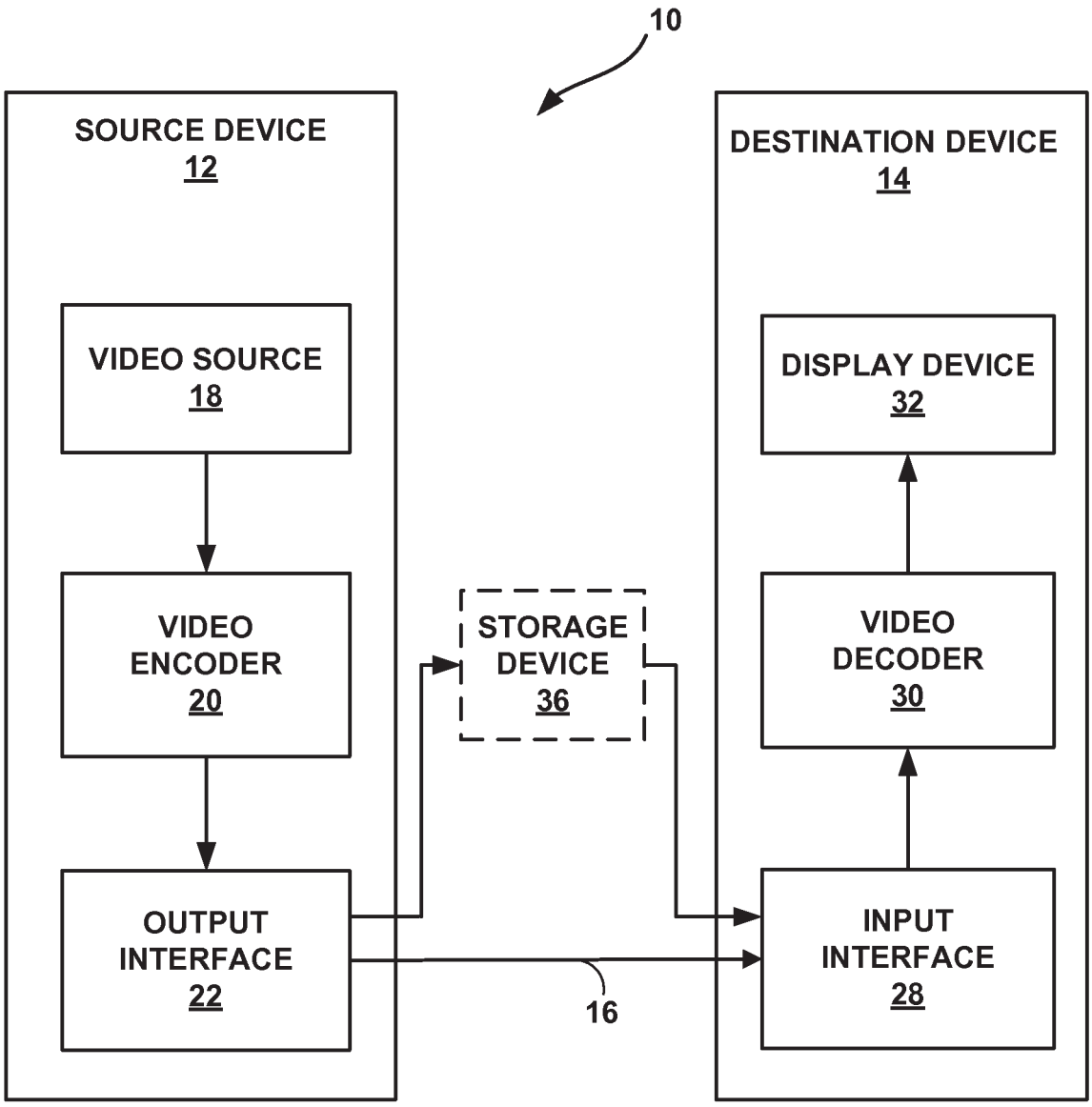
10
SOURCE DEVICE
12
VIDEO SOURCE
18
VIDEO
ENCODER
20
OUTPUT
INTERFACE
22
STORAGE
DEVICE
36
16
DESTINATION DEVICE
14
DISPLAY DEVICE
32
VIDEO
DECODER
30
INPUT
INTERFACE
28

