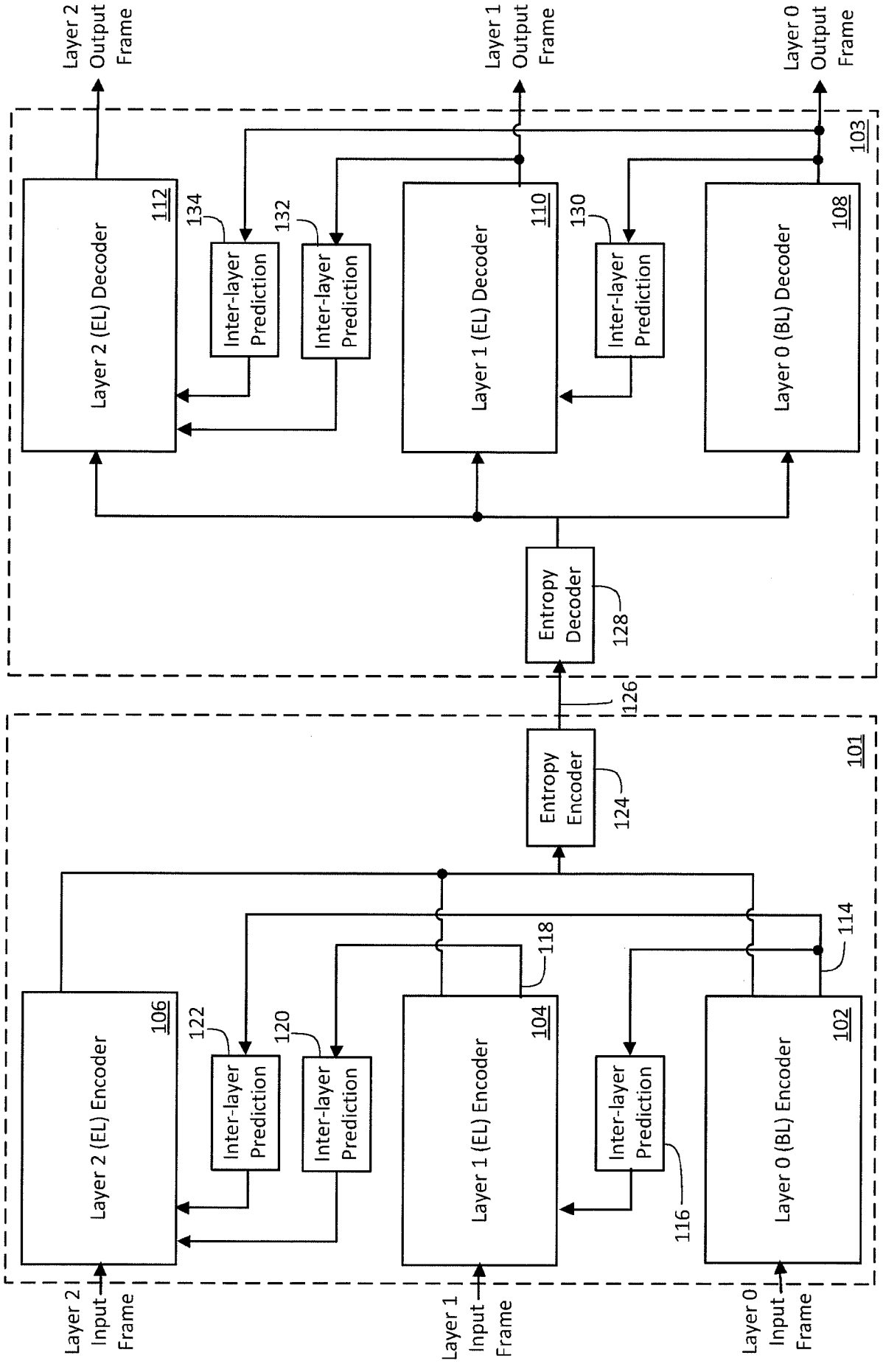

Layer 2 Output Frame
Layer 1 Output Frame
Layer 0 Output Frame
103
Layer 2 (EL) Decoder
112
Layer 1 (EL) Decoder
110
Layer 0 (BL) Decoder
108
Inter-layer Prediction
134
Inter-layer Prediction
132
Inter-layer Prediction
130
Entropy Decoder
128
126
Entropy Encoder
124
101
Layer 2 (EL) Encoder
106
Layer 1 (EL) Encoder
104
Layer 0 (BL) Encoder
102
Inter-layer Prediction
122
Inter-layer Prediction
120
Inter-layer Prediction
116
118
114
Layer 2 Input Frame
Layer 1 Input Frame
Layer 0 Input Frame

