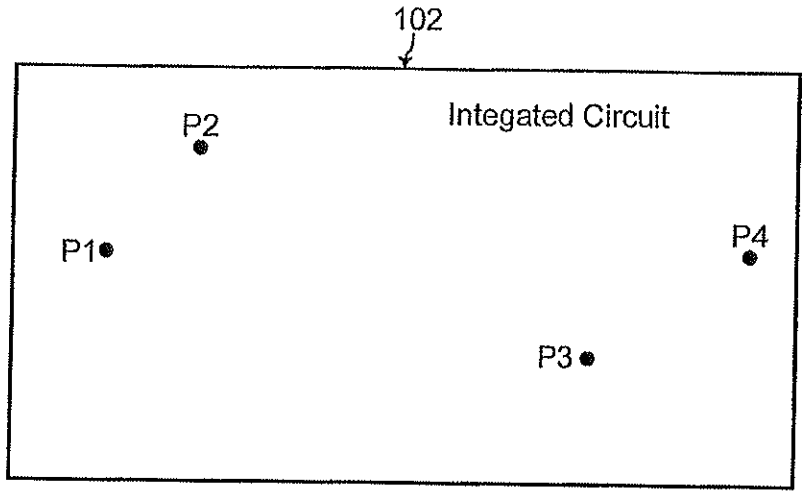


FIG. 1A (Prior Art)

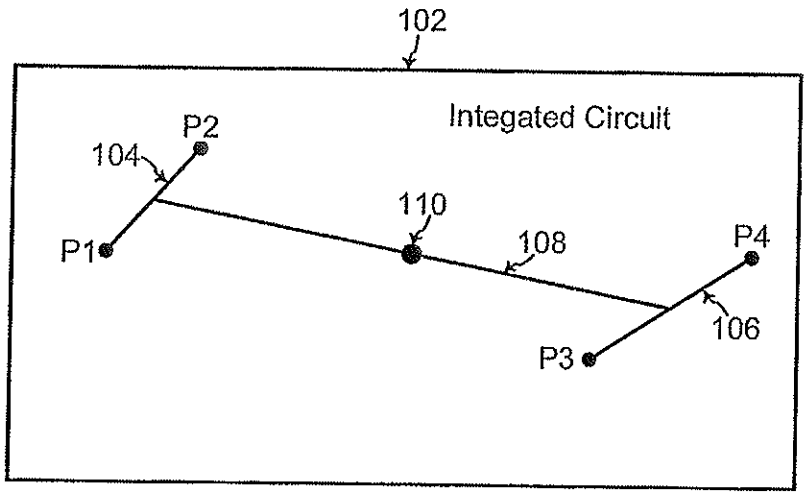


FIG. 1B (Prior Art)

