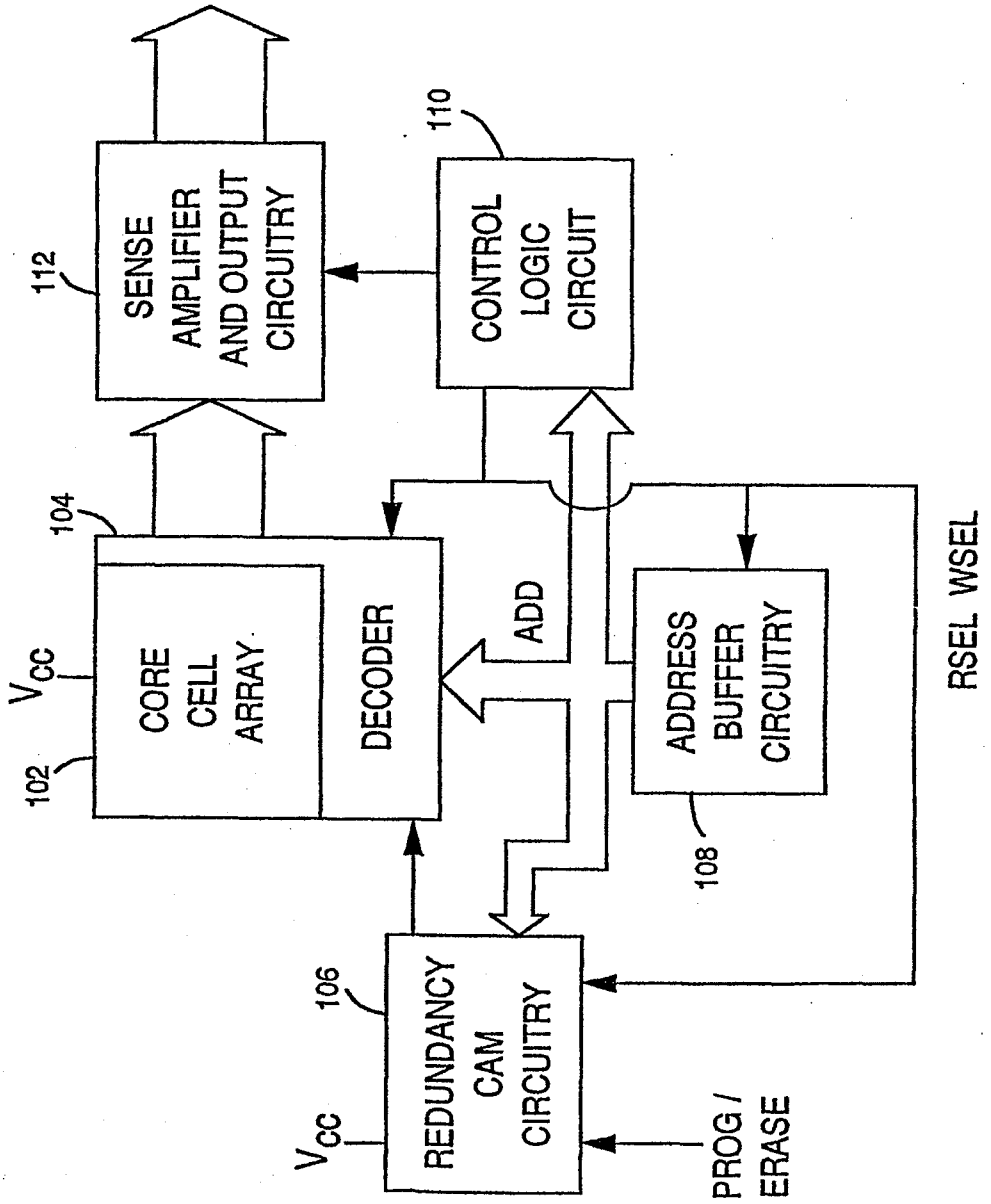

SENSE AMPLIFIER AND OUTPUT CIRCUITRY
112
CONTROL LOGIC CIRCUIT
110
104
CORE CELL ARRAY
102
V_{CC}
DECODER
ADD
ADDRESS BUFFER CIRCUITRY
108
RSEL WSEL
REDUNDANCY CAM CIRCUITRY
106
V_{CC}
PROG / ERASE