100 FIG. 1

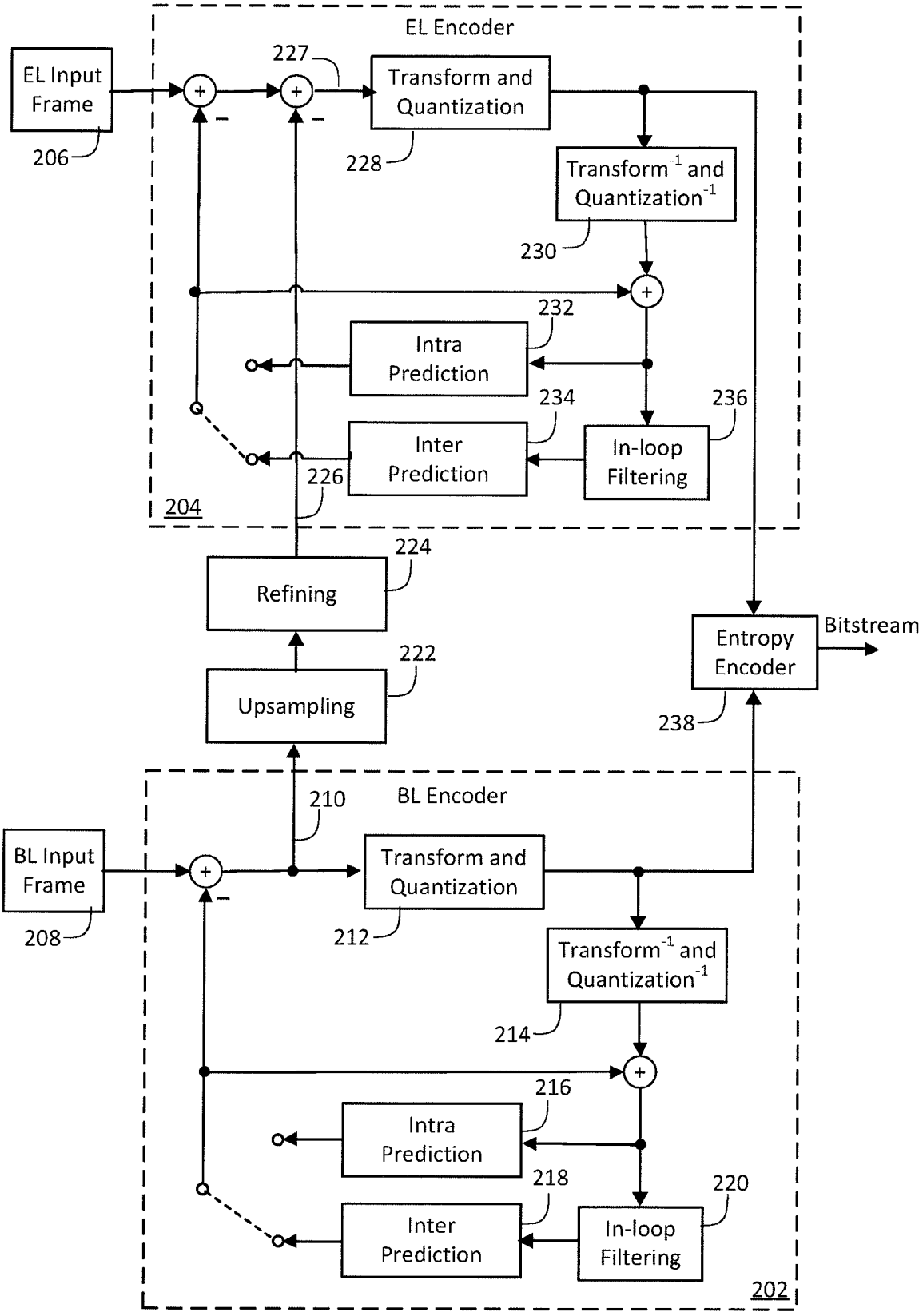

EL Encoder
EL Input Frame
206
227
Transform and Quantization
228
Transform^{-1} and Quantization^{-1}
230
232
Intra Prediction
234
Inter Prediction
236
In-loop Filtering
226
204
224
Refining
222
Upsampling
Entropy Encoder
