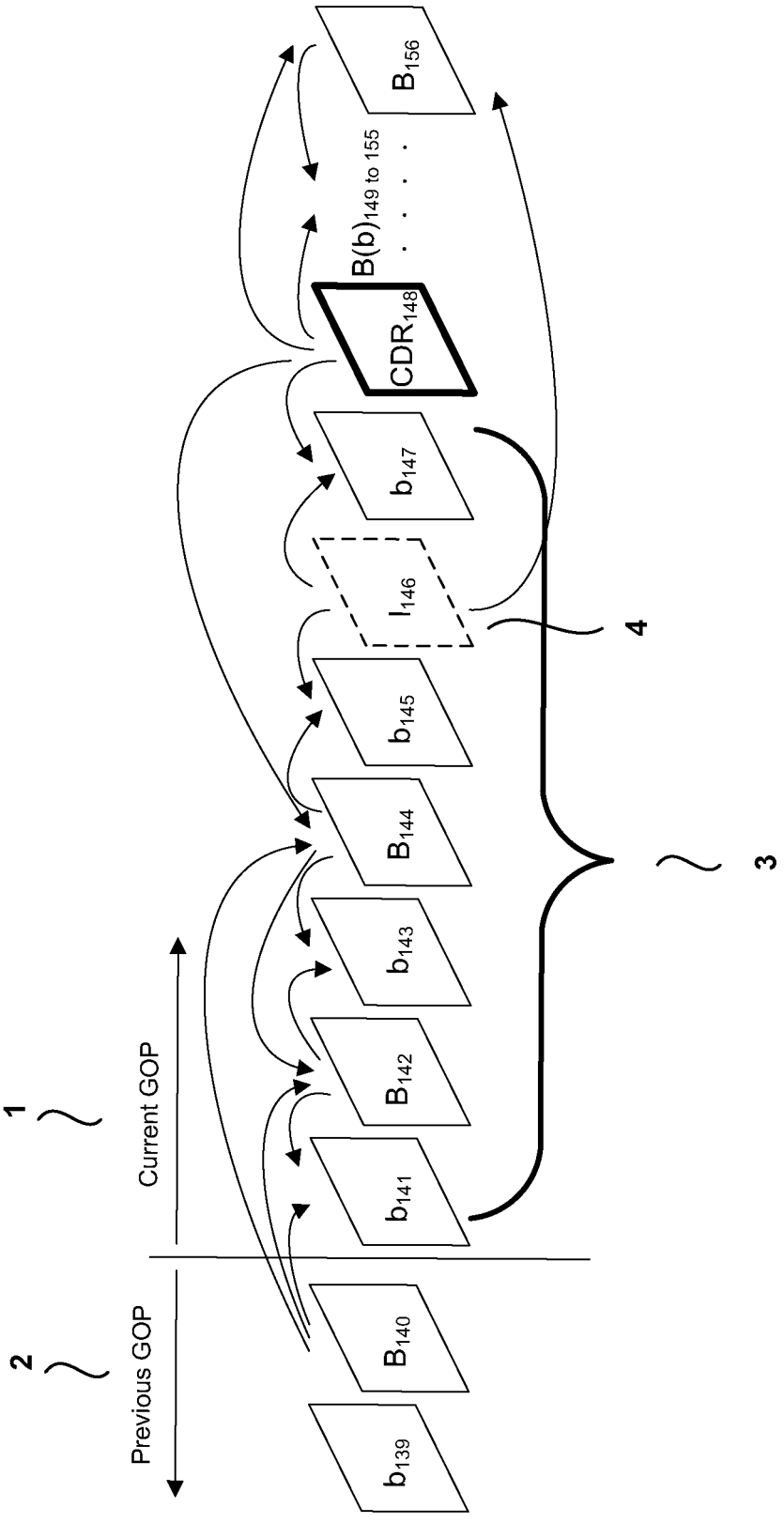

1
2
3
4
Current GOP
Previous GOP
b139
B140
b141
B142
b143
B144
b145
I146
b147
CDR148
B(b)149 to 155
B156