FIG. 1

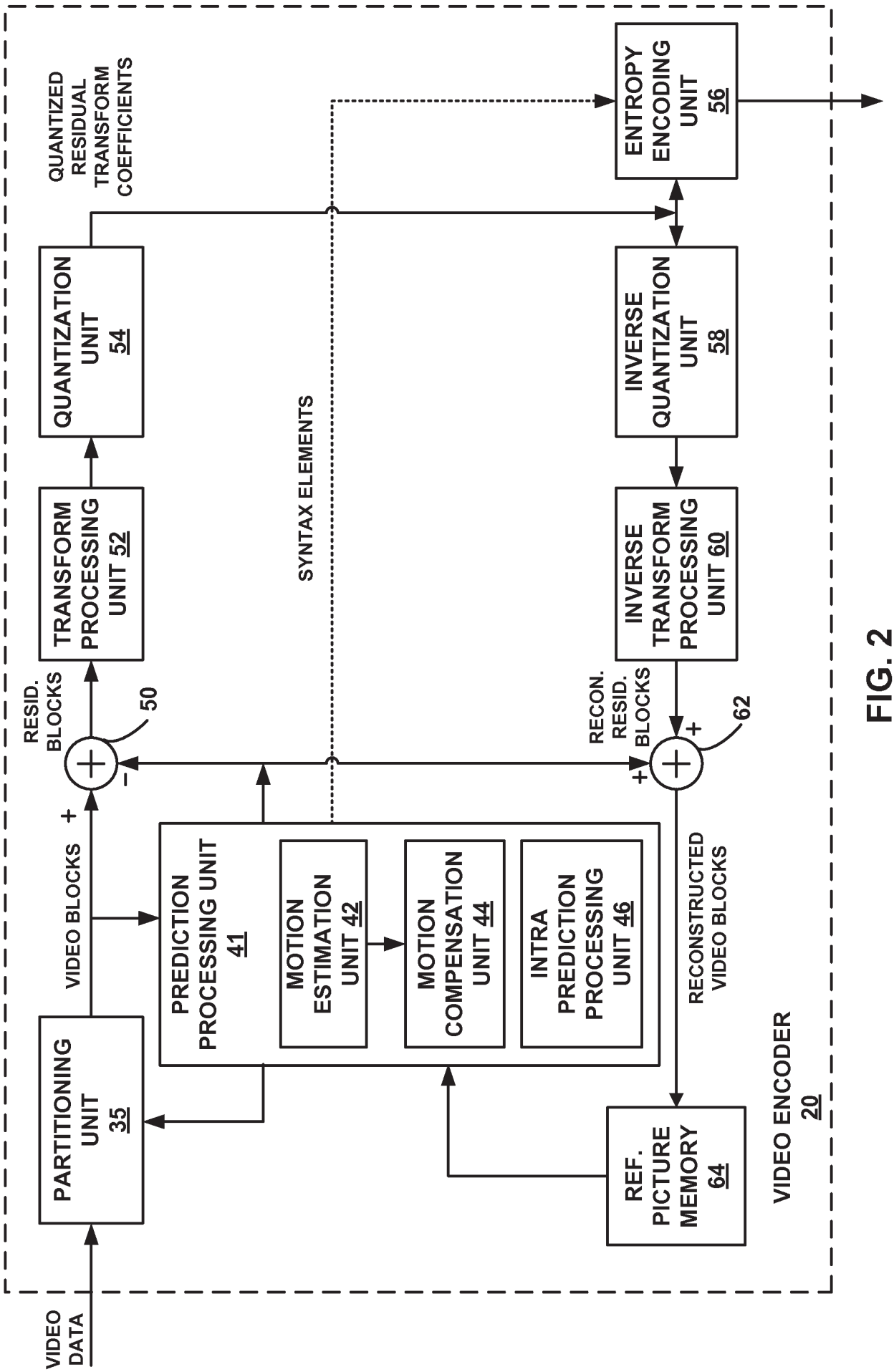
VIDEO ENCODER 20
VIDEO DATA
PARTITIONING UNIT 35
REF. PICTURE MEMORY 64
PREDICTION PROCESSING UNIT 41
MOTION ESTIMATION UNIT 42
MOTION COMPENSATION UNIT 44
INTRA PREDICTION PROCESSING UNIT 46
VIDEO BLOCKS
RESID. BLOCKS
50
TRANSFORM PROCESSING UNIT 52
QUANTIZATION UNIT 54
QUANTIZED RESIDUAL TRANSFORM COEFFICIENTS
SYNTAX ELEMENTS
ENTROPY ENCODING UNIT 56
INVERSE QUANTIZATION UNIT 58
INVERSE TRANSFORM PROCESSING UNIT 60
RECON. RESID. BLOCKS
62
RECONSTRUCTED VIDEO BLOCKS