Bitstream
238
BL Encoder
210
BL Input Frame
208
Transform and Quantization
212
Transform^{-1} and Quantization^{-1}
214
216
Intra Prediction
218
Inter Prediction
220
In-loop Filtering
202
200

FIG. 2

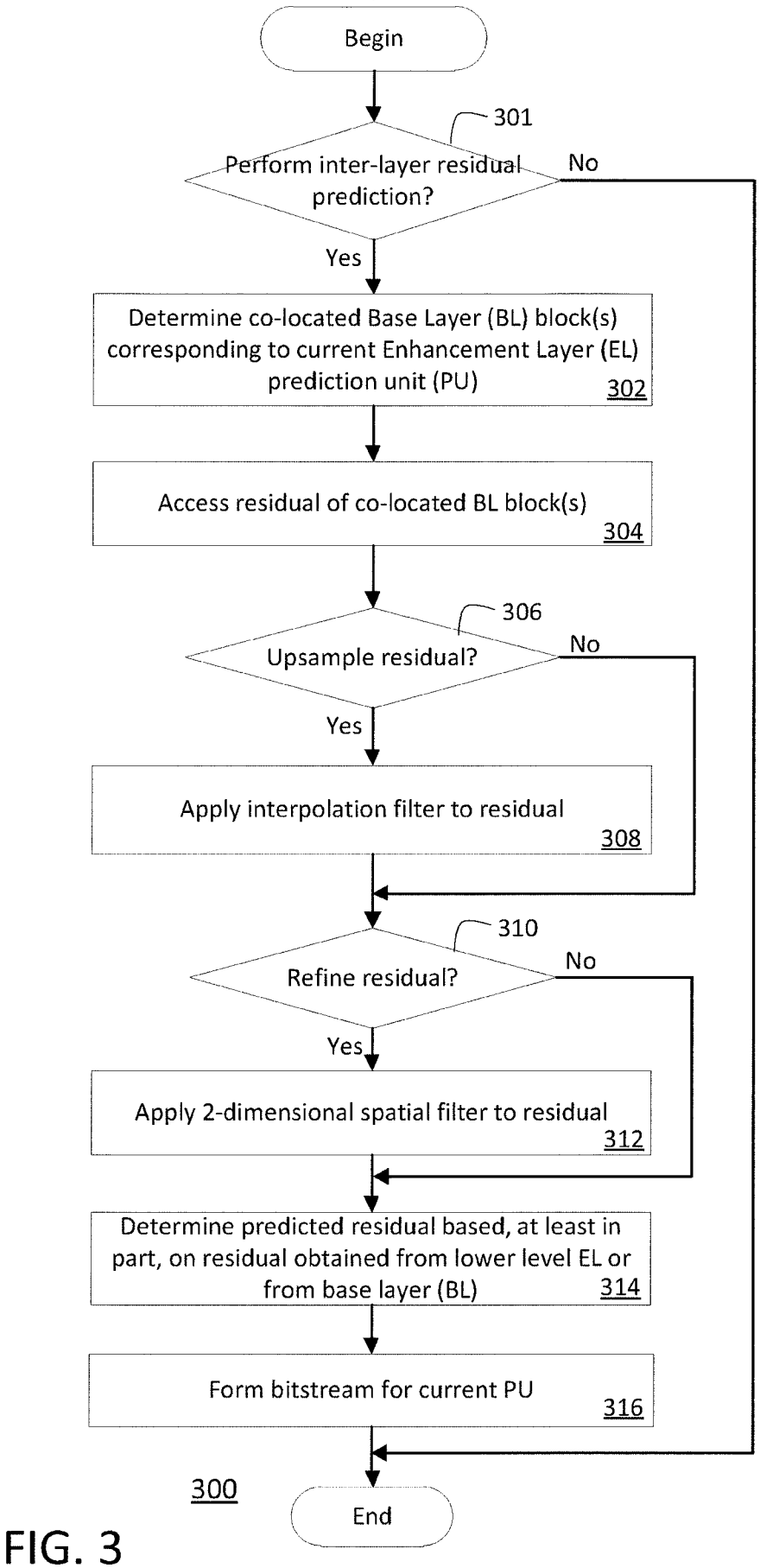
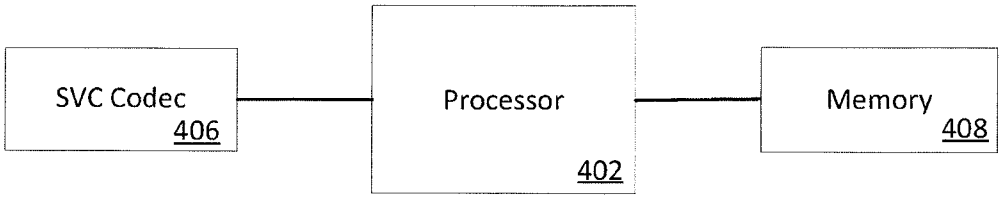

