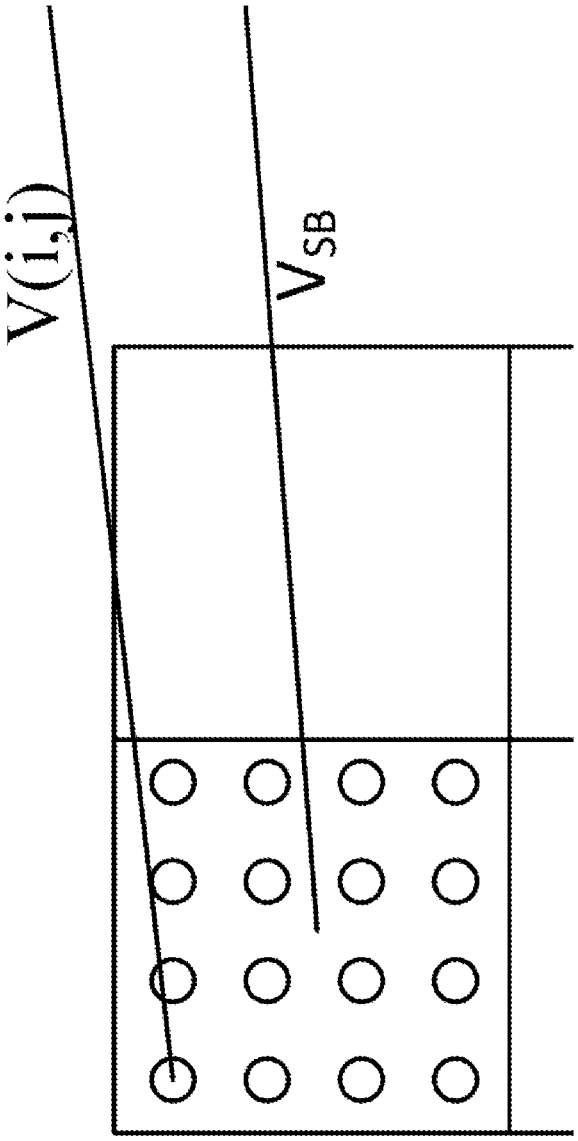


FIG. 1

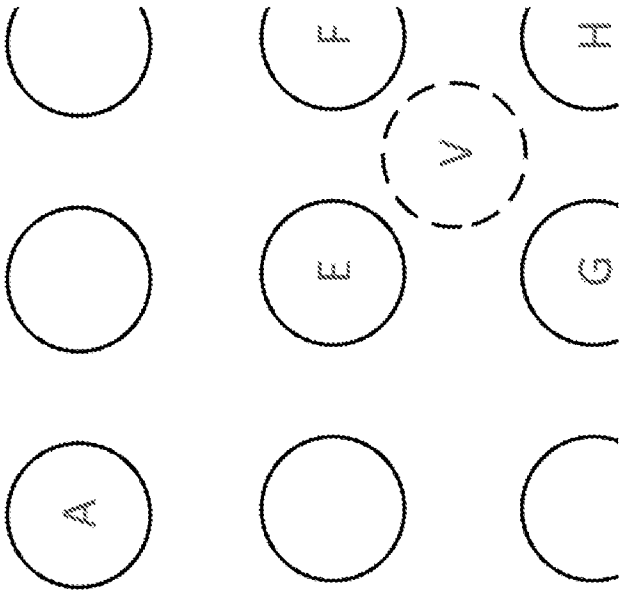


FIG. 3A

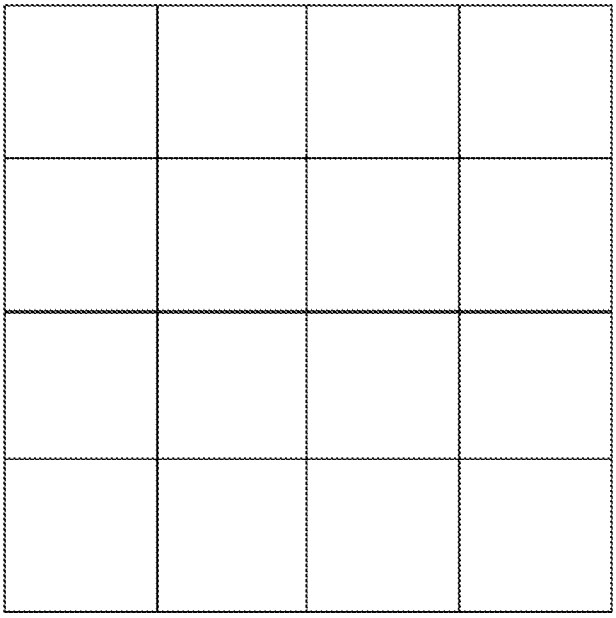


FIG. 2



FIG. 3C



FIG. 3B

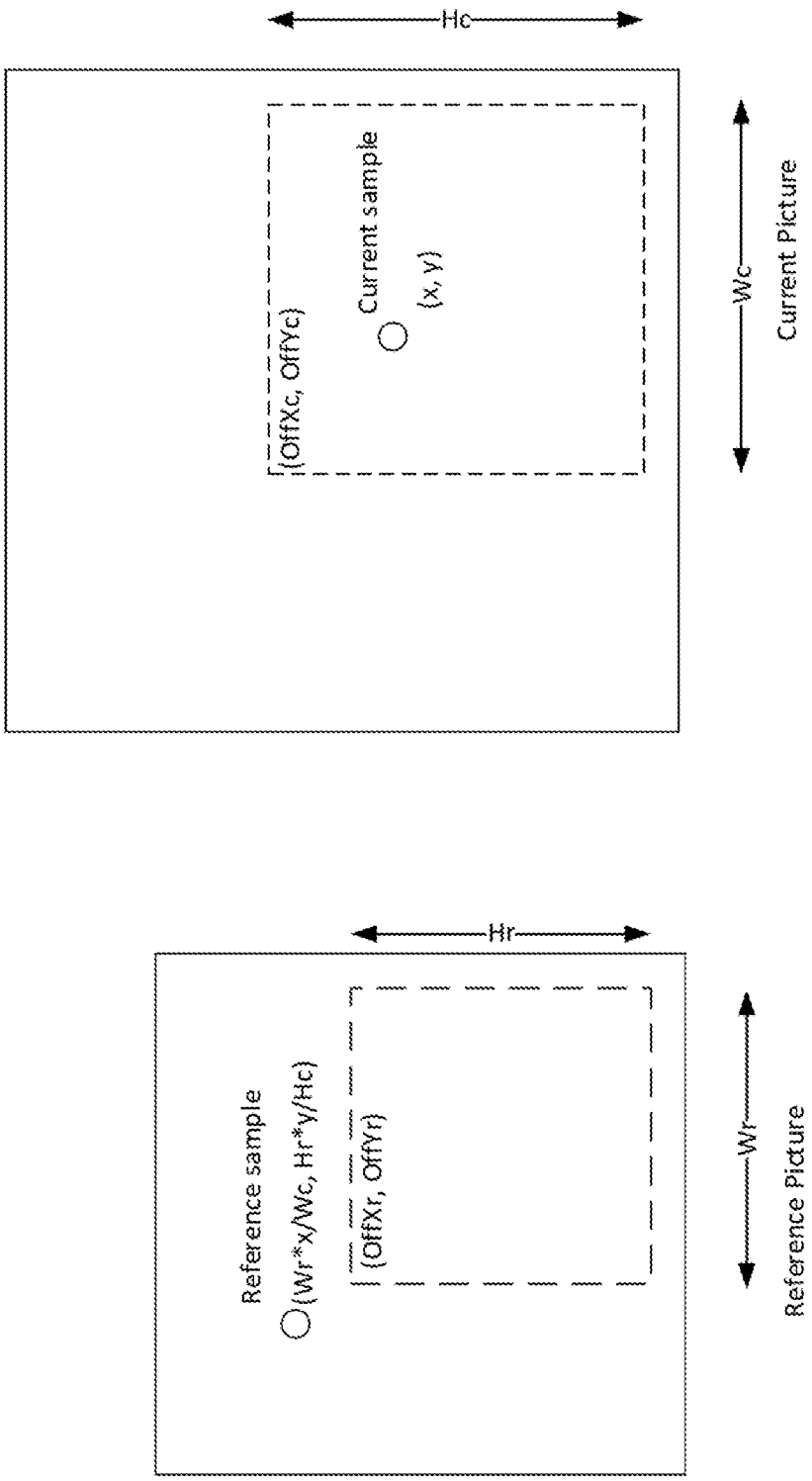

Hc
(OffXc, OffYc)
Current sample
(x, y)
Wc
Current Picture
Hr