FIG. 2

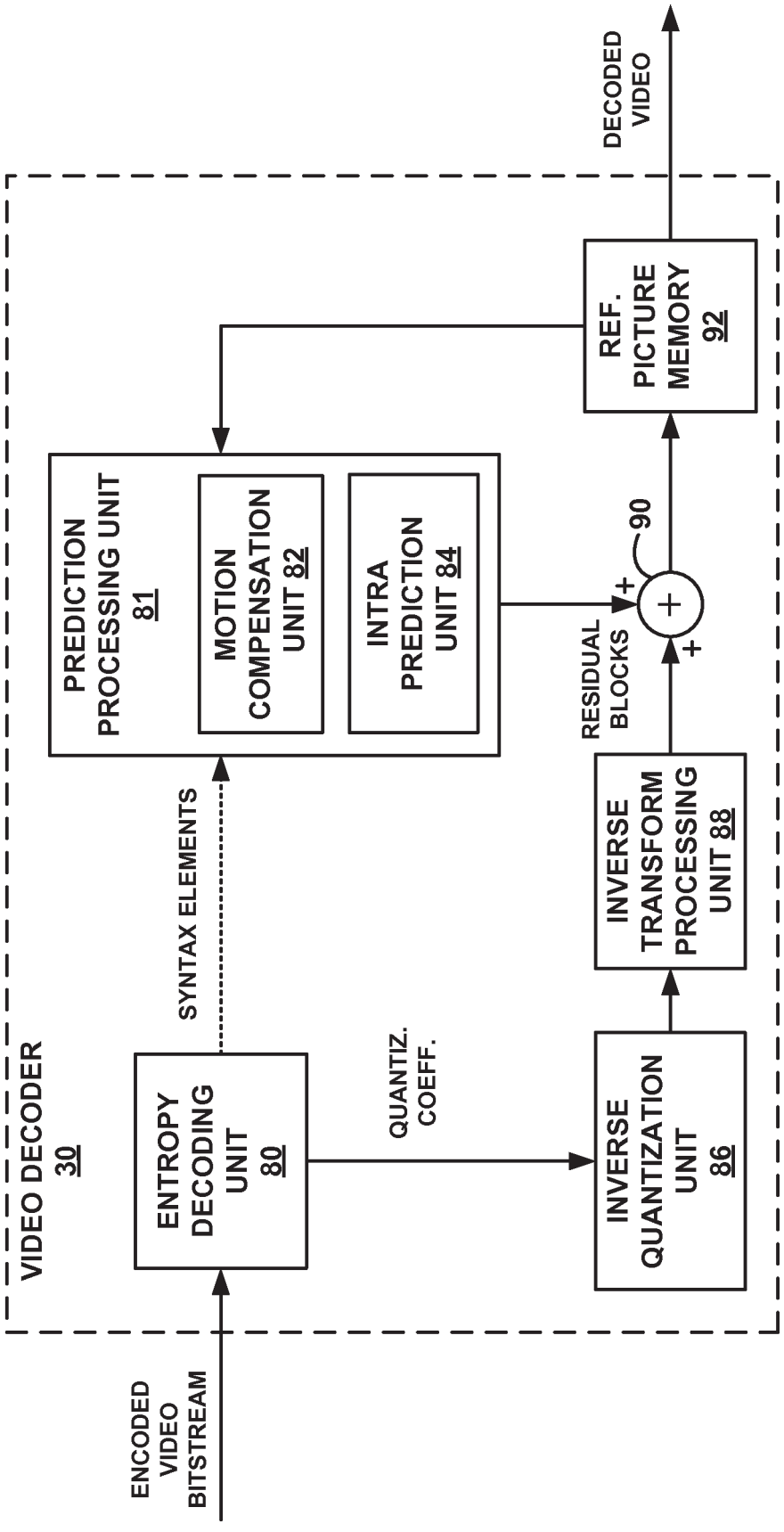
VIDEO DECODER 30
ENTROPY DECODING UNIT 80
SYNTAX ELEMENTS
QUANTIZ. COEFF.
INVERSE QUANTIZATION UNIT 86
INVERSE TRANSFORM PROCESSING UNIT 88
RESIDUAL BLOCKS
90
+
+
PREDICTION PROCESSING UNIT 81
MOTION COMPENSATION UNIT 82
INTRA PREDICTION UNIT 84
REF. PICTURE MEMORY 92
DECODED VIDEO
ENCODED VIDEO BITSTREAM

