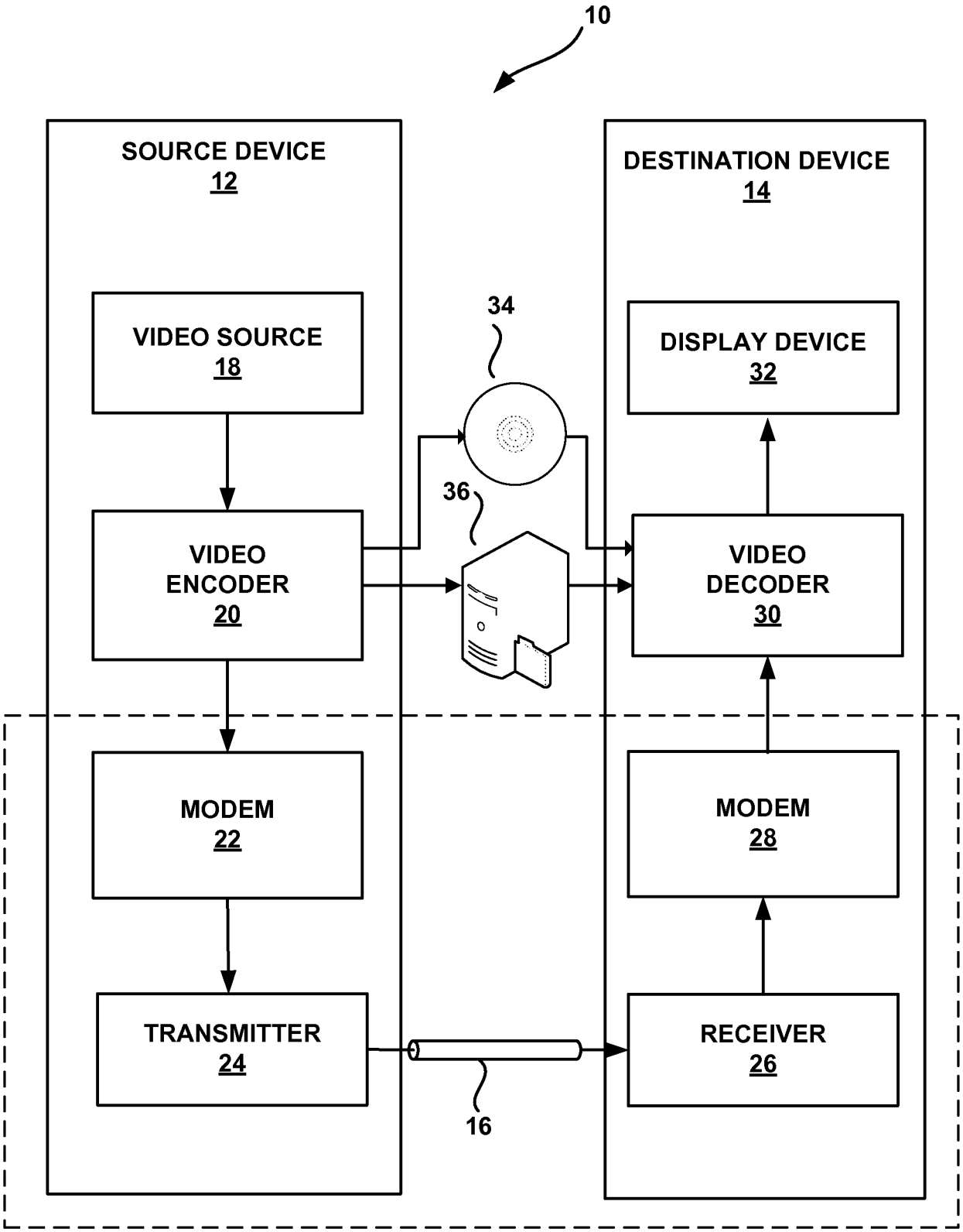

10
SOURCE DEVICE
12
DESTINATION DEVICE
14
VIDEO SOURCE
18
34
DISPLAY DEVICE
32
36
VIDEO
ENCODER
20
VIDEO
DECODER
30
MODEM
22
MODEM
28
TRANSMITTER
24
RECEIVER
26
16