Reference sample
(Wr*x/Wc, Hr*y/Hc)
(OffXr, OffYr)
Wr
Reference Picture

FIG. 4A

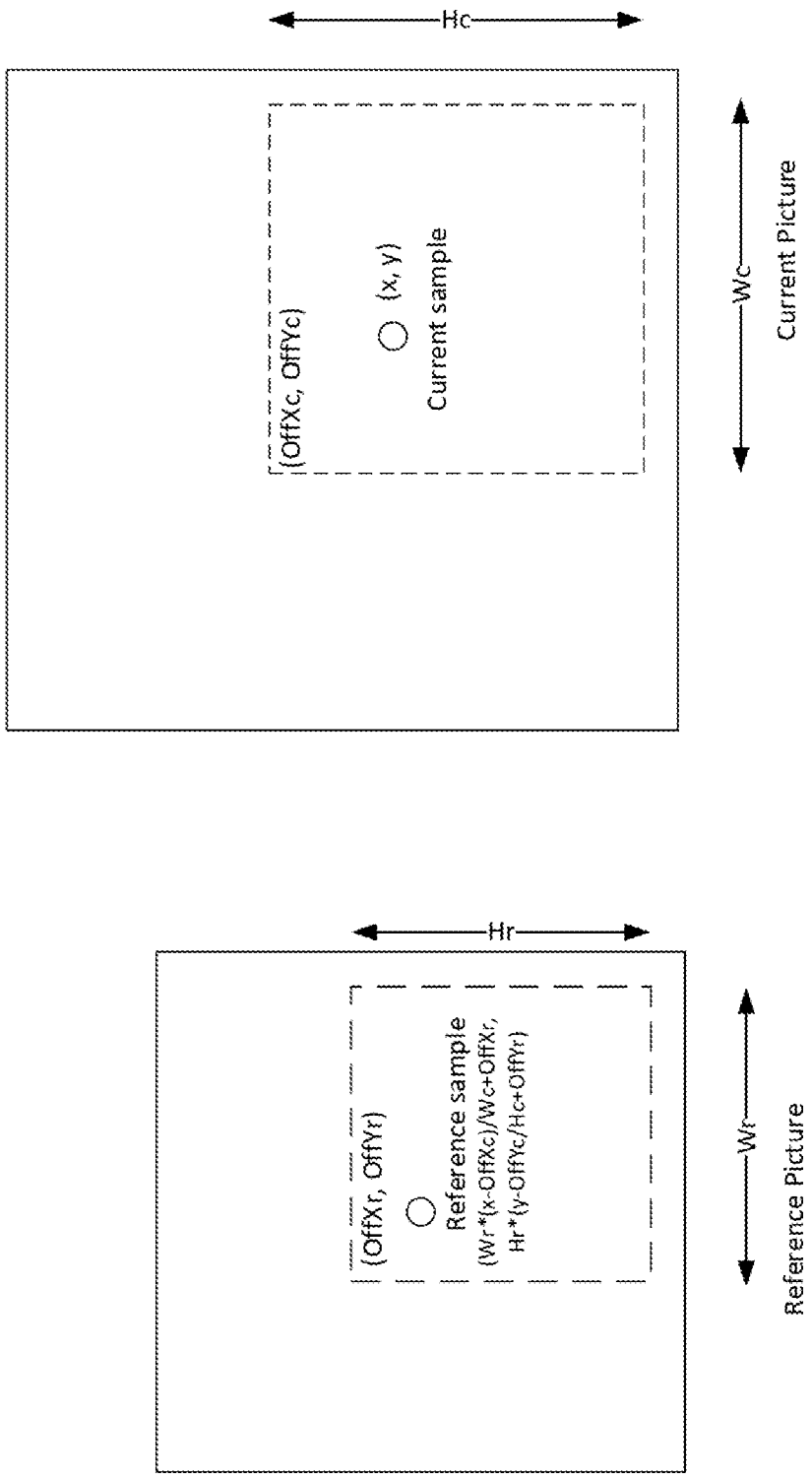

Hc
(OffXc, OffYc)
(x, y)
Current sample
Wc
Current Picture
Hr
(OffXr, OffYr)
Reference sample
(Wr*(x-OffXc)/Wc+OffXr,
Hr*(y-OffYc/Hc+OffYr)
Wr
Reference Picture

