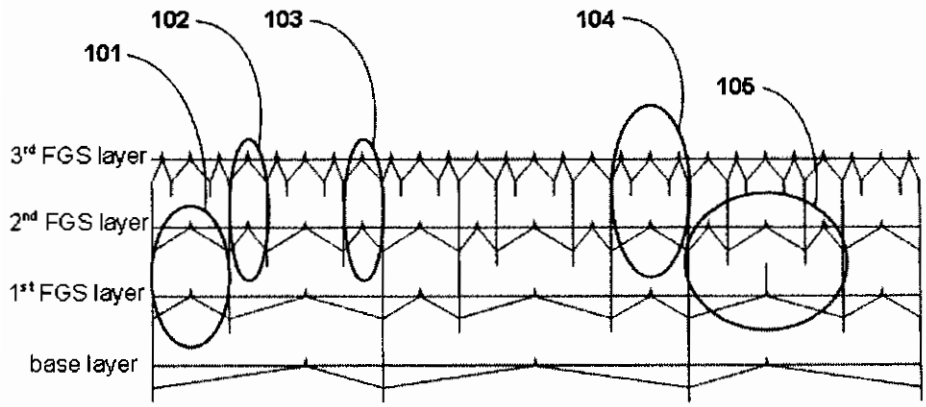

102
103
104
101
105
3rd FGS layer
2nd FGS layer
1st FGS layer
base layer

FIG. 1B

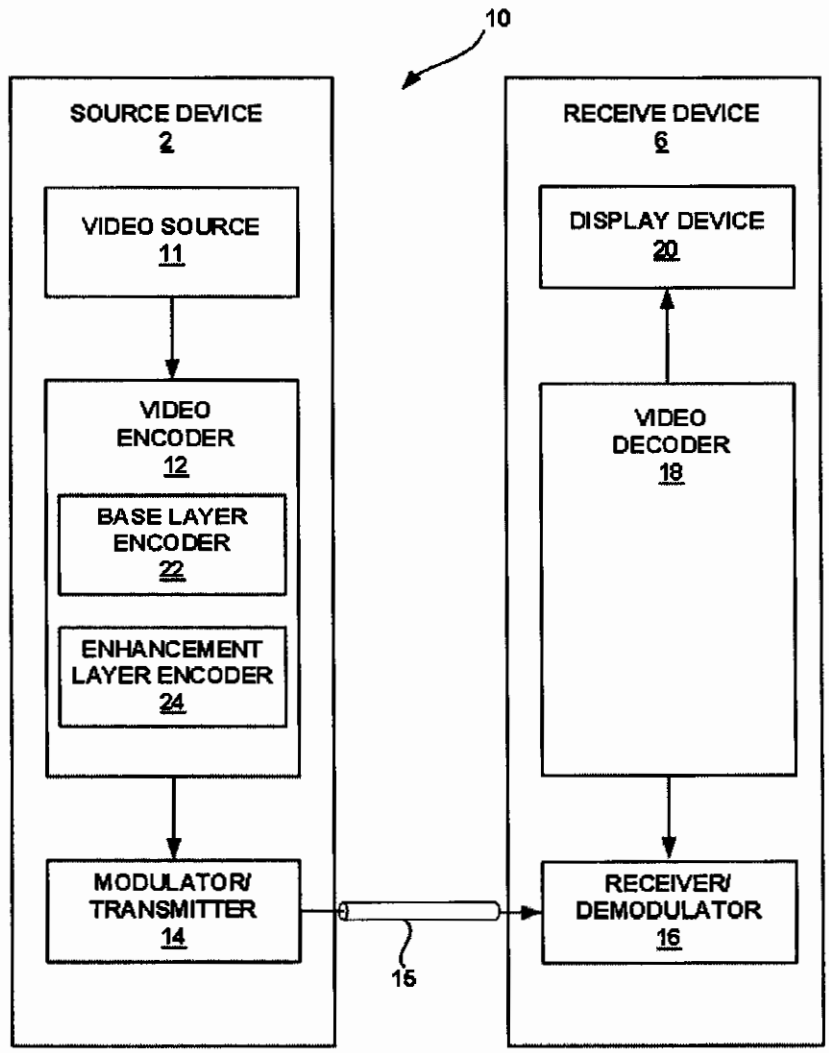

