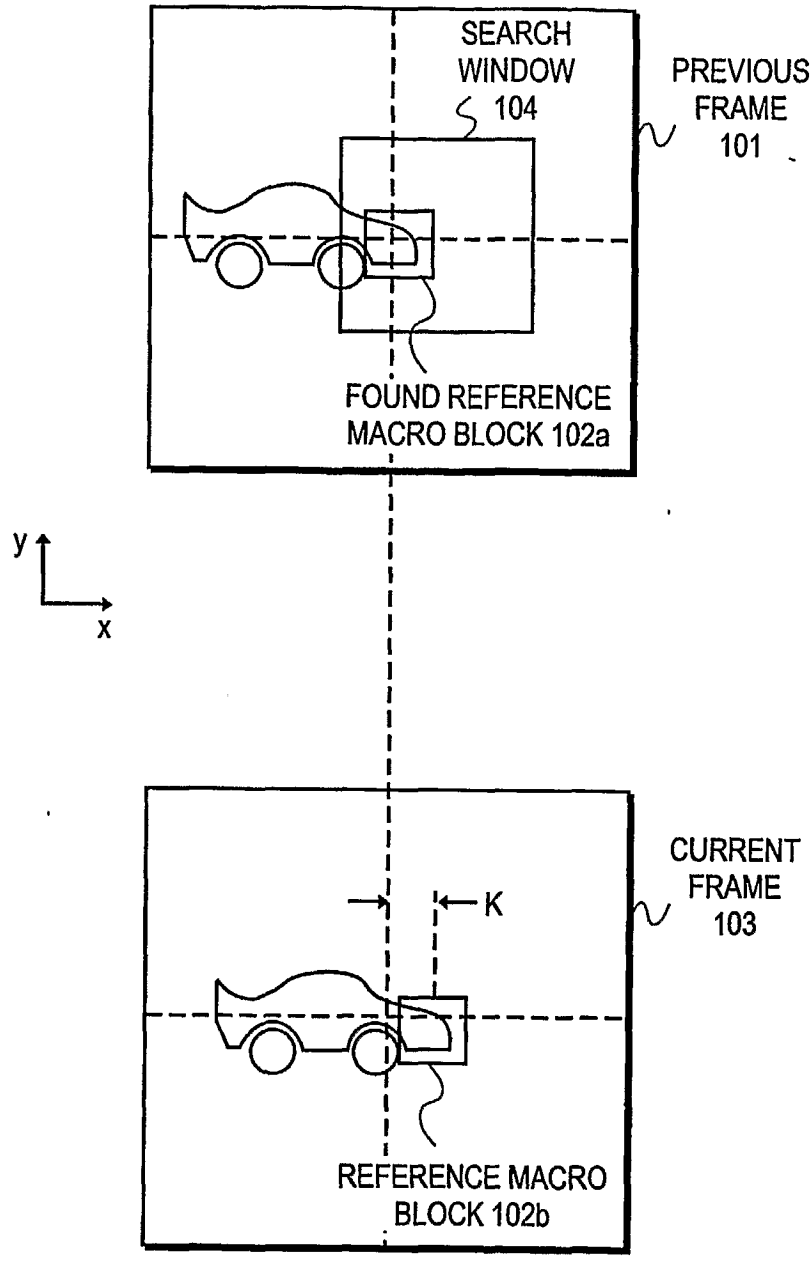

SEARCH
WINDOW
104
PREVIOUS
FRAME
101
FOUND REFERENCE
MACRO BLOCK 102a
y
x
CURRENT
FRAME
103
K
REFERENCE MACRO
BLOCK 102b

FIG. 1

