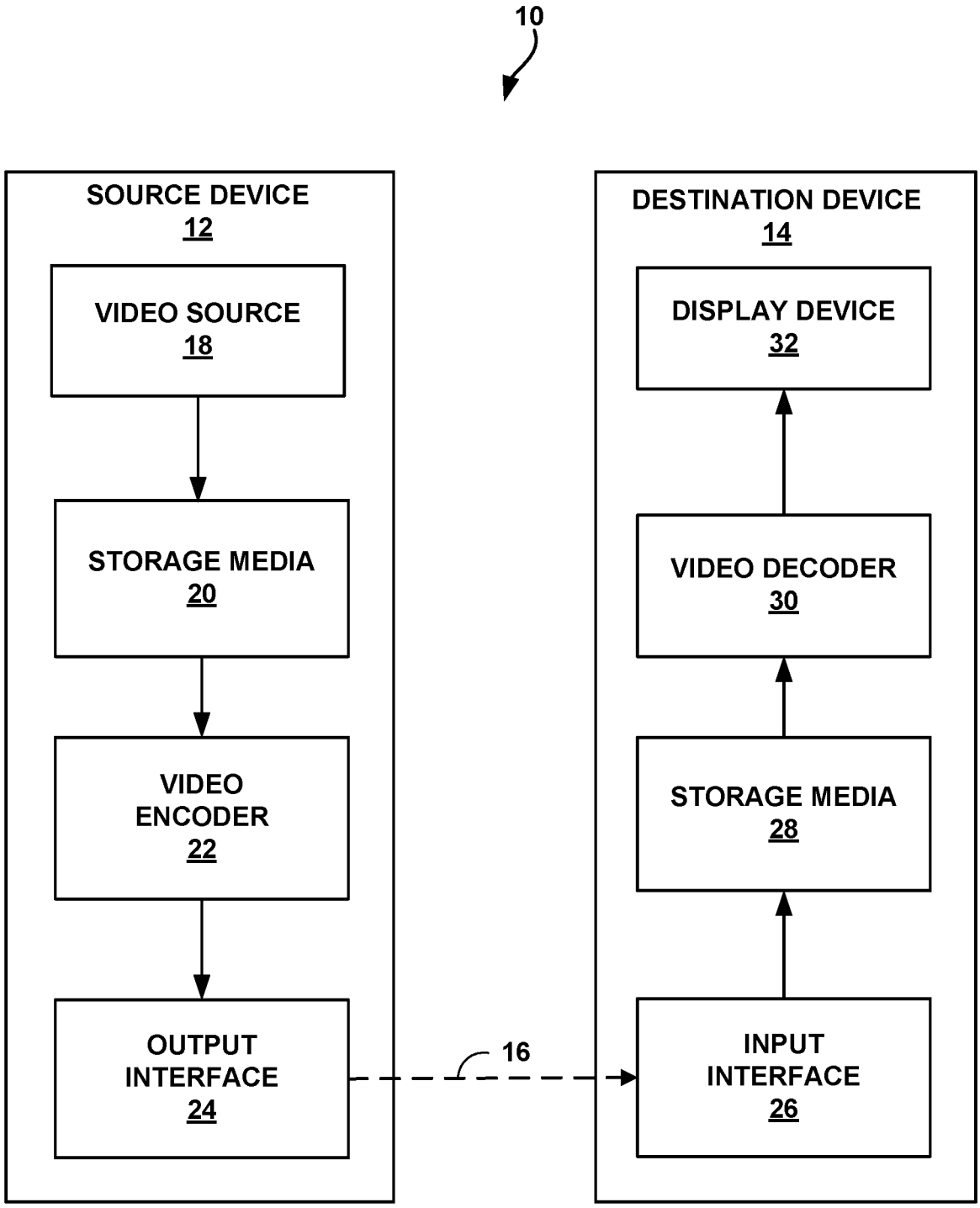
10
SOURCE DEVICE
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VIDEO SOURCE
18
STORAGE MEDIA
20
VIDEO
ENCODER
22
OUTPUT
INTERFACE
24
16
DESTINATION DEVICE
14
DISPLAY DEVICE
32
VIDEO DECODER
30
STORAGE MEDIA
28
INPUT
INTERFACE
26

