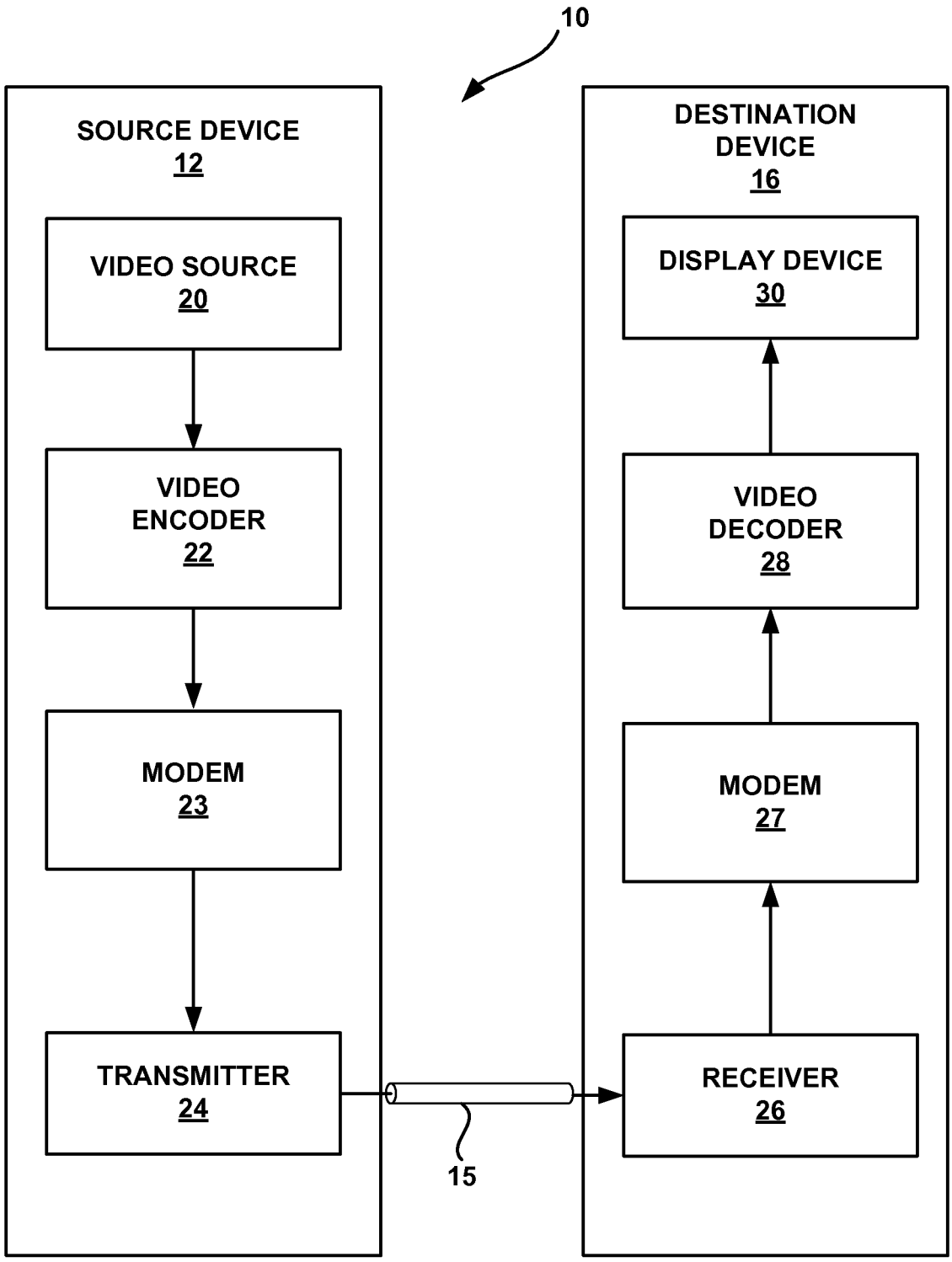

10
SOURCE DEVICE
12
VIDEO SOURCE
20
VIDEO
ENCODER
22
MODEM
23
TRANSMITTER
24
15
DESTINATION
DEVICE
16
DISPLAY DEVICE
30
VIDEO
DECODER
28
MODEM
27
RECEIVER
26

