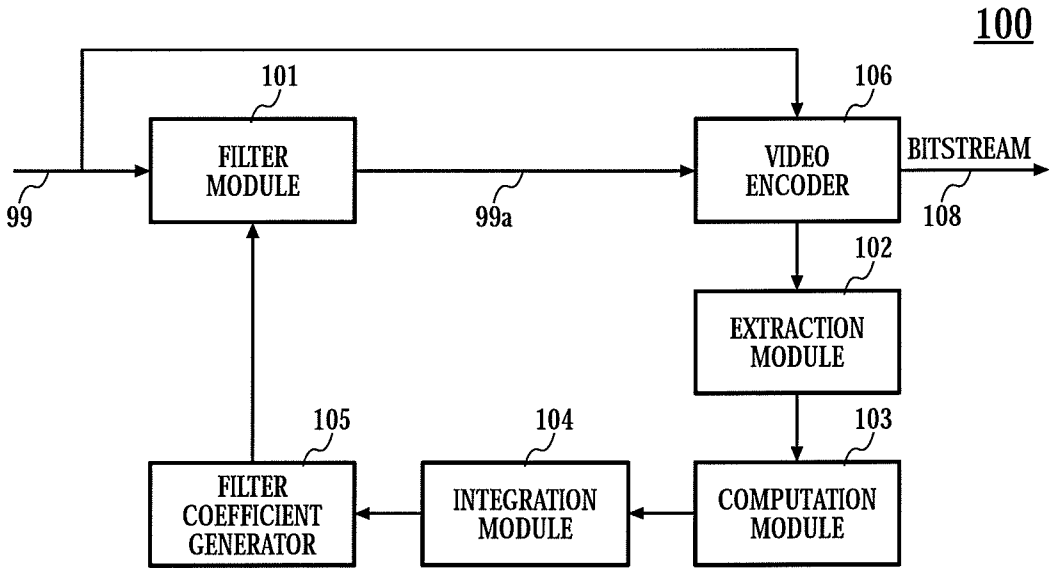

100
101
106
FILTER MODULE
VIDEO ENCODER
BITSTREAM
99
99a
108
102
EXTRACTION MODULE
105
104
103
FILTER COEFFICIENT GENERATOR
INTEGRATION MODULE
COMPUTATION MODULE