FIG. 1

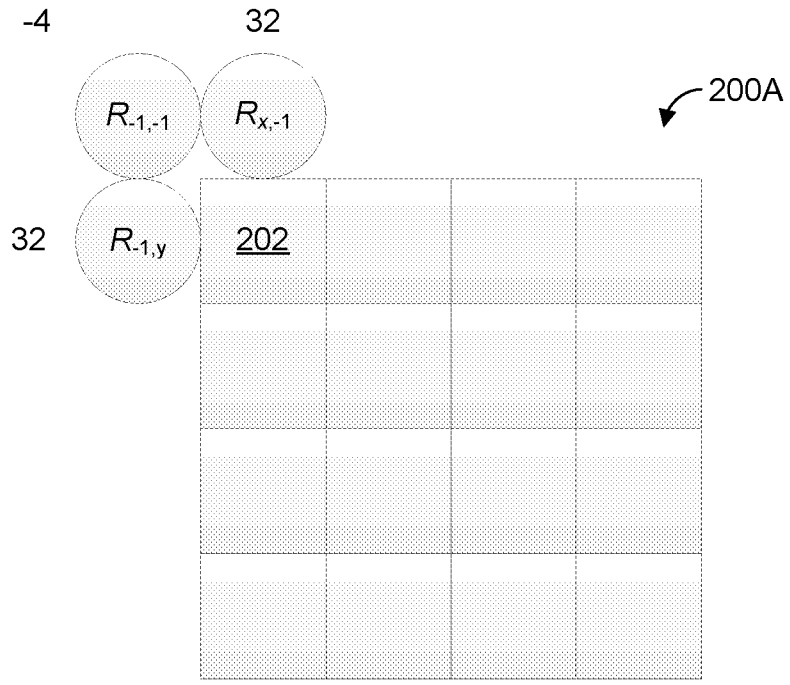


FIG. 2A

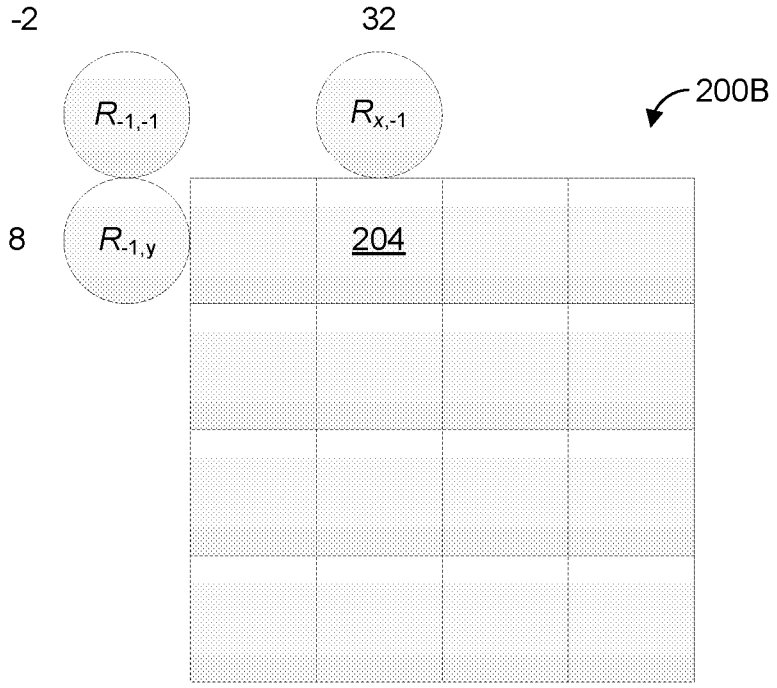


FIG. 2B

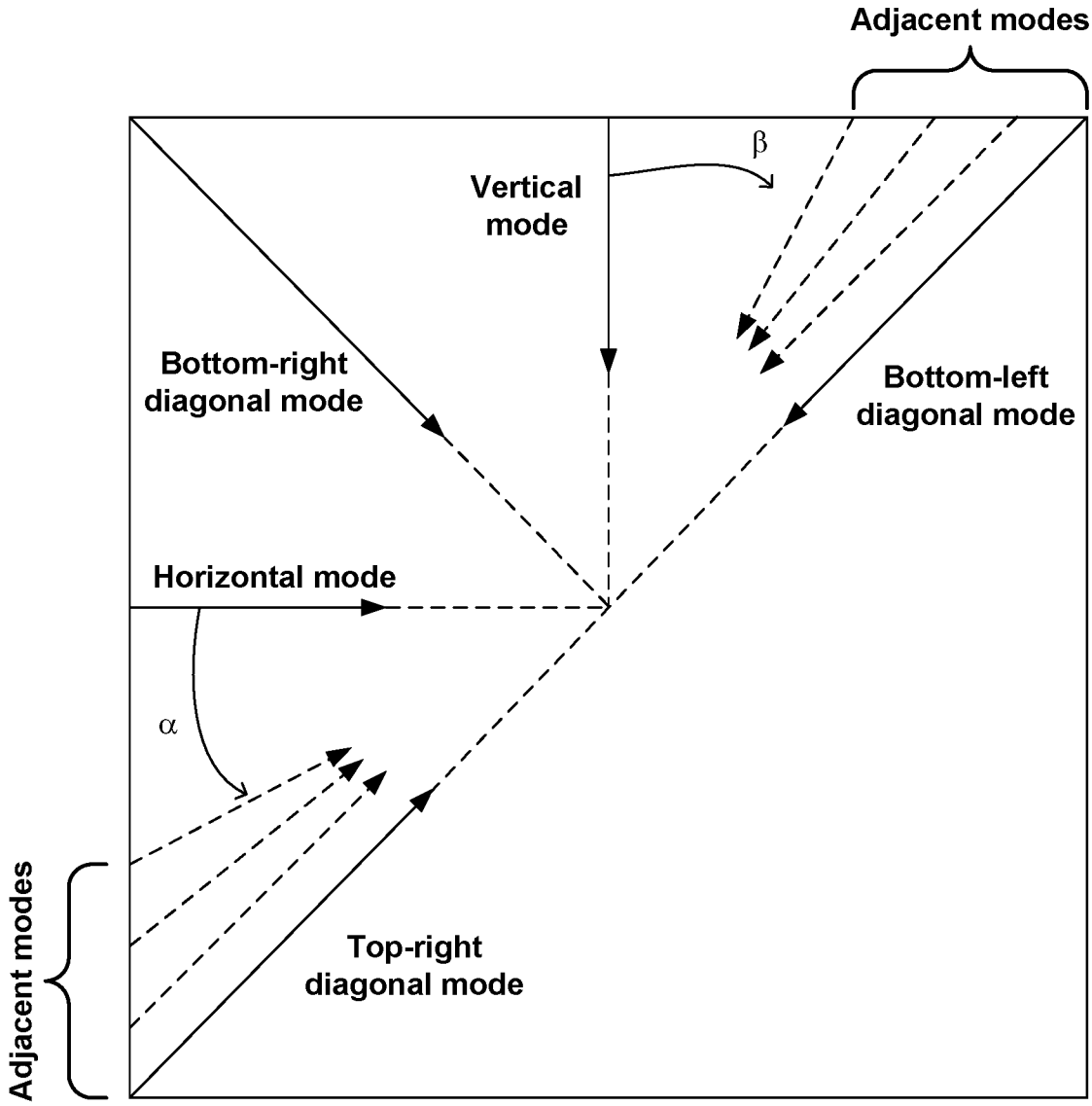

Adjacent modes
β
Vertical mode
Bottom-right diagonal mode
Bottom-left diagonal mode
Horizontal mode
α
Adjacent modes
Top-right diagonal mode