FIG. 4B

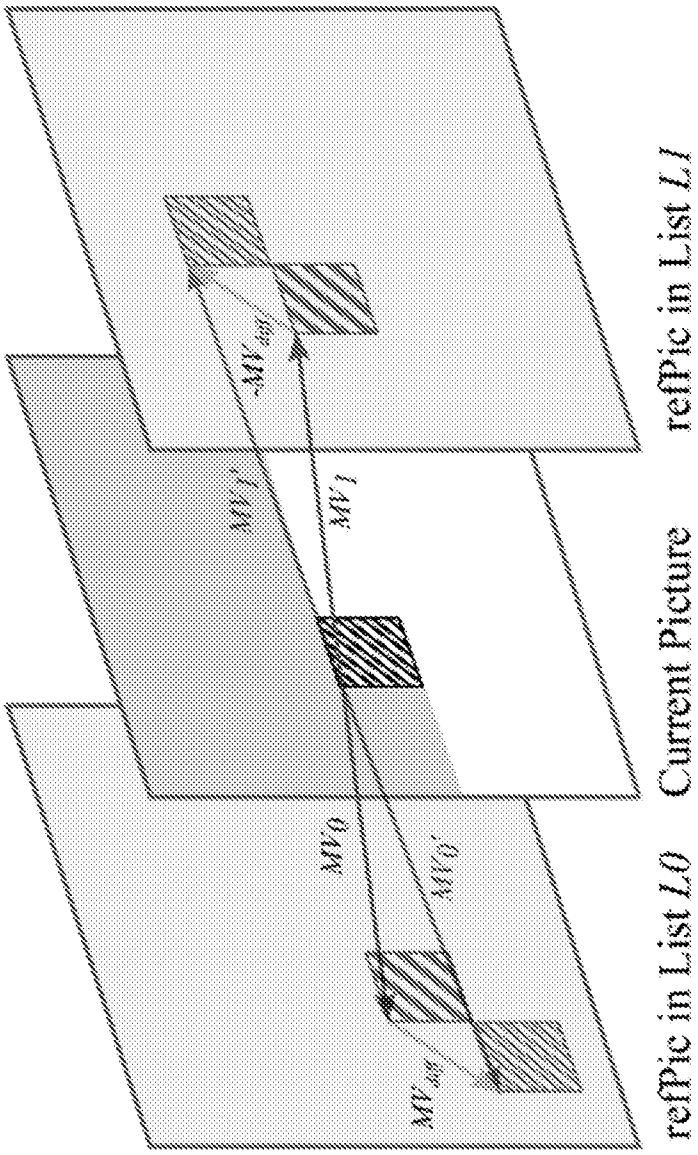

refPic in List L1
Current Picture
refPic in List L0
-MV_diff
MV1'
MV1
MV0
MV0'
MV_diff

FIG. 5

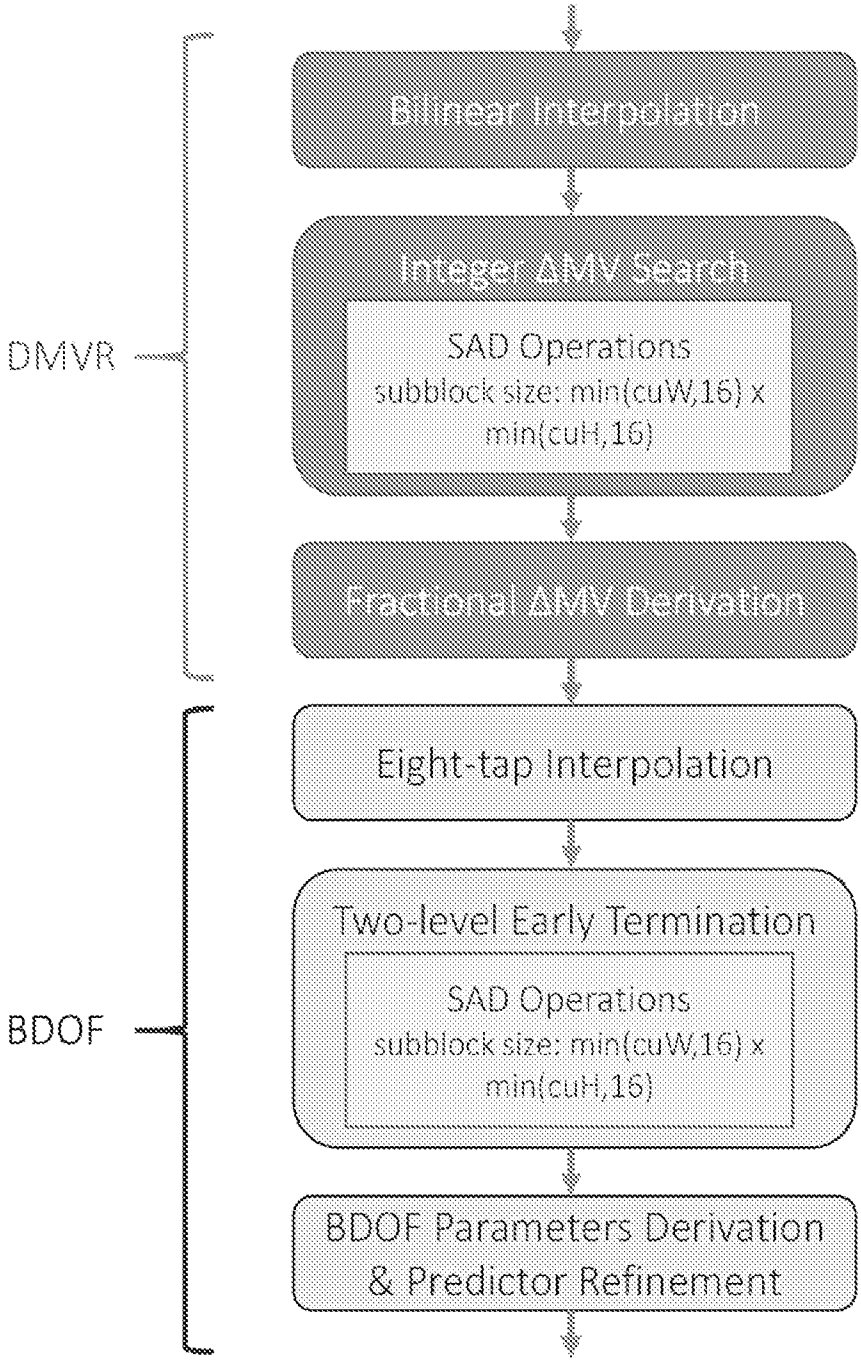

DMVR
BDOF
Bilinear Interpolation
Integer AMV Search
SAD Operations
subblock size: min(cuW,16) x min(cuH,16)
Fractional AMV Derivation
Eight-tap Interpolation
Two-level Early Termination
SAD Operations
subblock size: min(cuW,16) x min(cuH,16)
BDOF Parameters Derivation & Predictor Refinement