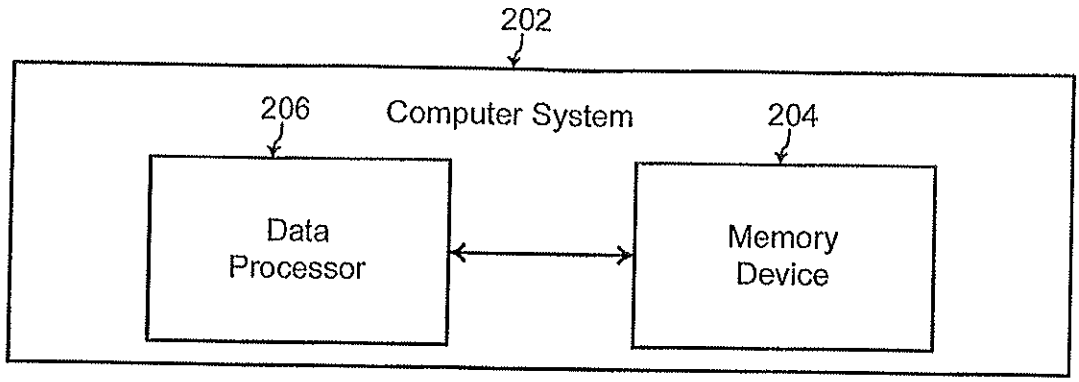

202
206
Computer System
204
Data Processor
Memory Device

FIG. 2

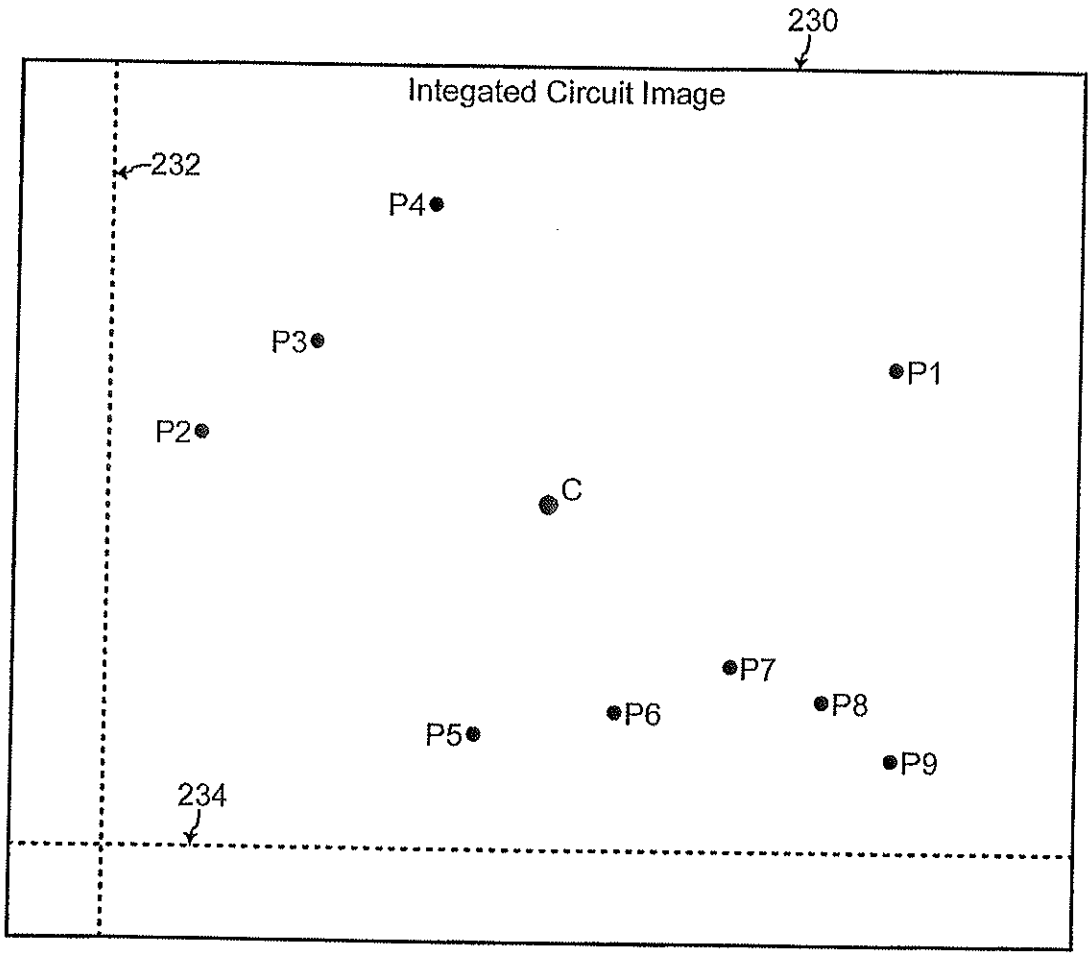

230
Integated Circuit Image
232
P4
P3
P1
P2
C
P7
P8
P6
P5
P9
234

FIG. 4

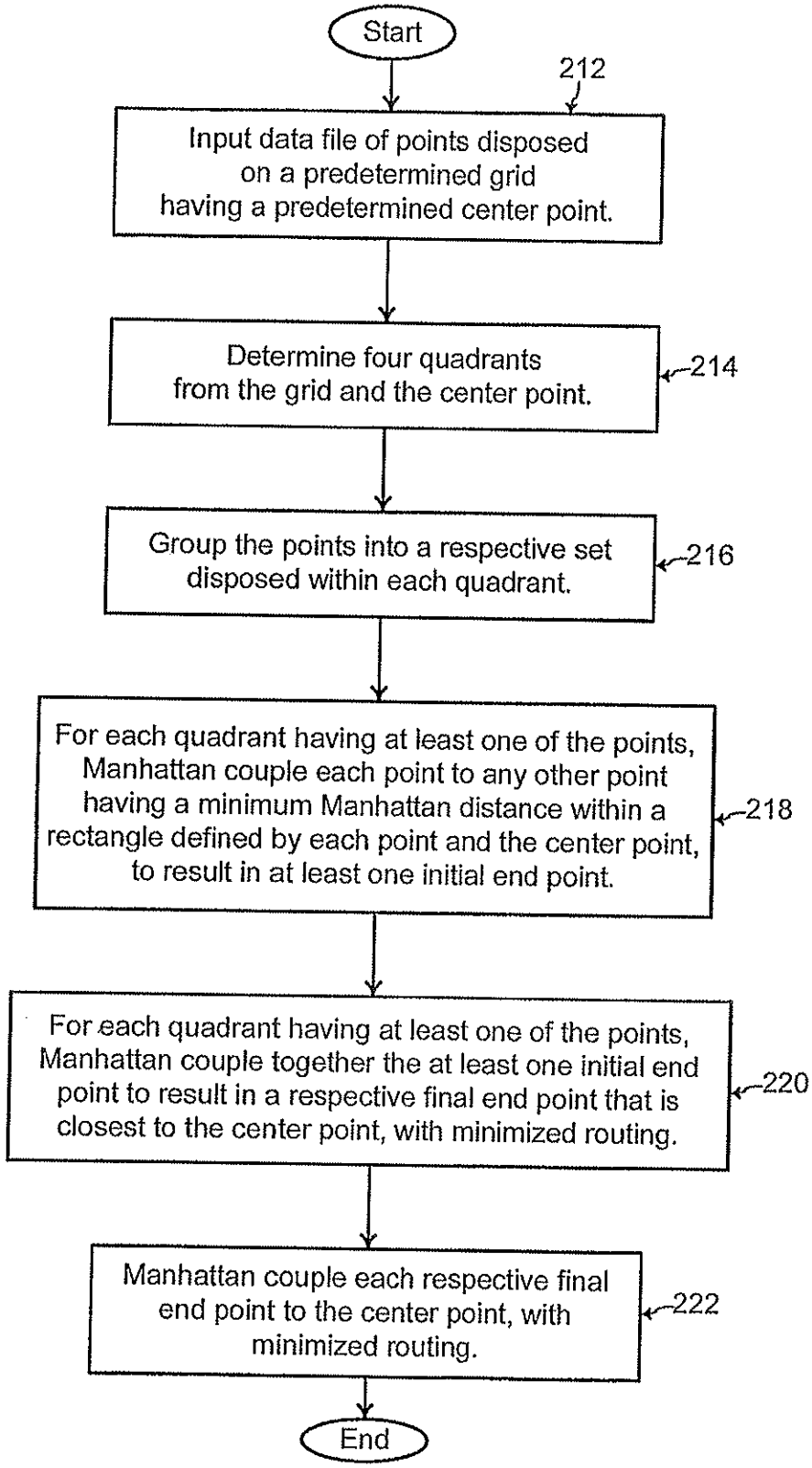

Start
212
Input data file of points disposed on a predetermined grid having a predetermined center point.
Determine four quadrants from the grid and the center point.
214
Group the points into a respective set disposed within each quadrant.
216
For each quadrant having at least one of the points, Manhattan couple each point to any other point having a minimum Manhattan distance within a rectangle defined by each point and the center point, to result in at least one initial end point.
218
For each quadrant having at least one of the points, Manhattan couple together the at least one initial end point to result in a respective final end point that is closest to the center point, with minimized routing.
220
Manhattan couple each respective final end point to the center point, with minimized routing.
222
End