FIG. 3

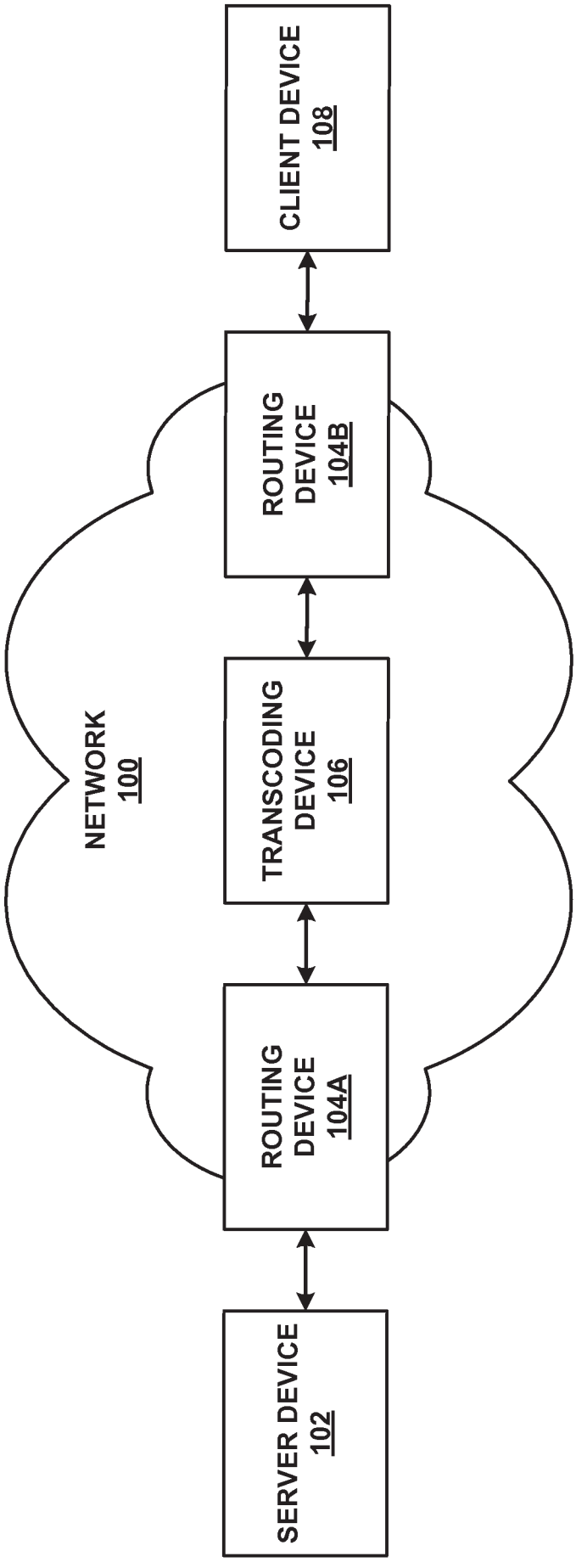
CLIENT DEVICE
108
ROUTING
DEVICE
104B
TRANSCODING
DEVICE
106
ROUTING
DEVICE
104A
SERVER DEVICE
102
NETWORK
100