Begin
301
Perform inter-layer residual prediction?
No
Yes
Determine co-located Base Layer (BL) block(s) corresponding to current Enhancement Layer (EL) prediction unit (PU)
302
Access residual of co-located BL block(s)
304
306
Upsample residual?
No
Yes
Apply interpolation filter to residual
308
310
Refine residual?
No
Yes
Apply 2-dimensional spatial filter to residual
312
Determine predicted residual based, at least in part, on residual obtained from lower level EL or from base layer (BL)
314
Form bitstream for current PU
316
300
End

FIG. 3



400

FIG. 4

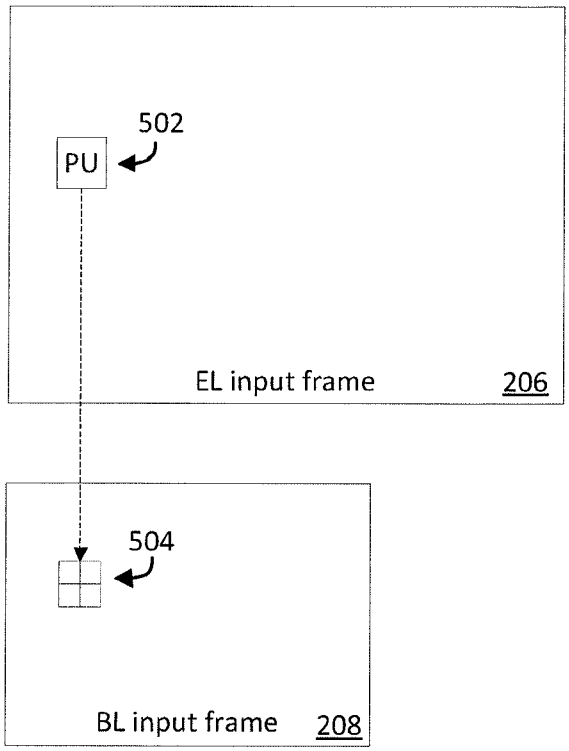
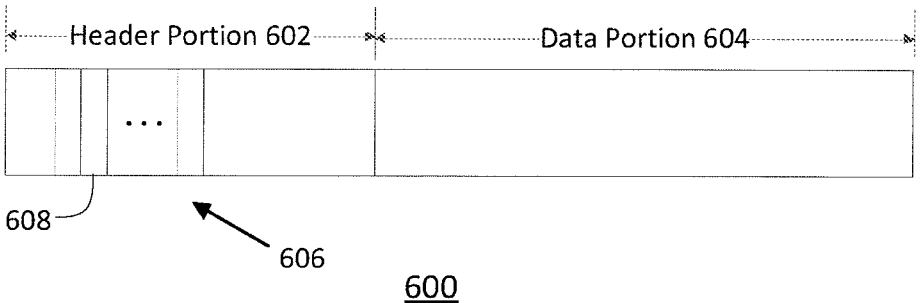
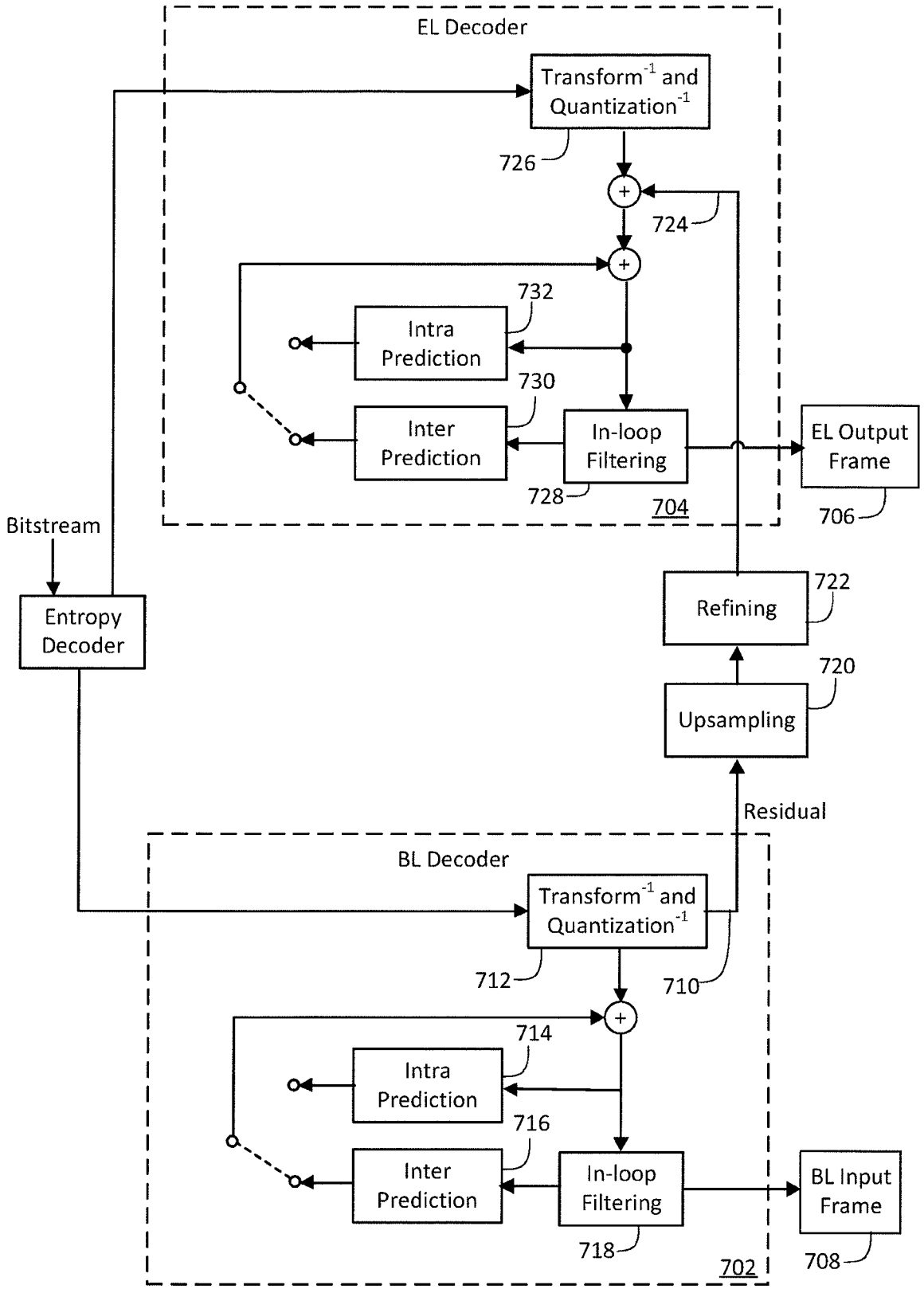