FIG. 1

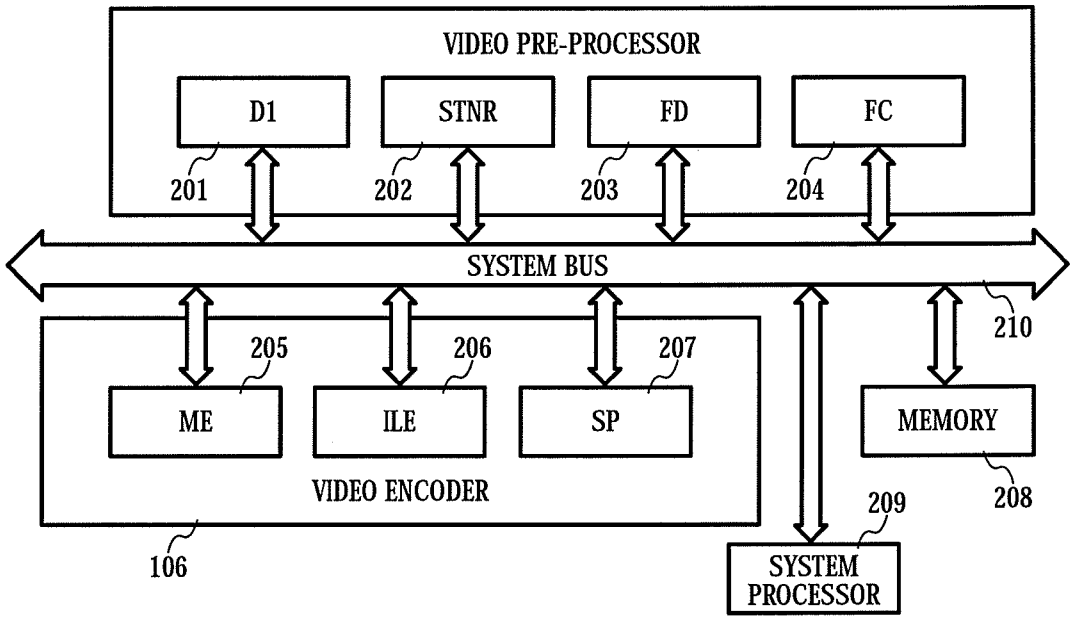

VIDEO PRE-PROCESSOR
D1
STNR
FD
FC
201
202
203
204
SYSTEM BUS
210
205
206
207
ME
ILE
SP
MEMORY
VIDEO ENCODER
208
209
106
SYSTEM PROCESSOR

FIG. 2

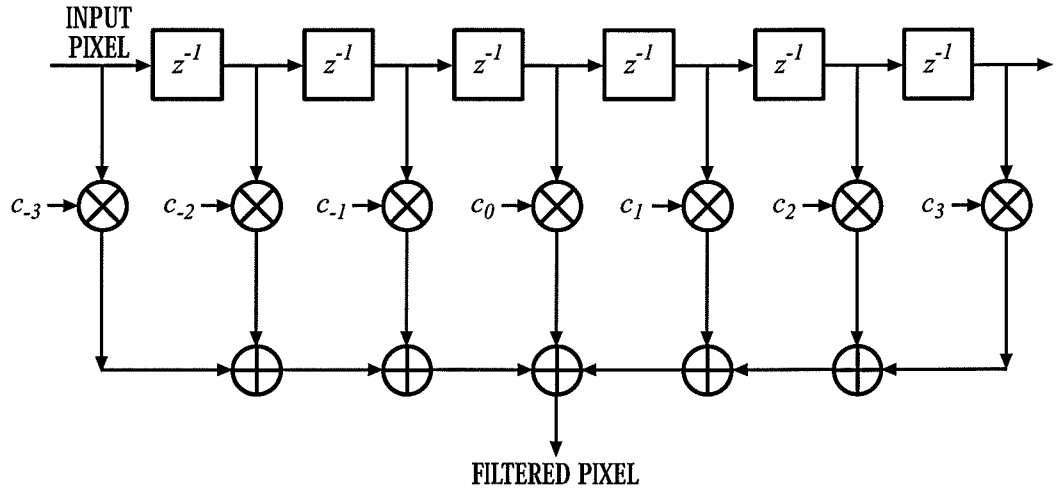

INPUT PIXEL
z^{-1}
z^{-1}
z^{-1}
z^{-1}
z^{-1}
z^{-1}
c_{-3}
c_{-2}
c_{-1}
c_0
c_1
c_2
c_3
FILTERED PIXEL

FIG. 3

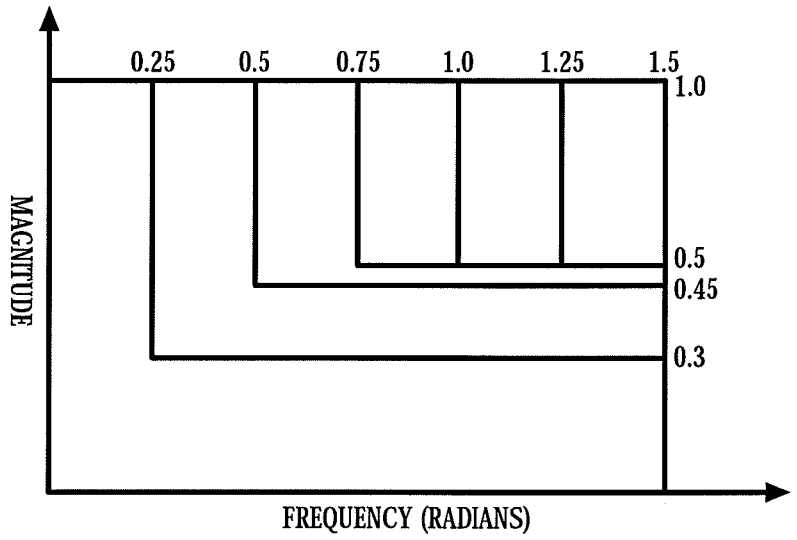

0.25
0.5
0.75
1.0
1.25
1.5
1.0
0.5
0.45
0.3
MAGNITUDE
FREQUENCY (RADIANS)