FIG. 1

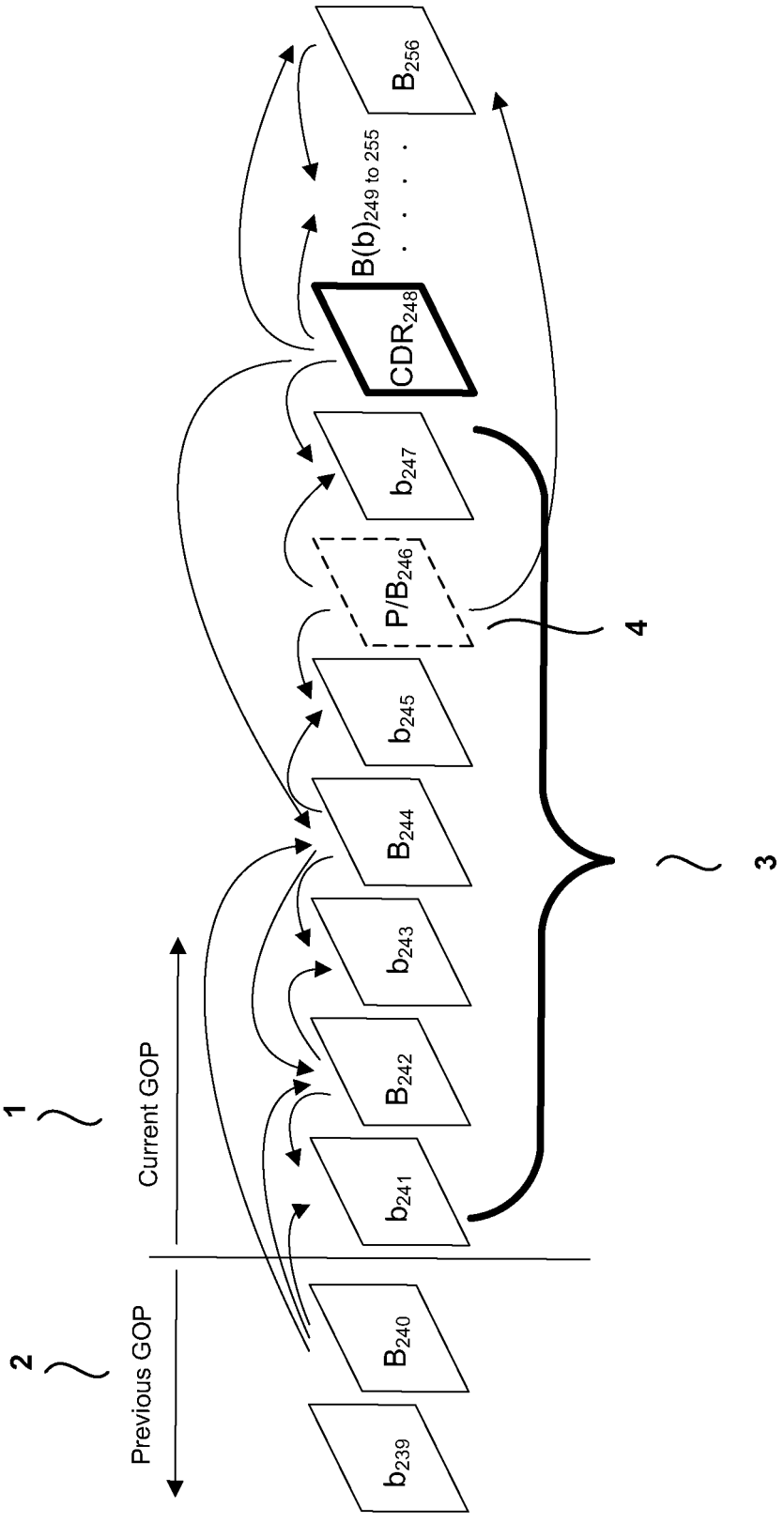

1
2
3
4
Current GOP
Previous GOP
b239
B240
b241
B242
b243
B244
b245
P/B246
b247
CDR248
B(b)249 to 255
B256