FIG. 3

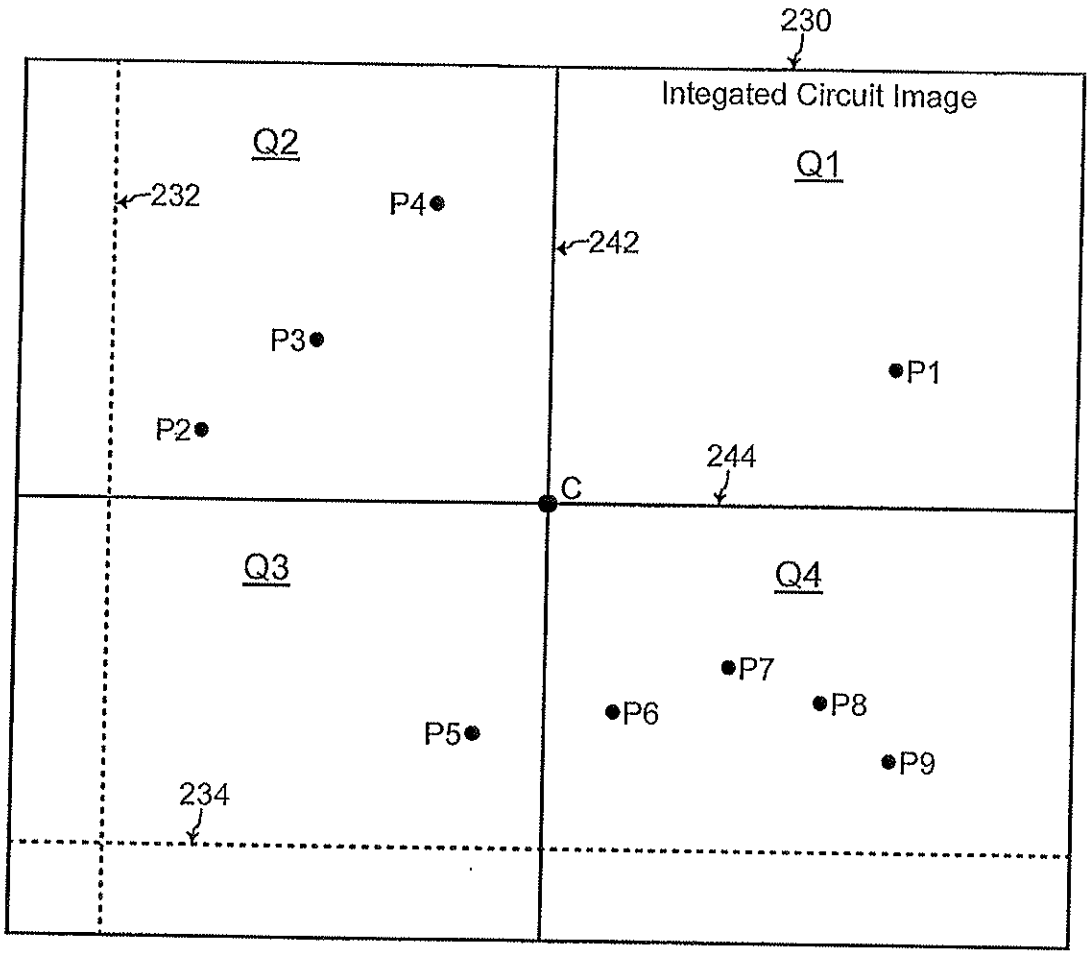

230
Integated Circuit Image
Q2
Q1
232
P4
242
P3
P1
P2
244
C
Q3
Q4
P7
P6
P8
P5
P9
234

FIG. 5

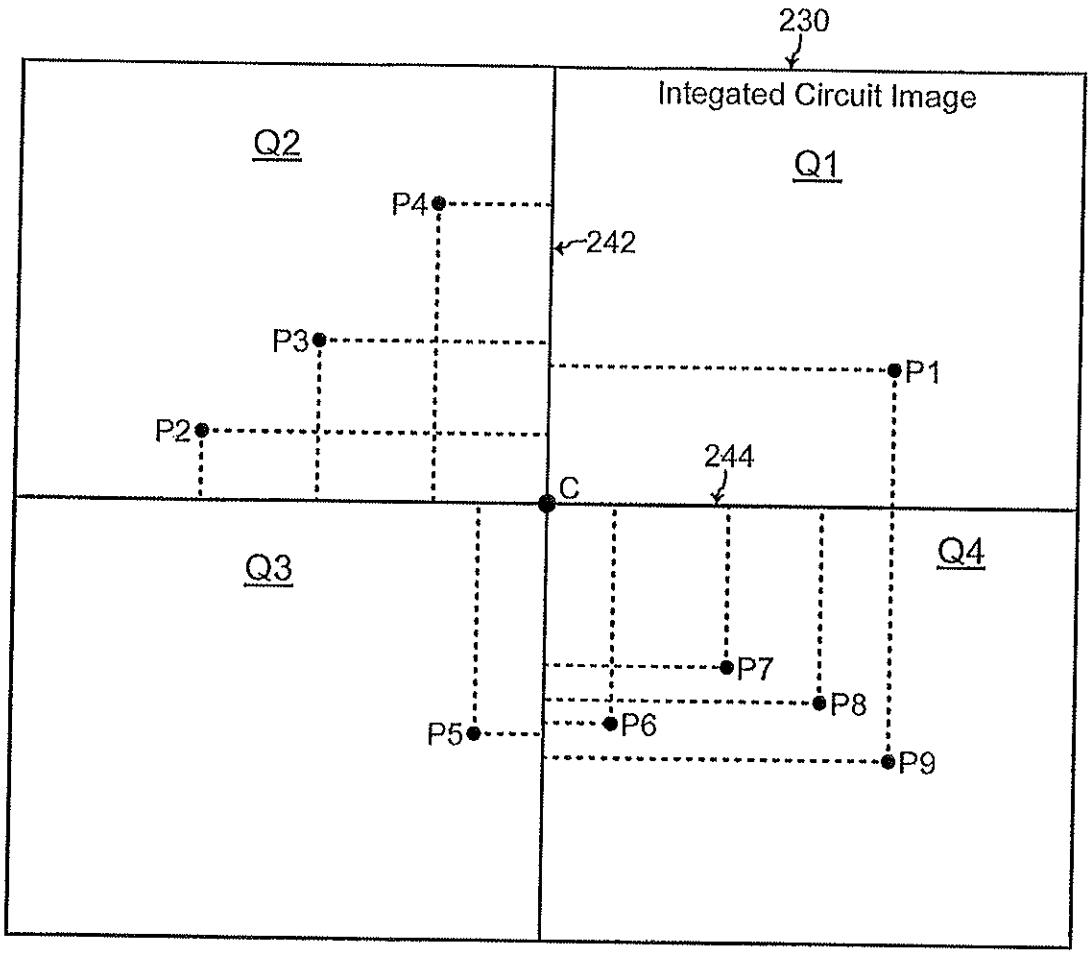

230