10
SOURCE DEVICE
2
VIDEO SOURCE
11
VIDEO
ENCODER
12
BASE LAYER
ENCODER
22
ENHANCEMENT
LAYER ENCODER
24
MODULATOR/
TRANSMITTER
14
15
RECEIVE DEVICE
6
DISPLAY DEVICE
20
VIDEO
DECODER
18
RECEIVER/
DEMODULATOR
16

FIG. 2

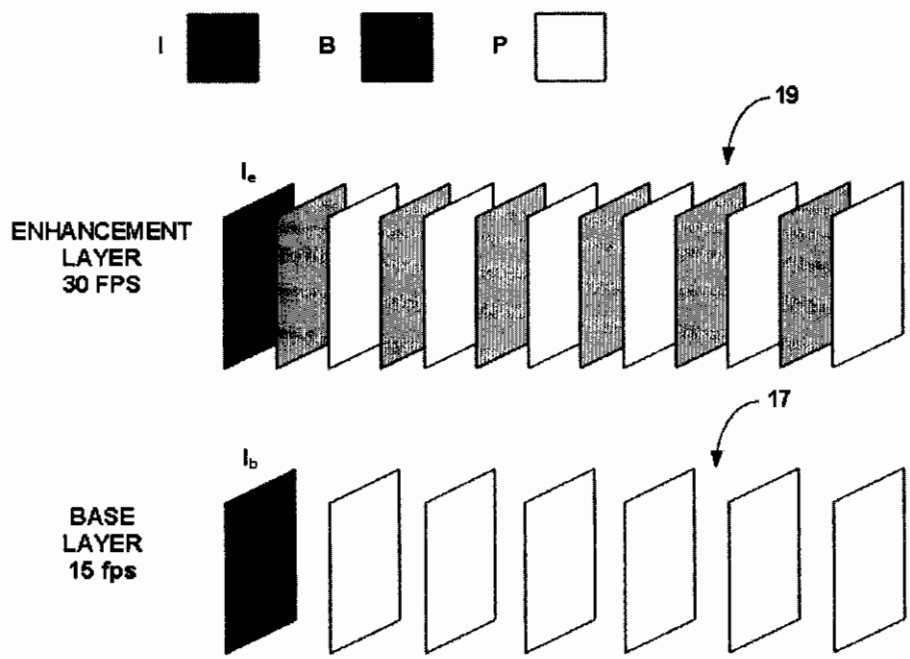
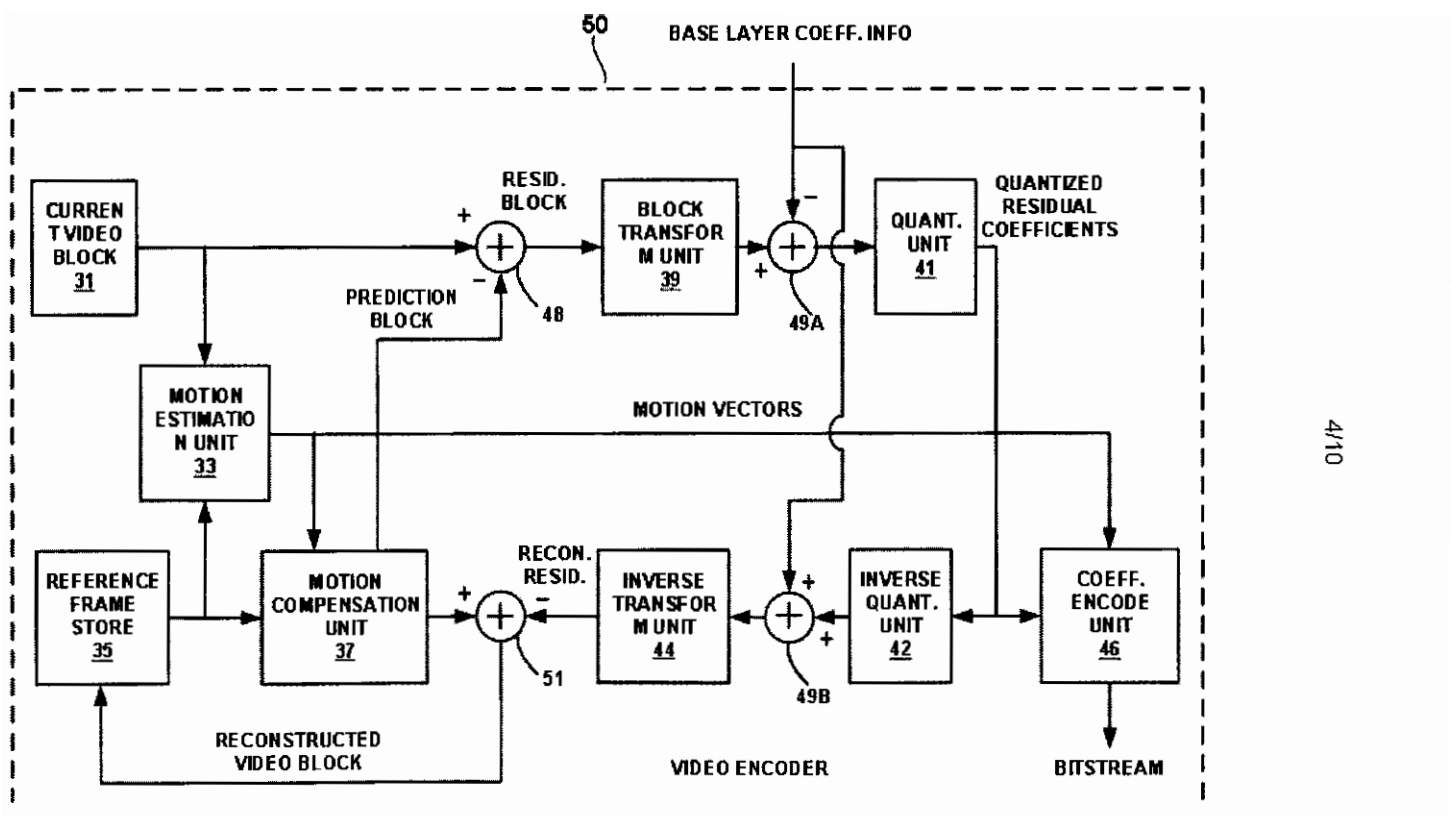