FIG. 2

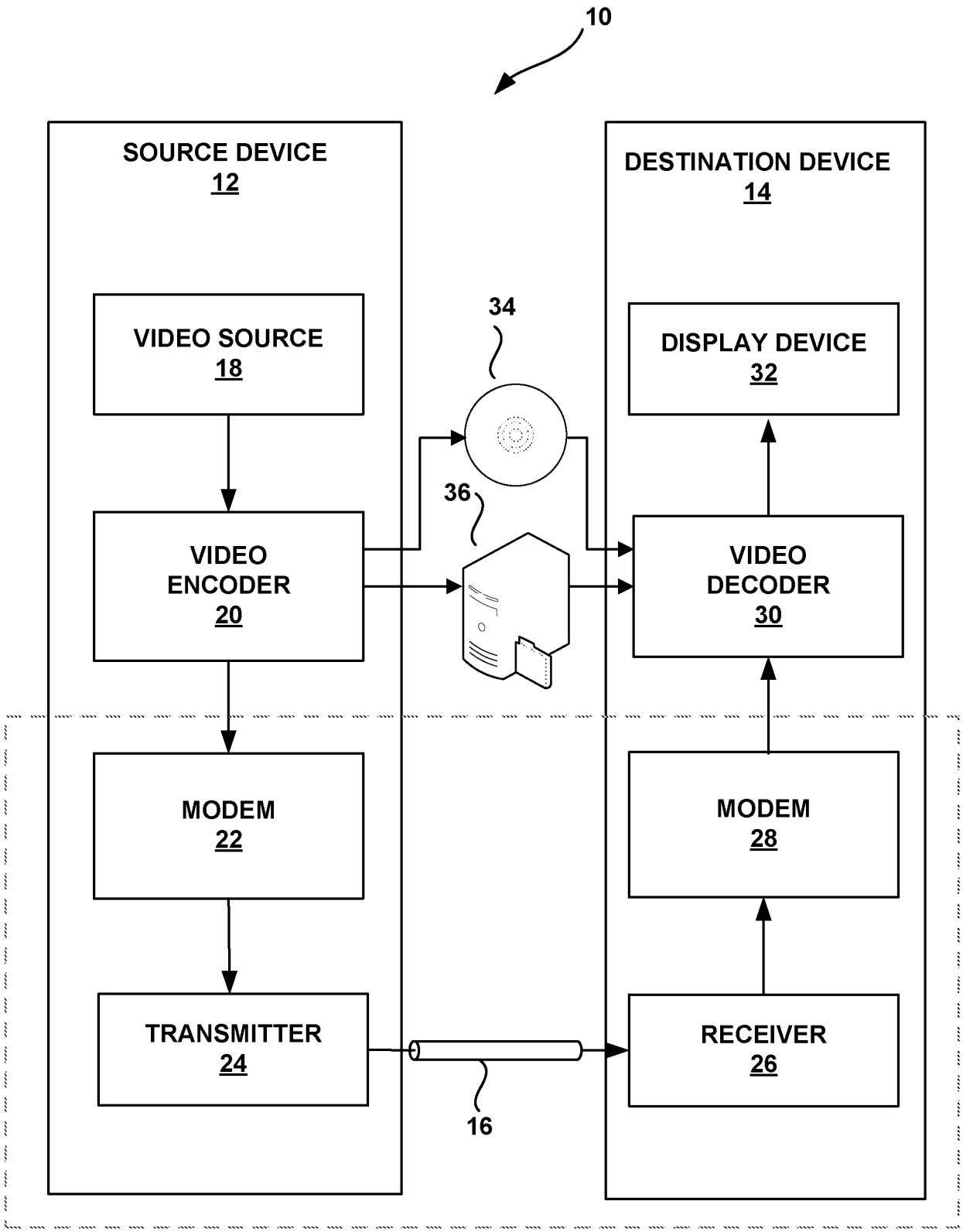

10
SOURCE DEVICE
12
DESTINATION DEVICE
14
VIDEO SOURCE
18
34
DISPLAY DEVICE
32
36
VIDEO
ENCODER
20
VIDEO
DECODER
30
MODEM
22
MODEM
28
TRANSMITTER
24
RECEIVER
26
16