FIG. 1

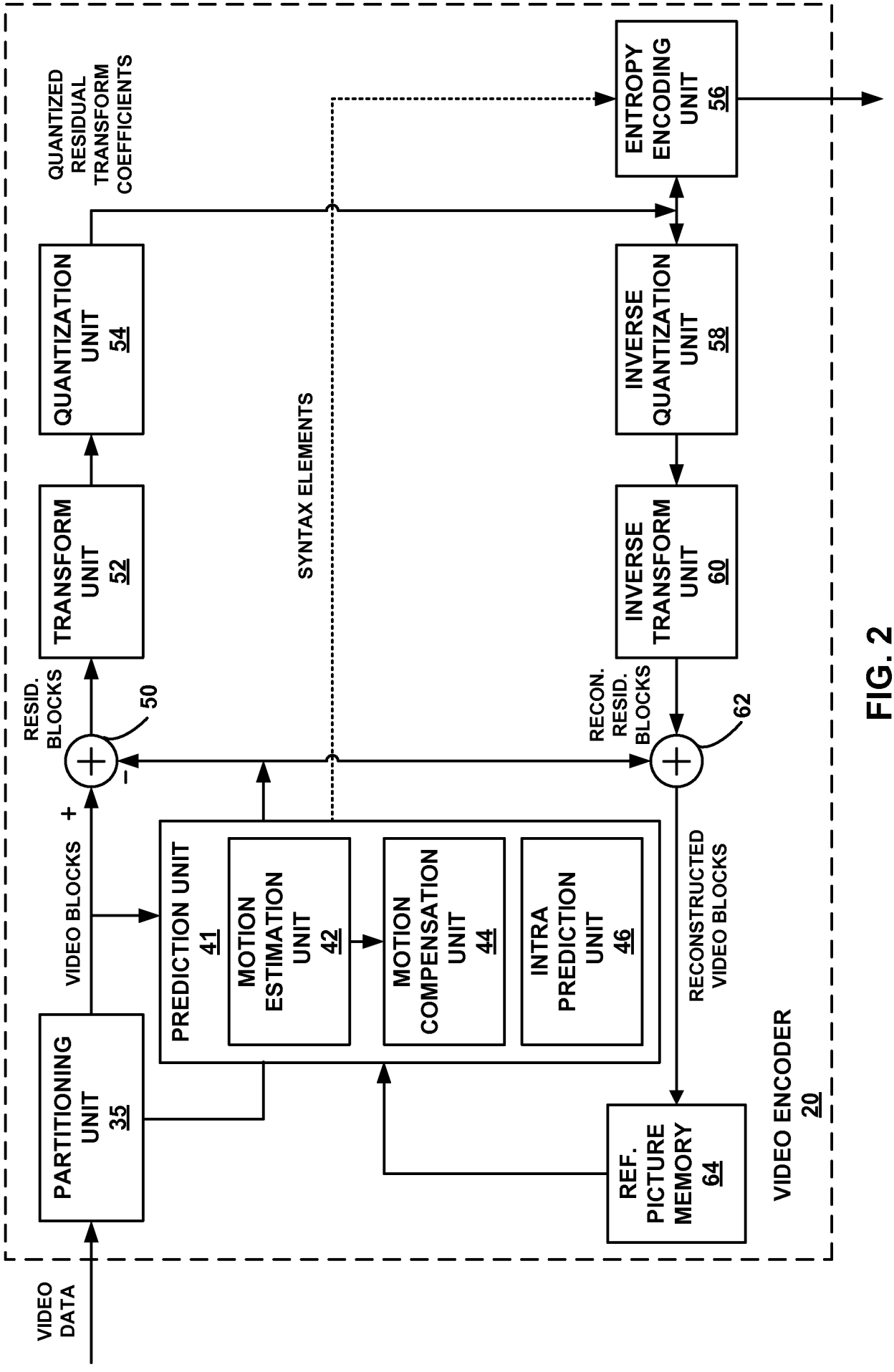

VIDEO DATA
VIDEO ENCODER 20
PARTITIONING UNIT 35
PREDICTION UNIT 41
MOTION ESTIMATION UNIT 42
MOTION COMPENSATION UNIT 44
INTRA PREDICTION UNIT 46
REF. PICTURE MEMORY 64
VIDEO BLOCKS
RESID. BLOCKS
50
TRANSFORM UNIT 52
QUANTIZATION UNIT 54
QUANTIZED RESIDUAL TRANSFORM COEFFICIENTS
SYNTAX ELEMENTS
ENTROPY ENCODING UNIT 56
INVERSE QUANTIZATION UNIT 58
INVERSE TRANSFORM UNIT 60
RECON. RESID. BLOCKS
62
RECONSTRUCTED VIDEO BLOCKS