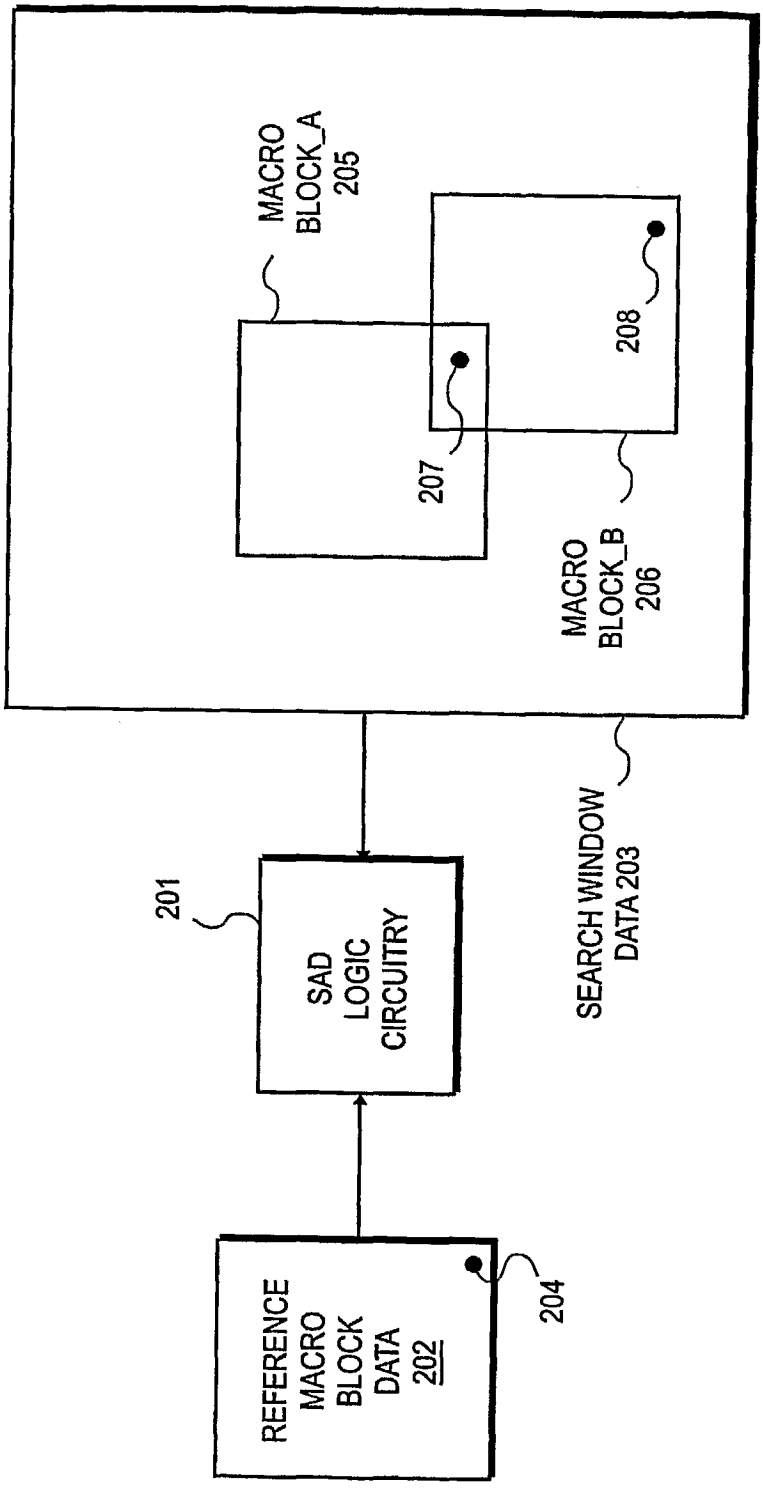

MACRO BLOCK_A 205
208
207
MACRO BLOCK_B 206
SEARCH WINDOW DATA 203
201
SAD LOGIC CIRCUITRY
REFERENCE MACRO BLOCK DATA 202
204