FIG. 5



600

FIG. 6


EL Decoder
Transform-1 and Quantization-1
726
724
732
Intra Prediction
730
Inter Prediction
In-loop Filtering
728
704
EL Output Frame
706
Bitstream
Entropy Decoder
Refining
722
720
Upsampling
Residual
BL Decoder
Transform-1 and Quantization-1
712
710
714
Intra Prediction
716
Inter Prediction
In-loop Filtering
718
702
BL Input Frame
708

700

FIG. 7

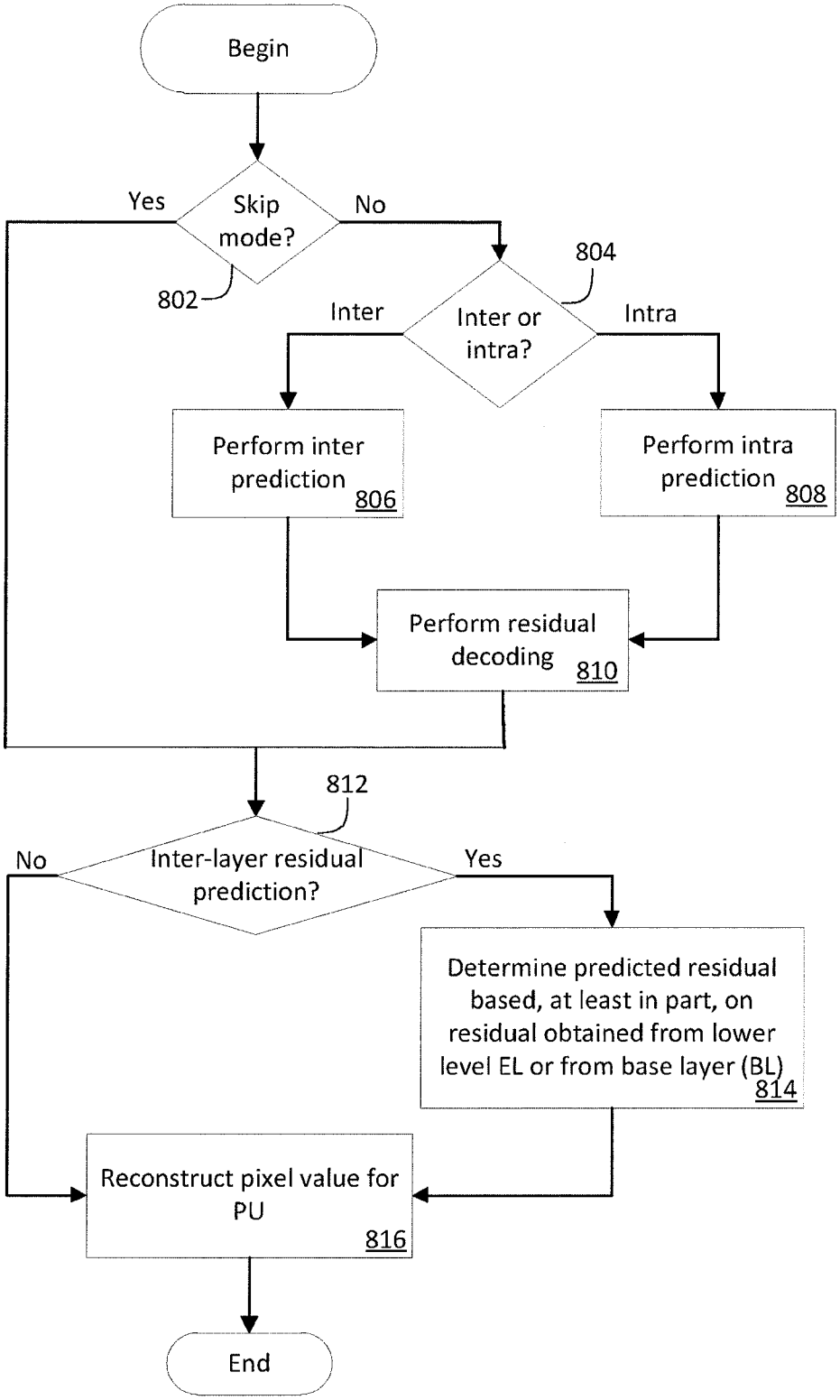

Begin
Skip mode?
Yes
No
802
804
Inter or intra?
Inter
Intra
Perform inter prediction 806
Perform intra prediction 808
Perform residual decoding 810
812
Inter-layer residual prediction?
No
Yes
Determine predicted residual based, at least in part, on residual obtained from lower level EL or from base layer (BL) 814
Reconstruct pixel value for PU 816
End
800

