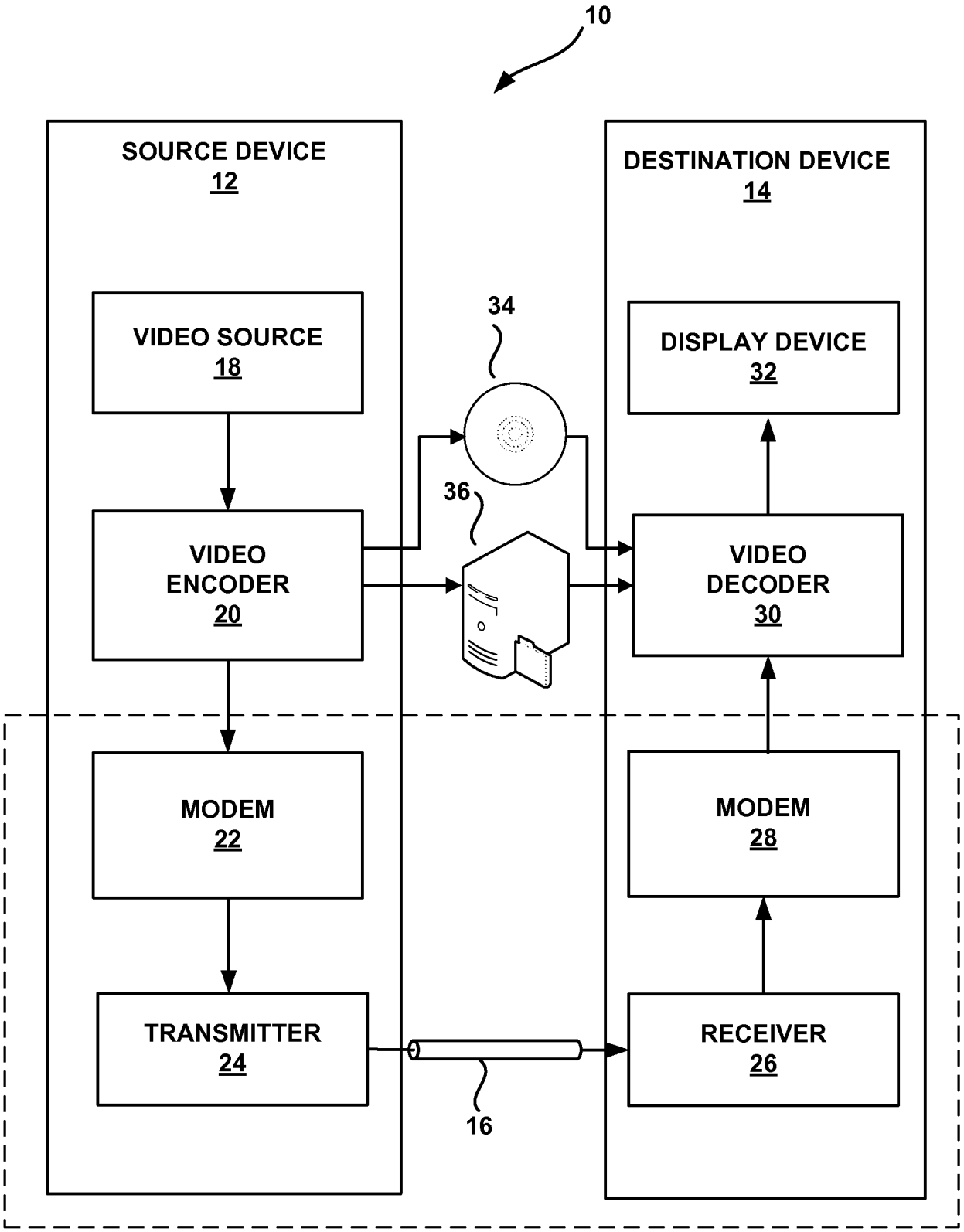

10
SOURCE DEVICE
12
DESTINATION DEVICE
14
VIDEO SOURCE
18
34
DISPLAY DEVICE
32
36
VIDEO
ENCODER
20
VIDEO
DECODER
30
MODEM
22
MODEM
28
TRANSMITTER
24
RECEIVER
26
16