FIG. 2

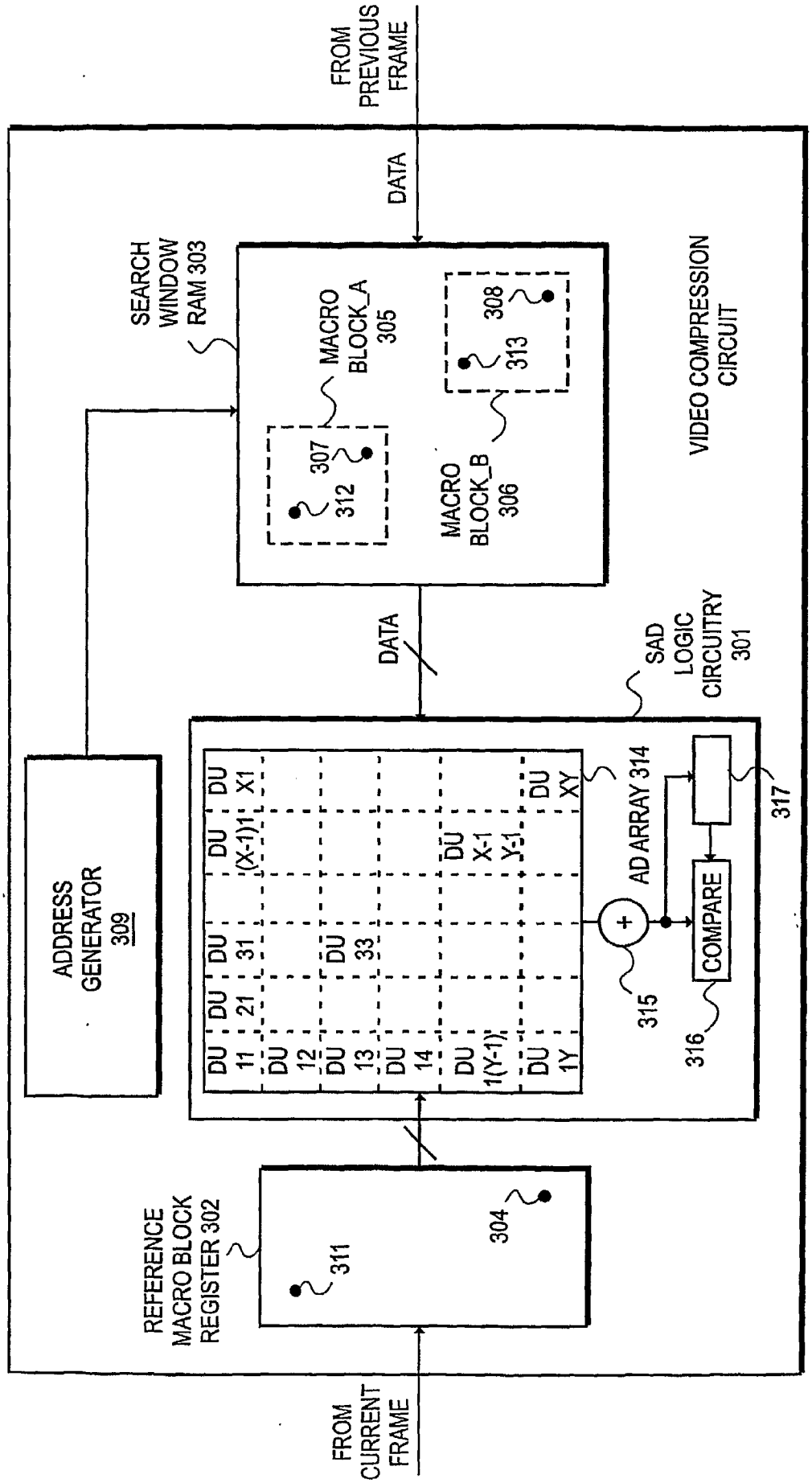

FROM PREVIOUS FRAME
DATA
SEARCH WINDOW RAM 303
MACRO BLOCK_A 305
MACRO BLOCK_B 306
307
312
308
313
VIDEO COMPRESSION CIRCUIT
DATA
SAD LOGIC CIRCUITRY 301
ADDRESS GENERATOR 309
DU 11
DU 21
DU 31
DU (X-1)1
DU X1
DU 12
DU 13
DU 33
DU 14
DU X-1 Y-1
DU 1(Y-1)
DU 1Y
DU XY
AD ARRAY 314
315
COMPARE
316
317
REFERENCE MACRO BLOCK REGISTER 302
311
304
FROM CURRENT FRAME