Integated Circuit Image
Q2
Q1
P4
242
P3
P1
P2
244
C
Q3
Q4
P7
P8
P5
P6
P9

FIG. 6

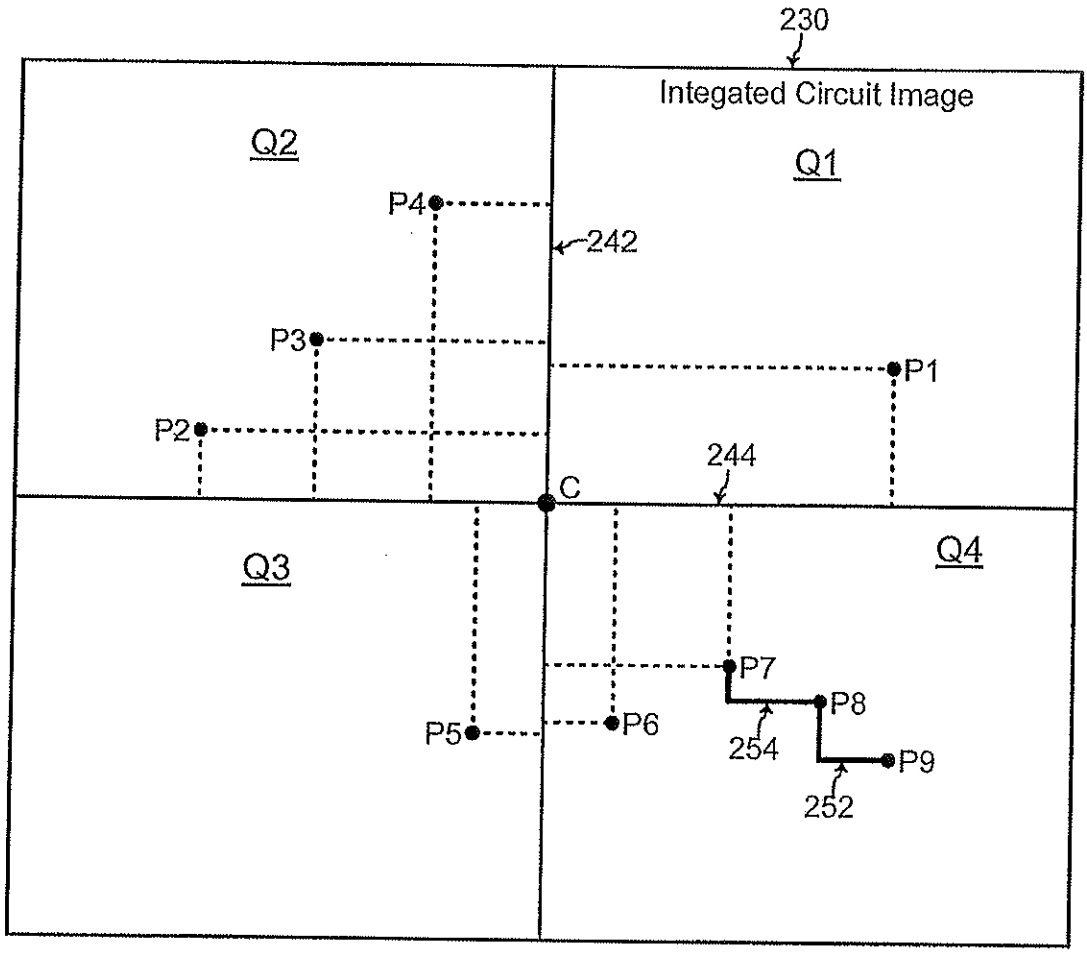

230
Integated Circuit Image
Q2
Q1
P4
242
P3
P1
P2
244
C
Q3
Q4
P7
P8
P5
P6