FIG. 4

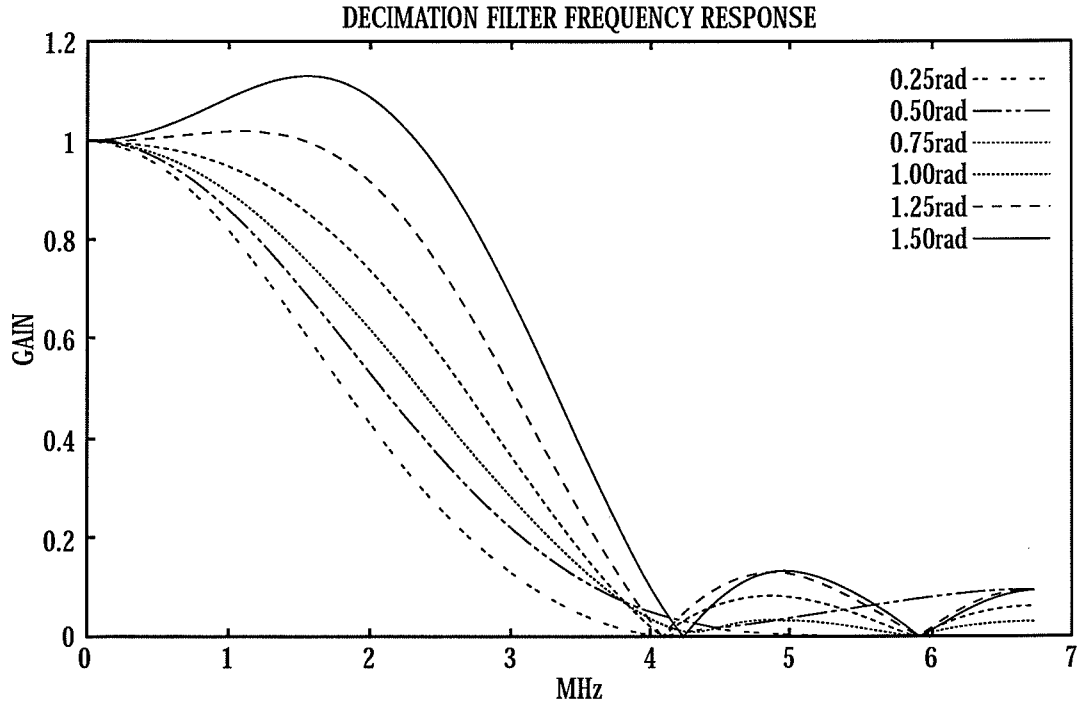

DECIMATION FILTER FREQUENCY RESPONSE
GAIN
MHz
0.25rad
0.50rad
0.75rad
1.00rad
1.25rad
1.50rad
1.2
1
0.8
0.6
0.4
0.2
0
0
1
2
3
4
5
6
7