FIG. 2

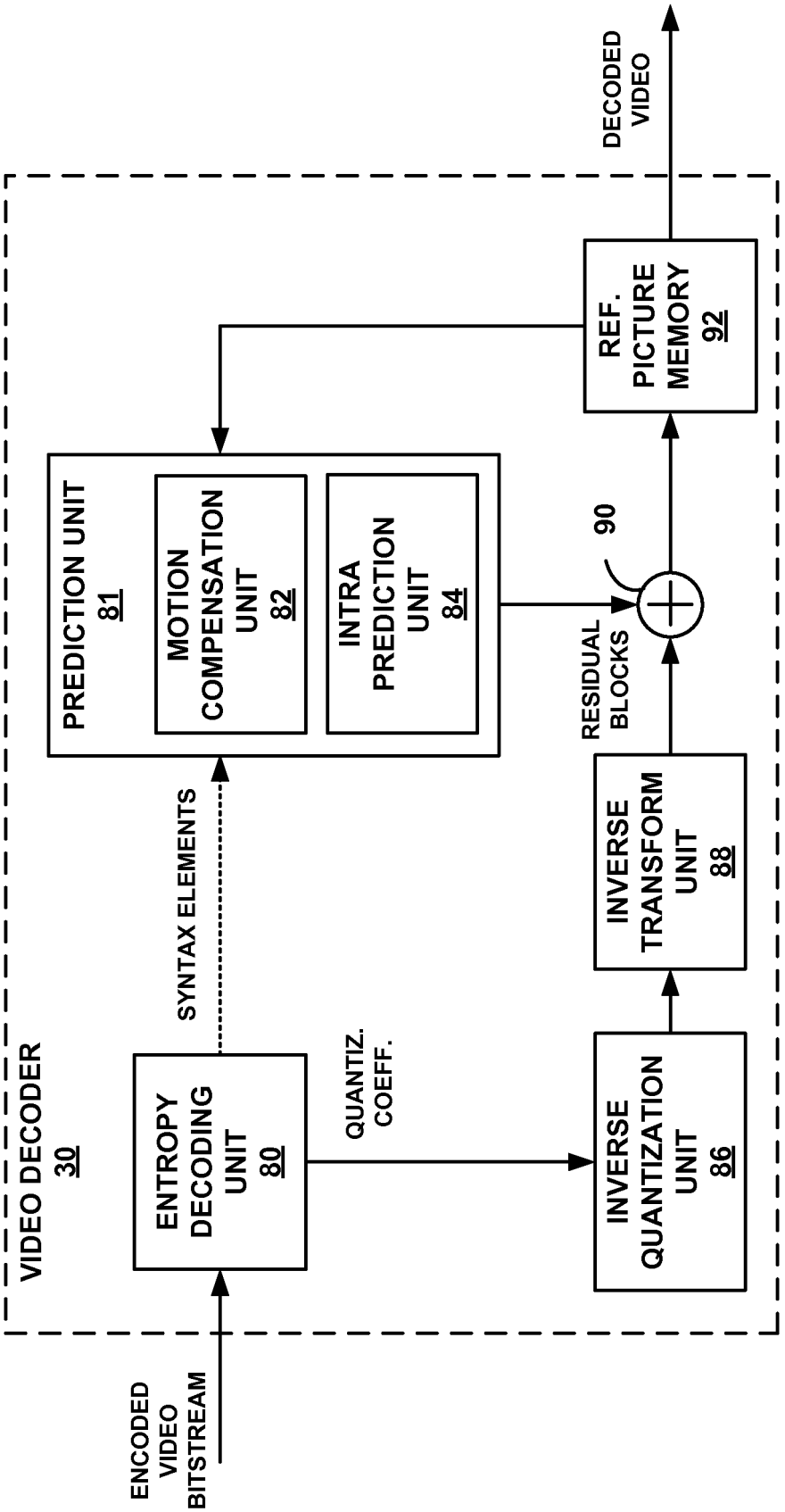

VIDEO DECODER
30
ENTROPY DECODING UNIT
80
PREDICTION UNIT
81
MOTION COMPENSATION UNIT
82
INTRA PREDICTION UNIT
84
INVERSE QUANTIZATION UNIT
86
INVERSE TRANSFORM UNIT
88
REF. PICTURE MEMORY
92
90
ENCODED VIDEO BITSTREAM
SYNTAX ELEMENTS
QUANTIZ. COEFF.
RESIDUAL BLOCKS
DECODED VIDEO