FIG. 3

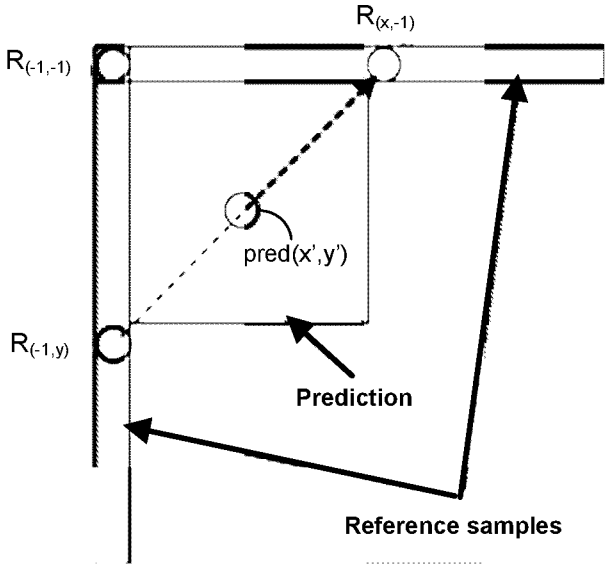


FIG. 4A

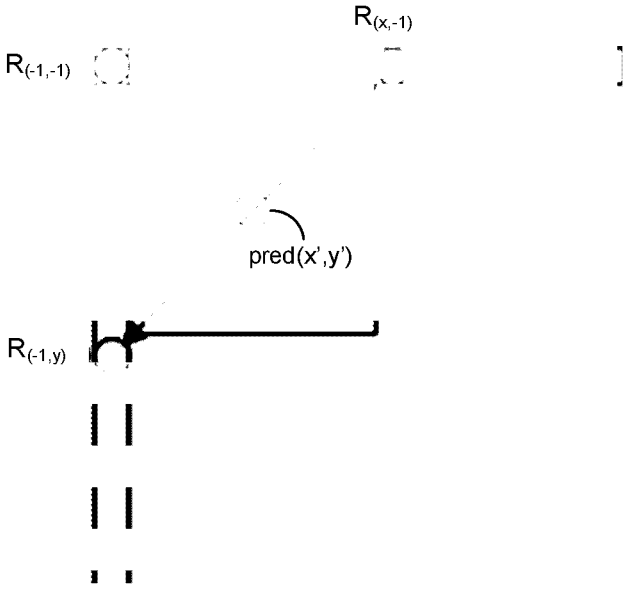


FIG. 4B

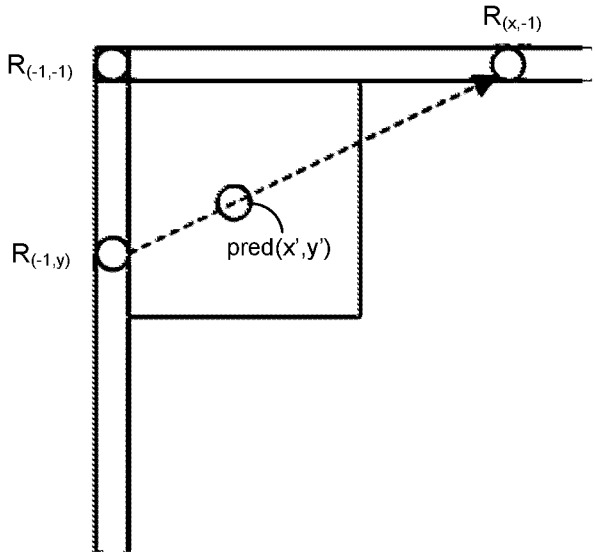