FIG. 1

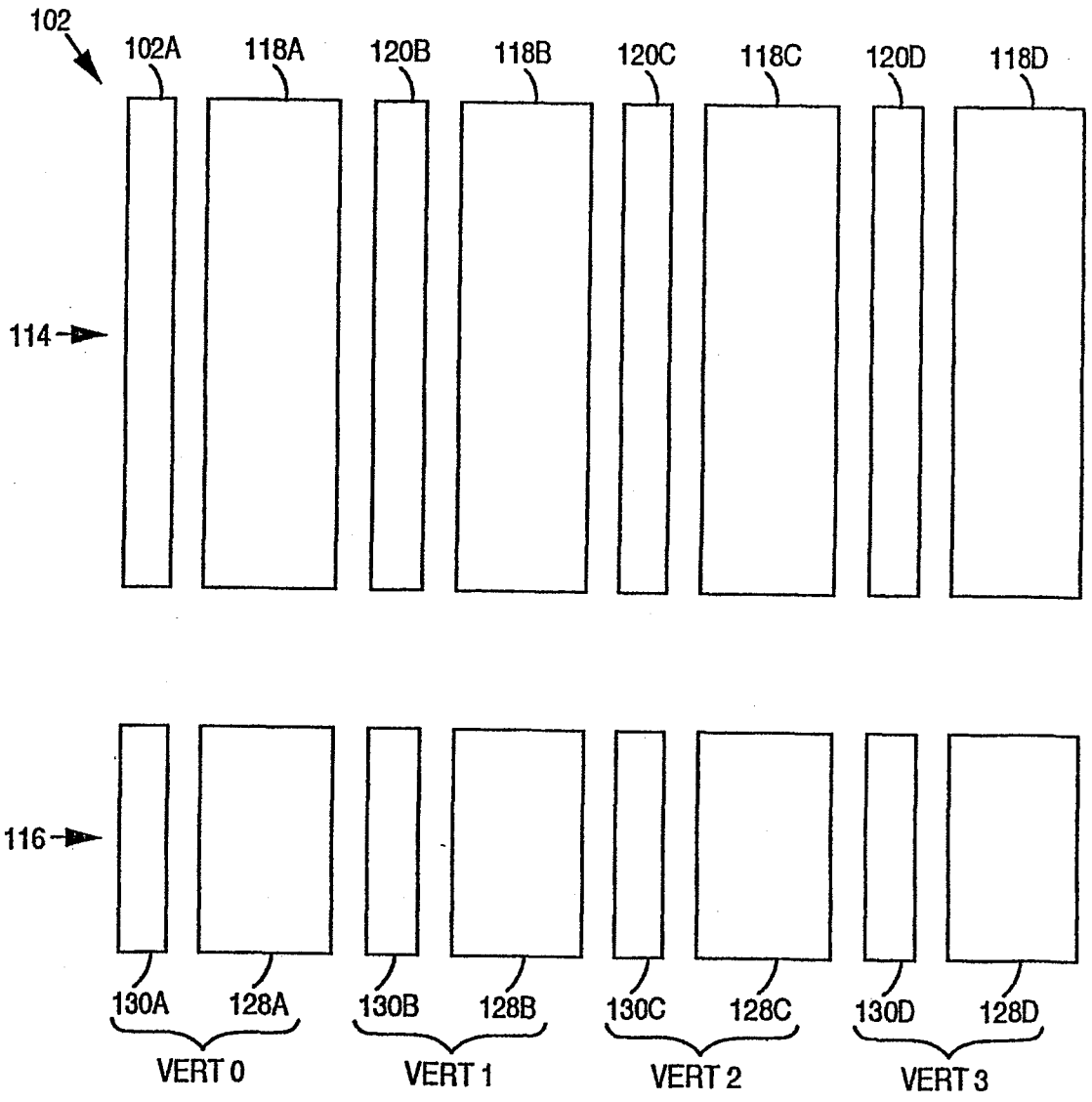

102
102A
118A
120B
118B
120C
118C
120D
118D
114
116
130A
128A
130B
128B
130C
128C
130D
128D
VERT 0
VERT 1
VERT 2
VERT 3

FIG. 2

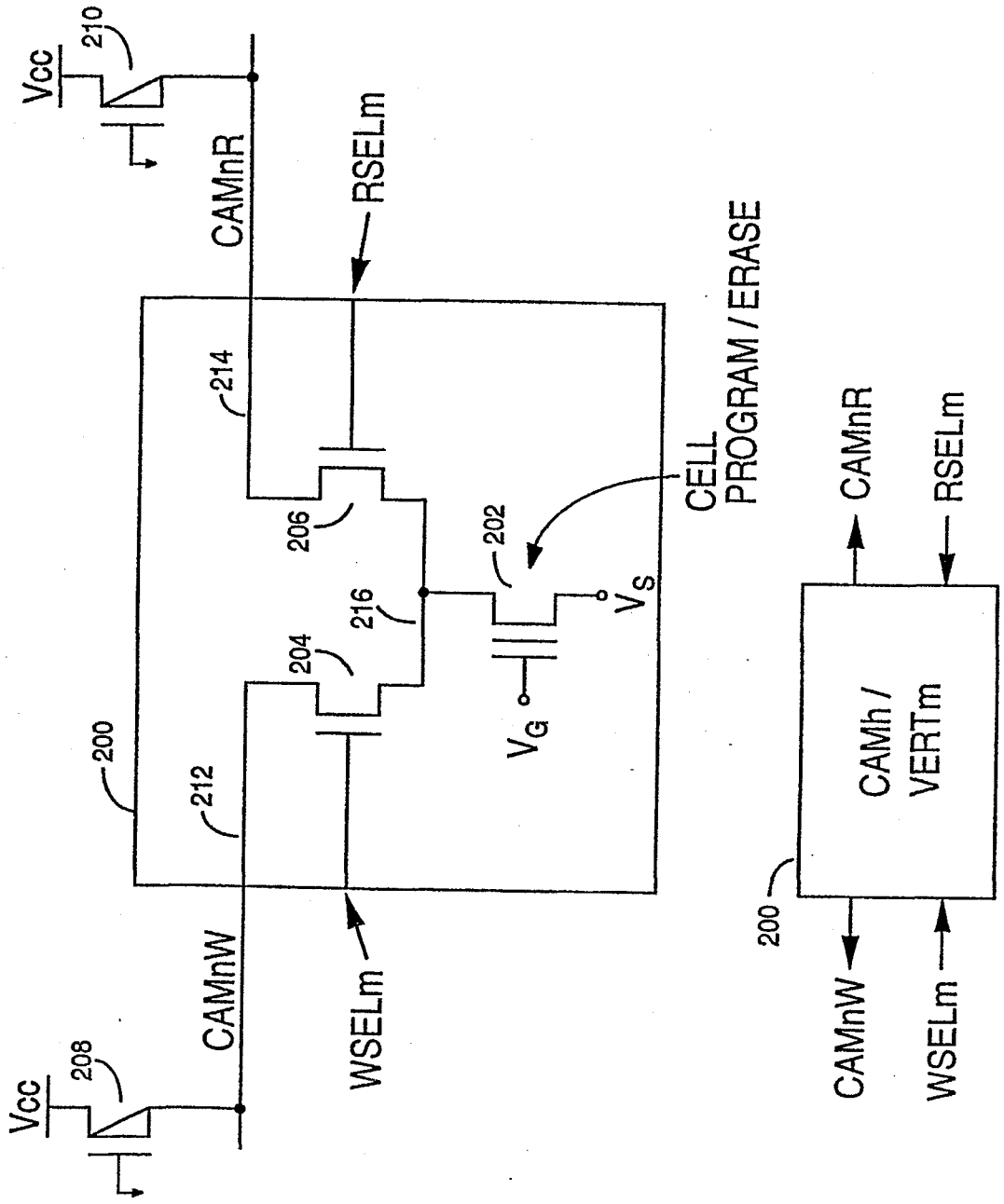

Vcc
210
CAMnR
RSELm
214
206
202
CELL
PROGRAM / ERASE
216
204
Vs
VG
200
212
CAMnW
WSELm
Vcc
208
CAMnR
RSELm
CAMh /
VERTm
200
CAMnW
WSELm

FIG. 3

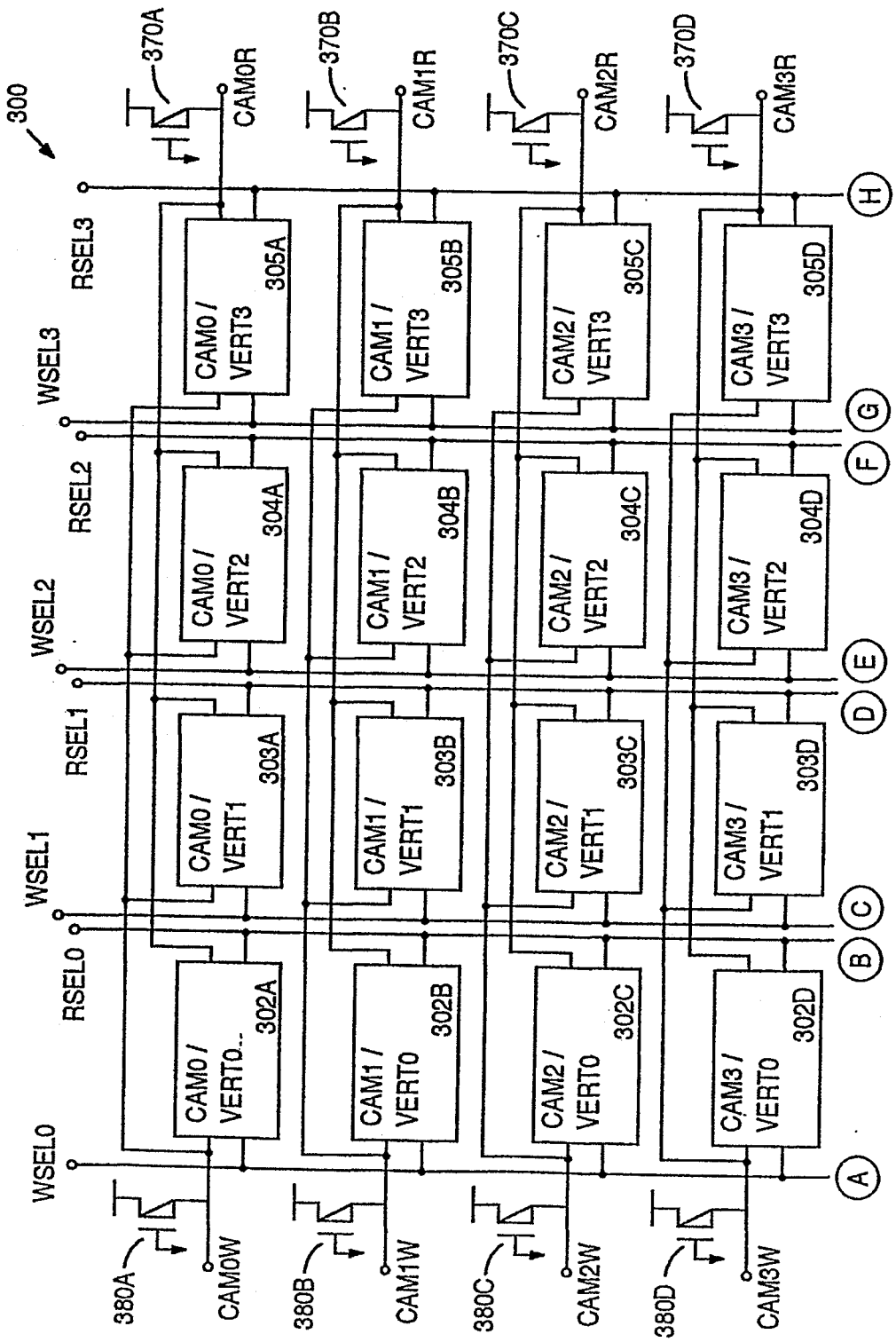

300
370A
370B
370C
370D
CAM0R
CAM1R
CAM2R
CAM3R
RSEL3
RSEL2
RSEL1
RSEL0
WSEL3
WSEL2
WSEL1
WSEL0
CAM0 / VERT3
CAM1 / VERT3
CAM2 / VERT3
CAM3 / VERT3
CAM0 / VERT2
CAM1 / VERT2
CAM2 / VERT2
CAM3 / VERT2
CAM0 / VERT1
CAM1 / VERT1
CAM2 / VERT1
CAM3 / VERT1
CAM0 / VERT0
CAM1 / VERT0
CAM2 / VERT0
CAM3 / VERT0
305A
305B
305C
305D
304A
304B
304C
304D
303A
303B
303C
303D
302A
302B
302C
302D
A
B
C
D
E
F
G
H
380A
380B
380C
380D
CAM0W
CAM1W
CAM2W
CAM3W