FIG. 3

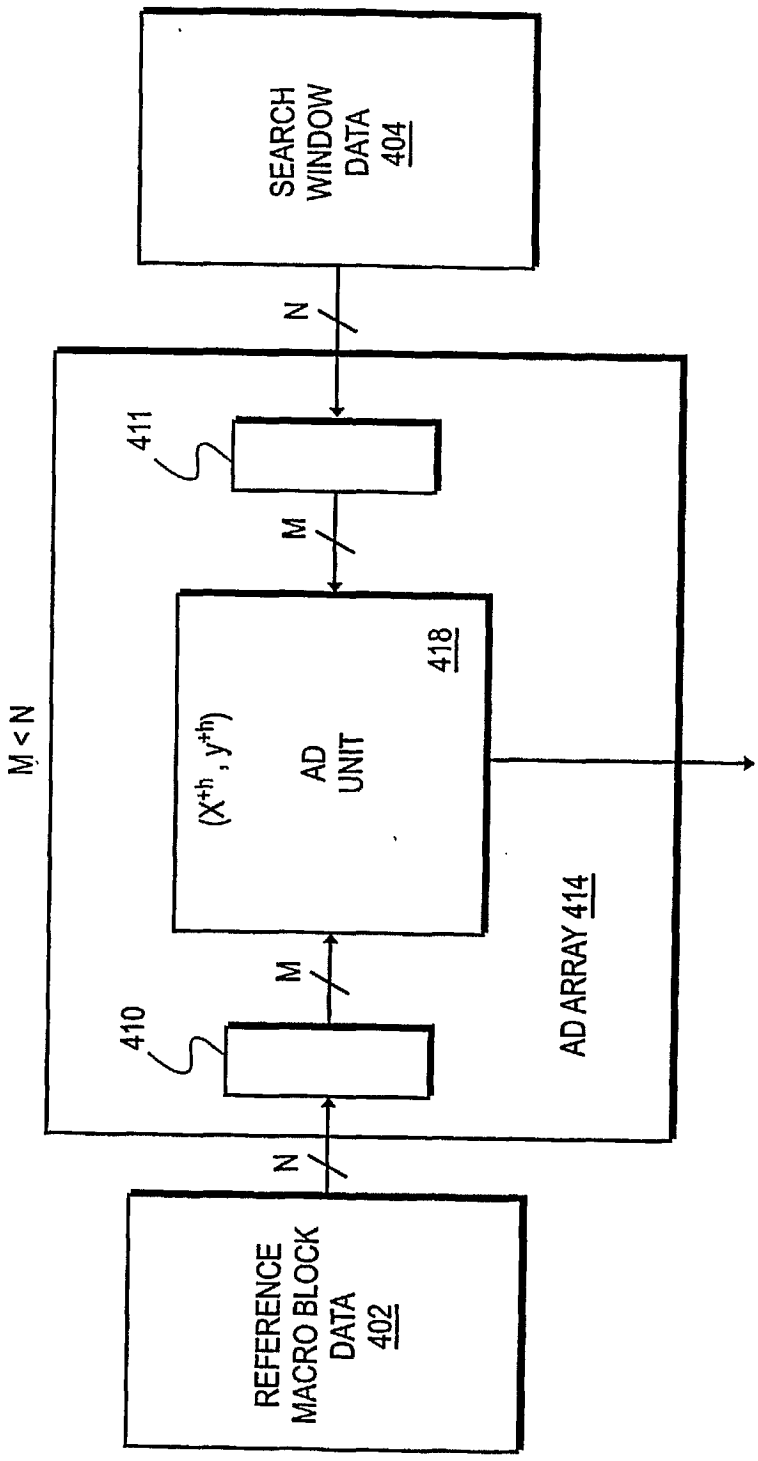

SEARCH WINDOW DATA 404
N
411
M
M < N
418
AD UNIT
(X^{th}, y^{th})
AD ARRAY 414
M
410
N
REFERENCE MACRO BLOCK DATA 402

FIG. 4A

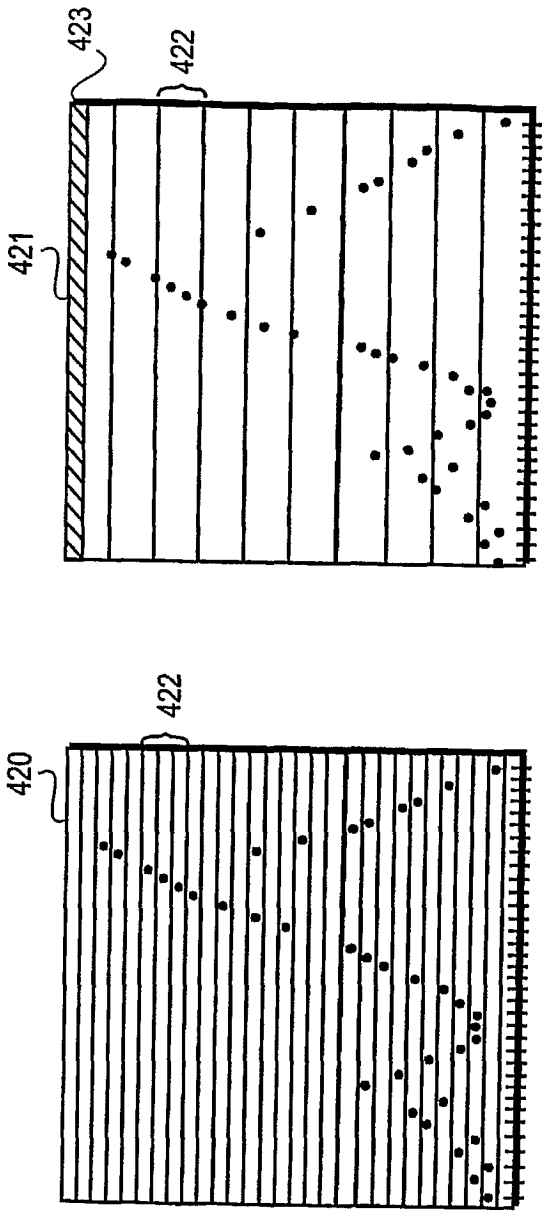


FIG. 4B