FIG. 3


50
BASE LAYER COEFF. INFO
CURRENT VIDEO BLOCK 31
RESID. BLOCK
BLOCK TRANSFORM UNIT 39
QUANT. UNIT 41
QUANTIZED RESIDUAL COEFFICIENTS
PREDICTION BLOCK
48
49A
MOTION ESTIMATION UNIT 33
MOTION VECTORS
REFERENCE FRAME STORE 35
MOTION COMPENSATION UNIT 37
RECON. RESID.
INVERSE TRANSFORM UNIT 44
INVERSE QUANT. UNIT 42
COEFF. ENCODE UNIT 46
51
49B
RECONSTRUCTED VIDEO BLOCK
VIDEO ENCODER
BITSTREAM

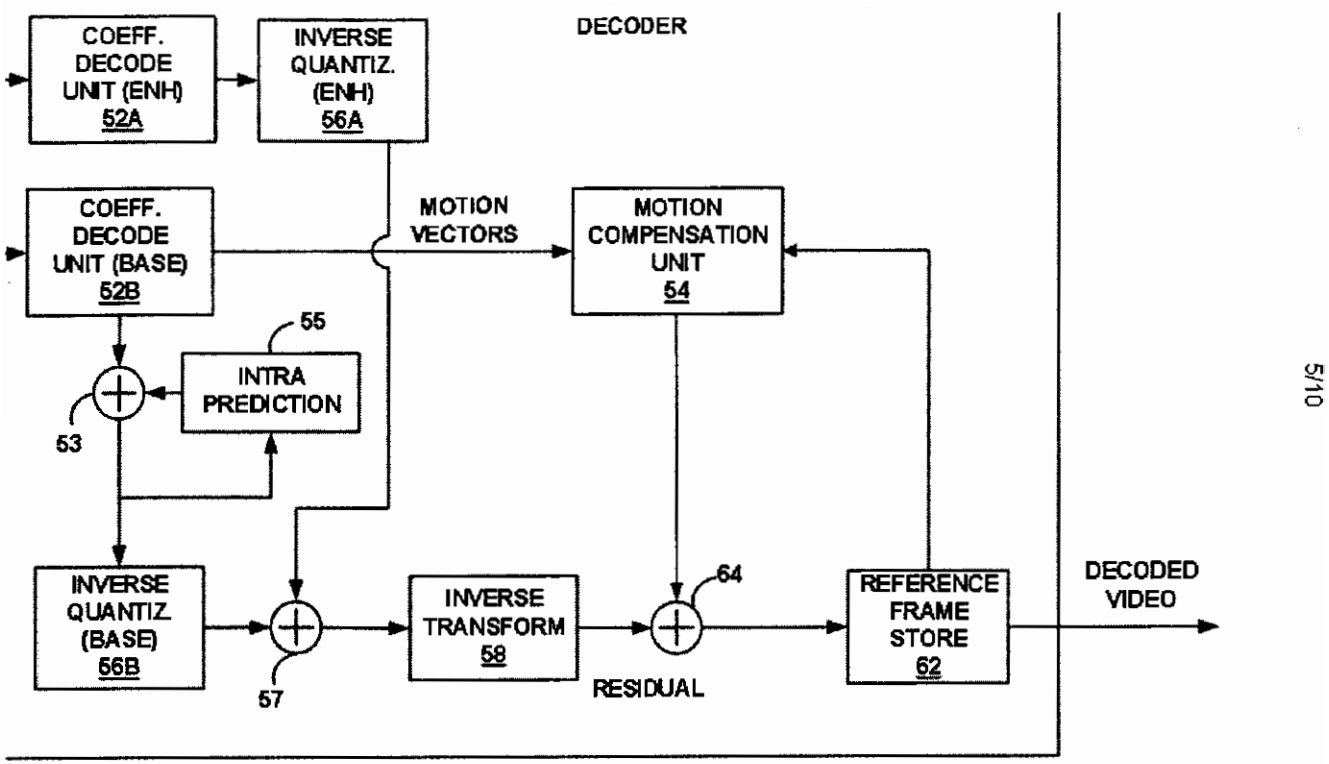

DECODER
COEFF. DECODE UNIT (ENH) 52A
INVERSE QUANTIZ. (ENH) 56A
COEFF. DECODE UNIT (BASE) 52B
MOTION VECTORS
MOTION COMPENSATION UNIT 54
55
INTRA PREDICTION
53
INVERSE QUANTIZ. (BASE) 56B
57
INVERSE TRANSFORM 58
64
RESIDUAL
REFERENCE FRAME STORE 62
DECODED VIDEO