FIG. 3

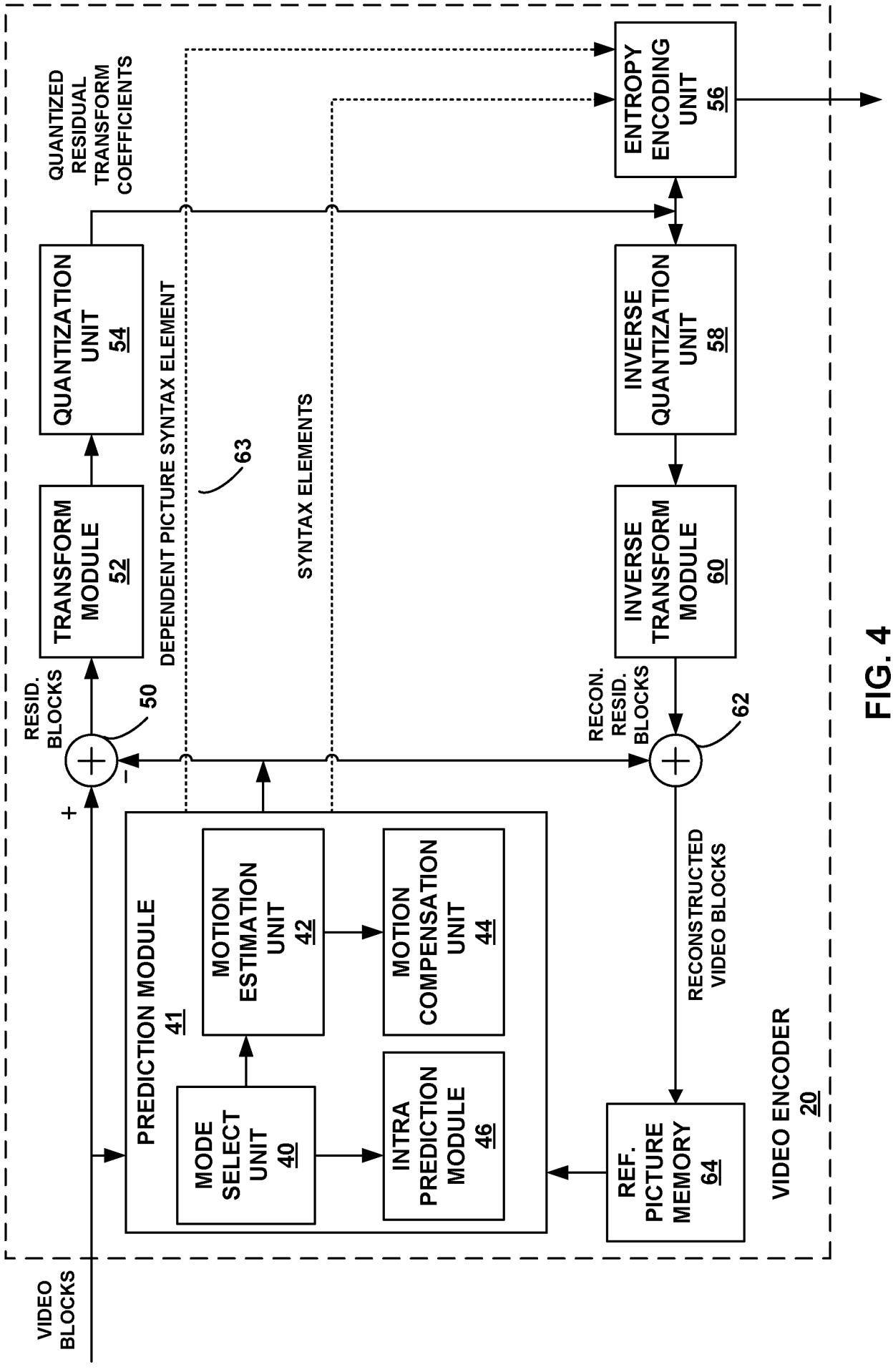

VIDEO ENCODER
20
VIDEO BLOCKS
PREDICTION MODULE
41
MODE SELECT UNIT
40
MOTION ESTIMATION UNIT
42
MOTION COMPENSATION UNIT
44
INTRA PREDICTION MODULE
46
REF. PICTURE MEMORY
64
RECONSTRUCTED VIDEO BLOCKS
RECON. RESID. BLOCKS
62
INVERSE TRANSFORM MODULE
60
INVERSE QUANTIZATION UNIT
58
ENTROPY ENCODING UNIT
56
RESID. BLOCKS
50
TRANSFORM MODULE
52
QUANTIZATION UNIT
54
QUANTIZED RESIDUAL TRANSFORM COEFFICIENTS
DEPENDENT PICTURE SYNTAX ELEMENT
63
SYNTAX ELEMENTS