FIG. 8

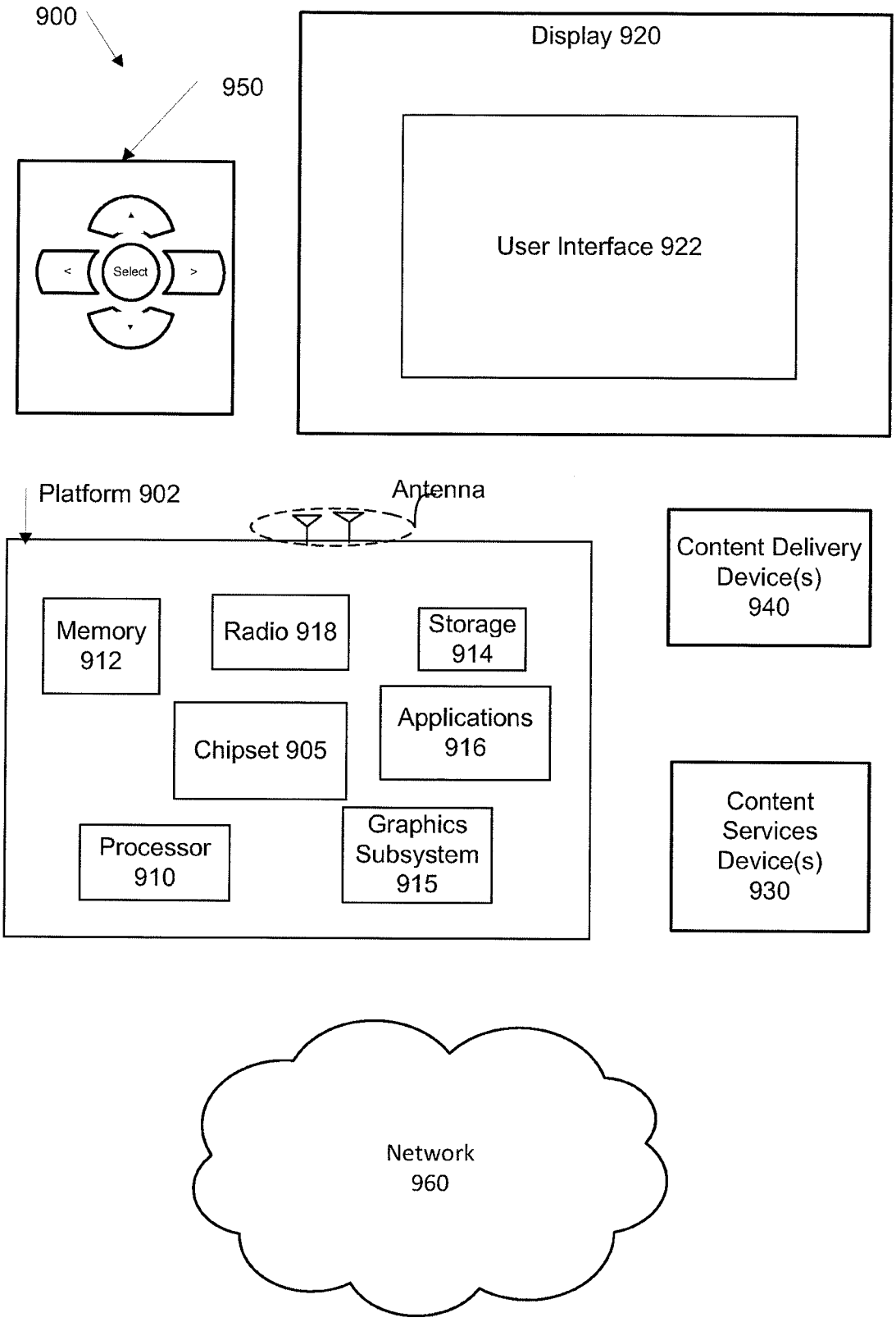

900
950
Select
Display 920
User Interface 922
Platform 902
Antenna
Memory 912
Radio 918
Storage 914
Chipset 905
Applications 916