FIG. 6

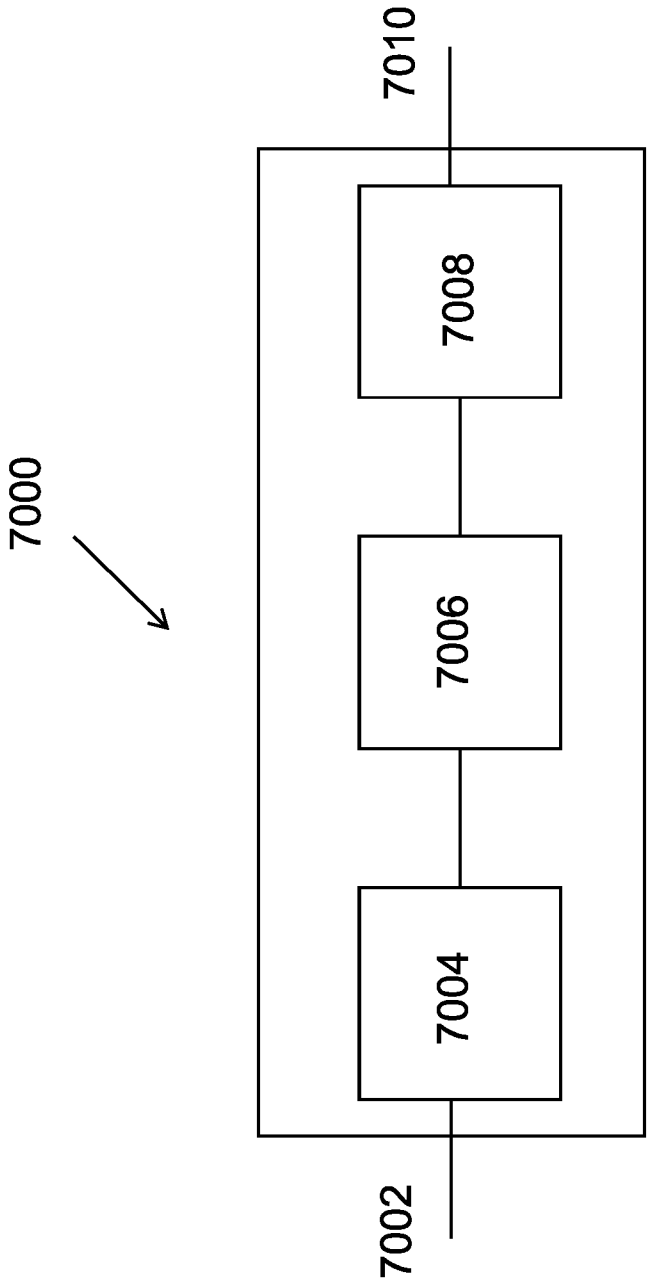


FIG. 7

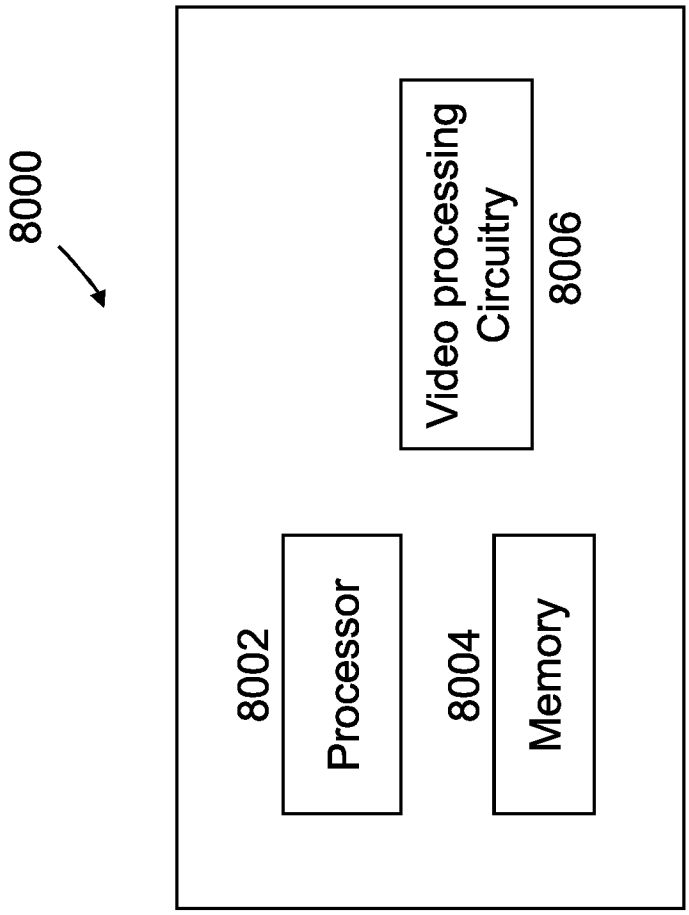

8000
Video processing Circuitry
8006
8002
Processor
8004
Memory

FIG. 8

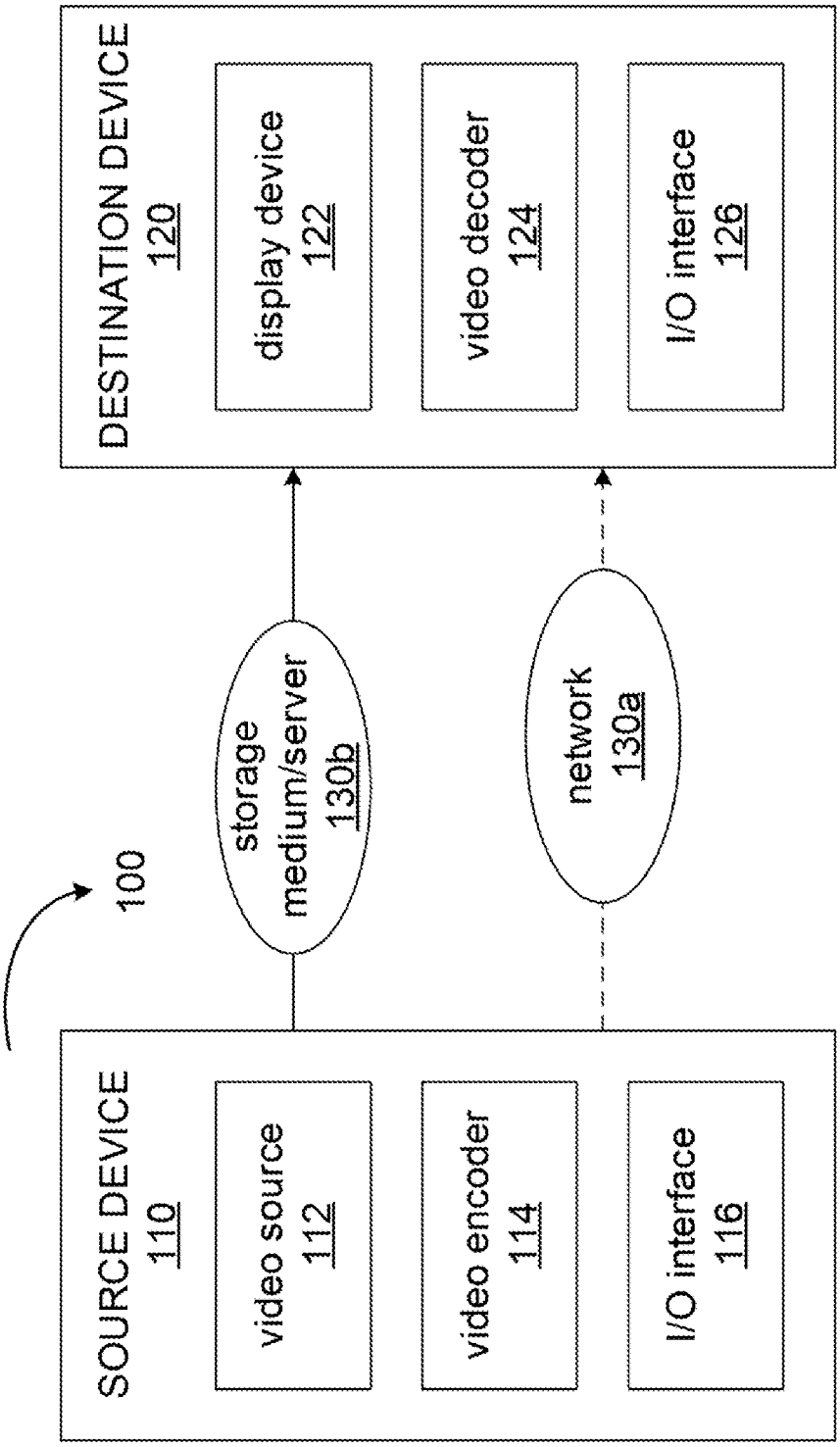

DESTINATION DEVICE
120
display device
122
video decoder
124
I/O interface
126
storage medium/server
130b
network
130a
100
SOURCE DEVICE
110
video source
112
video encoder
114