FIG. 1

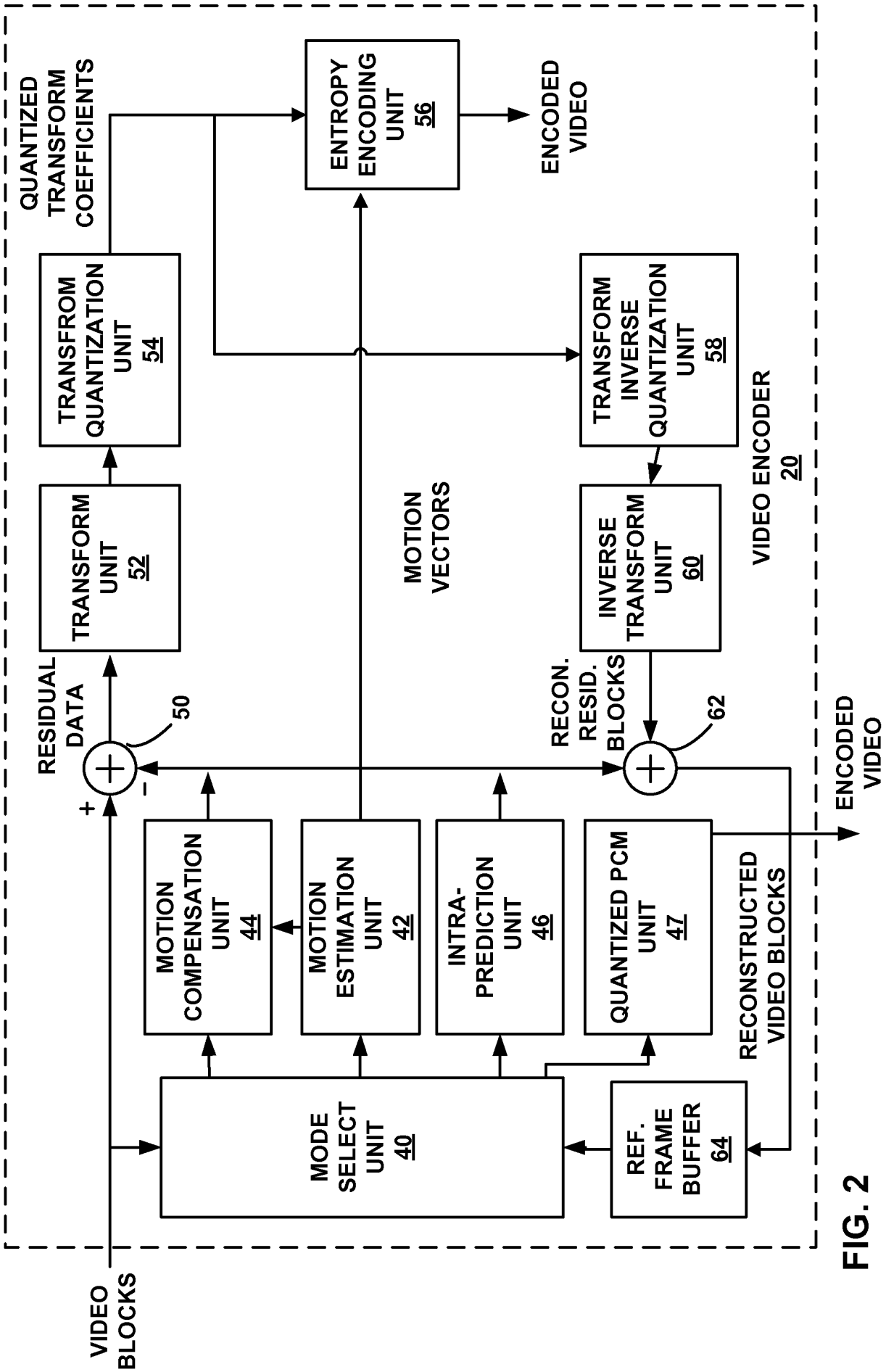

VIDEO ENCODER 20
VIDEO BLOCKS
MODE SELECT UNIT 40
REF. FRAME BUFFER 64
MOTION COMPENSATION UNIT 44
MOTION ESTIMATION UNIT 42
INTRA-PREDICTION UNIT 46
QUANTIZED PCM UNIT 47
RECONSTRUCTED VIDEO BLOCKS
ENCODED VIDEO
RESIDUAL DATA
50
+
-
TRANSFORM UNIT 52
TRANSFROM QUANTIZATION UNIT 54
QUANTIZED TRANSFORM COEFFICIENTS
ENTROPY ENCODING UNIT 56
ENCODED VIDEO
MOTION VECTORS
INVERSE TRANSFORM UNIT 60
TRANSFORM INVERSE QUANTIZATION UNIT 58
RECON. RESID. BLOCKS
62
ENCODED VIDEO