FIG. 4C

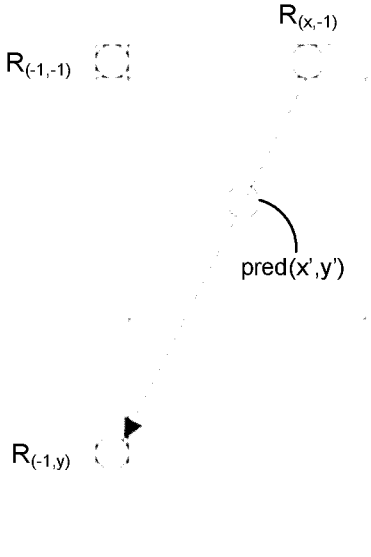


FIG. 4D

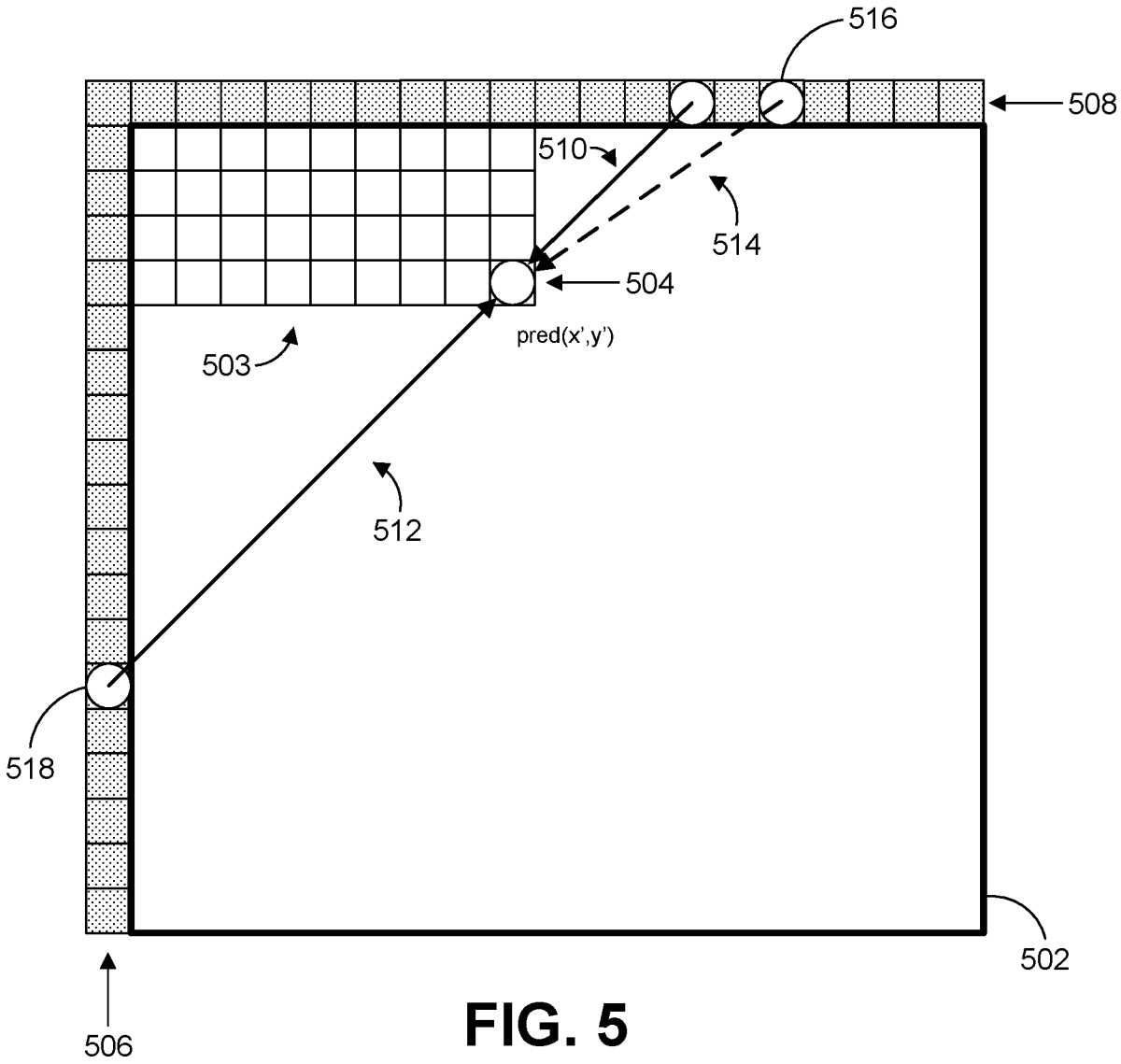
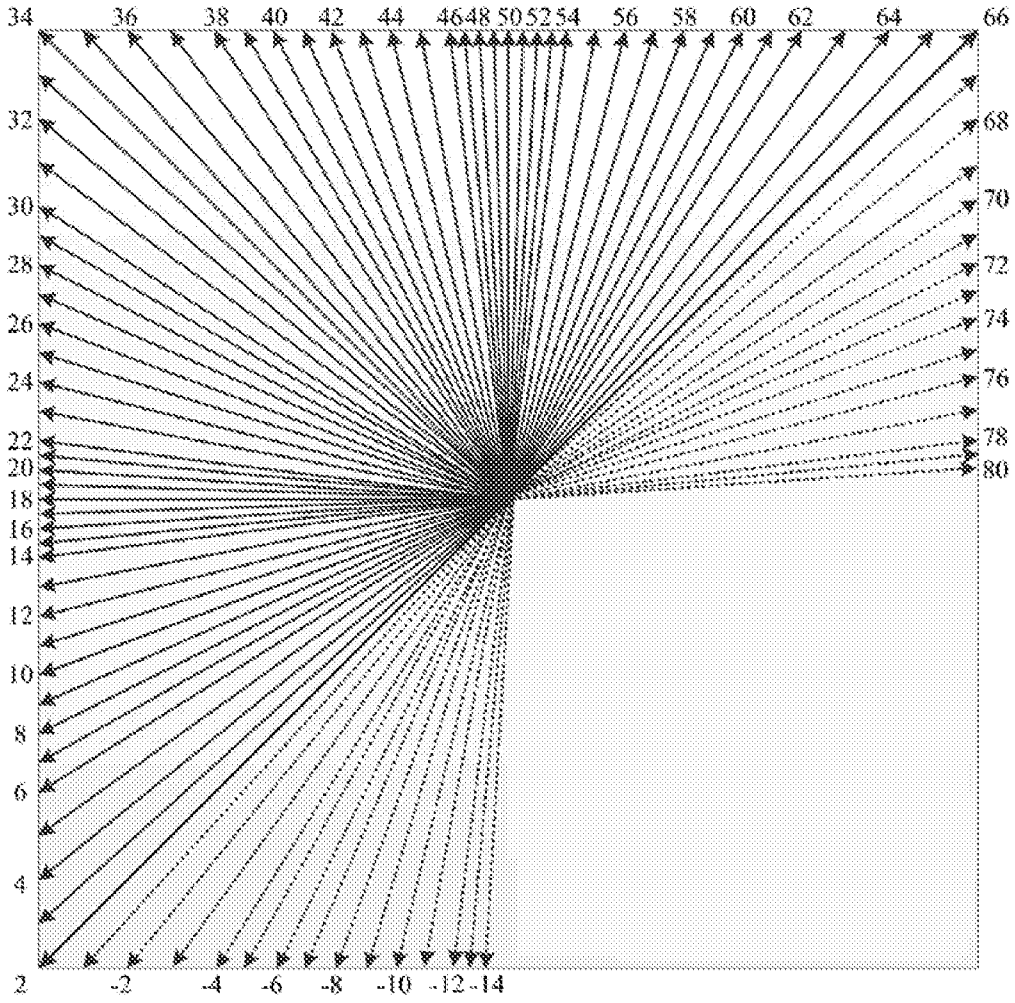