FIG. 1

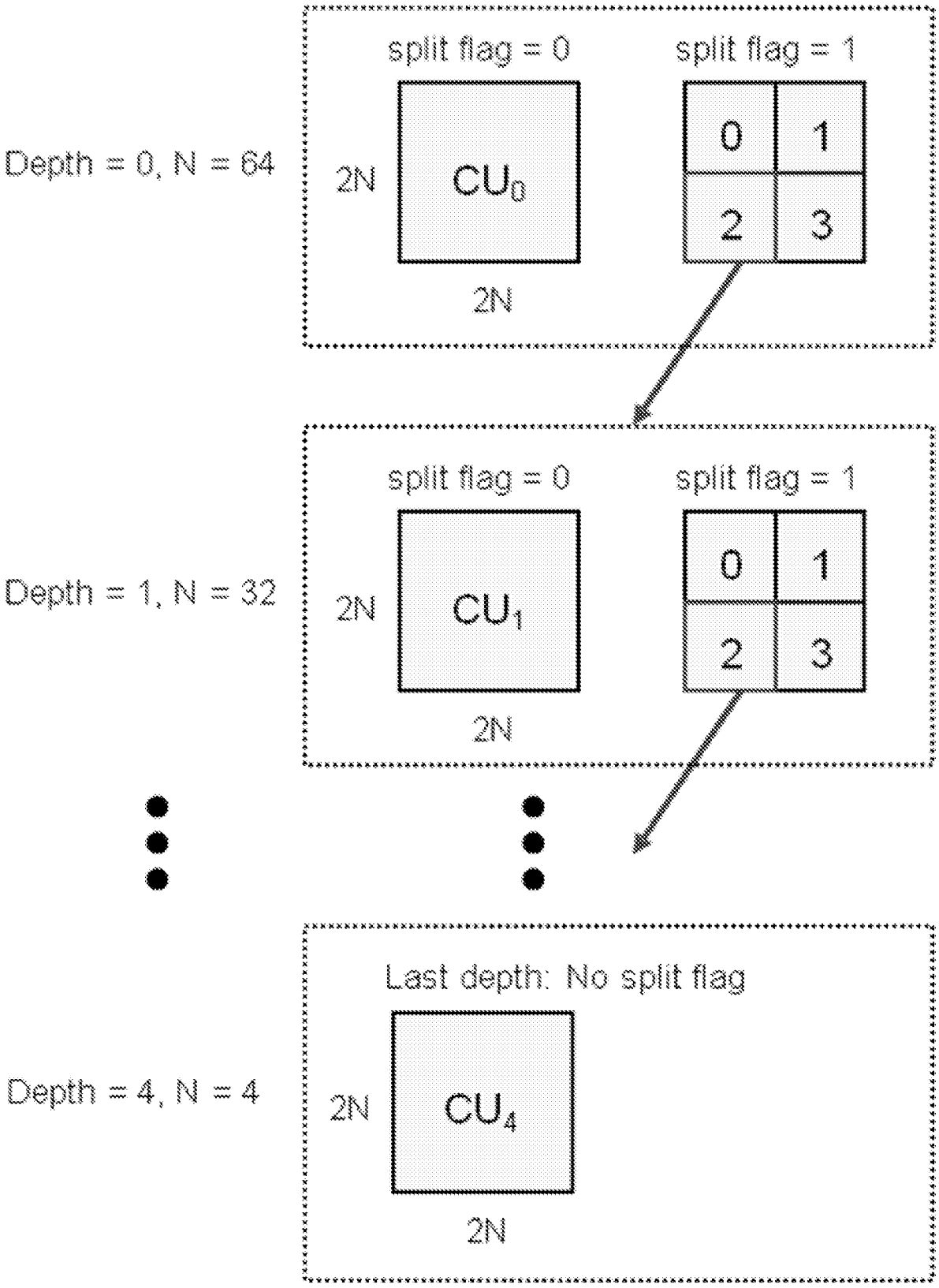

Depth = 0, N = 64
split flag = 0
split flag = 1
2N
CU_0
2N
0
1
2
3
Depth = 1, N = 32
split flag = 0
split flag = 1
2N
CU_1
2N
0
1
2
3
Depth = 4, N = 4
Last depth: No split flag
2N
CU_4
2N