FIG. 2

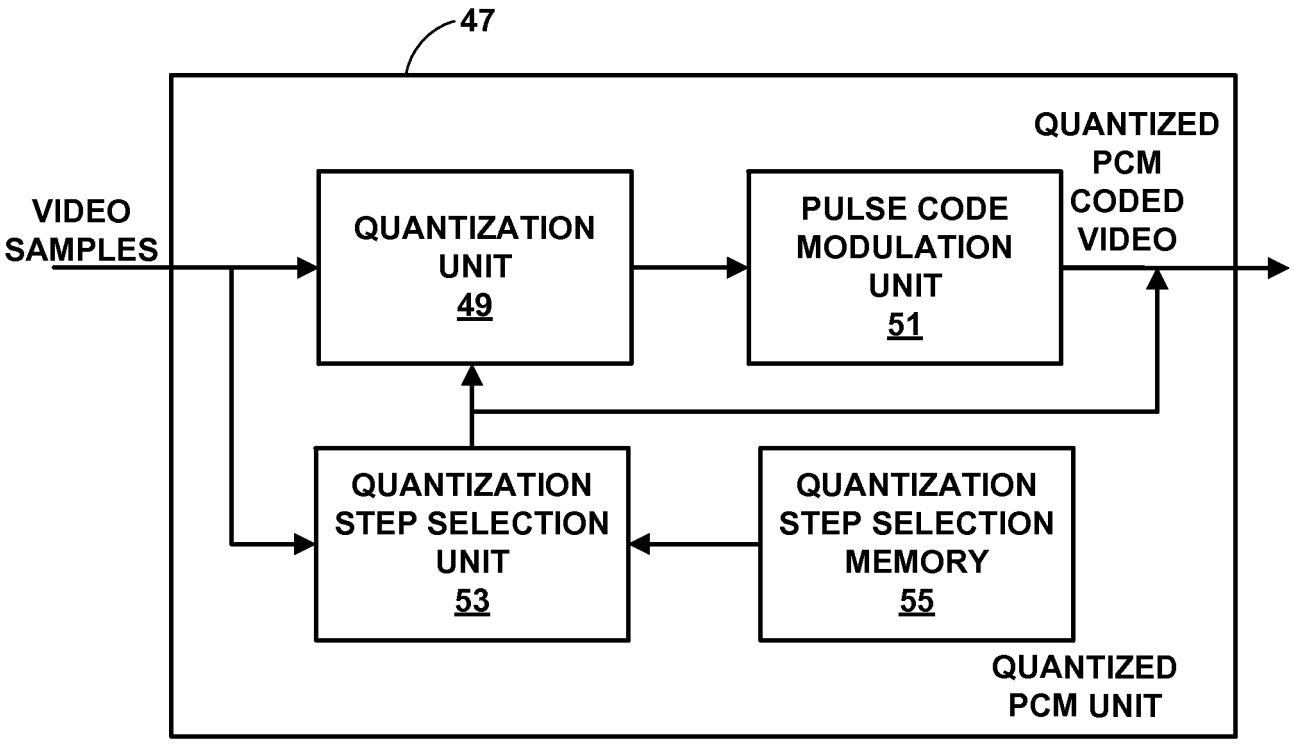

47
VIDEO SAMPLES
QUANTIZATION UNIT 49
PULSE CODE MODULATION UNIT 51
QUANTIZED PCM CODED VIDEO
QUANTIZATION STEP SELECTION UNIT 53
QUANTIZATION STEP SELECTION MEMORY 55
QUANTIZED PCM UNIT