FIG. 3

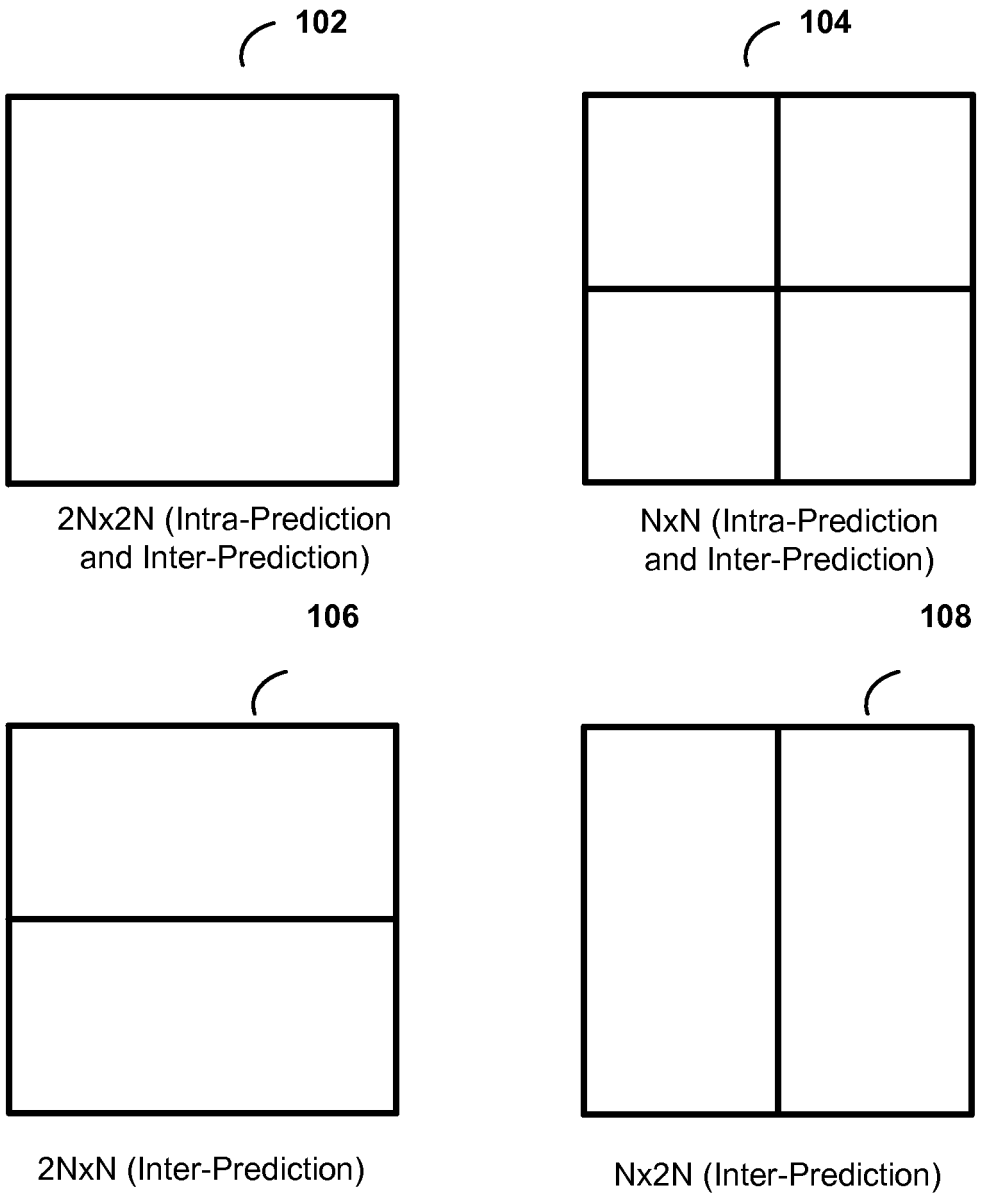

102
104
2Nx2N (Intra-Prediction and Inter-Prediction)
NxN (Intra-Prediction and Inter-Prediction)
106
108
2NxN (Inter-Prediction)
Nx2N (Inter-Prediction)

FIG. 4

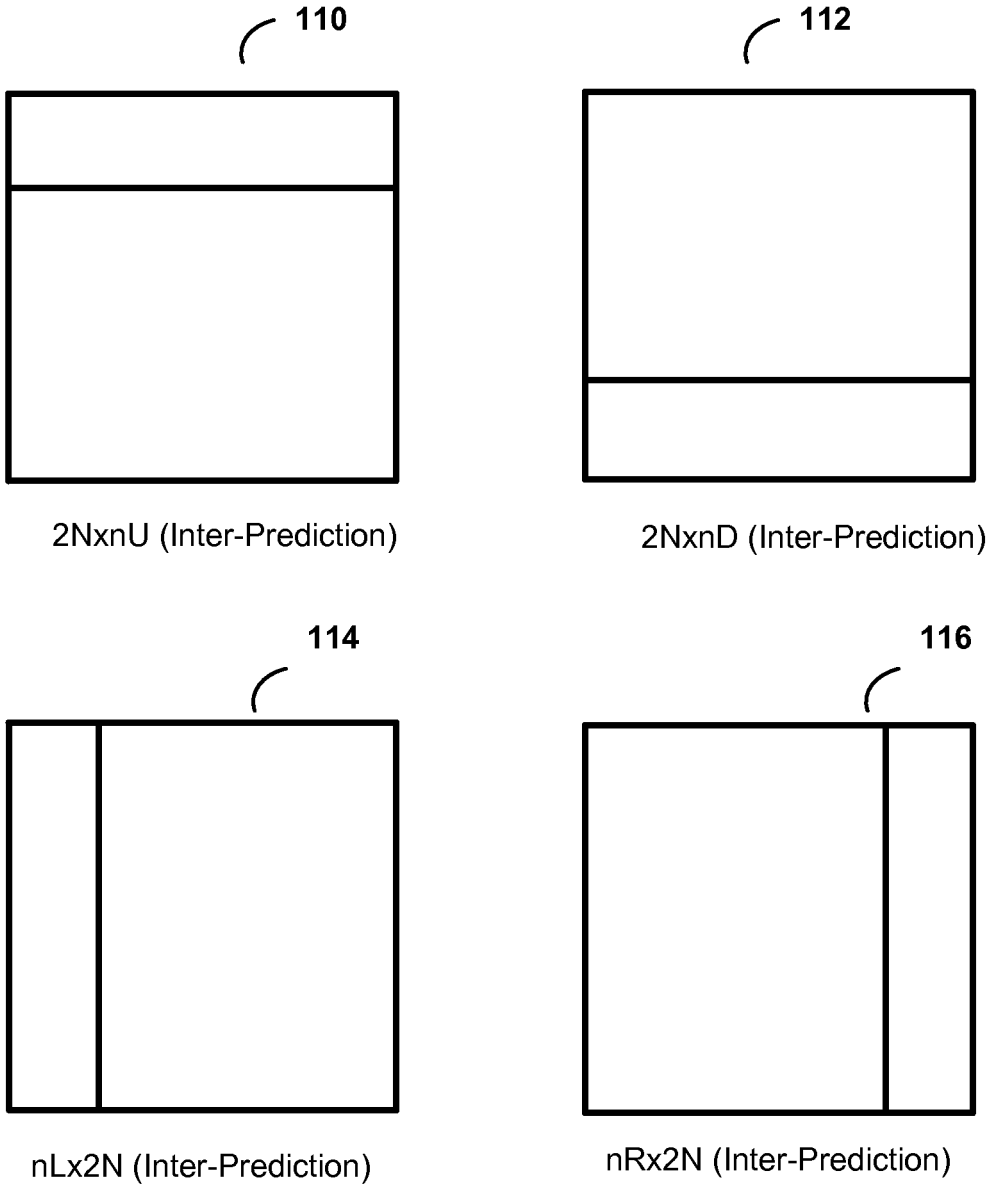

110
112
2NxnU (Inter-Prediction)
2NxnD (Inter-Prediction)
114
116
nLx2N (Inter-Prediction)
nRx2N (Inter-Prediction)