FIG. 5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-12
-14

FIG. 6

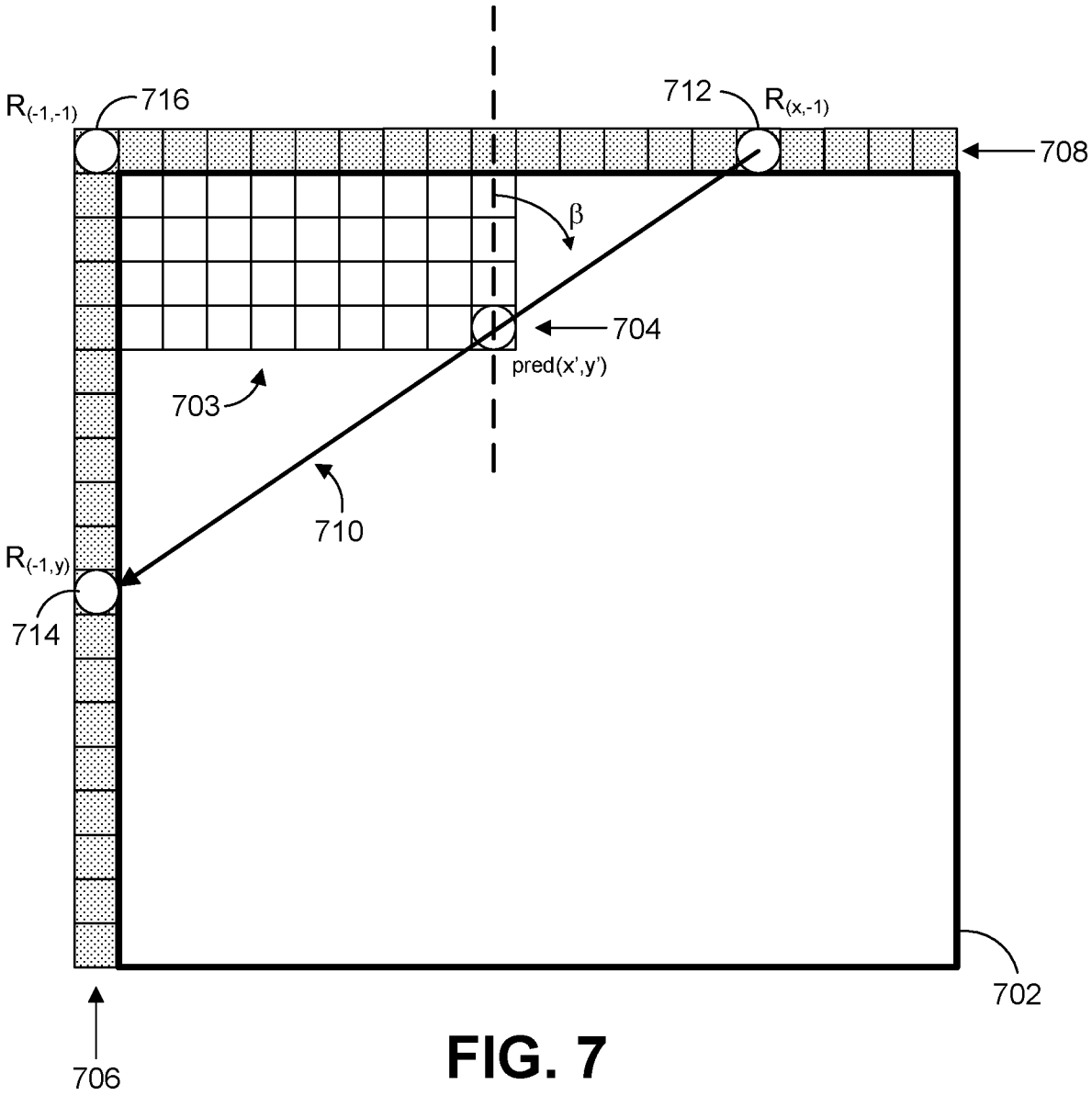

FIG. 7

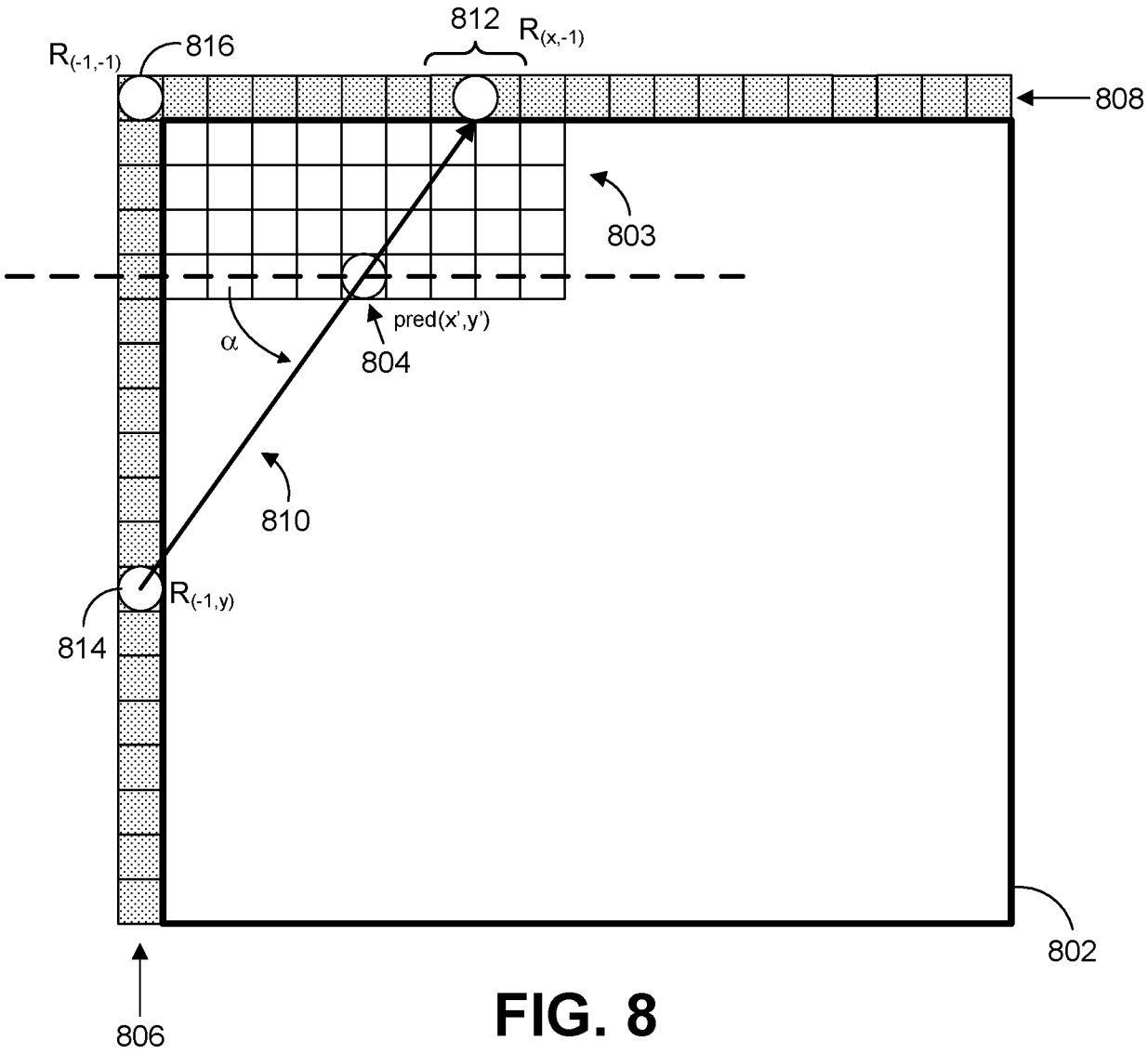

FIG. 8

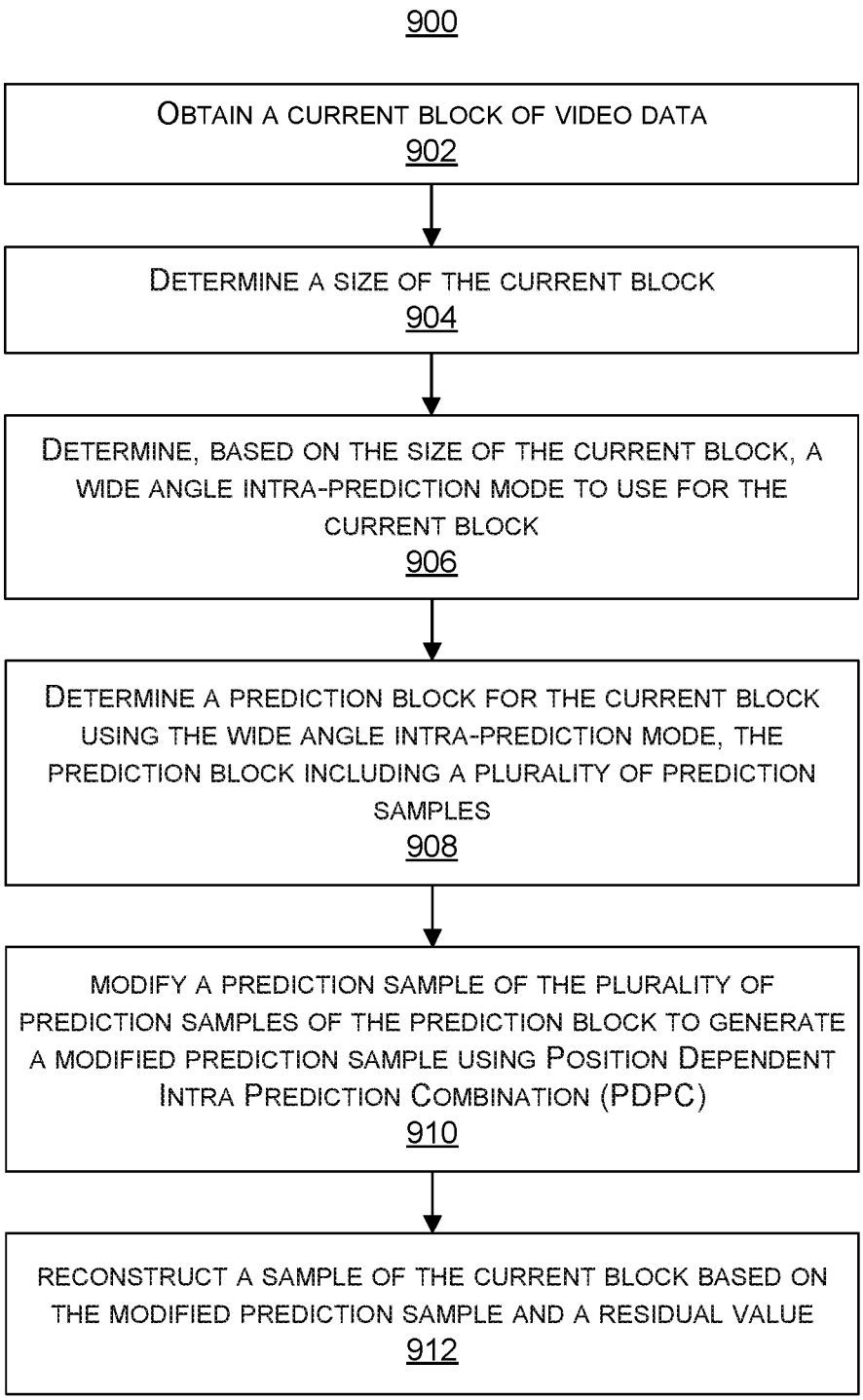
900
OBTAIN A CURRENT BLOCK OF VIDEO DATA
902
DETERMINE A SIZE OF THE CURRENT BLOCK
904
DETERMINE, BASED ON THE SIZE OF THE CURRENT BLOCK, A WIDE ANGLE INTRA-PREDICTION MODE TO USE FOR THE CURRENT BLOCK
906
DETERMINE A PREDICTION BLOCK FOR THE CURRENT BLOCK USING THE WIDE ANGLE INTRA-PREDICTION MODE, THE PREDICTION BLOCK INCLUDING A PLURALITY OF PREDICTION SAMPLES
908
MODIFY A PREDICTION SAMPLE OF THE PLURALITY OF PREDICTION SAMPLES OF THE PREDICTION BLOCK TO GENERATE A MODIFIED PREDICTION SAMPLE USING POSITION DEPENDENT INTRA PREDICTION COMBINATION (PDPC)
910
RECONSTRUCT A SAMPLE OF THE CURRENT BLOCK BASED ON THE MODIFIED PREDICTION SAMPLE AND A RESIDUAL VALUE
912