FIG. 5

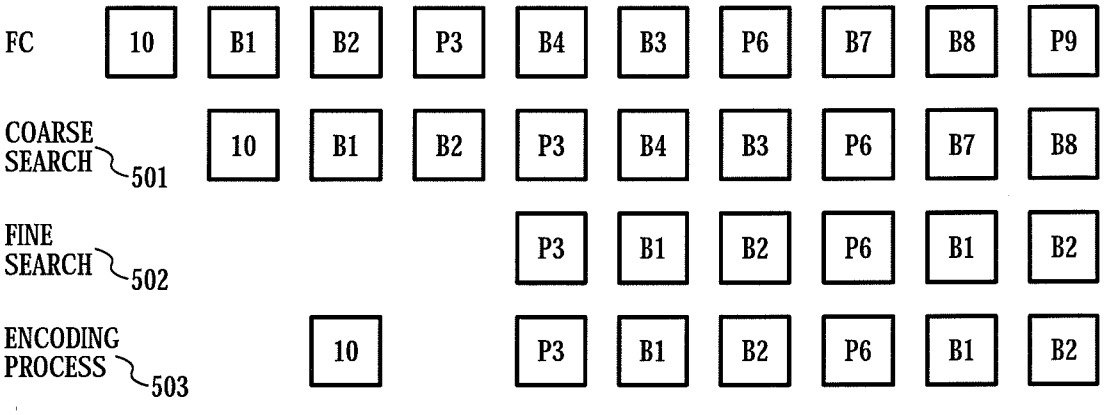

FC
10
B1
B2
P3
B4
B3
P6
B7
B8
P9
COARSE SEARCH
501
10
B1
B2
P3
B4
B3
P6
B7
B8
FINE SEARCH
502
P3
B1
B2
P6
B1
B2
ENCODING PROCESS
503
10
P3
B1
B2
P6
B1
B2

FIG. 6

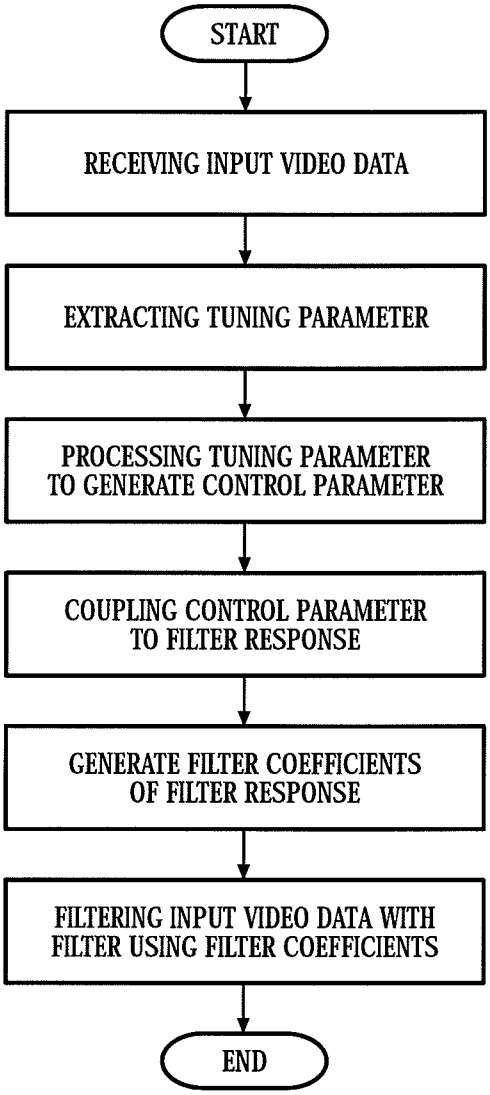

START
RECEIVING INPUT VIDEO DATA
EXTRACTING TUNING PARAMETER
PROCESSING TUNING PARAMETER TO GENERATE CONTROL PARAMETER
COUPLING CONTROL PARAMETER TO FILTER RESPONSE
GENERATE FILTER COEFFICIENTS OF FILTER RESPONSE
FILTERING INPUT VIDEO DATA WITH FILTER USING FILTER COEFFICIENTS
END