FIG. 3

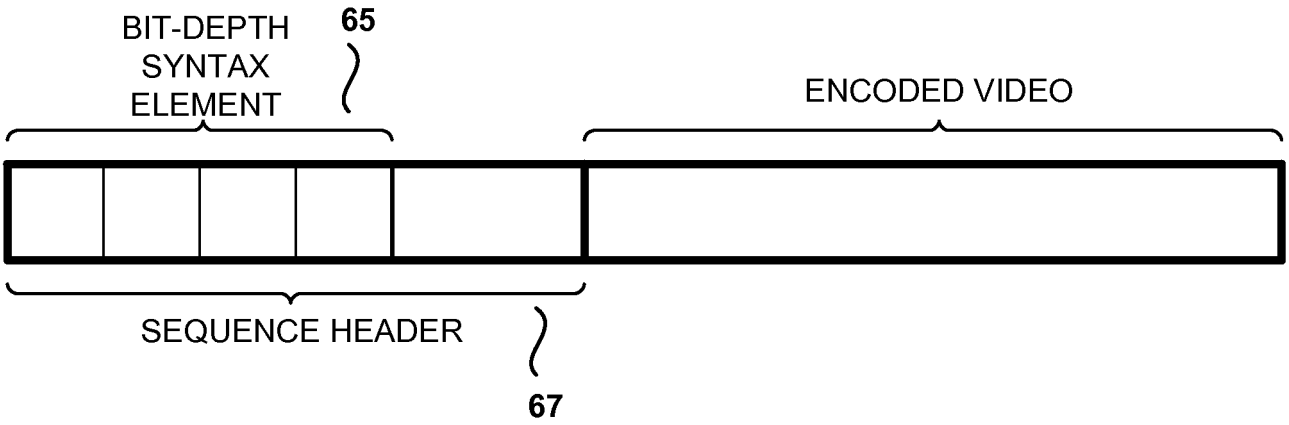

BIT-DEPTH
SYNTAX
ELEMENT
65
ENCODED VIDEO
SEQUENCE HEADER
67

FIG. 4

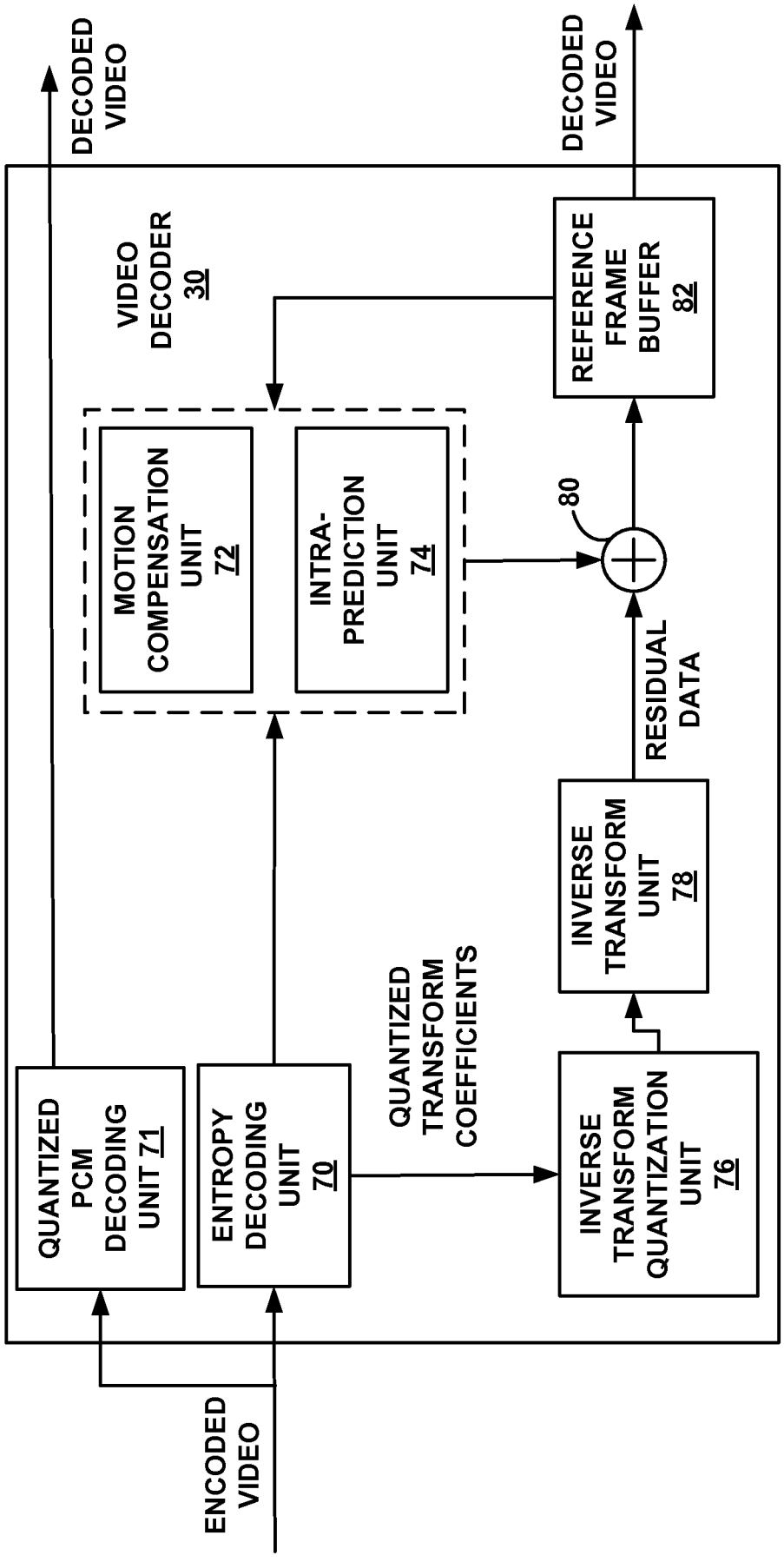

DECODED VIDEO
DECODED VIDEO
VIDEO DECODER 30
REFERENCE FRAME BUFFER 82
MOTION COMPENSATION UNIT 72
INTRA-PREDICTION UNIT 74
80
RESIDUAL DATA
INVERSE TRANSFORM UNIT 78
QUANTIZED TRANSFORM COEFFICIENTS
QUANTIZED PCM DECODING UNIT 71
ENTROPY DECODING UNIT 70
INVERSE TRANSFORM QUANTIZATION UNIT 76
ENCODED VIDEO