Processor 910
Graphics Subsystem 915
Content Delivery Device(s) 940
Content Services Device(s) 930
Network 960

FIG. 9

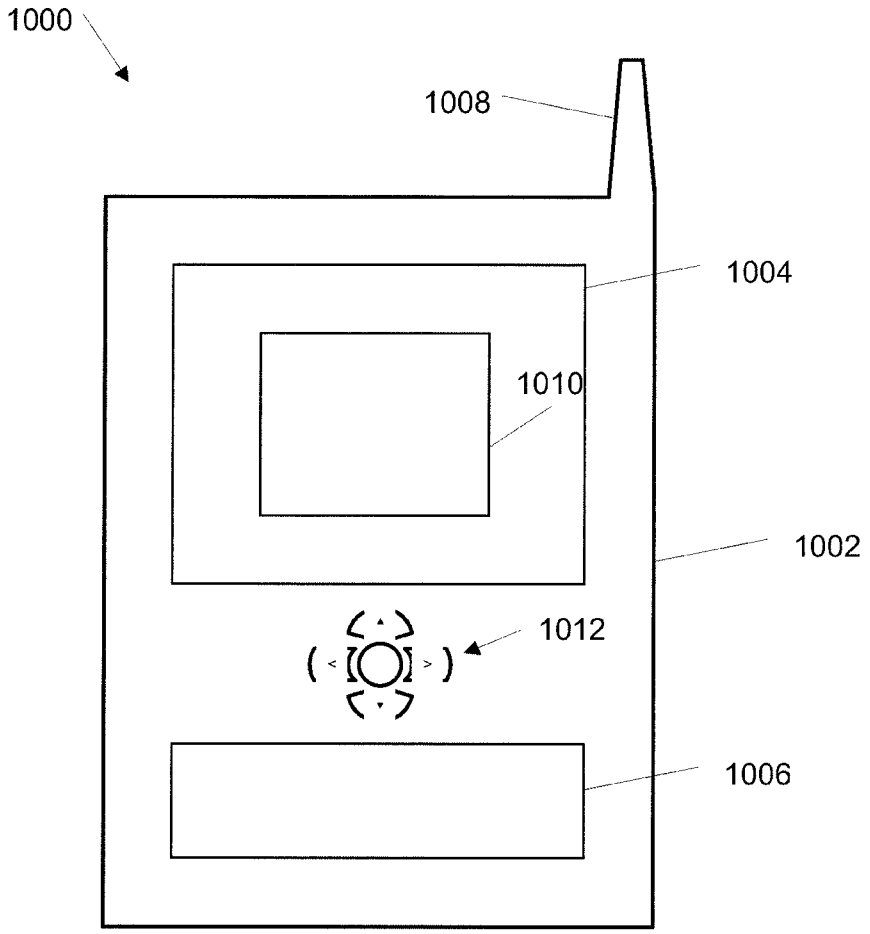


FIG. 10