FIG. 9

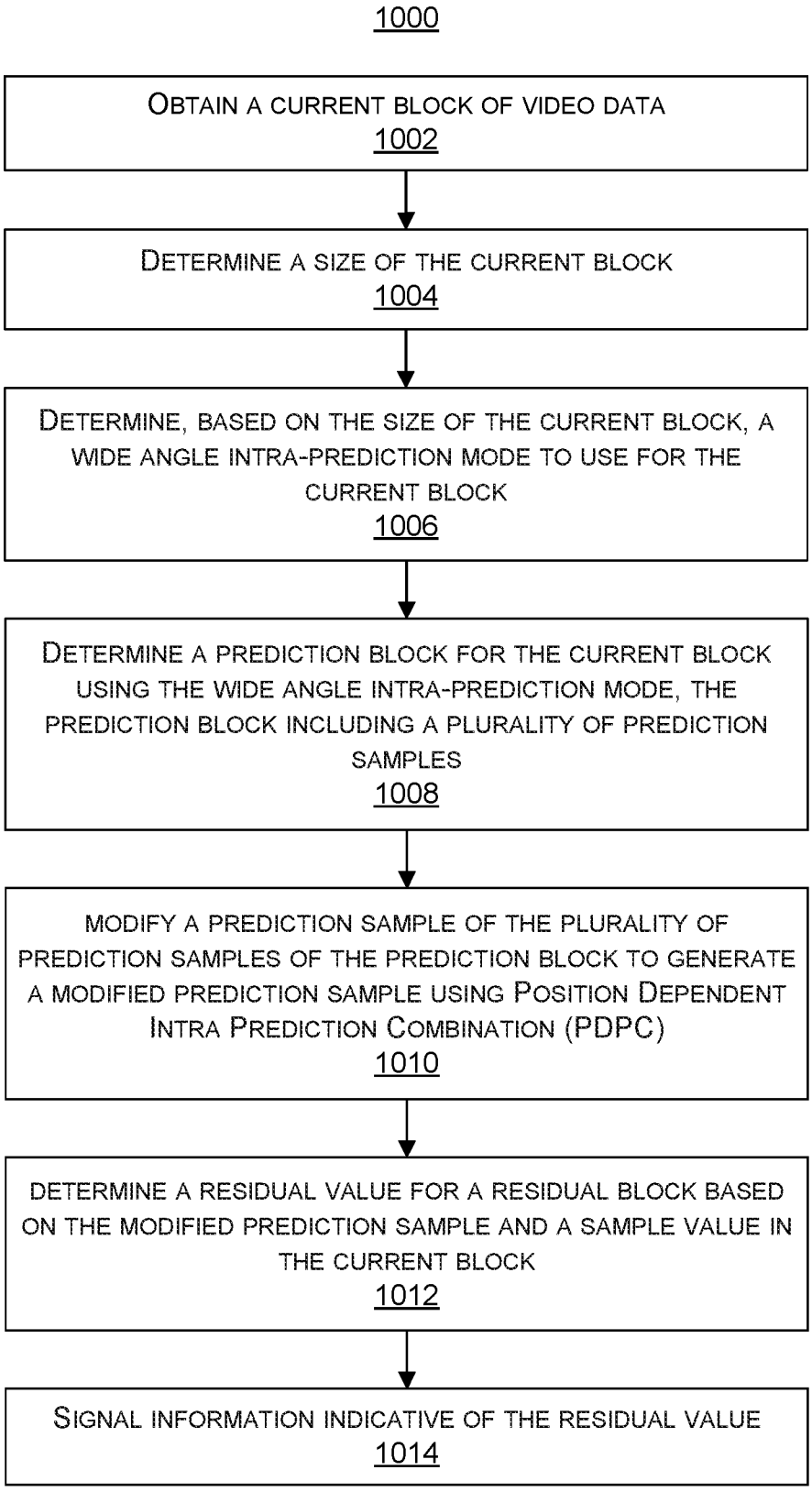
1000
OBTAIN A CURRENT BLOCK OF VIDEO DATA
1002
DETERMINE A SIZE OF THE CURRENT BLOCK
1004
DETERMINE, BASED ON THE SIZE OF THE CURRENT BLOCK, A WIDE ANGLE INTRA-PREDICTION MODE TO USE FOR THE CURRENT BLOCK
1006
DETERMINE A PREDICTION BLOCK FOR THE CURRENT BLOCK USING THE WIDE ANGLE INTRA-PREDICTION MODE, THE PREDICTION BLOCK INCLUDING A PLURALITY OF PREDICTION SAMPLES
1008
MODIFY A PREDICTION SAMPLE OF THE PLURALITY OF PREDICTION SAMPLES OF THE PREDICTION BLOCK TO GENERATE A MODIFIED PREDICTION SAMPLE USING POSITION DEPENDENT INTRA PREDICTION COMBINATION (PDPC)
1010
DETERMINE A RESIDUAL VALUE FOR A RESIDUAL BLOCK BASED ON THE MODIFIED PREDICTION SAMPLE AND A SAMPLE VALUE IN THE CURRENT BLOCK
1012
SIGNAL INFORMATION INDICATIVE OF THE RESIDUAL VALUE
1014

FIG. 10

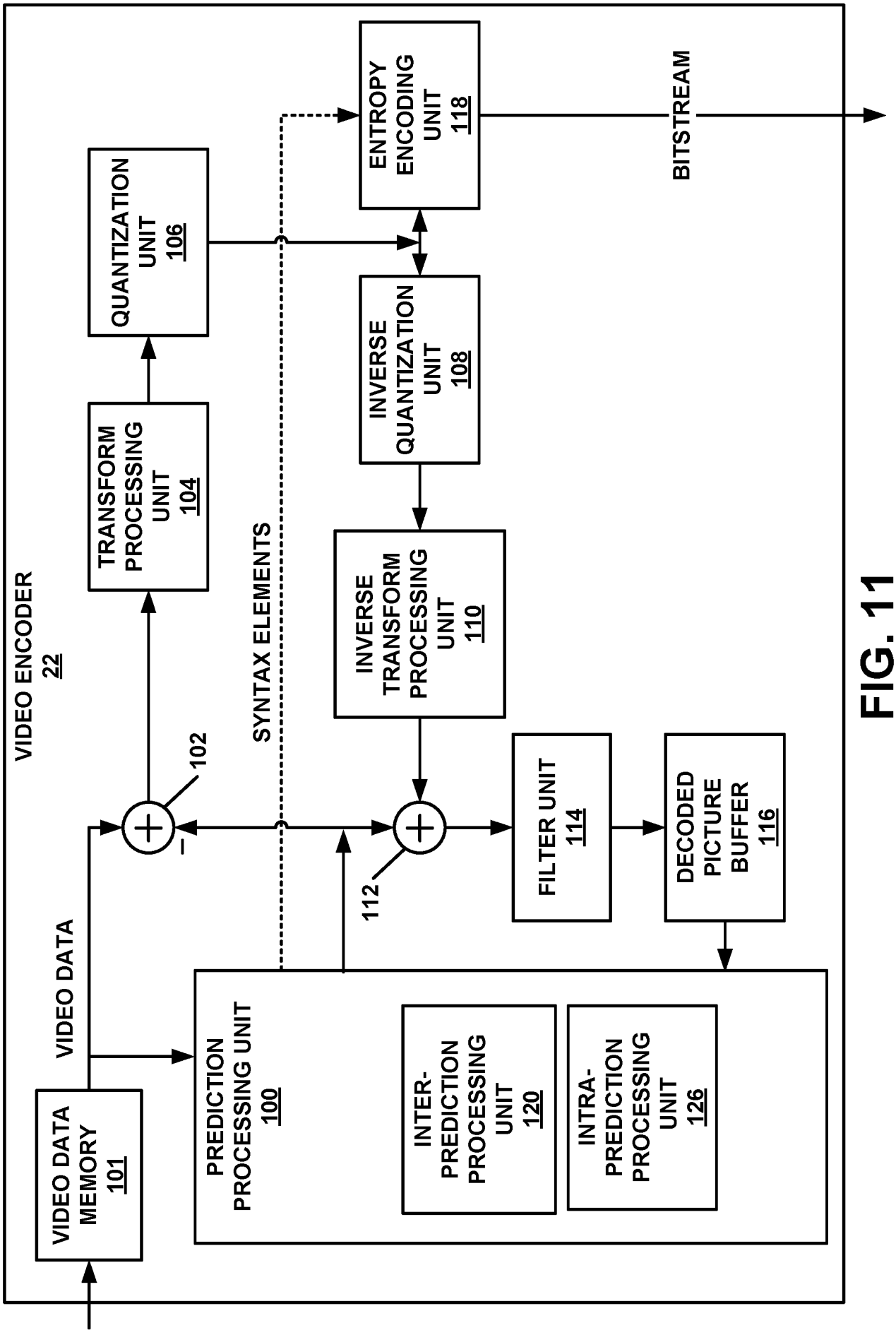
VIDEO ENCODER
22
VIDEO DATA MEMORY
101
VIDEO DATA
PREDICTION PROCESSING UNIT
100
INTER-PREDICTION PROCESSING UNIT
120
INTRA-PREDICTION PROCESSING UNIT
126
102
SYNTAX ELEMENTS
TRANSFORM PROCESSING UNIT
104
QUANTIZATION UNIT
106
INVERSE QUANTIZATION UNIT
108
INVERSE TRANSFORM PROCESSING UNIT
110
112
FILTER UNIT
114
DECODED PICTURE BUFFER
116
ENTROPY ENCODING UNIT
118
BITSTREAM