FIG. 5

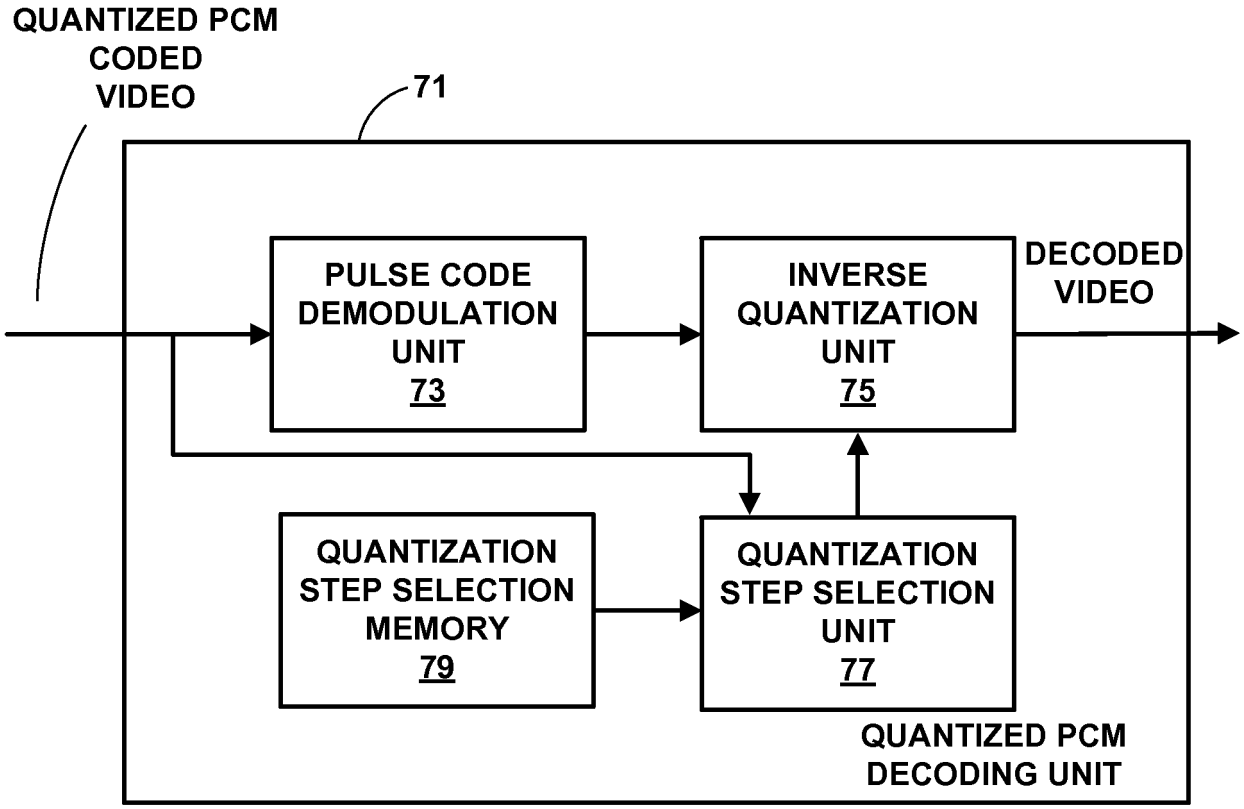

QUANTIZED PCM CODED VIDEO
71
PULSE CODE DEMODULATION UNIT 73
INVERSE QUANTIZATION UNIT 75
DECODED VIDEO
QUANTIZATION STEP SELECTION MEMORY 79
QUANTIZATION STEP SELECTION UNIT 77
QUANTIZED PCM DECODING UNIT