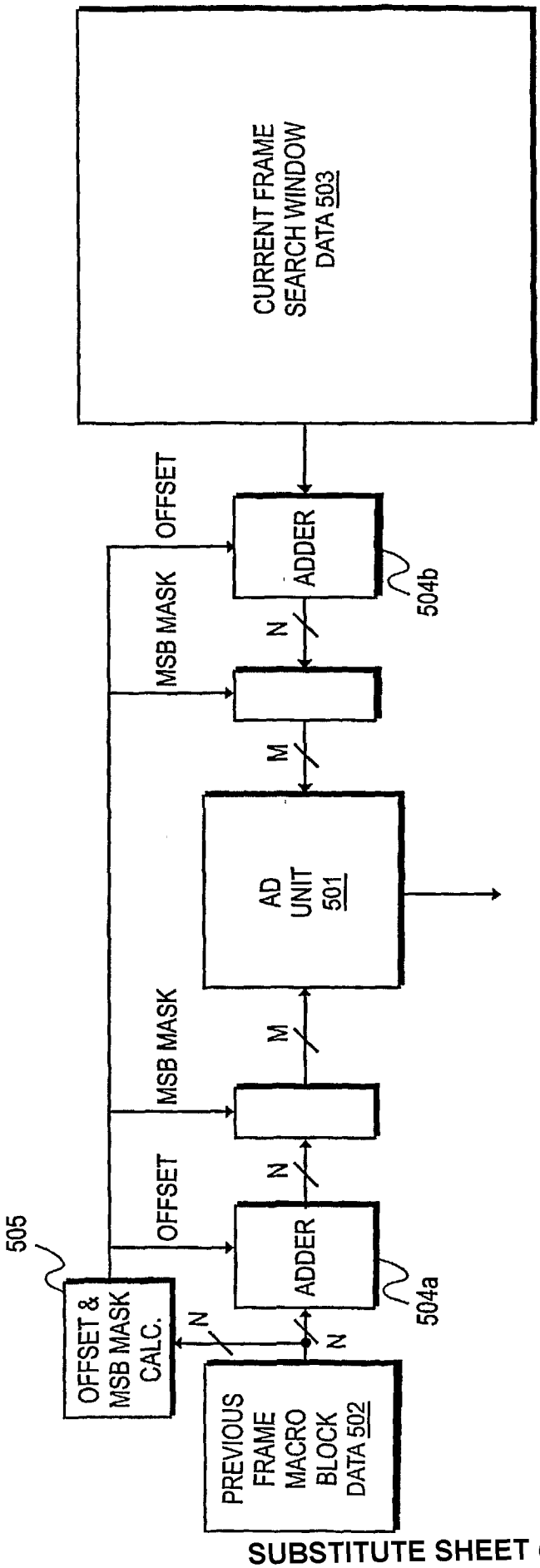

CURRENT FRAME SEARCH WINDOW DATA 503
OFFSET
ADDER
504b
N
MSB MASK
M
AD UNIT 501
MSB MASK
M
N
OFFSET
ADDER
504a
505
OFFSET & MSB MASK CALC.
N
N
PREVIOUS FRAME MACRO BLOCK DATA 502