FIG. 4

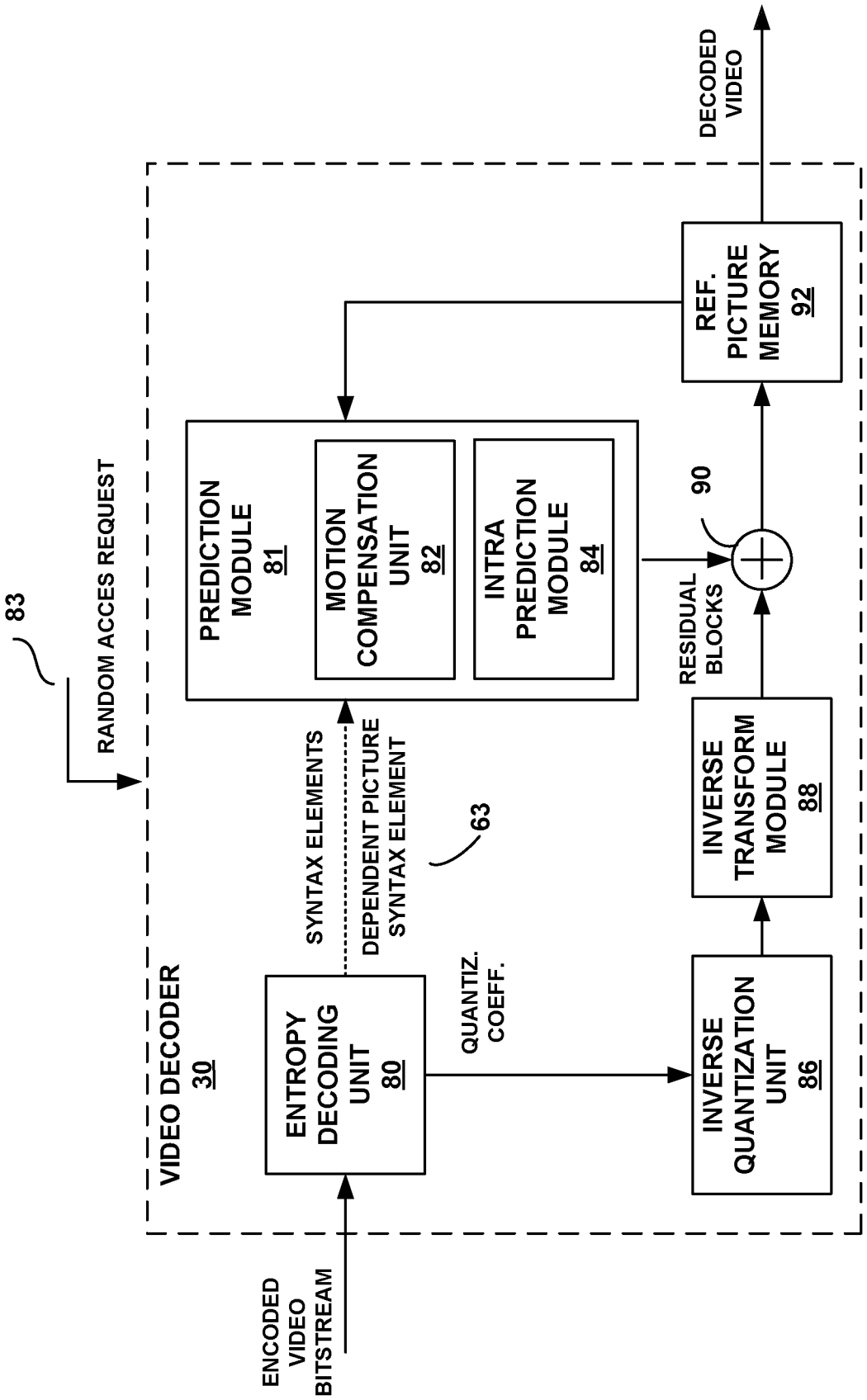

DECODED VIDEO
REF. PICTURE MEMORY 92
PREDICTION MODULE 81
MOTION COMPENSATION UNIT 82
INTRA PREDICTION MODULE 84
90
RESIDUAL BLOCKS
INVERSE TRANSFORM MODULE 88
INVERSE QUANTIZATION UNIT 86
QUANTIZ. COEFF.
ENTROPY DECODING UNIT 80
SYNTAX ELEMENTS
DEPENDENT PICTURE SYNTAX ELEMENT
63
VIDEO DECODER 30
83
RANDOM ACCES REQUEST
ENCODED VIDEO BITSTREAM