FIG. 6

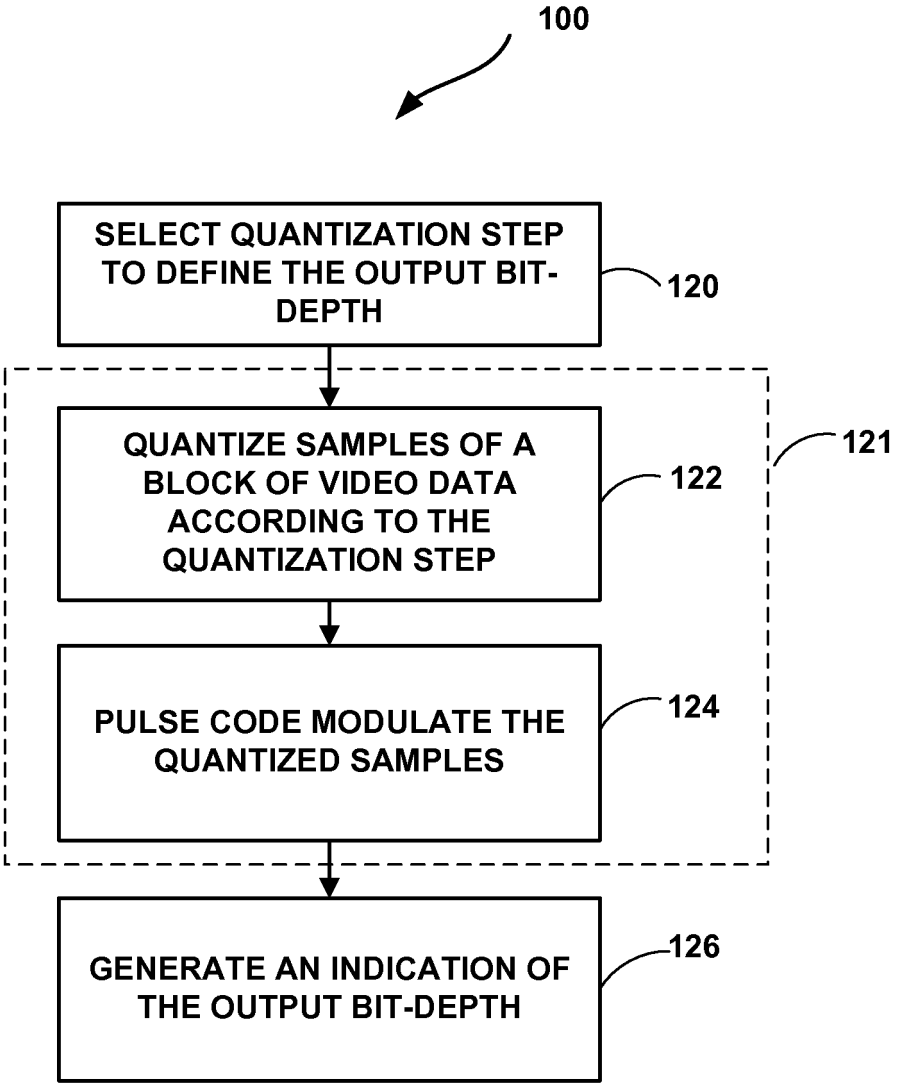

100
SELECT QUANTIZATION STEP TO DEFINE THE OUTPUT BIT-DEPTH
120
QUANTIZE SAMPLES OF A BLOCK OF VIDEO DATA ACCORDING TO THE QUANTIZATION STEP
122
121
PULSE CODE MODULATE THE QUANTIZED SAMPLES
124
GENERATE AN INDICATION OF THE OUTPUT BIT-DEPTH