FIG. 2

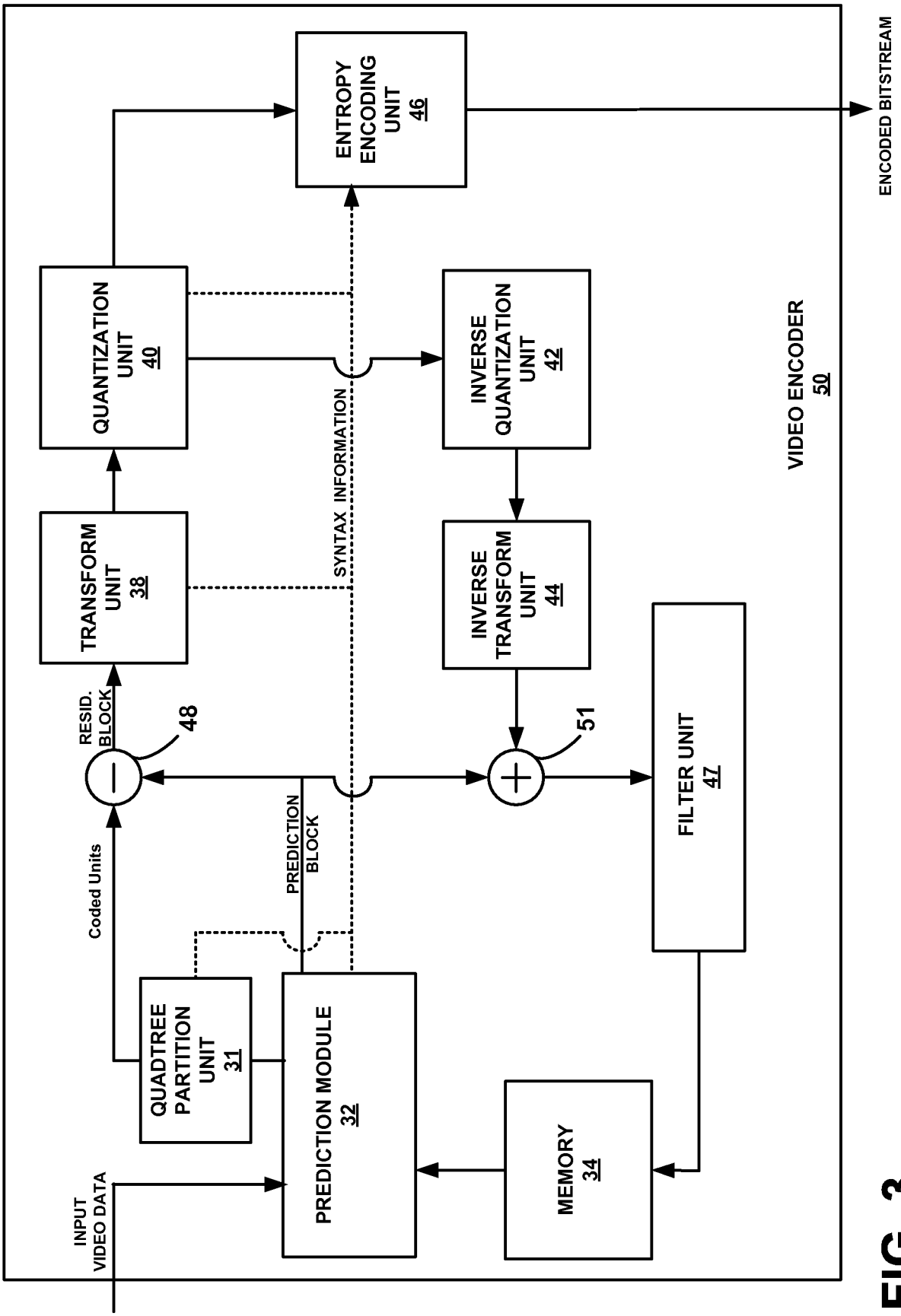

VIDEO ENCODER
50
ENTROPY ENCODING UNIT
46
ENCODED BITSTREAM
QUANTIZATION UNIT
40
INVERSE QUANTIZATION UNIT
42
TRANSFORM UNIT
38
INVERSE TRANSFORM UNIT
44
SYNTAX INFORMATION
RESID. BLOCK
48
51
FILTER UNIT
47
PREDICTION BLOCK
Coded Units
QUADTREE PARTITION UNIT
31
PREDICTION MODULE
32
MEMORY
34
INPUT VIDEO DATA