254
P9
252

FIG. 7

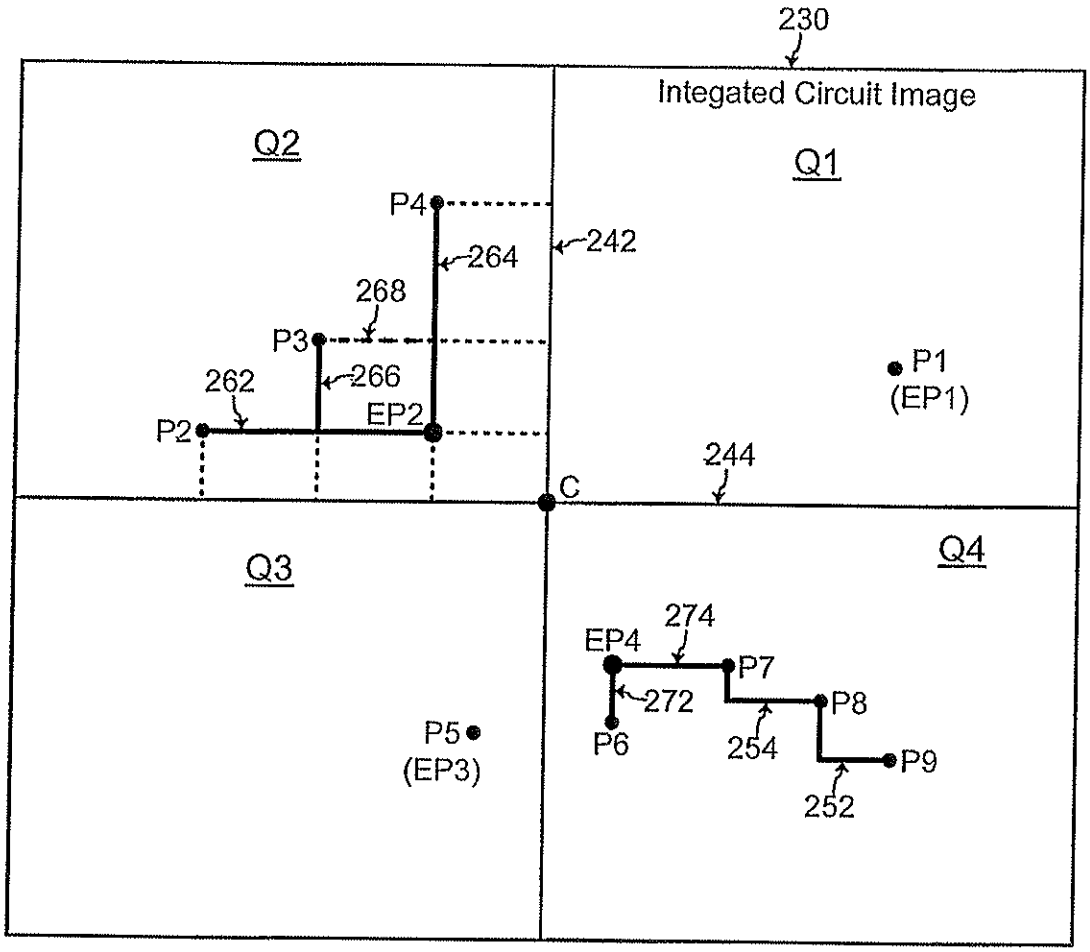

230
Integated Circuit Image
Q2
Q1
P4
264
242
268
P3
262
266
EP2
P2
P1
(EP1)
244
C
Q3
Q4
274
EP4
P7
272
P8
P5
(EP3)
P6
254
P9
252