FIG. 5

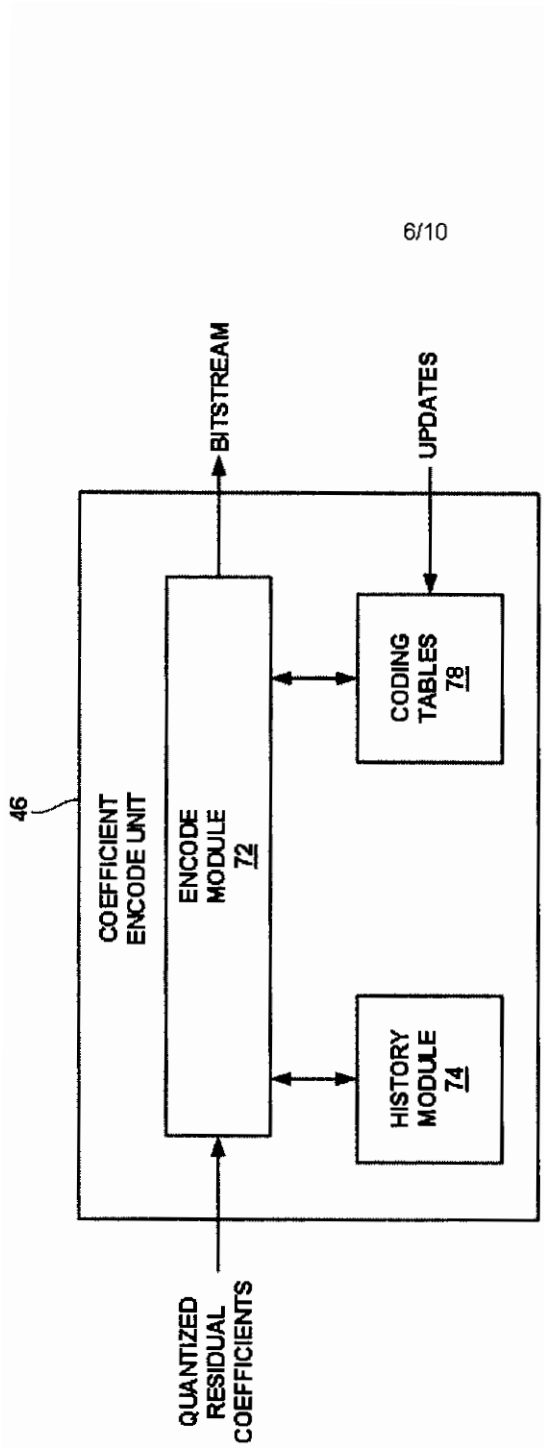

46
COEFFICIENT ENCODE UNIT
ENCODE MODULE 72
HISTORY MODULE 74
CODING TABLES 78
BITSTREAM
UPDATES
QUANTIZED RESIDUAL COEFFICIENTS