FIG. 4

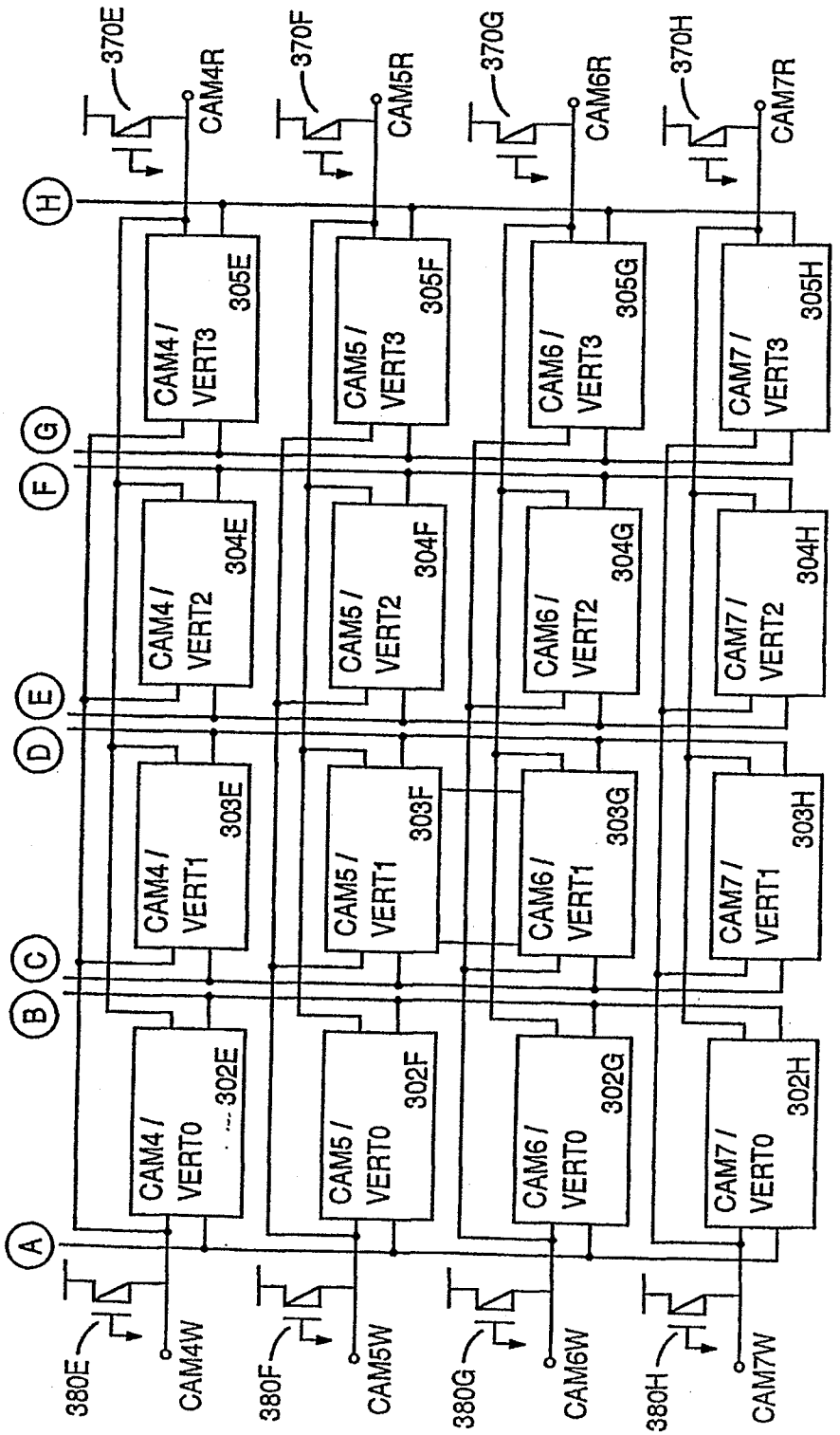


FIG. 4 Continued

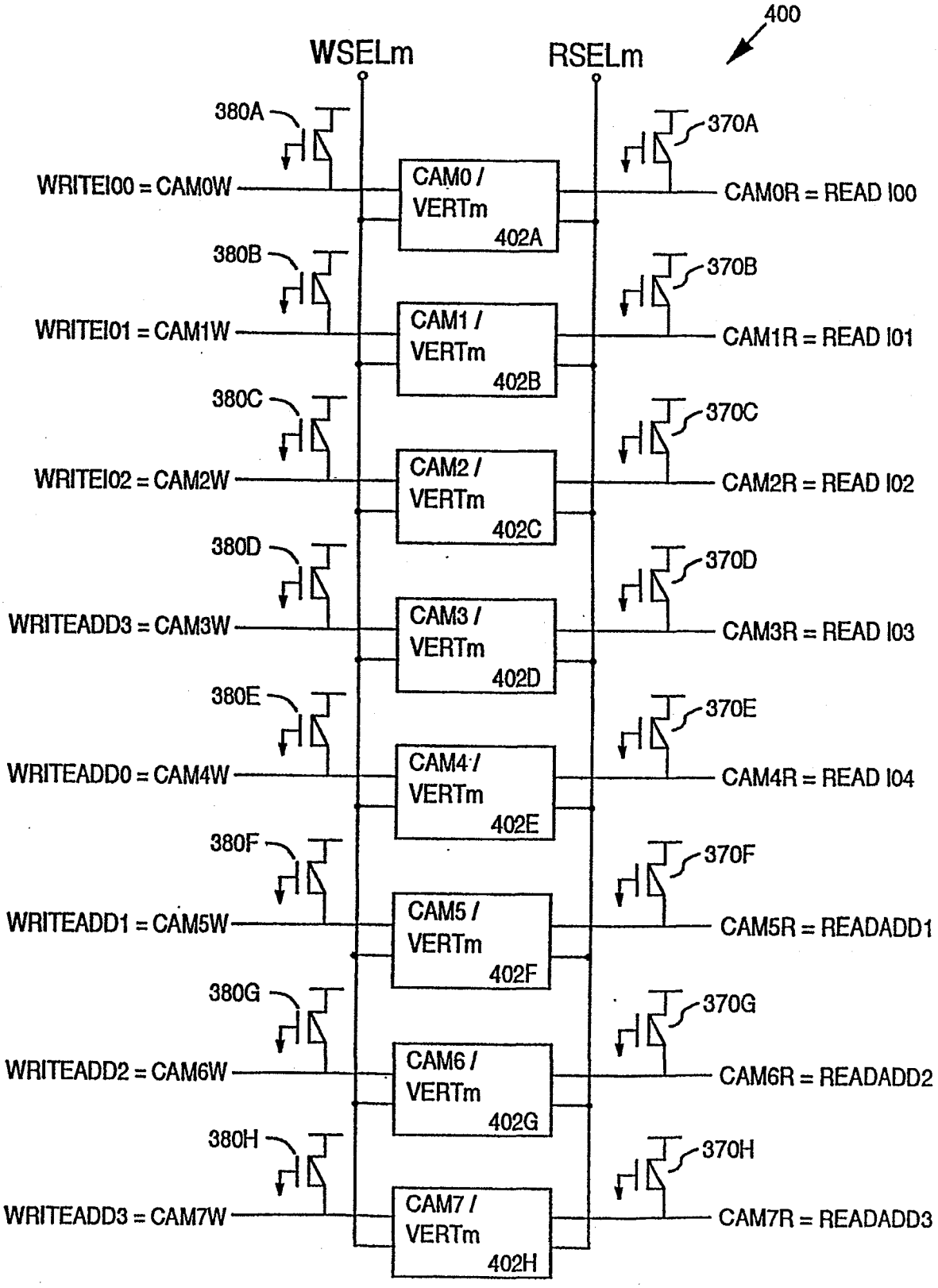

400
WSELm
RSELm
380A
370A
WRITEI00 = CAM0W
CAM0 / VERTm 402A
CAM0R = READ I00
380B
370B
WRITEI01 = CAM1W
CAM1 / VERTm 402B
CAM1R = READ I01
380C
370C
WRITEI02 = CAM2W
CAM2 / VERTm 402C
CAM2R = READ I02
380D
370D
WRITEADD3 = CAM3W
CAM3 / VERTm 402D
CAM3R = READ I03
380E
370E
WRITEADD0 = CAM4W
CAM4 / VERTm 402E
CAM4R = READ I04
380F
370F
WRITEADD1 = CAM5W
CAM5 / VERTm 402F
CAM5R = READADD1
380G
370G
WRITEADD2 = CAM6W
CAM6 / VERTm 402G
CAM6R = READADD2
380H
370H
WRITEADD3 = CAM7W
CAM7 / VERTm 402H
CAM7R = READADD3