I/O interface
116

FIG. 9

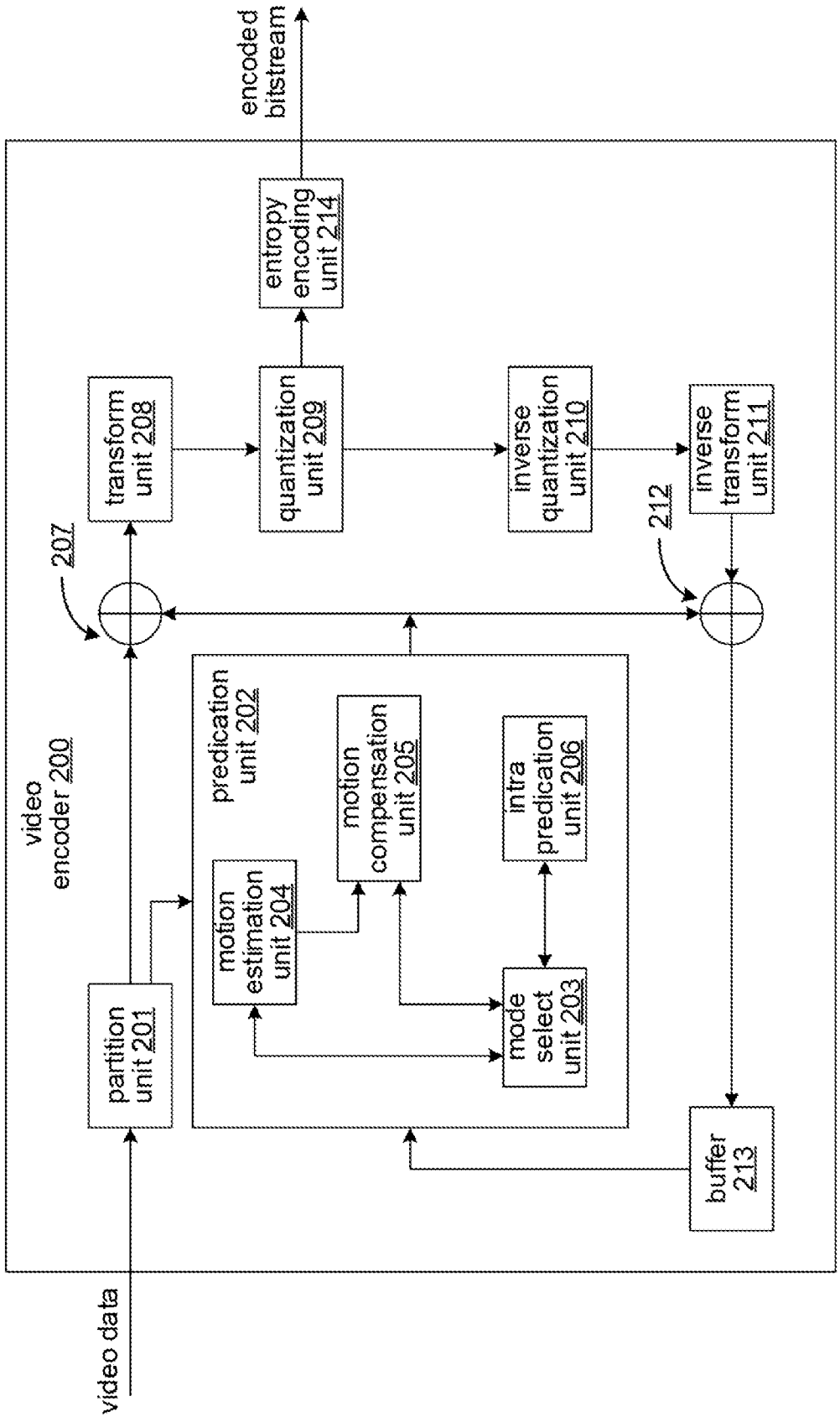

video data
video encoder 200
partition unit 201
predication unit 202
motion estimation unit 204
motion compensation unit 205
intra predication unit 206
mode select unit 203
207
transform unit 208
quantization unit 209
entropy encoding unit 214
encoded bitstream
inverse quantization unit 210
212
inverse transform unit 211
buffer 213