FIG. 8

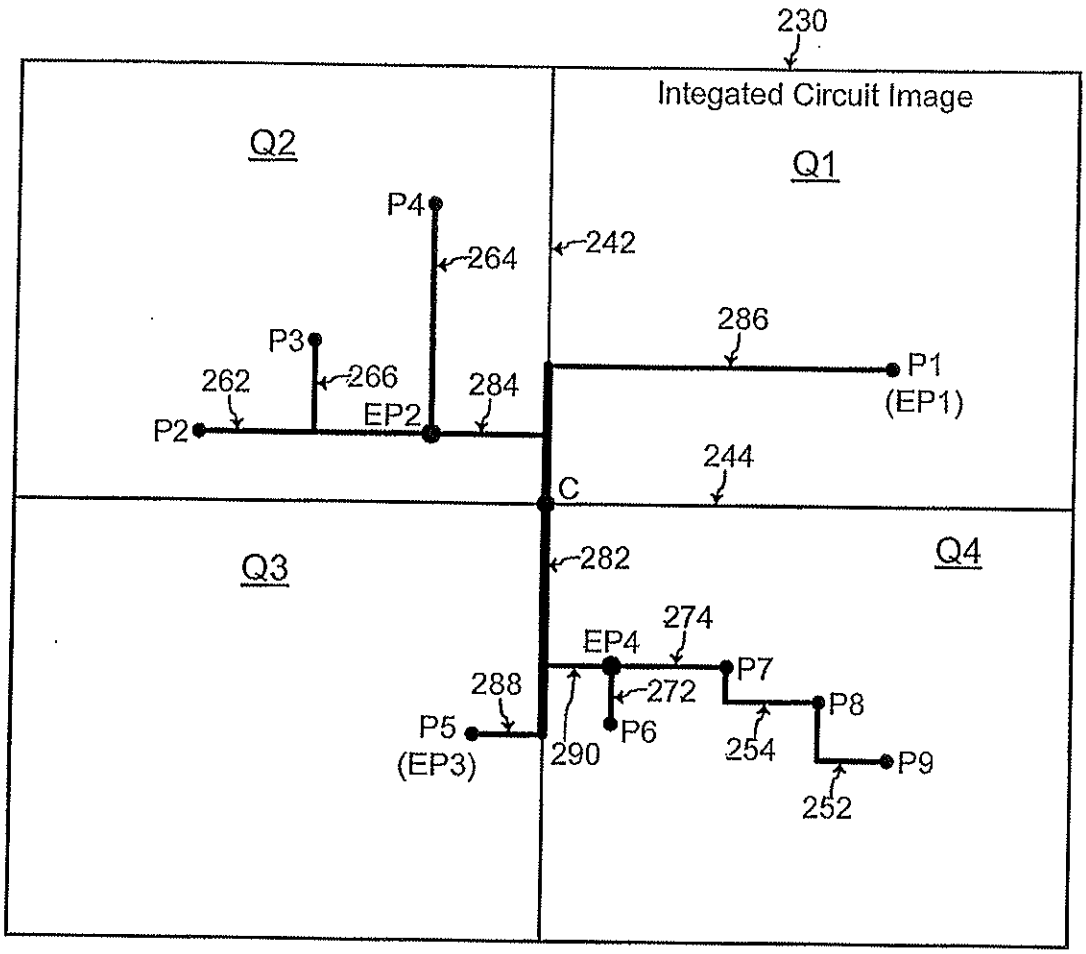

230
Integated Circuit Image
Q2
Q1
Q3
Q4
P4
264
242
286
P3
262
266
284
P1
(EP1)
P2
EP2
244
C
282
274
EP4
P7
288
272
P8
P5
(EP3)
290
P6
254
P9
252

FIG. 9