FIG. 5

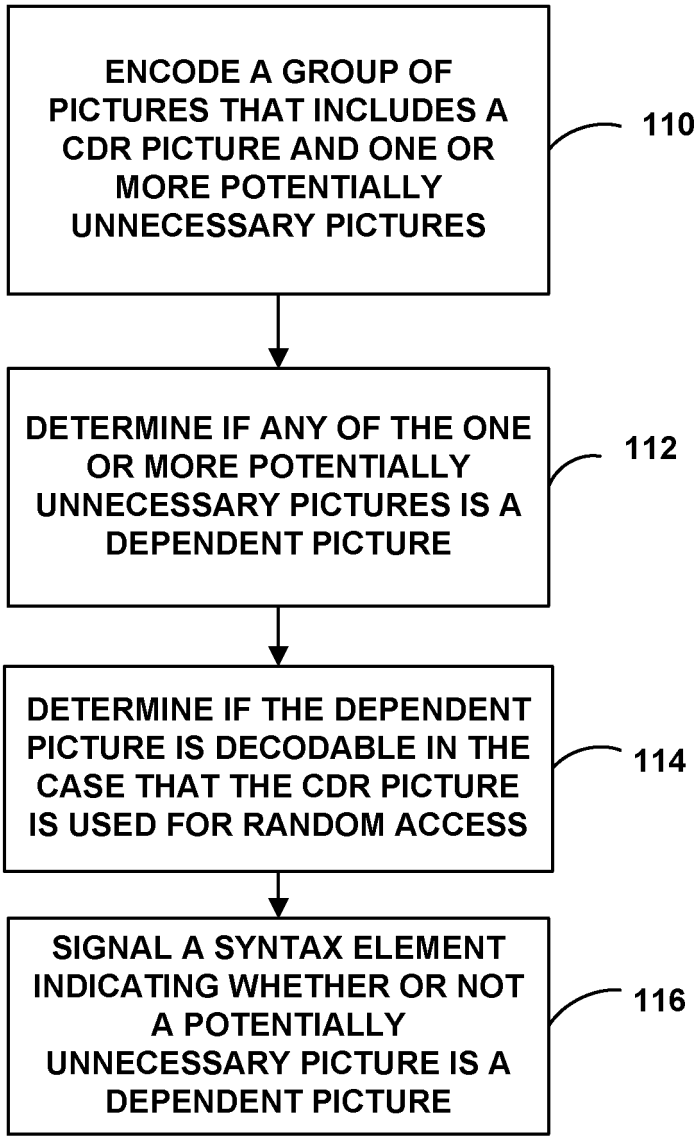

ENCODE A GROUP OF PICTURES THAT INCLUDES A CDR PICTURE AND ONE OR MORE POTENTIALLY UNNECESSARY PICTURES
110
DETERMINE IF ANY OF THE ONE OR MORE POTENTIALLY UNNECESSARY PICTURES IS A DEPENDENT PICTURE
112
DETERMINE IF THE DEPENDENT PICTURE IS DECODABLE IN THE CASE THAT THE CDR PICTURE IS USED FOR RANDOM ACCESS
114
SIGNAL A SYNTAX ELEMENT INDICATING WHETHER OR NOT A POTENTIALLY UNNECESSARY PICTURE IS A DEPENDENT PICTURE
116