126

FIG. 7

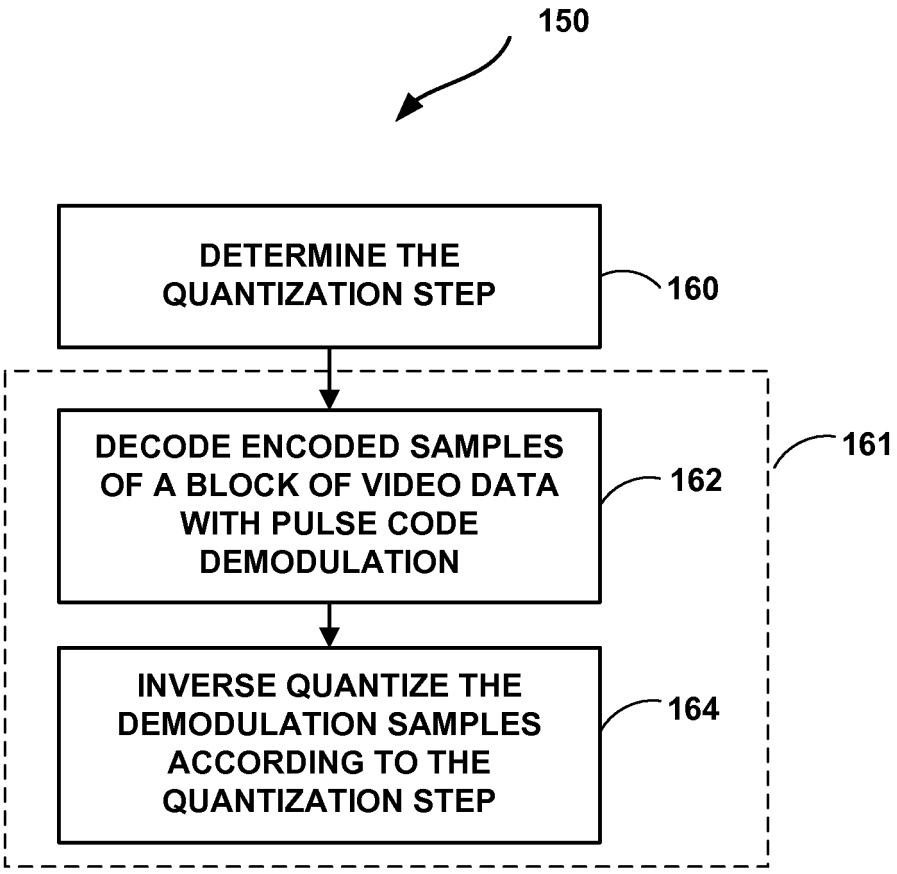

150
DETERMINE THE QUANTIZATION STEP
160
DECODE ENCODED SAMPLES OF A BLOCK OF VIDEO DATA WITH PULSE CODE DEMODULATION
162
161
INVERSE QUANTIZE THE DEMODULATION SAMPLES ACCORDING TO THE QUANTIZATION STEP
164

FIG. 8