FIG. 5

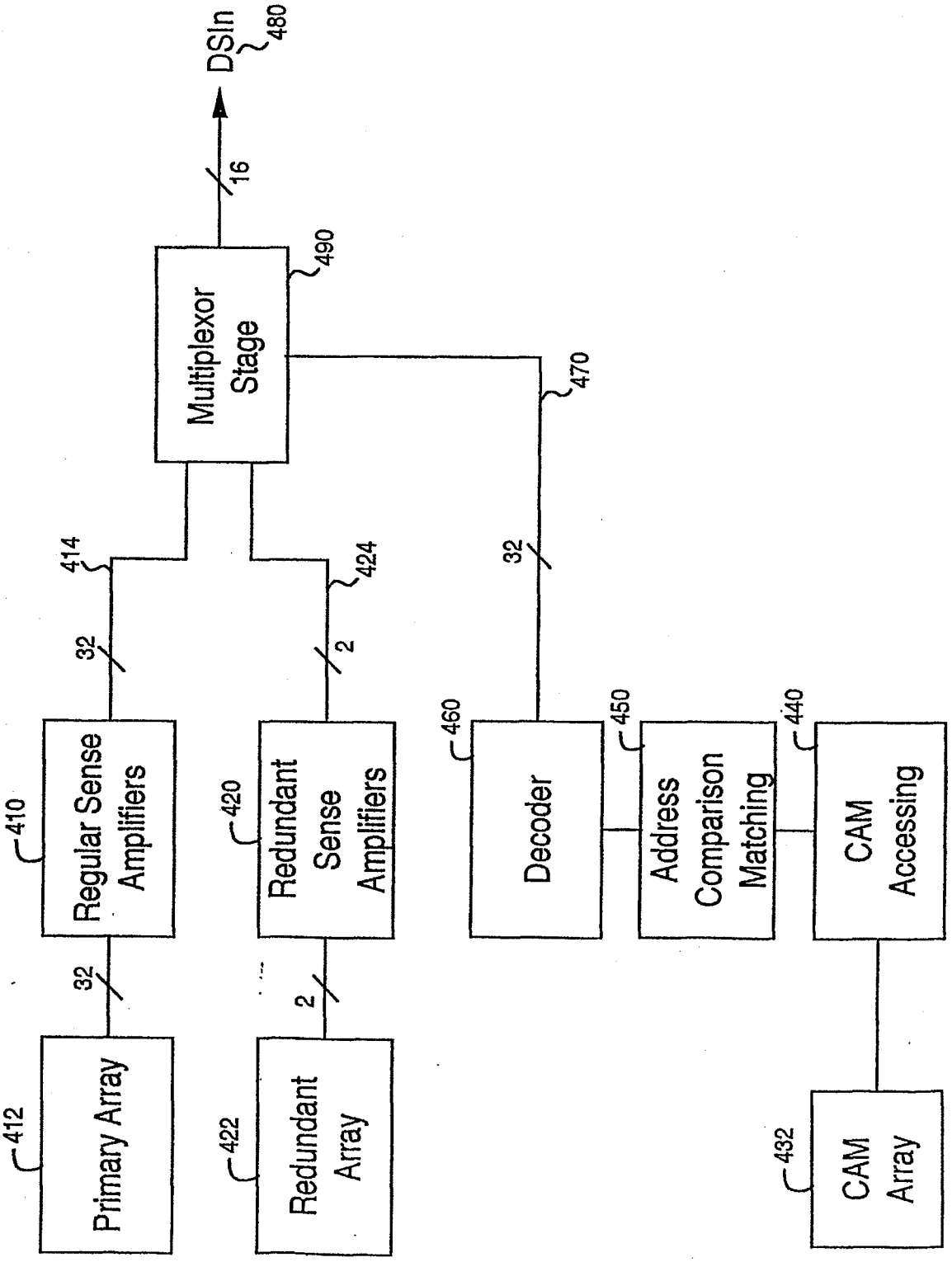

DSIn
480
16
Multiplexor Stage
490
470
414
424
32
32
2
Regular Sense Amplifiers
410
Redundant Sense Amplifiers
420
Decoder
460
Address Comparison Matching
450
CAM Accessing
440
32
2
Primary Array
412
Redundant Array
422
CAM Array
432

FIG. 6

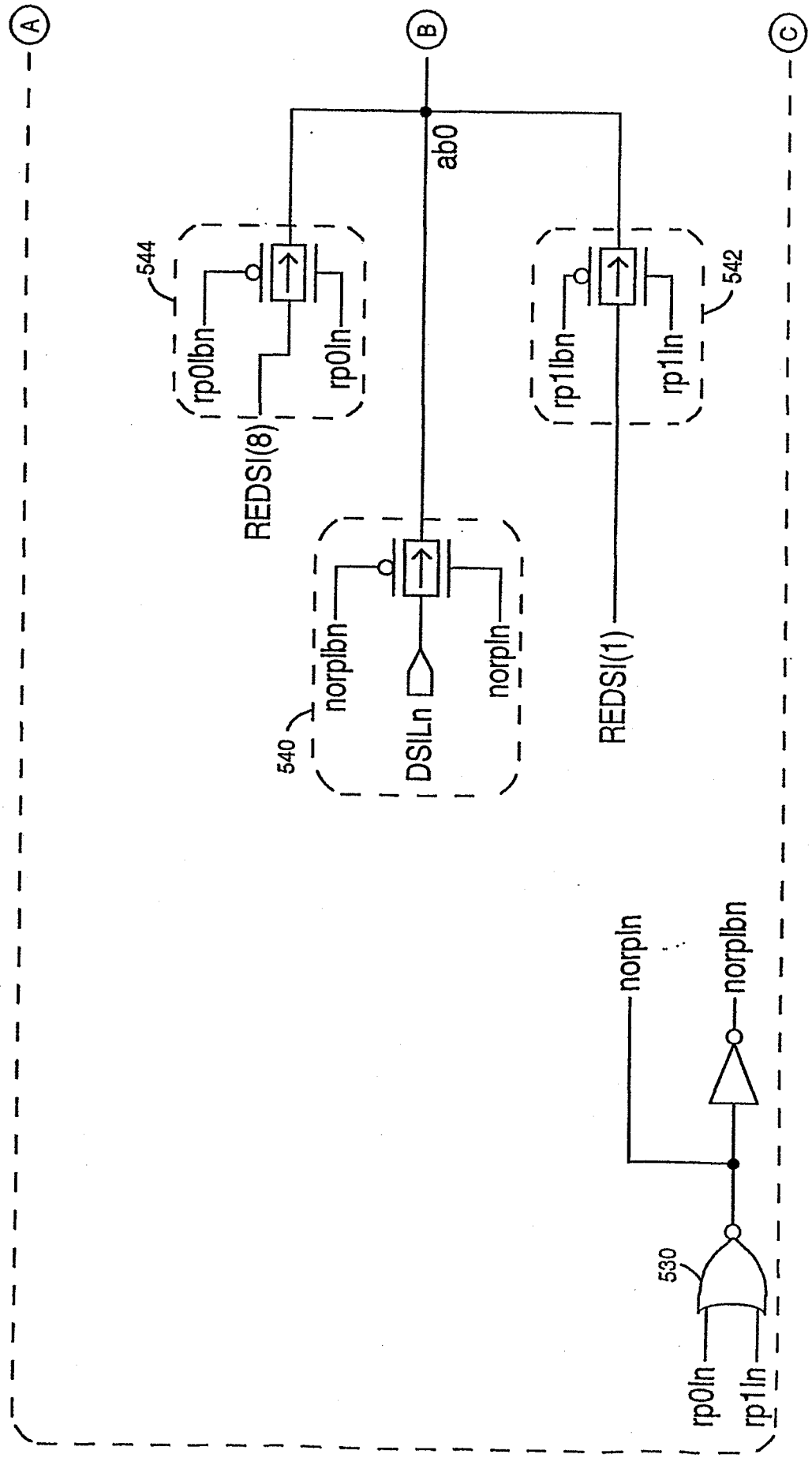

A
B
C
ab0
544
rp0lbn
rp0ln
REDSI(8)
542
rp1lbn
rp1ln
540
norplbn
DSILn
norpln
REDSI(1)
norpln
norplbn
530
rp0ln
rp1ln