FIG. 11

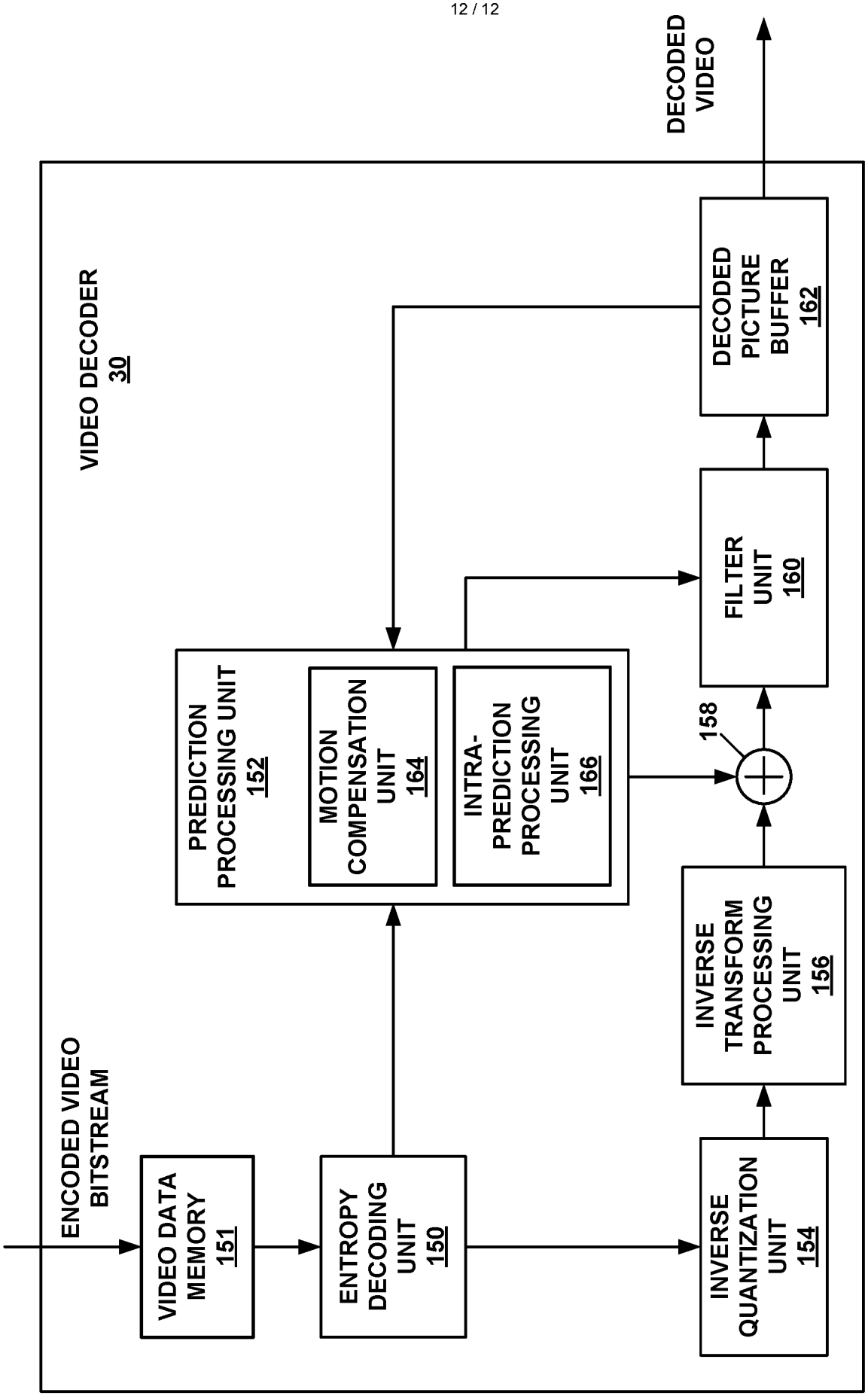
DECODED VIDEO
VIDEO DECODER 30
DECODED PICTURE BUFFER 162
FILTER UNIT 160
PREDICTION PROCESSING UNIT 152
MOTION COMPENSATION UNIT 164
INTRA-PREDICTION PROCESSING UNIT 166
158
INVERSE TRANSFORM PROCESSING UNIT 156
INVERSE QUANTIZATION UNIT 154
ENTROPY DECODING UNIT 150
VIDEO DATA MEMORY 151
ENCODED VIDEO BITSTREAM

FIG. 12