FIG. 6

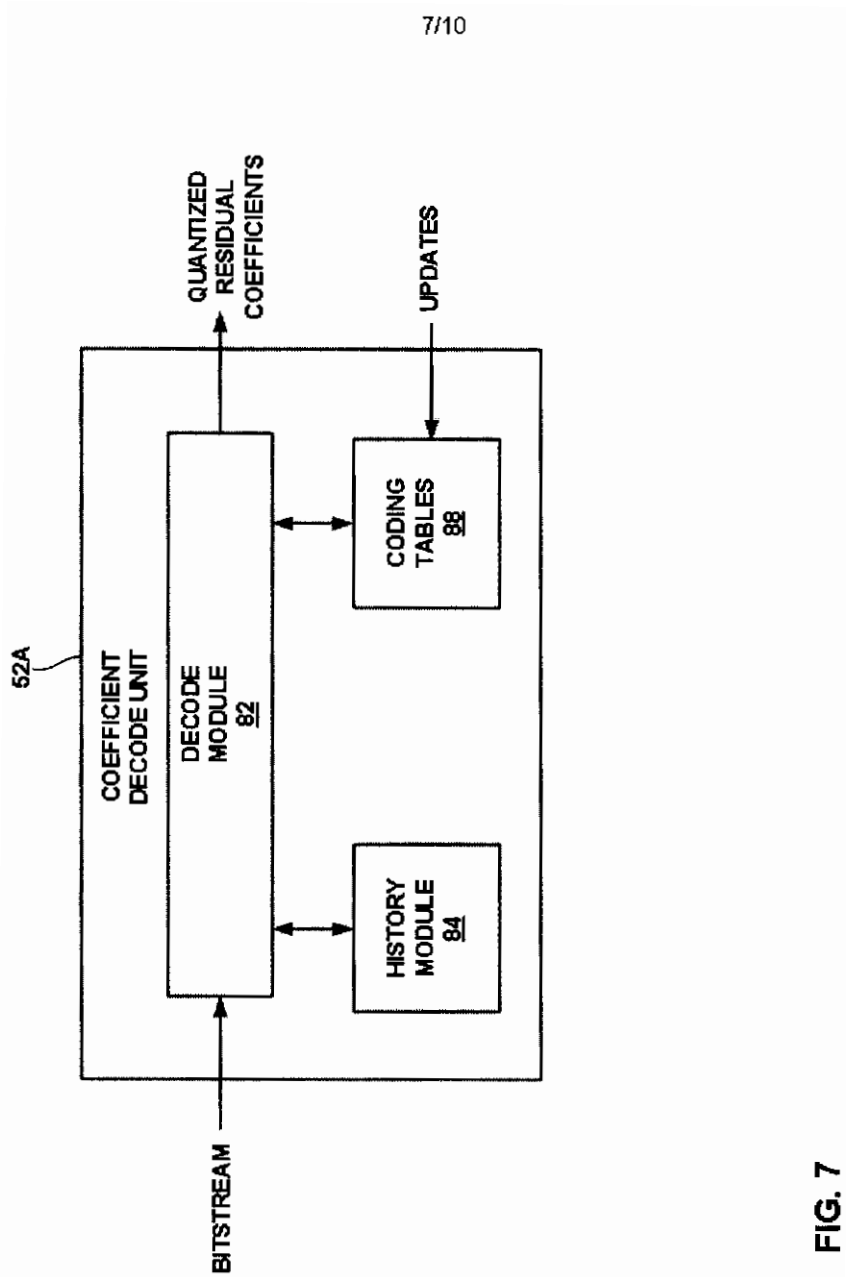

QUANTIZED RESIDUAL COEFFICIENTS
UPDATES
52A
COEFFICIENT DECODE UNIT
DECODE MODULE 82
CODING TABLES 88
HISTORY MODULE 84
BITSTREAM