FIG. 7

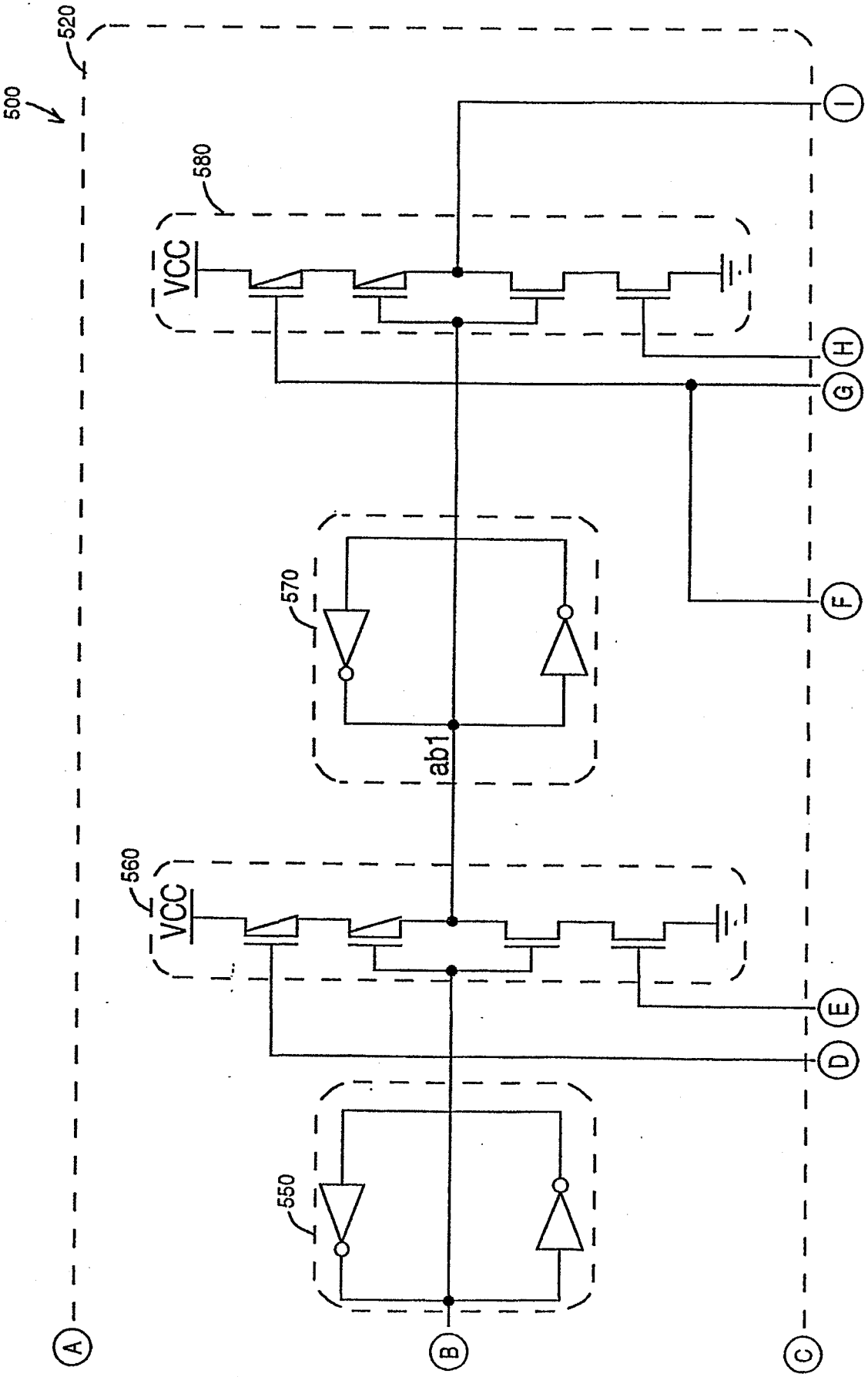


FIG. 7 Continued

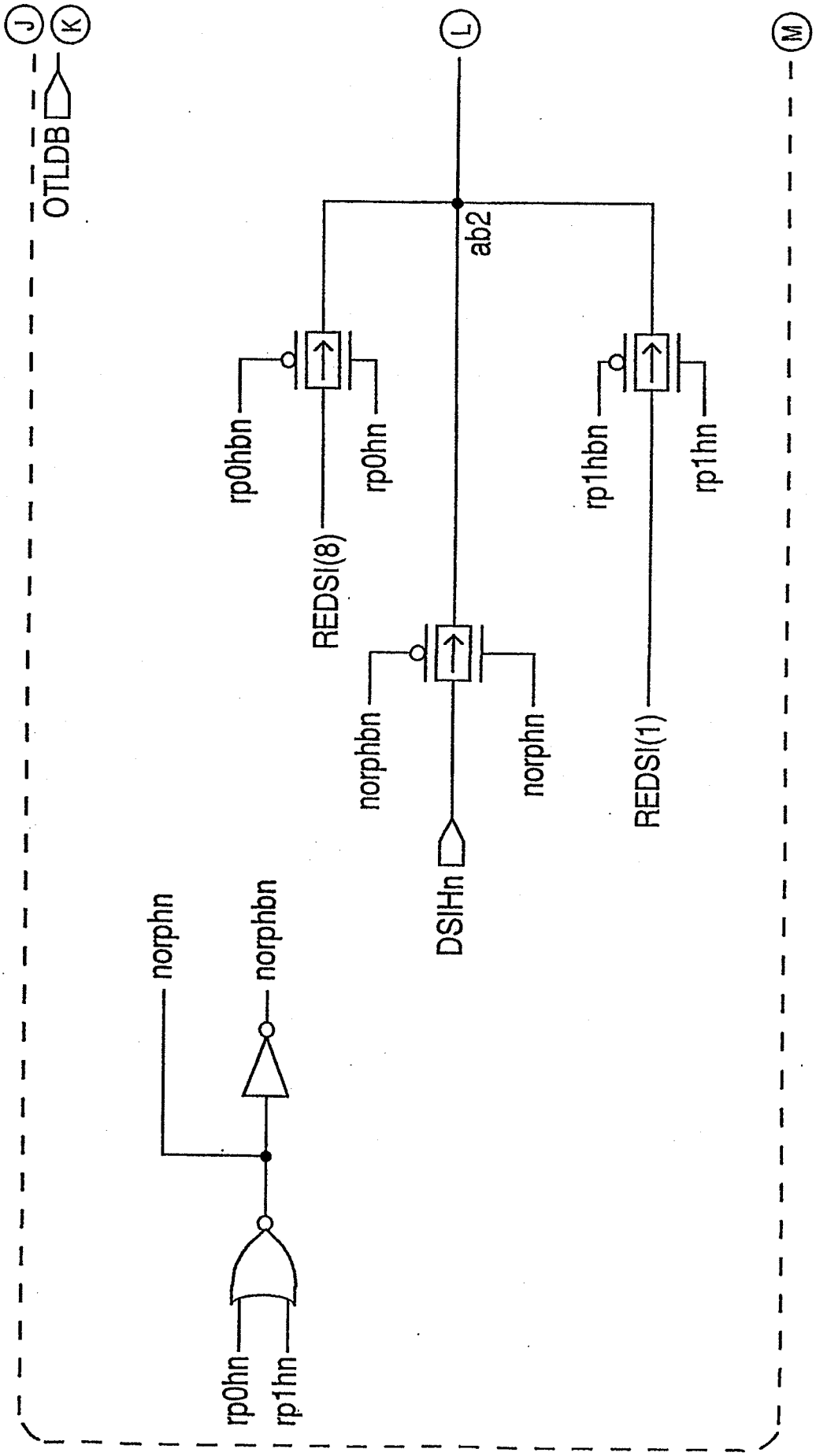