FIG. 3

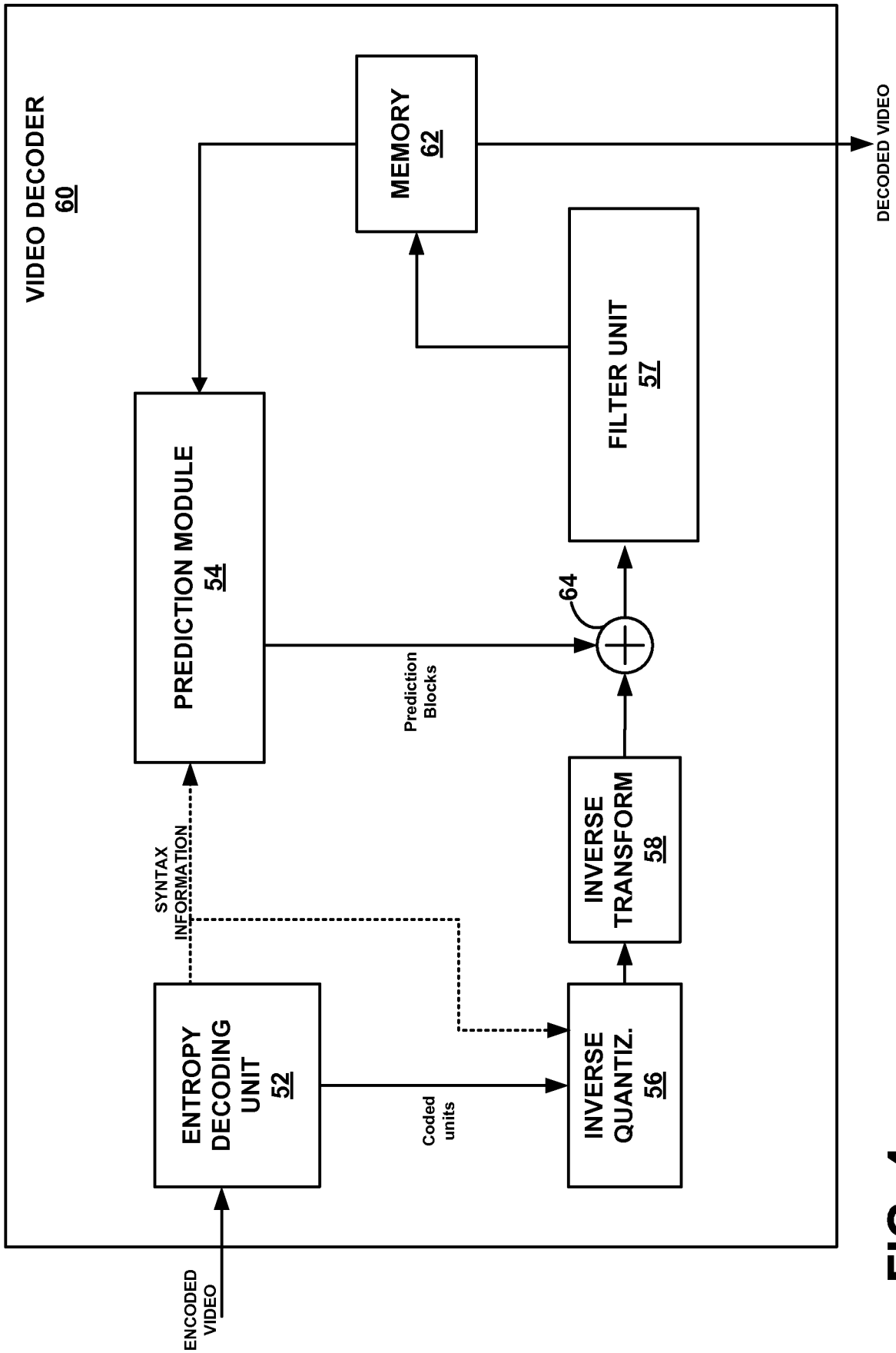

VIDEO DECODER
60
MEMORY
62
DECODED VIDEO
FILTER UNIT
57
PREDICTION MODULE
54
64
Prediction
Blocks
INVERSE
TRANSFORM
58
SYNTAX
INFORMATION
ENTROPY
DECODING
UNIT
52
Coded
units
INVERSE
QUANTIZ.
56
ENCODED
VIDEO