FIG. 5

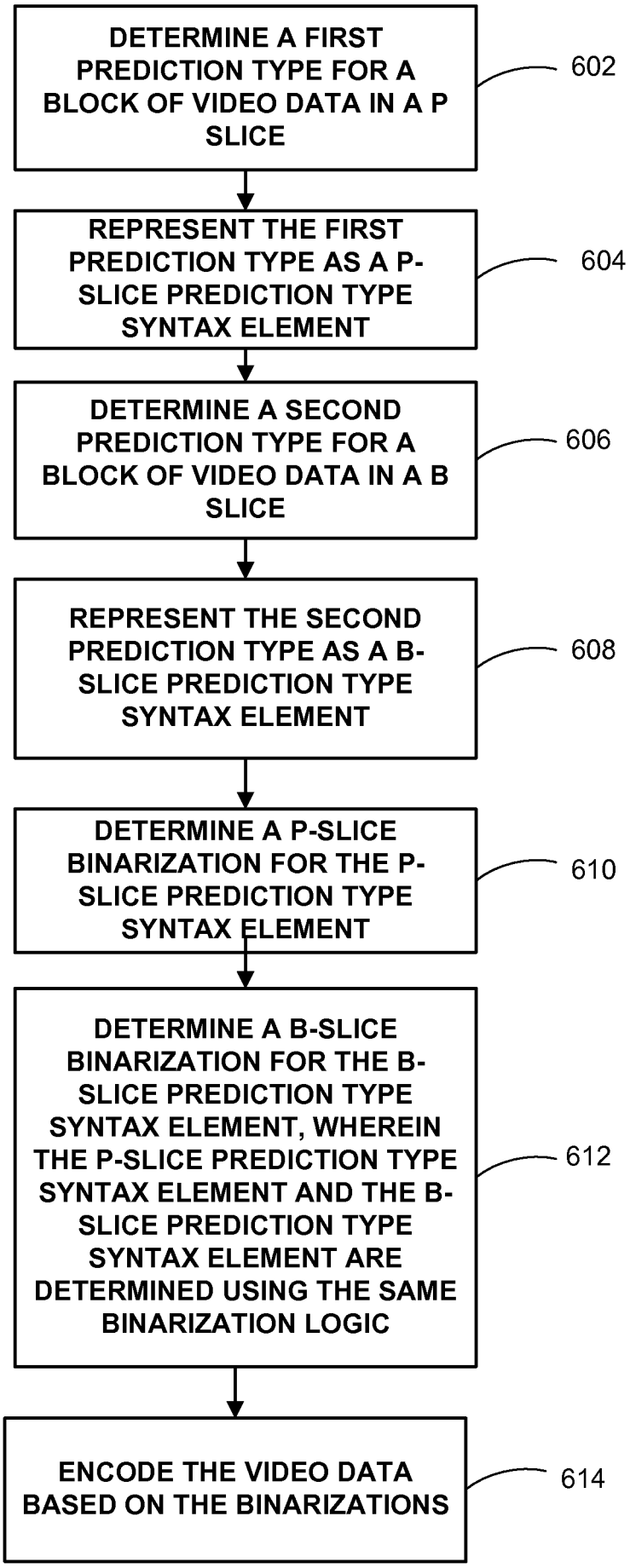

DETERMINE A FIRST PREDICTION TYPE FOR A BLOCK OF VIDEO DATA IN A P SLICE
602
REPRESENT THE FIRST PREDICTION TYPE AS A P-SLICE PREDICTION TYPE SYNTAX ELEMENT
604
DETERMINE A SECOND PREDICTION TYPE FOR A BLOCK OF VIDEO DATA IN A B SLICE
606
REPRESENT THE SECOND PREDICTION TYPE AS A B-SLICE PREDICTION TYPE SYNTAX ELEMENT
608
DETERMINE A P-SLICE BINARIZATION FOR THE P-SLICE PREDICTION TYPE SYNTAX ELEMENT
610
DETERMINE A B-SLICE BINARIZATION FOR THE B-SLICE PREDICTION TYPE SYNTAX ELEMENT, WHEREIN THE P-SLICE PREDICTION TYPE SYNTAX ELEMENT AND THE B-SLICE PREDICTION TYPE SYNTAX ELEMENT ARE DETERMINED USING THE SAME BINARIZATION LOGIC
612
ENCODE THE VIDEO DATA BASED ON THE BINARIZATIONS
614