FIG. 5A

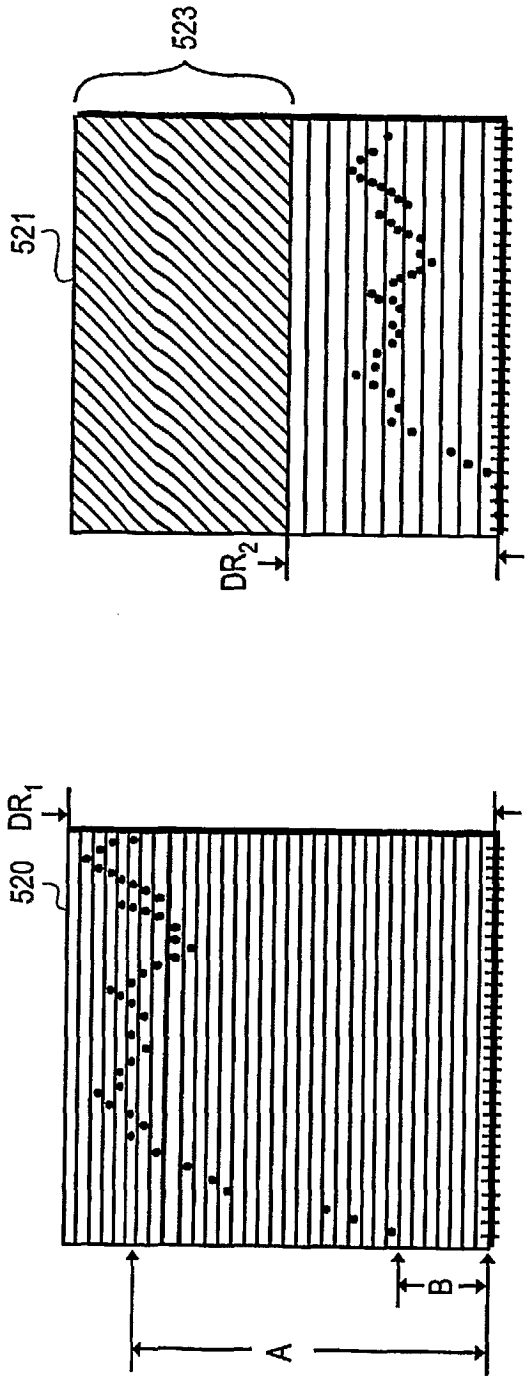


FIG. 5B

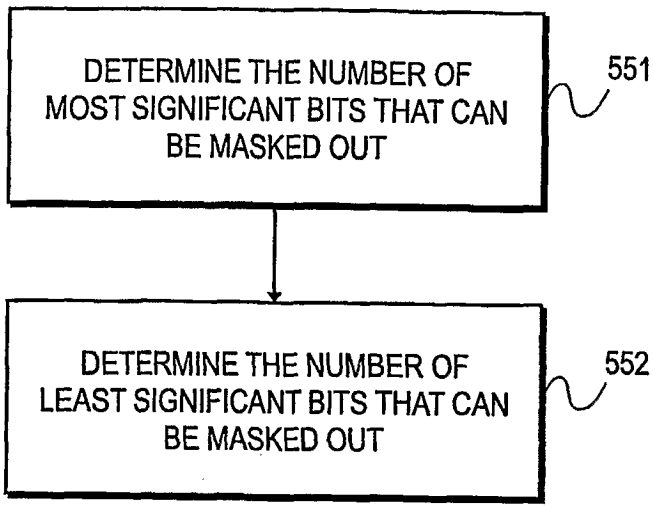

DETERMINE THE NUMBER OF MOST SIGNIFICANT BITS THAT CAN BE MASKED OUT
551
DETERMINE THE NUMBER OF LEAST SIGNIFICANT BITS THAT CAN BE MASKED OUT
552

FIG. 5C

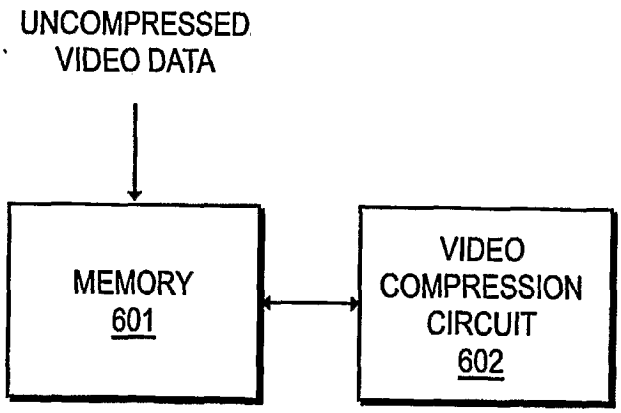

UNCOMPRESSED VIDEO DATA
MEMORY 601
VIDEO COMPRESSION CIRCUIT 602

FIG. 6