FIG. 4

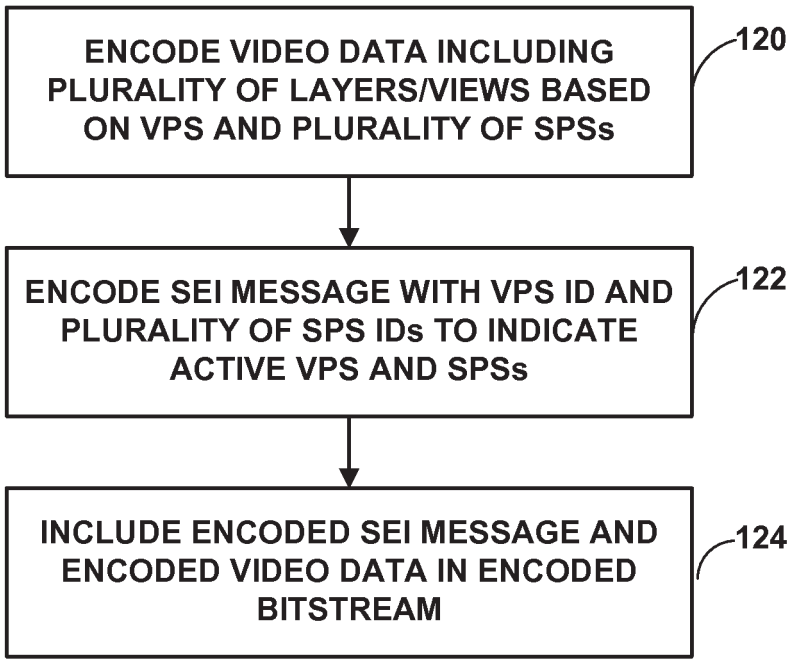
ENCODE VIDEO DATA INCLUDING PLURALITY OF LAYERS/VIEWS BASED ON VPS AND PLURALITY OF SPSs
120
ENCODE SEI MESSAGE WITH VPS ID AND PLURALITY OF SPS IDs TO INDICATE ACTIVE VPS AND SPSs
122
INCLUDE ENCODED SEI MESSAGE AND ENCODED VIDEO DATA IN ENCODED BITSTREAM
124

FIG. 5

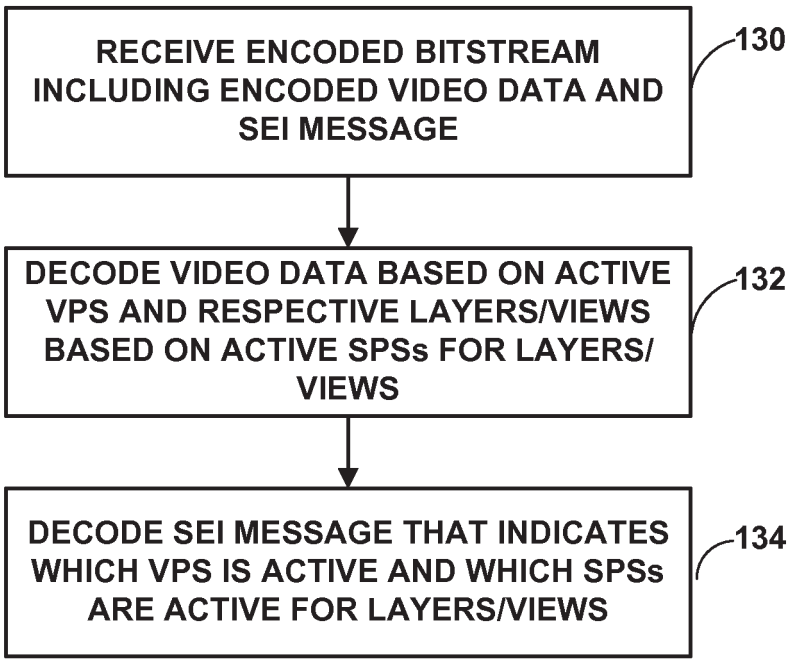
RECEIVE ENCODED BITSTREAM INCLUDING ENCODED VIDEO DATA AND SEI MESSAGE
130
DECODE VIDEO DATA BASED ON ACTIVE VPS AND RESPECTIVE LAYERS/VIEWS BASED ON ACTIVE SPSs FOR LAYERS/ VIEWS
132
DECODE SEI MESSAGE THAT INDICATES WHICH VPS IS ACTIVE AND WHICH SPSs ARE ACTIVE FOR LAYERS/VIEWS
134