FIG. 6

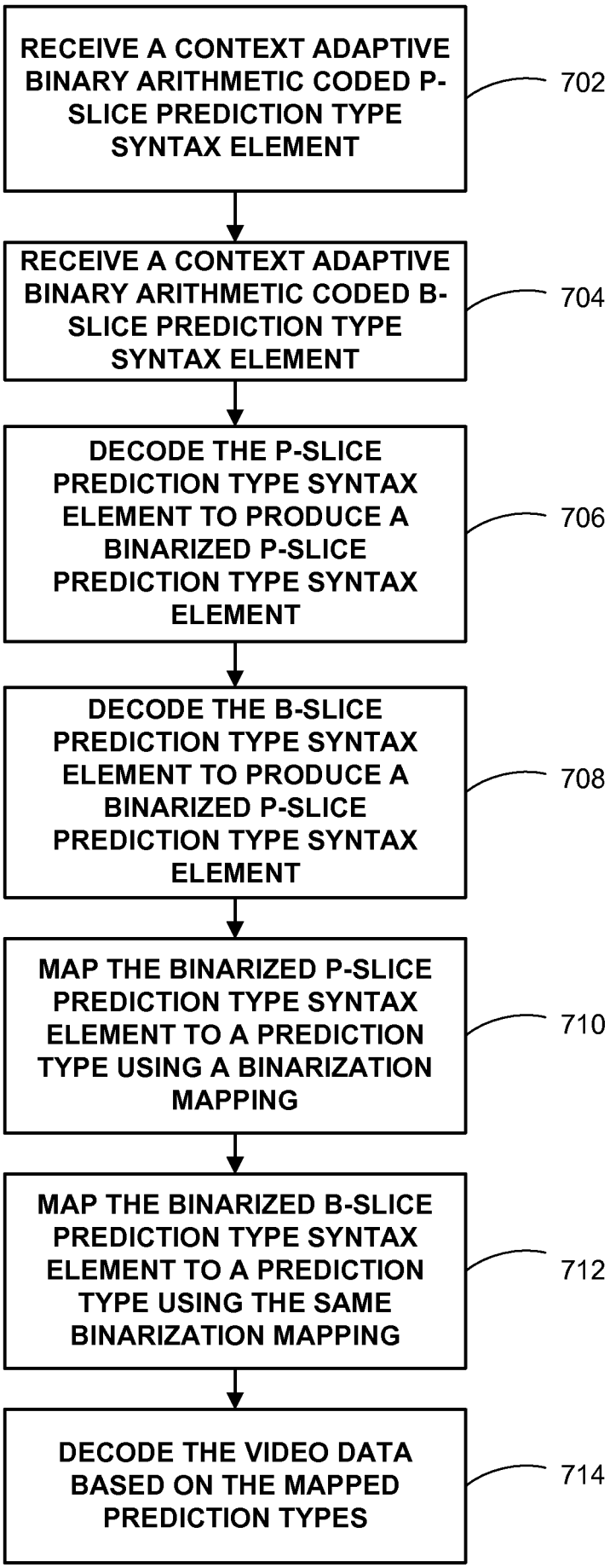

RECEIVE A CONTEXT ADAPTIVE BINARY ARITHMETIC CODED P-SLICE PREDICTION TYPE SYNTAX ELEMENT
702
RECEIVE A CONTEXT ADAPTIVE BINARY ARITHMETIC CODED B-SLICE PREDICTION TYPE SYNTAX ELEMENT
704
DECODE THE P-SLICE PREDICTION TYPE SYNTAX ELEMENT TO PRODUCE A BINARIZED P-SLICE PREDICTION TYPE SYNTAX ELEMENT
706
DECODE THE B-SLICE PREDICTION TYPE SYNTAX ELEMENT TO PRODUCE A BINARIZED P-SLICE PREDICTION TYPE SYNTAX ELEMENT
708
MAP THE BINARIZED P-SLICE PREDICTION TYPE SYNTAX ELEMENT TO A PREDICTION TYPE USING A BINARIZATION MAPPING
710
MAP THE BINARIZED B-SLICE PREDICTION TYPE SYNTAX ELEMENT TO A PREDICTION TYPE USING THE SAME BINARIZATION MAPPING
712
DECODE THE VIDEO DATA BASED ON THE MAPPED PREDICTION TYPES
714