FIG. 7

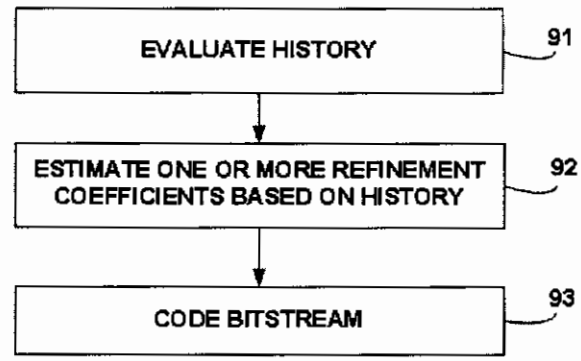

EVALUATE HISTORY
91
ESTIMATE ONE OR MORE REFINEMENT COEFFICIENTS BASED ON HISTORY
92
CODE BITSTREAM
93

FIG. 8

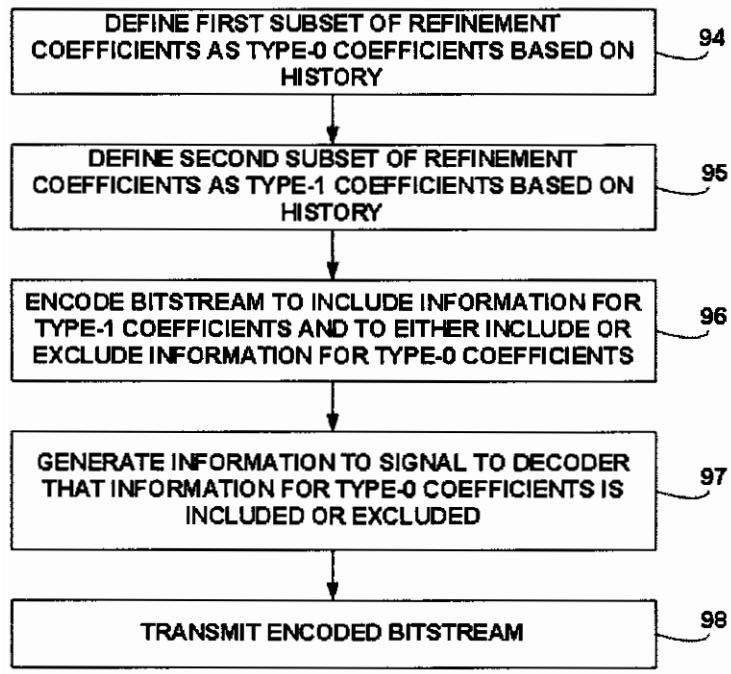

DEFINE FIRST SUBSET OF REFINEMENT COEFFICIENTS AS TYPE-0 COEFFICIENTS BASED ON HISTORY
94
DEFINE SECOND SUBSET OF REFINEMENT COEFFICIENTS AS TYPE-1 COEFFICIENTS BASED ON HISTORY
95
ENCODE BITSTREAM TO INCLUDE INFORMATION FOR TYPE-1 COEFFICIENTS AND TO EITHER INCLUDE OR EXCLUDE INFORMATION FOR TYPE-0 COEFFICIENTS
96
GENERATE INFORMATION TO SIGNAL TO DECODER THAT INFORMATION FOR TYPE-0 COEFFICIENTS IS INCLUDED OR EXCLUDED
97
TRANSMIT ENCODED BITSTREAM
98

FIG. 9

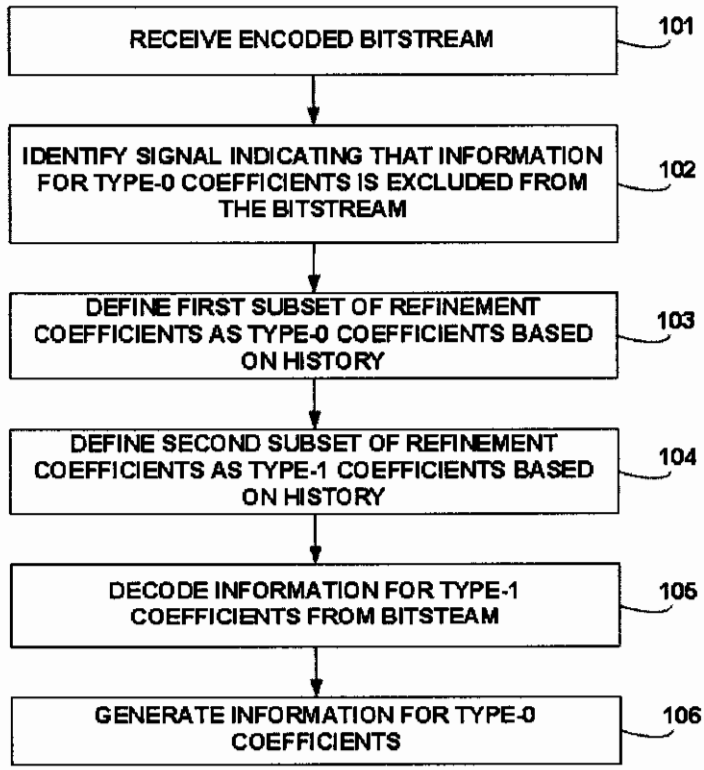

RECEIVE ENCODED BITSTREAM
101
IDENTIFY SIGNAL INDICATING THAT INFORMATION FOR TYPE-0 COEFFICIENTS IS EXCLUDED FROM THE BITSTREAM
102
DEFINE FIRST SUBSET OF REFINEMENT COEFFICIENTS AS TYPE-0 COEFFICIENTS BASED ON HISTORY
103
DEFINE SECOND SUBSET OF REFINEMENT COEFFICIENTS AS TYPE-1 COEFFICIENTS BASED ON HISTORY
104
DECODE INFORMATION FOR TYPE-1 COEFFICIENTS FROM BITSTEAM
105
GENERATE INFORMATION FOR TYPE-0 COEFFICIENTS
106

FIG. 10