FIG. 4

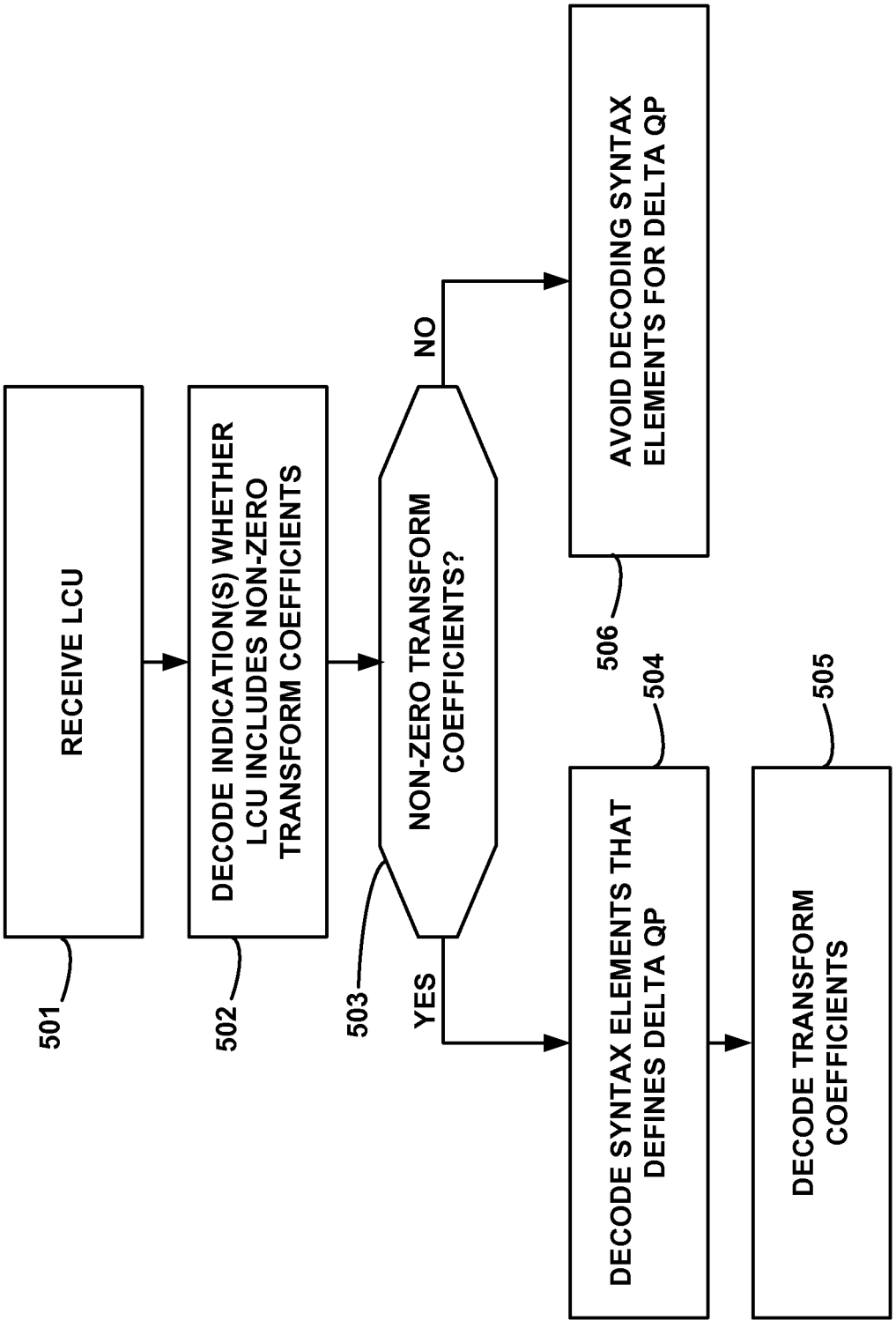

RECEIVE LCU
DECODE INDICATION(S) WHETHER LCU INCLUDES NON-ZERO TRANSFORM COEFFICIENTS
NON-ZERO TRANSFORM COEFFICIENTS?
NO
YES
AVOID DECODING SYNTAX ELEMENTS FOR DELTA QP
DECODE SYNTAX ELEMENTS THAT DEFINES DELTA QP
DECODE TRANSFORM COEFFICIENTS
501
502
503
504
505
506

FIG. 5