FIG. 7

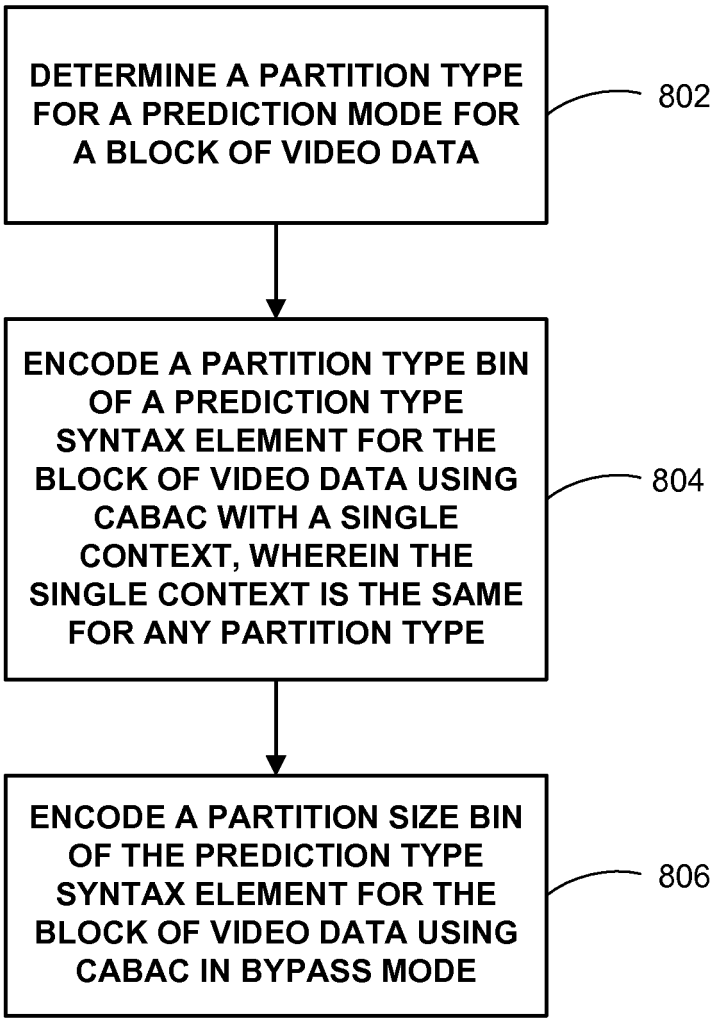

DETERMINE A PARTITION TYPE FOR A PREDICTION MODE FOR A BLOCK OF VIDEO DATA
802
ENCODE A PARTITION TYPE BIN OF A PREDICTION TYPE SYNTAX ELEMENT FOR THE BLOCK OF VIDEO DATA USING CABAC WITH A SINGLE CONTEXT, WHEREIN THE SINGLE CONTEXT IS THE SAME FOR ANY PARTITION TYPE
804
ENCODE A PARTITION SIZE BIN OF THE PREDICTION TYPE SYNTAX ELEMENT FOR THE BLOCK OF VIDEO DATA USING CABAC IN BYPASS MODE
806