FIG. 10

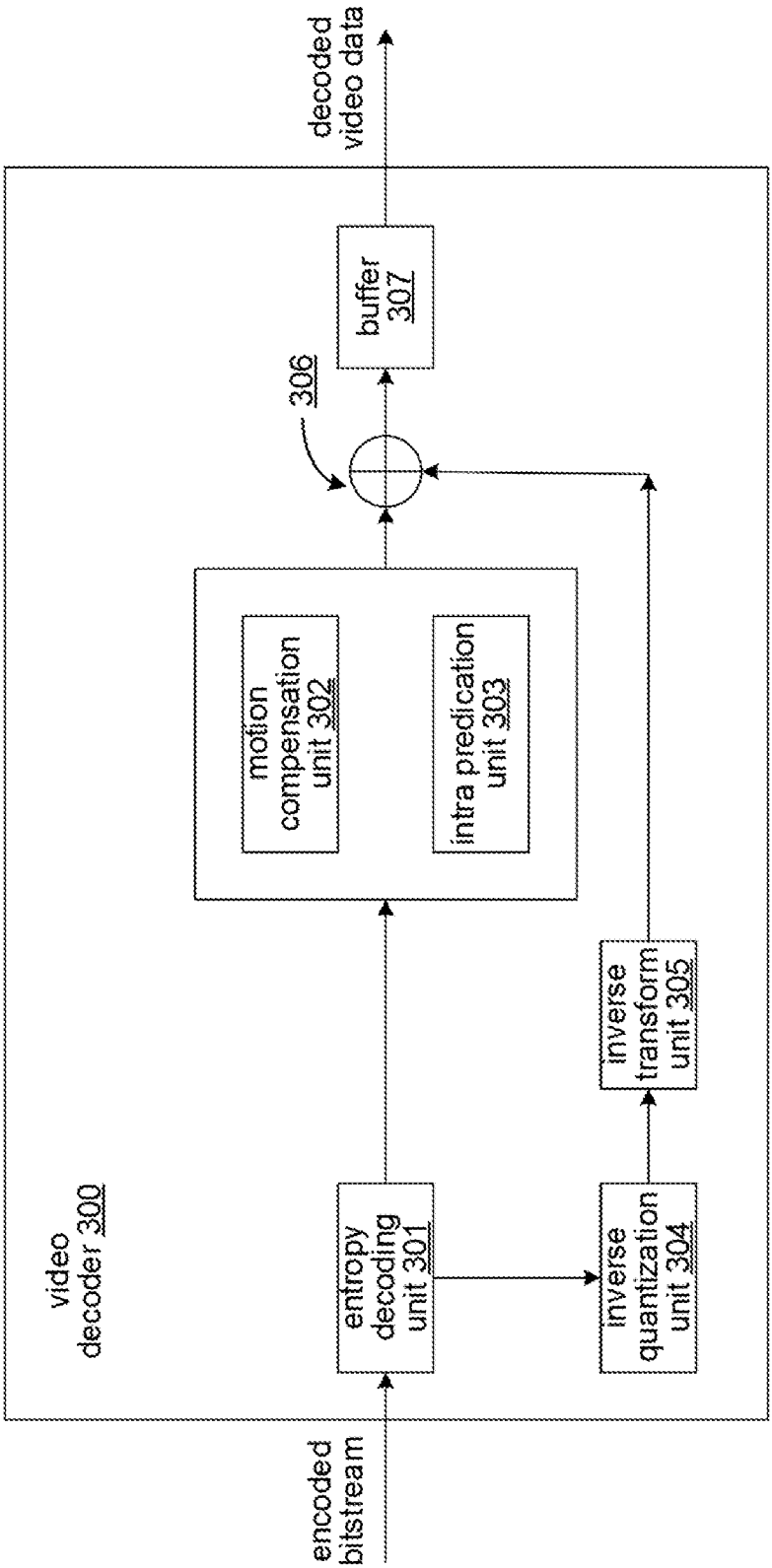

decoded video data
buffer 307
306
motion compensation unit 302
intra predication unit 303
inverse transform unit 305
inverse quantization unit 304
entropy decoding unit 301
video decoder 300
encoded bitstream

FIG. 11

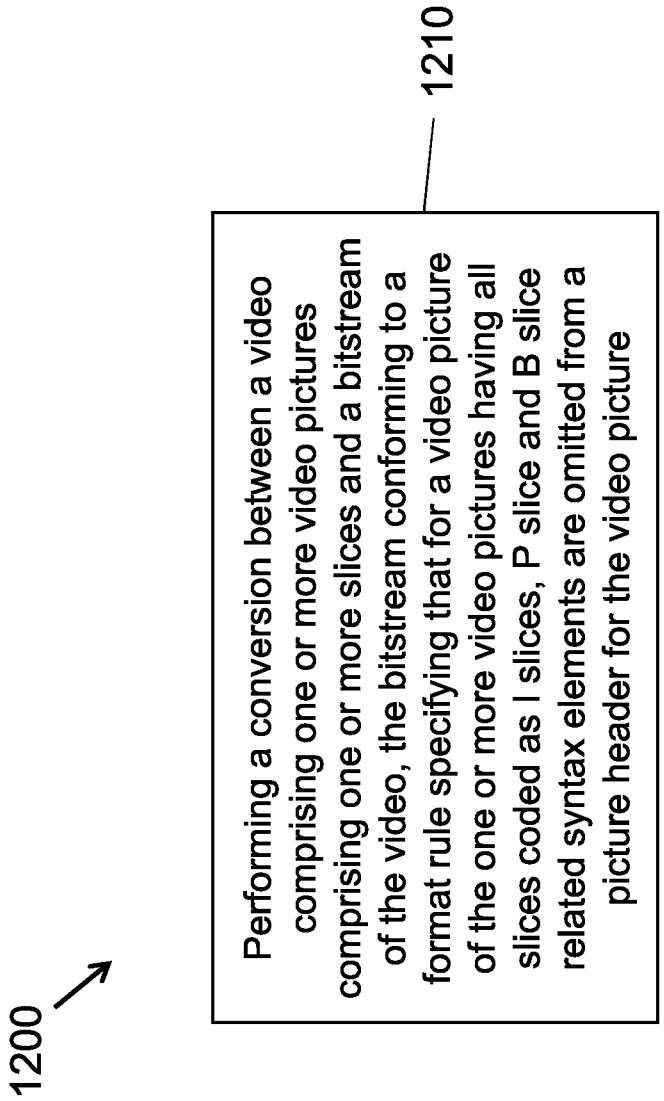

1200
1210
Performing a conversion between a video comprising one or more video pictures comprising one or more slices and a bitstream of the video, the bitstream conforming to a format rule specifying that for a video picture of the one or more video pictures having all slices coded as I slices, P slice and B slice related syntax elements are omitted from a picture header for the video picture