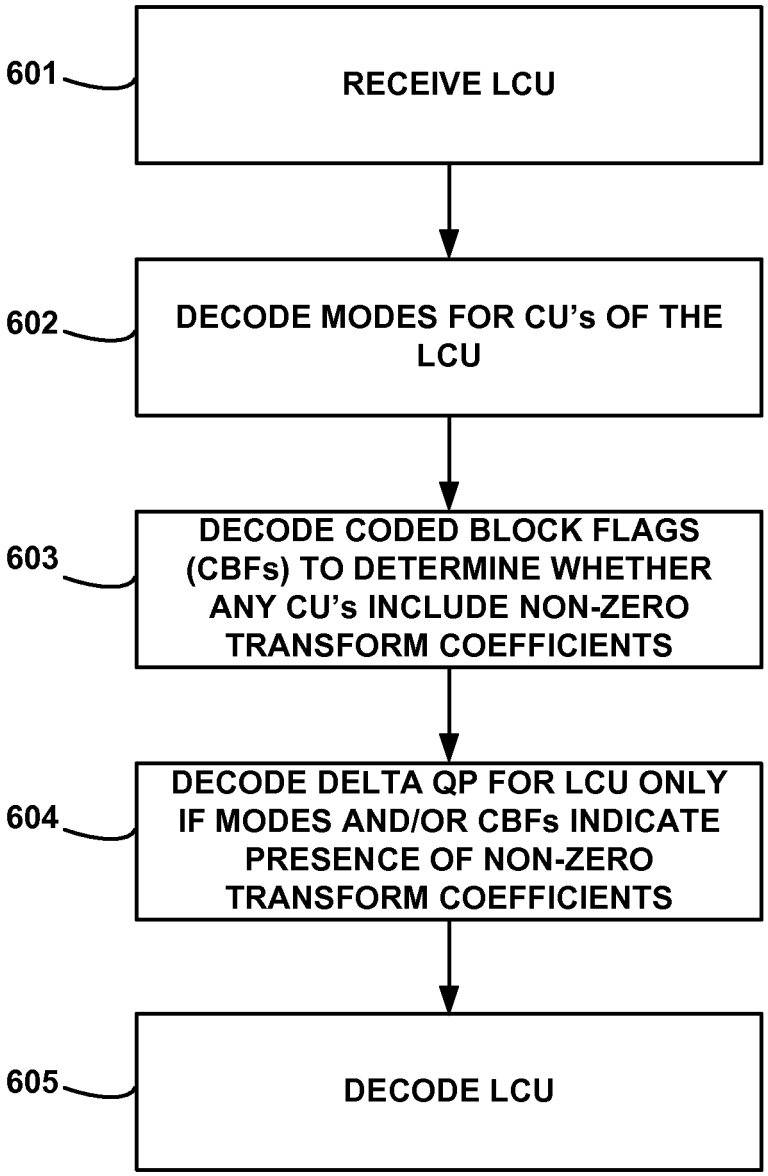

601
RECEIVE LCU
602
DECODE MODES FOR CU's OF THE LCU
603
DECODE CODED BLOCK FLAGS (CBFs) TO DETERMINE WHETHER ANY CU's INCLUDE NON-ZERO TRANSFORM COEFFICIENTS
604
DECODE DELTA QP FOR LCU ONLY IF MODES AND/OR CBFs INDICATE PRESENCE OF NON-ZERO TRANSFORM COEFFICIENTS
605
DECODE LCU