FIG. 6

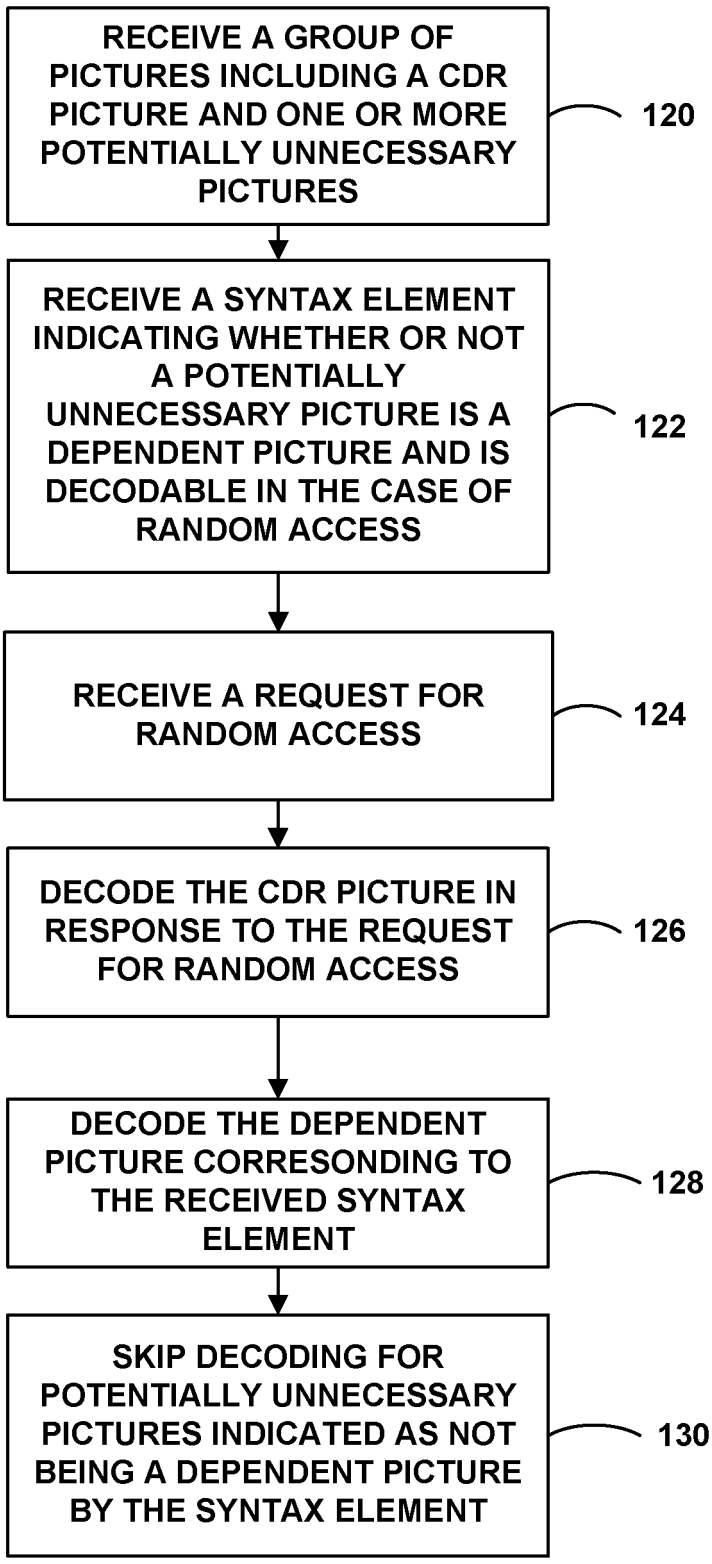

RECEIVE A GROUP OF PICTURES INCLUDING A CDR PICTURE AND ONE OR MORE POTENTIALLY UNNECESSARY PICTURES
120
RECEIVE A SYNTAX ELEMENT INDICATING WHETHER OR NOT A POTENTIALLY UNNECESSARY PICTURE IS A DEPENDENT PICTURE AND IS DECODABLE IN THE CASE OF RANDOM ACCESS
122
RECEIVE A REQUEST FOR RANDOM ACCESS
124
DECODE THE CDR PICTURE IN RESPONSE TO THE REQUEST FOR RANDOM ACCESS
126
DECODE THE DEPENDENT PICTURE CORRESONDING TO THE RECEIVED SYNTAX ELEMENT
128
SKIP DECODING FOR POTENTIALLY UNNECESSARY PICTURES INDICATED AS NOT BEING A DEPENDENT PICTURE BY THE SYNTAX ELEMENT
130