FIG. 12

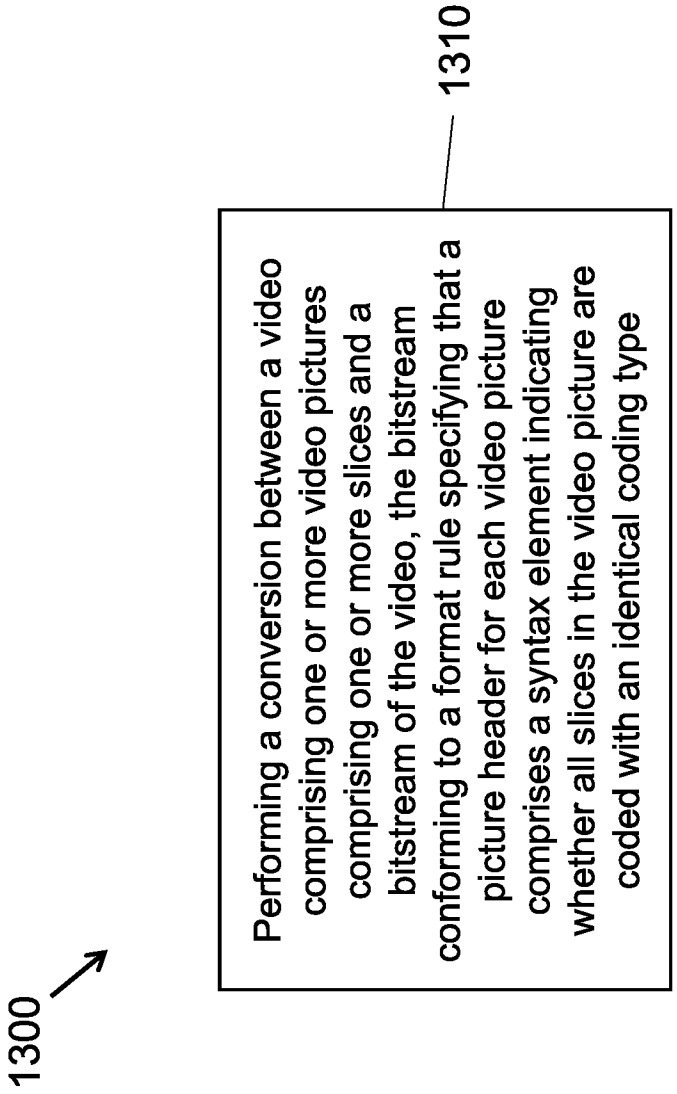

1300
Performing a conversion between a video comprising one or more video pictures comprising one or more slices and a bitstream of the video, the bitstream conforming to a format rule specifying that a picture header for each video picture comprises a syntax element indicating whether all slices in the video picture are coded with an identical coding type
1310

FIG. 13

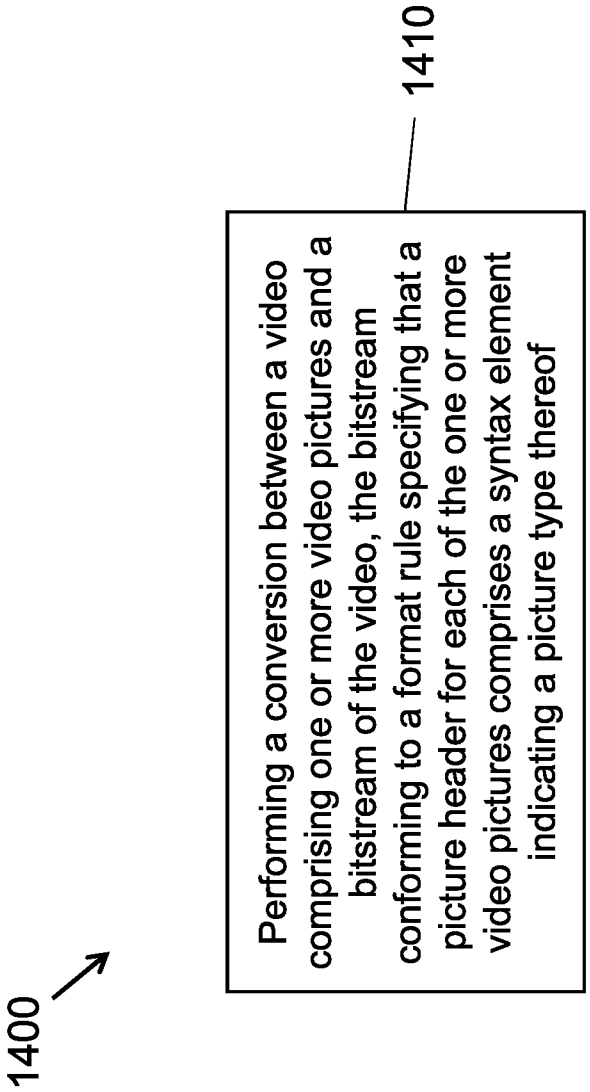

1400
Performing a conversion between a video comprising one or more video pictures and a bitstream of the video, the bitstream conforming to a format rule specifying that a picture header for each of the one or more video pictures comprises a syntax element indicating a picture type thereof
1410

FIG. 14

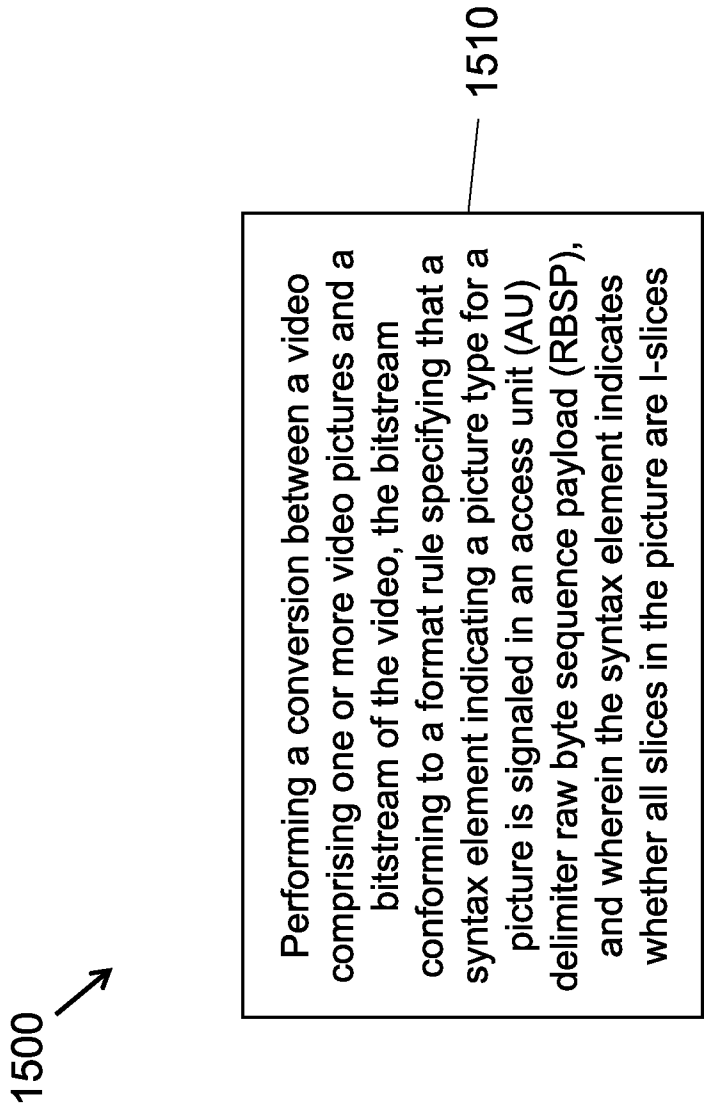

1500
1510
Performing a conversion between a video comprising one or more video pictures and a bitstream of the video, the bitstream conforming to a format rule specifying that a syntax element indicating a picture type for a picture is signaled in an access unit (AU) delimiter raw byte sequence payload (RBSP), and wherein the syntax element indicates whether all slices in the picture are I-slices