FIG. 6

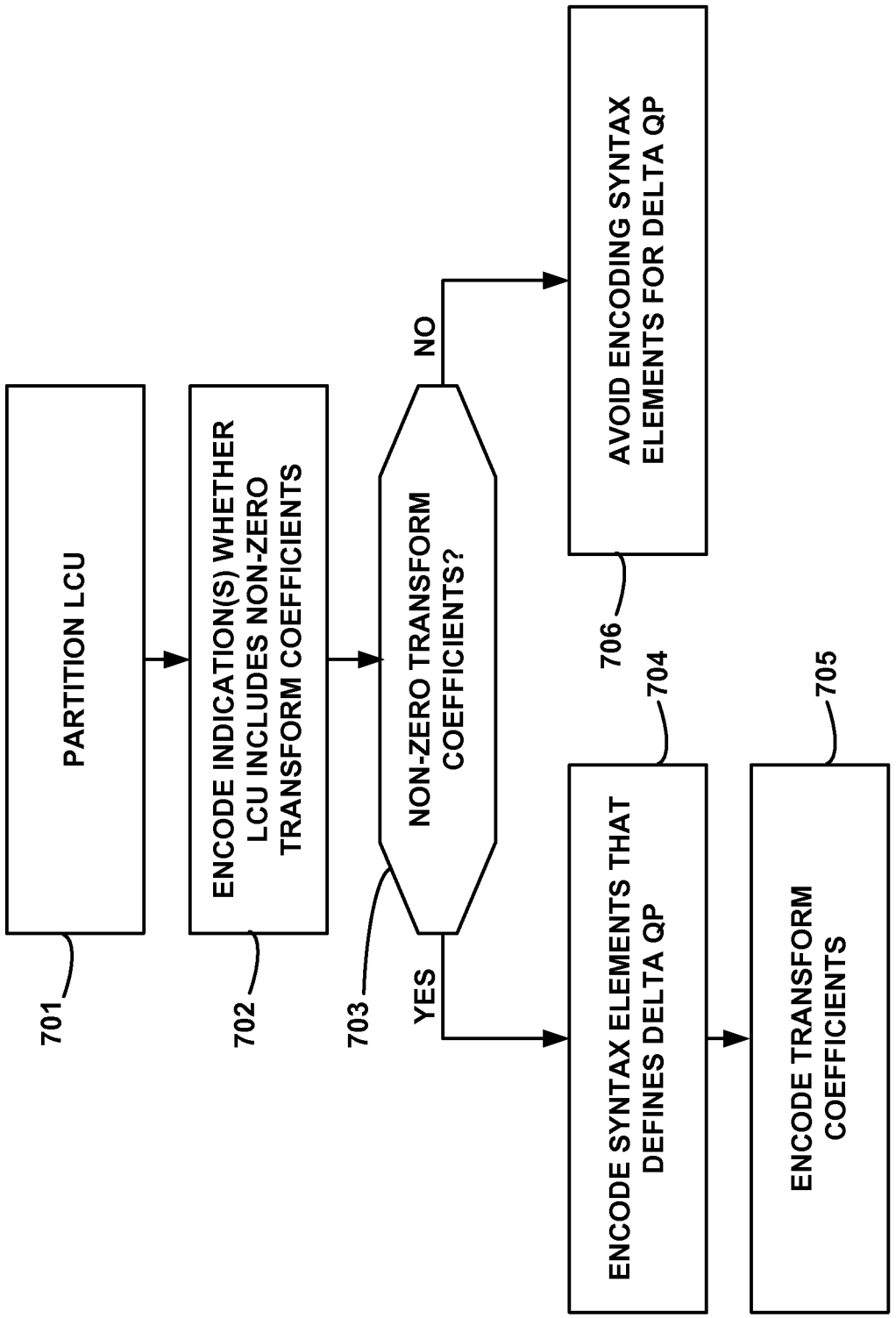

PARTITION LCU
ENCODE INDICATION(S) WHETHER LCU INCLUDES NON-ZERO TRANSFORM COEFFICIENTS
NON-ZERO TRANSFORM COEFFICIENTS?
NO
YES
AVOID ENCODING SYNTAX ELEMENTS FOR DELTA QP
ENCODE SYNTAX ELEMENTS THAT DEFINES DELTA QP
ENCODE TRANSFORM COEFFICIENTS
701
702
703
704
705
706