FIG. 7

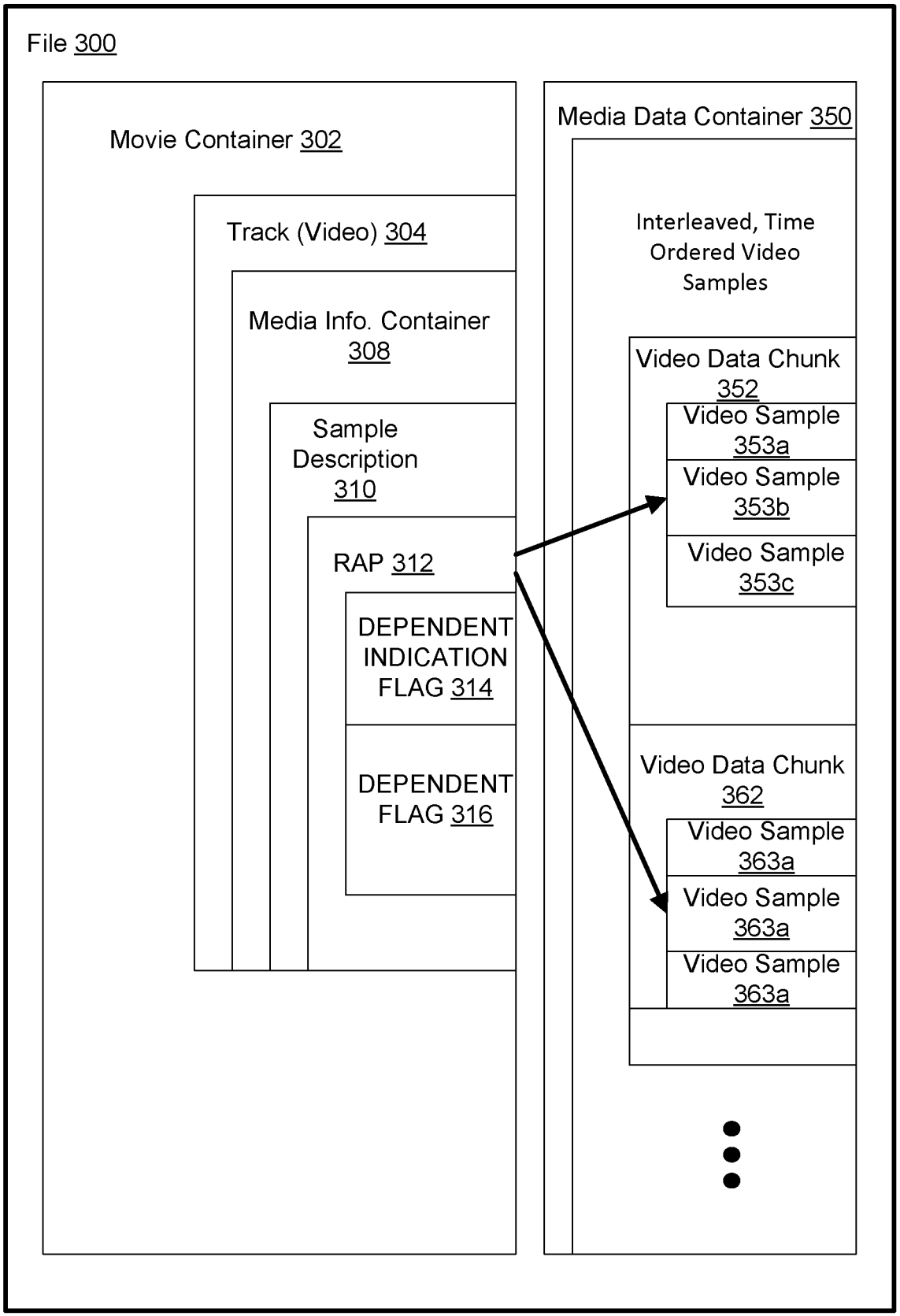

File 300
Movie Container 302
Track (Video) 304
Media Info. Container 308
Sample Description 310
RAP 312
DEPENDENT INDICATION FLAG 314
DEPENDENT FLAG 316
Media Data Container 350
Interleaved, Time Ordered Video Samples
Video Data Chunk 352
Video Sample 353a
Video Sample 353b
Video Sample 353c
Video Data Chunk 362
Video Sample 363a
Video Sample 363a
Video Sample 363a

FIG. 8