FIG. 6

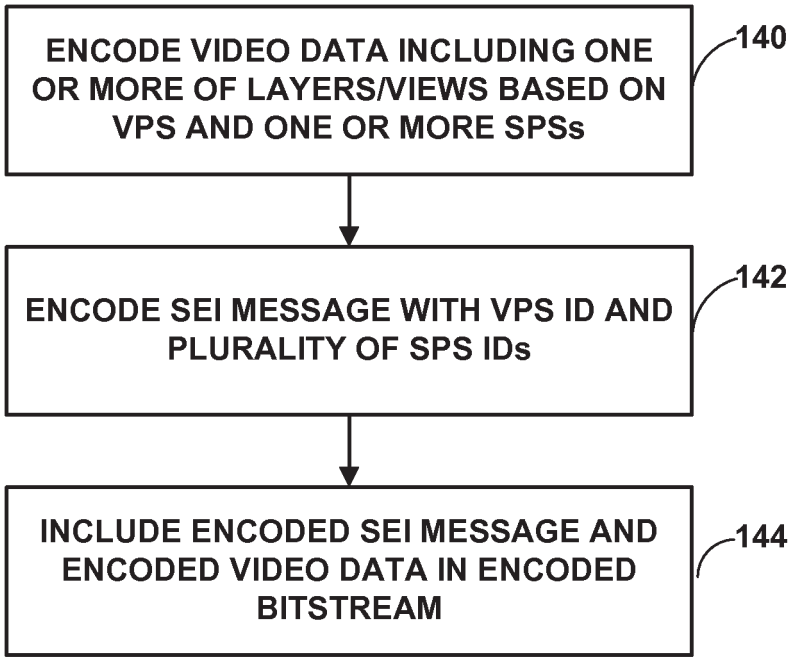
ENCODE VIDEO DATA INCLUDING ONE OR MORE OF LAYERS/VIEWS BASED ON VPS AND ONE OR MORE SPSs
140
ENCODE SEI MESSAGE WITH VPS ID AND PLURALITY OF SPS IDs
142
INCLUDE ENCODED SEI MESSAGE AND ENCODED VIDEO DATA IN ENCODED BITSTREAM
144

FIG. 7

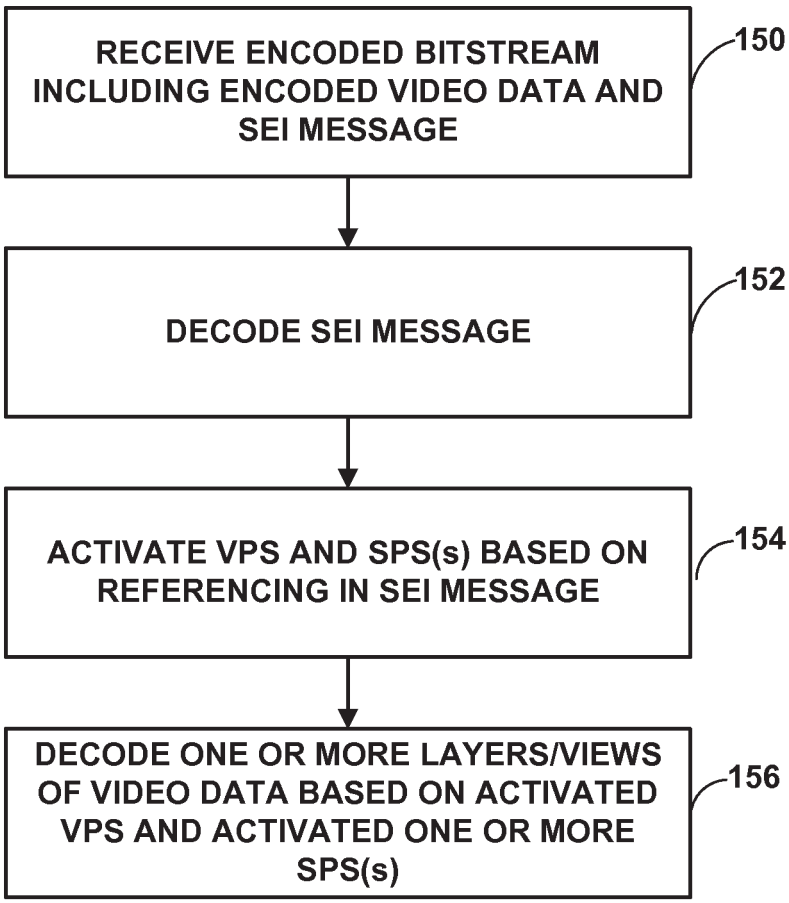
RECEIVE ENCODED BITSTREAM INCLUDING ENCODED VIDEO DATA AND SEI MESSAGE
150
DECODE SEI MESSAGE
152
ACTIVATE VPS AND SPS(s) BASED ON REFERENCING IN SEI MESSAGE
154
DECODE ONE OR MORE LAYERS/VIEWS OF VIDEO DATA BASED ON ACTIVATED VPS AND ACTIVATED ONE OR MORE SPS(s)
156

FIG. 8