FIG. 7

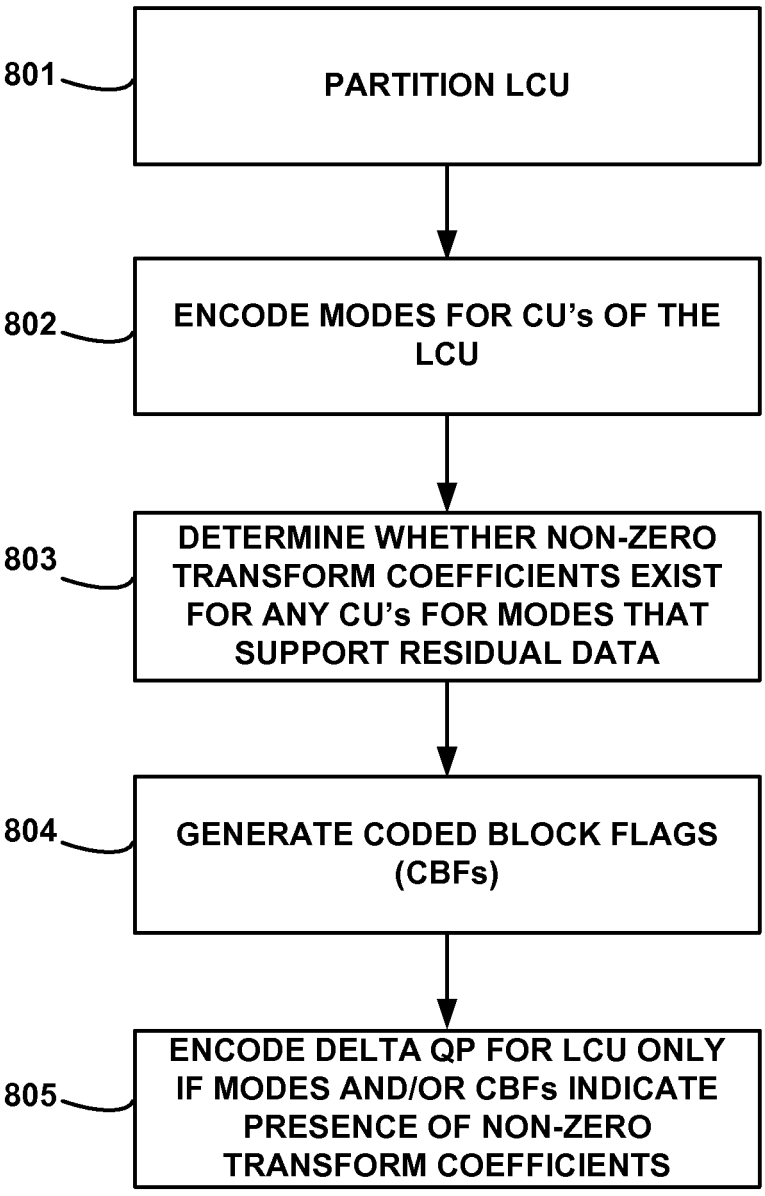

801
PARTITION LCU
802
ENCODE MODES FOR CU's OF THE LCU
803
DETERMINE WHETHER NON-ZERO TRANSFORM COEFFICIENTS EXIST FOR ANY CU's FOR MODES THAT SUPPORT RESIDUAL DATA
804
GENERATE CODED BLOCK FLAGS (CBFs)
805
ENCODE DELTA QP FOR LCU ONLY IF MODES AND/OR CBFs INDICATE PRESENCE OF NON-ZERO TRANSFORM COEFFICIENTS

FIG. 8