FIG. 7

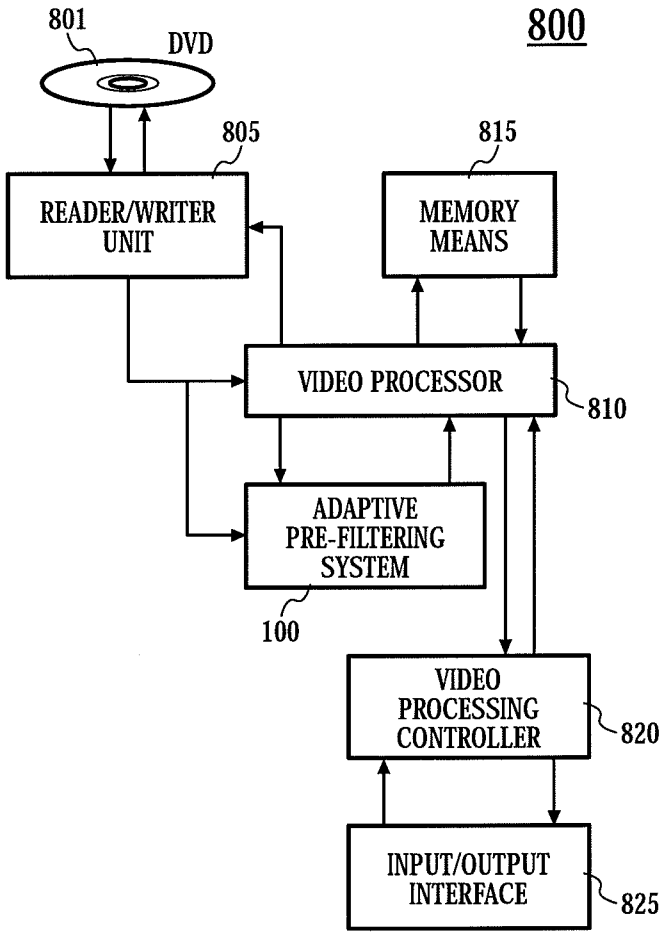

801
DVD
800
805
815
READER/WRITER UNIT
MEMORY MEANS
VIDEO PROCESSOR
810
ADAPTIVE PRE-FILTERING SYSTEM
100
VIDEO PROCESSING CONTROLLER
820
INPUT/OUTPUT INTERFACE
825

FIG. 8

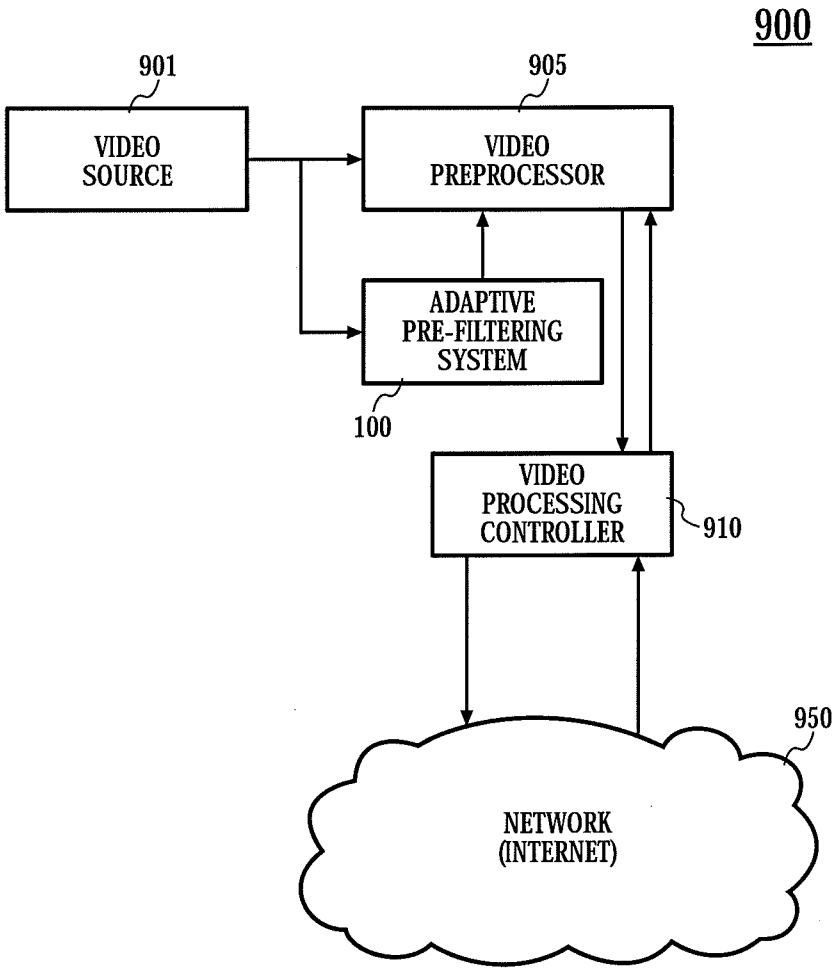

900
901
905
VIDEO SOURCE
VIDEO PREPROCESSOR
ADAPTIVE PRE-FILTERING SYSTEM
100
VIDEO PROCESSING CONTROLLER
910
950
NETWORK (INTERNET)

FIG. 9