FIG. 15

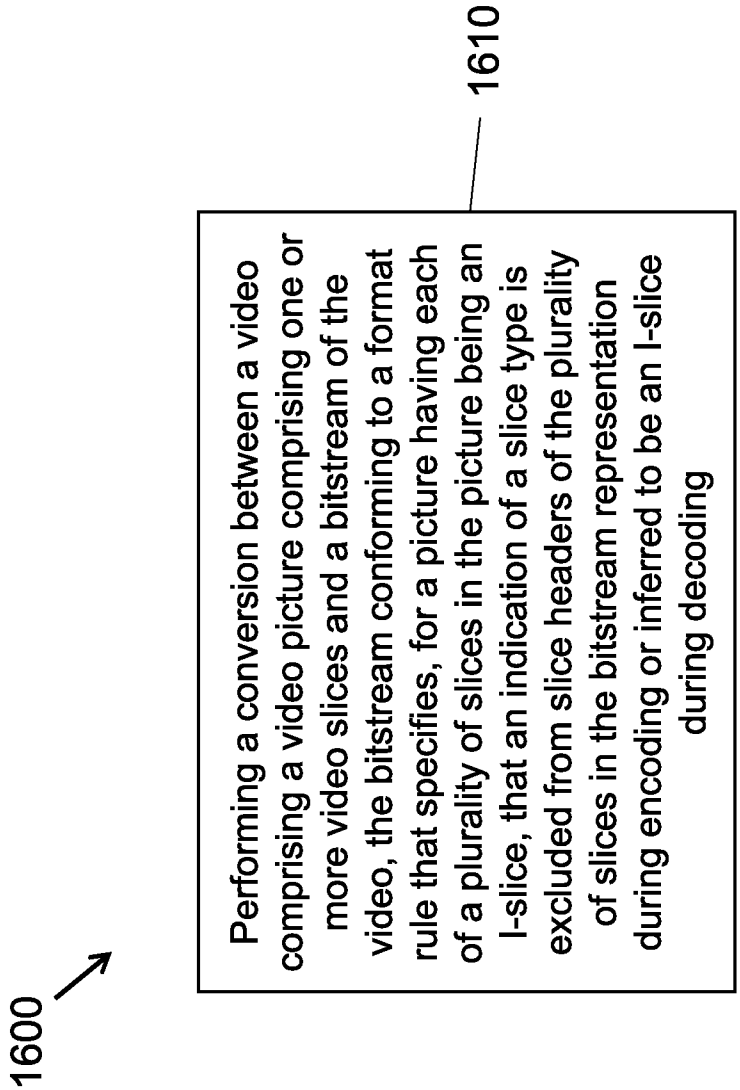

1600
1610
Performing a conversion between a video comprising a video picture comprising one or more video slices and a bitstream of the video, the bitstream conforming to a format rule that specifies, for a picture having each of a plurality of slices in the picture being an I-slice, that an indication of a slice type is excluded from slice headers of the plurality of slices in the bitstream representation during encoding or inferred to be an I-slice during decoding

FIG. 16

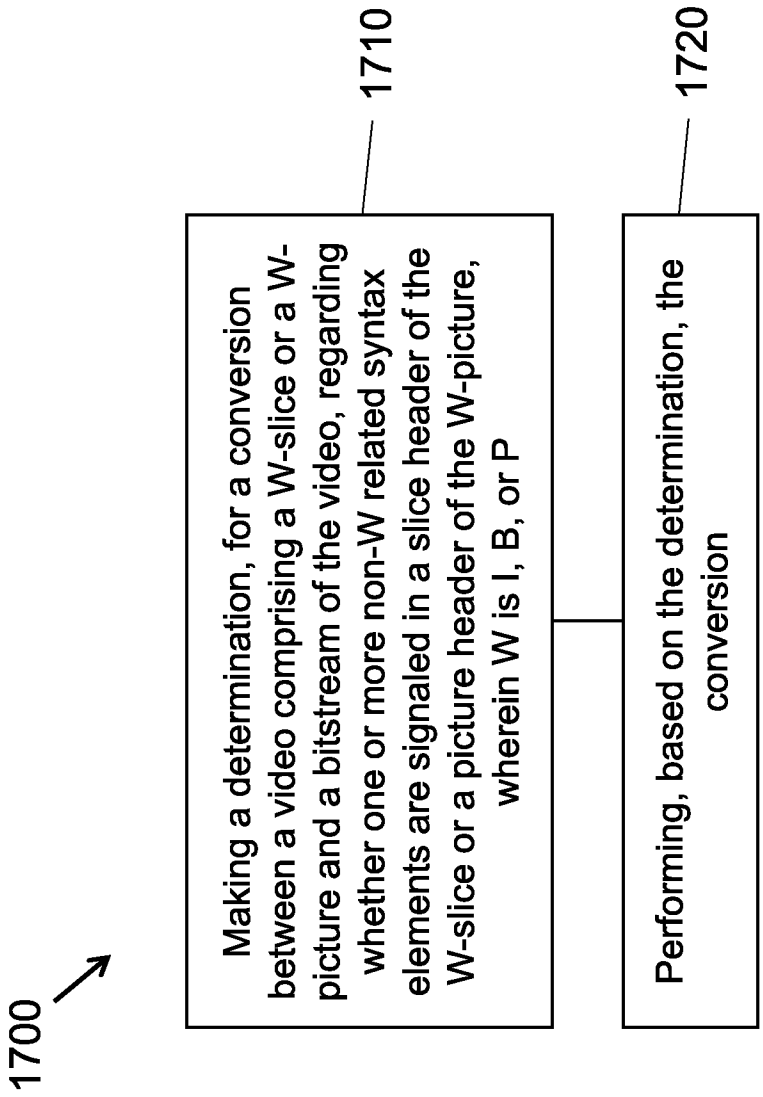

1700
Making a determination, for a conversion between a video comprising a W-slice or a W-picture and a bitstream of the video, regarding whether one or more non-W related syntax elements are signaled in a slice header of the W-slice or a picture header of the W-picture, wherein W is I, B, or P
1710
Performing, based on the determination, the conversion
1720

FIG. 17