FIG. 7 Continued

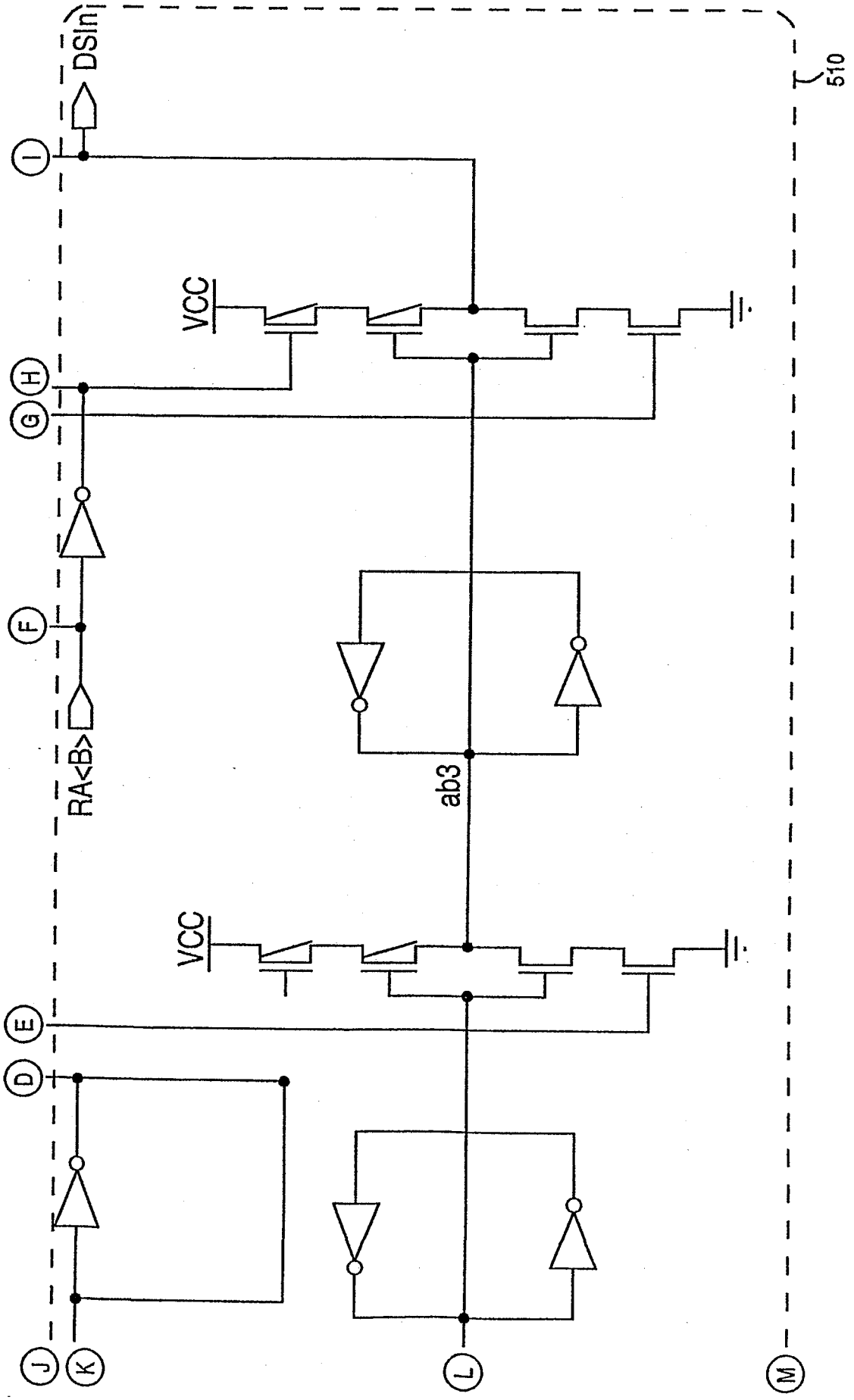


FIG. 7 Continued