FIG. 8

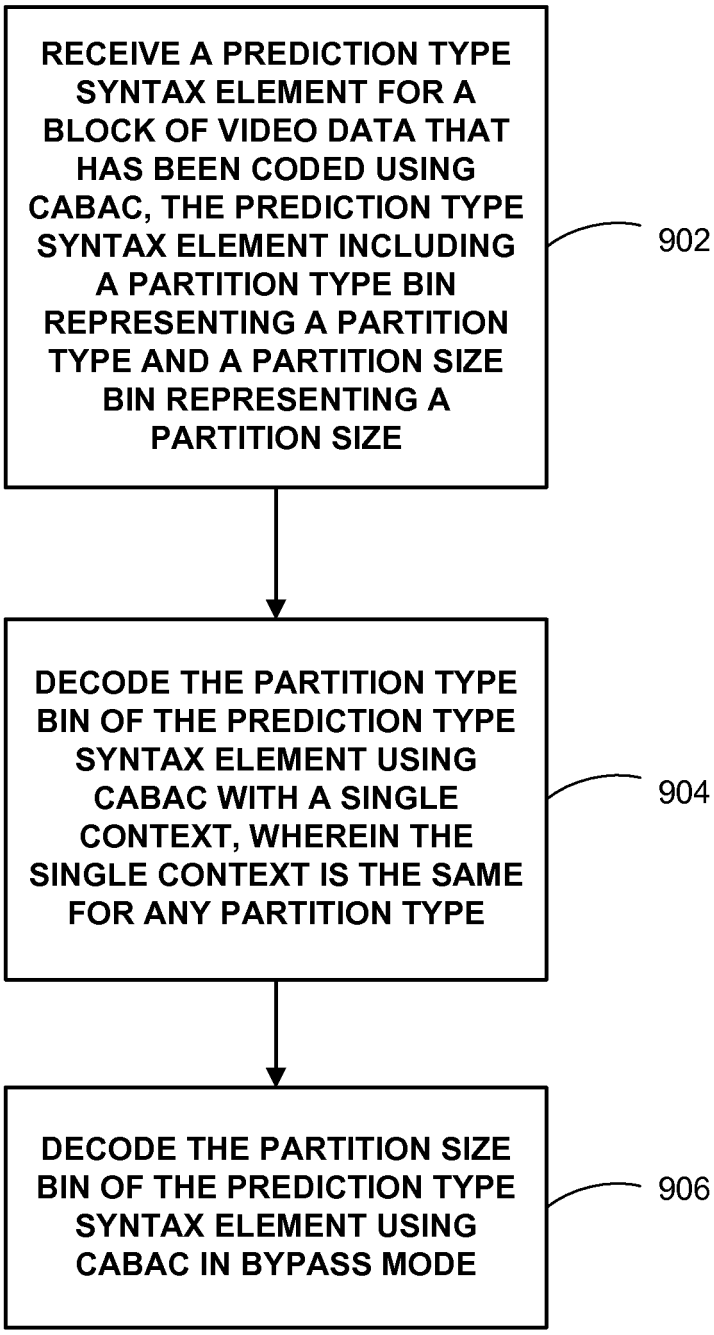

RECEIVE A PREDICTION TYPE SYNTAX ELEMENT FOR A BLOCK OF VIDEO DATA THAT HAS BEEN CODED USING CABAC, THE PREDICTION TYPE SYNTAX ELEMENT INCLUDING A PARTITION TYPE BIN REPRESENTING A PARTITION TYPE AND A PARTITION SIZE BIN REPRESENTING A PARTITION SIZE
902
DECODE THE PARTITION TYPE BIN OF THE PREDICTION TYPE SYNTAX ELEMENT USING CABAC WITH A SINGLE CONTEXT, WHEREIN THE SINGLE CONTEXT IS THE SAME FOR ANY PARTITION TYPE
904
DECODE THE PARTITION SIZE BIN OF THE PREDICTION TYPE SYNTAX ELEMENT USING CABAC IN BYPASS MODE
906

FIG. 9

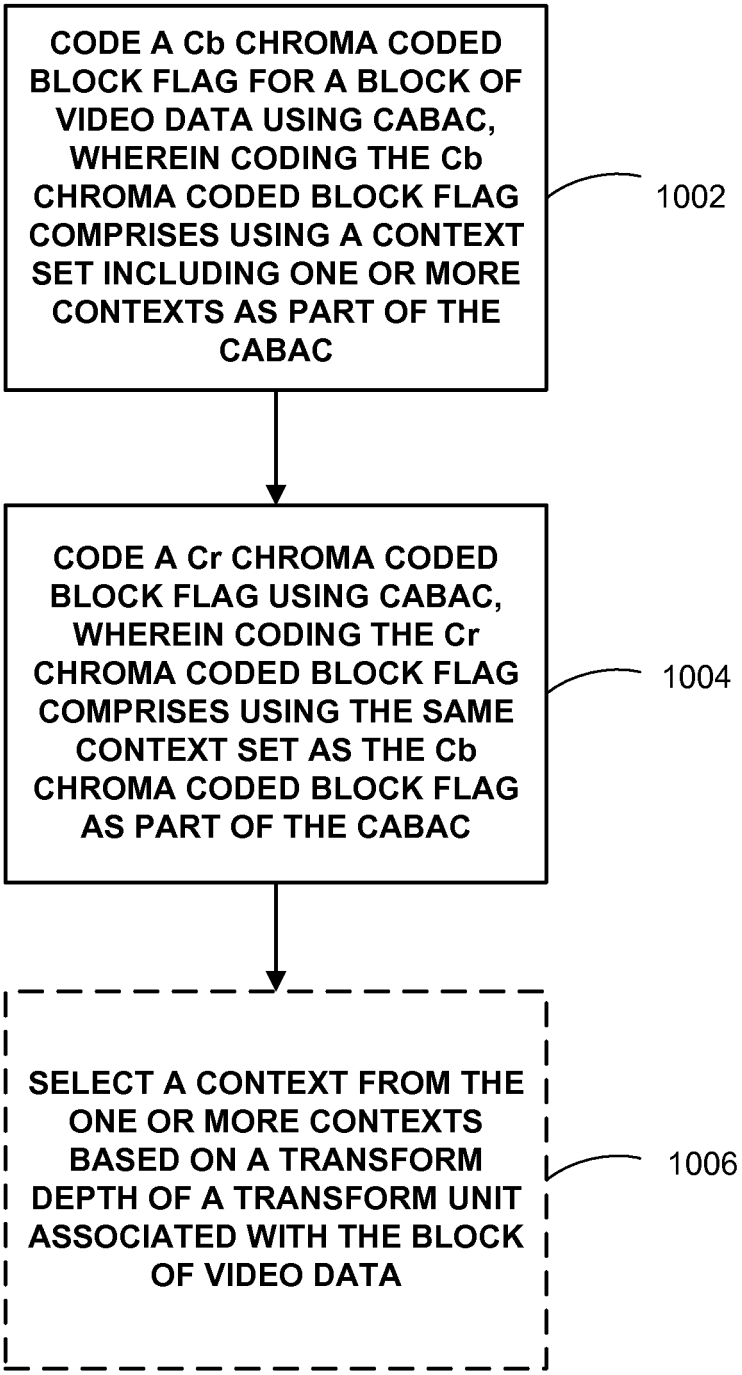

CODE A Cb CHROMA CODED BLOCK FLAG FOR A BLOCK OF VIDEO DATA USING CABAC, WHEREIN CODING THE Cb CHROMA CODED BLOCK FLAG COMPRISES USING A CONTEXT SET INCLUDING ONE OR MORE CONTEXTS AS PART OF THE CABAC
1002
CODE A Cr CHROMA CODED BLOCK FLAG USING CABAC, WHEREIN CODING THE Cr CHROMA CODED BLOCK FLAG COMPRISES USING THE SAME CONTEXT SET AS THE Cb CHROMA CODED BLOCK FLAG AS PART OF THE CABAC
1004
SELECT A CONTEXT FROM THE ONE OR MORE CONTEXTS BASED ON A TRANSFORM DEPTH OF A TRANSFORM UNIT ASSOCIATED WITH THE BLOCK OF VIDEO DATA
1006

FIG. 10